



# Integrated Report 2023

For the year ended March 31, 2023



## DENSO Creed

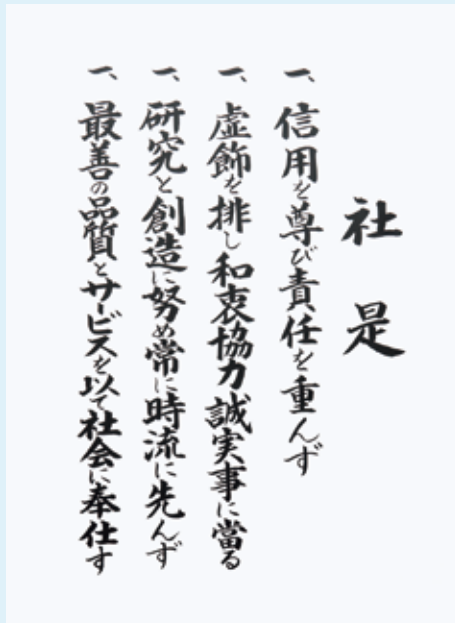
In 1956, seven years after the founding of NIPPONDENSO, we formulated the DENSO Creed for the purpose of protecting, nurturing, and passing on to the next generation the mentality of all DENSO employees—which we possessed even before splitting from Toyota Motor Co., Ltd.—while taking the next step toward new progress based on a clear self-awareness.

Without changing the values encapsulated in the DENSO Creed, we formulated the DENSO Philosophy in 1994 to reflect the social changes occurring at the time and to better clarify the meaning of the DENSO Creed in words that were more appropriate for the time. In addition, to share our value system with DENSO employees on a global basis as the number of Group companies and local employees began to dramatically increase, we established the DENSO Spirit in 2004.

The four ideals of the DENSO Creed, which have served as the source of the Company's progress to date, have been gradually passed down through the years and are still embraced today by our approximately 170,000 employees across the globe.

### DENSO Creed

Be trustworthy and responsible.  
Cherish modesty, sincerity, and cooperation.  
Be pioneering, innovative, and creative.  
Provide quality products and services.



## DENSO Philosophy

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

## DENSO Spirit

### A spirit of foresight, credibility and collaboration

The DENSO Spirit expresses values and beliefs shared by our employees around the world that we have cultivated since our establishment in 1949. The DENSO Spirit is an action guideline that provides the driving force for contributing to the mobility society and the lifestyles of people as well as the source of our competitiveness.

#### Foresight

Providing surprises and impressions in a way that only DENSO can

#### Credibility

Providing quality and reliability beyond customer expectations

#### Collaboration

Achieving the highest results by working as a team

#### Vision

#### Quality First

#### Communication

#### Creativity

#### On-site Verification

#### Teamwork

#### Challenge

#### Kaizen, Continuous Improvement

#### Human Development

### Publication of *DENSO Integrated Report 2023*

DENSO publishes an integrated report every year in order to foster a deeper understanding among investors and all of its stakeholders regarding the Company's initiatives toward sustainable corporate value enhancement.

With a focus on the value creation process that has remained unchanged since the Company's founding, *DENSO Integrated Report 2023* includes specific information on the strategies and initiatives DENSO is pursuing toward "green" and "peace of mind" with the aim of realizing its Long-term Policy for 2030, as well as financial strategies that underpin these strategies and initiatives, and efforts to strengthen its non-financial capital, a topic that has garnered a great deal of attention in recent years. We hope that this report demonstrates to readers the fact that DENSO is a company that maintains a consistent set of beliefs, from the past to the present and into the future, and that resolves social issues through the use of technology.

Going forward, DENSO will continue its efforts to disclose accurate information to its stakeholders in a timely manner and actively engage in dialogue with them. We would like to ask for the candid opinions and requests of our stakeholders regarding this report so that it may serve as a more effective communication tool for the co-creation of corporate value.

Lastly, I would like to assure the readers that the creation process for this report was done in an appropriate fashion.



Yasushi Matsui

Chief Financial Officer  
Executive Vice President  
Representative Member  
of the Board

### Editorial Policy

In addition to providing financial information, such as results and sales overviews as well as management strategy, *DENSO Integrated Report 2023* 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 their understanding of the efforts the Company is making in aiming to realize a sustainable society.

In compiling this report, references have been made to the Integrated Reporting Framework that is proposed by the International Financial Reporting Standards (IFRS) Foundation, the Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation, formulated by the Ministry of Economy, Trade and Industry, and the Governance Guidelines on Intellectual Capital and Intangible Assets, formulated by Japan's Cabinet Office. In addition, with regard to social reporting and the environment, please refer to the "Sustainability" section of the Company's website.



### Scope of Report

Target Organization	DENSO CORPORATION and the DENSO Group (In this report, DENSO CORPORATION refers to DENSO on a non-consolidated basis.)
Reporting Period	This report covers the activities of the DENSO Group during fiscal 2023 (April 1, 2022 to March 31, 2023). Certain parts of this report include content on the Group's activities from April 2023 onward.
Target Audience	All stakeholders involved with the DENSO Group

### 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.

### Terminology Used in *DENSO Integrated Report 2023*

ICE: Internal combustion engine  
BEV: Battery electric vehicle  
HEV: Hybrid electric vehicle  
PHEV: Plug-in hybrid electric vehicle  
FCEV: Fuel-cell electric vehicle  
CASE vehicles: Connected, autonomous, shared & service, and electric vehicles  
The QR Code® is a registered trademark of DENSO WAVE INCORPORATED.

### About the Cover of *DENSO Integrated Report 2023*

The cover of this report uses DENSO original design element "D-cross" to express the Company's passion and devotion to new value creation, which it has consistently maintained since its founding. By emphasizing crossing lines, the cover conveys DENSO's unchanging stance of contributing to society in order to deliver happiness to people and ensure a better tomorrow.

### Positioning of Integrated Report



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Topics of DENSO Integrated Report 2023

Themes of DENSO Integrated Report 2023

DENSO Integrated Report 2023 comprises sections on the progress of DENSO’s strategies, centered on the Mid-term Policy for 2025, and the pathway for their achievement under a new management structure. It also features sections on business and capital strategies, aimed at realizing DENSO’s overall strategies, and corporate governance, which underpins the Company’s corporate activities.

With a focus on DENSO Culture, which was covered in DENSO Integrated Report 2022, this report depicts DENSO’s value creation story as the Company enters the period of its second founding with a continuous awareness of its past, present, and future. In addition, the report explains DENSO’s belief that non-financial capital, such as human capital and intellectual capital, can provide a genuine competitive advantage over the medium to long term. It also explains the relationship between non-financial capital and financial value and provides information on the Company’s strategies toward each capital.

New Content

P4–5 At a Glance

This section summarizes DENSO’s business scale, product line-ups, and the value the Company offers to society in an easy-to-understand manner to give readers an overview of DENSO at a glance.

P26–27 Our Accumulated Capitals

This section explains DENSO’s specific efforts for strengthening each of its capitals to show how they lead to the realization of business growth and the resolution of social issues.

P28–29 Tradition of Sustainability Management

This section covers the sustainability management that DENSO has been implementing since its founding. Through explanations on promotion structure, specific examples, and messages from employees, this section provides an overview of how DENSO carries out its sustainability management.

P50–51 Business Analysis

This section provides a close-up on specific initiatives toward enhancing the competitiveness of each business—a topic that is often the focus of our stakeholders—via a Q&A format.

Utilization of Dialogue and Feedback Received

We actively promote dialogue with our stakeholders using our integrated reports. We make concerted efforts to reflect stakeholder opinions and requests in the integrated report for the next fiscal year, to the greatest extent possible. In addition, we view our employees as important stakeholders and therefore are working to enhance each employee’s awareness of corporate value by making use of our integrated reports.

Overall Layout of DENSO Integrated Report 2023

This integrated report is edited based on the layout explained in the chart below. This layout is used to better explain DENSO’s value creation story.

The aim of DENSO Integrated Report 2023 is to have the reader gain a deep understanding of DENSO’s value creation process while promoting an opportunity for dialogue. Throughout the entirety of this booklet, we have created a story line that comprehensively communicates our value creation process while encompassing crucial elements that help the reader understand this process (management philosophy, strategy, governance, etc.) and while referencing the Guidance for Collaborative Value Creation. The chart below shows the logical layout of these crucial elements based on the story line we have created. Additionally, we have listed keywords affiliated with each element so that readers can easily access the information they wish to know.



Meaningful Dialogue and Engagement

In addition to holding dialogue with our external stakeholders, we promote the internal utilization of our integrated reports to boost the motivation of our roughly 170,000 global employees toward corporate value creation.

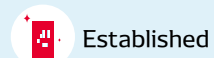


## At a Glance

Guided by the DENSO Creed, we are a company that earnestly tackles social issues head on and continues to create value through outstanding technologies and quality, centered on DENSO Culture. Our roughly 170,000 global employees each depict their own vision for the happiness of people and society as a whole and take on challenges each day to create new value.

## / DENSO by the Numbers /

As of March 31, 2023



Established

1949

In 1949, the Company was founded as NIPPONDENSO with the aim of becoming Japan's leading manufacturer of automobile components.



Total Number of Group Companies

191

(including DENSO CORPORATION)

The DENSO Group has a total of 191 Group companies, with research laboratories, production bases, and sales offices spanning across the globe.



Total Number of Global Employees

164,572

All of our employees around the world work in unison to deliver outstanding products backed by exceptional quality and advanced technology.



Consolidated Revenue

¥6.4 trillion

Consolidated revenue in fiscal 2023 came to ¥6.4 trillion.



R&amp;D Investments

¥521.6 billion

We are accelerating technological development centered on the fields of electrification and automated driving.



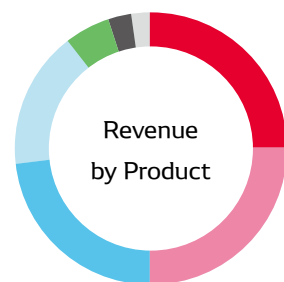
Automotive Products (Global)

No. 2

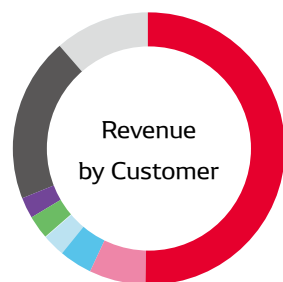
We are a global company that provides products and systems that are trusted by car manufacturers around the world.

## / Composition of Revenue /

As of March 31, 2023



■ Mobility Electronics	25.2%
■ Thermal Systems	24.8%
■ Powertrain Systems	23.3%
■ Electrification Systems	16.3%
■ Advanced Devices	5.6%
■ Non-automotive businesses	2.8%
■ Other	2.0%



■ Toyota Group (Toyota Motor Corporation, Daihatsu Motor Co., Ltd., Hino Motors, Ltd.)	50.4%
■ Honda Motor Co., Ltd.	6.6%
■ Stellantis N.V. (FCA, PSA)	4.0%
■ Ford Motor Company	2.8%
■ SUBARU CORPORATION	2.6%
■ General Motors Company	2.6%
■ Other car manufacturers	19.7%
■ Aftermarket and non-automotive	11.3%

## / DENSO's Vision for the Future /

Bring happiness to people by broadening the scope of our long-cultivated technologies, centered on mobility, to reach a wide range of industries and society as a whole.

## SOCIETY

**Carbon Neutrality**  
Achieve carbon neutrality within our Monozukuri activities and contribute to a carbon-neutral society

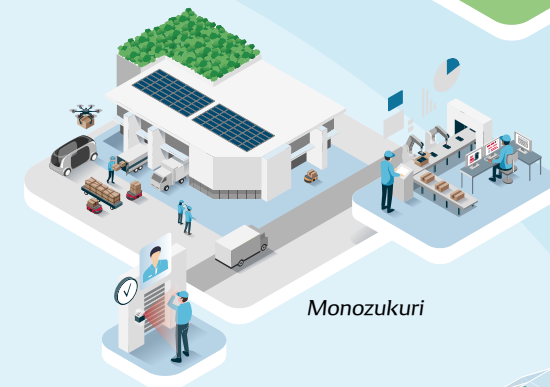


**Urban Development and Next-generation Technological Development**  
Realize a cycle of joy



## INDUSTRY

Support workers and improve the quality of their lives with a focus on the entire supply chain



## MOBILITY

**Electrification**  
Realize highly efficient mobility with low environmental burden



**Advanced Safety and Automated Driving**  
Achieve a society without fatalities from traffic accidents and realize mobility that is safer, more comfortable, and more convenient for everyone



**Connected**  
Create a new mobility society that connects vehicles, people, and goods



Food Value Chain





## MANAGEMENT MESSAGE

To Our Stakeholders

Embracing DENSO's heritage and culture,  
we have started this year as a new DENSO,  
striving to bring smiles to all people through  
new value creation.

Koji Arima

Chairman & CEO  
Representative Member of the Board

Shinnosuke Hayashi

President & COO  
Representative Member of the Board



## Message from the President & COO

### Continuing to Create New Value to Become a Company That Thrives in This Era of Change

#### My Ambitions and Determination as the Newly Appointed President

In June 2023, I was appointed as president & COO, inheriting the management baton that has been gradually passed down over the more than 70 years since DENSO's founding. Taking on this new position has been a truly awe-inspiring experience for me. I have taken over the business foundation built up by my predecessors and will strive to further reinforce it moving forward. At the same time, I will draw on DENSO's culture that has been cultivated through our long history as I put forth every effort in my new position to ensure that we evolve and prosper as a company that creates new value in this era of change, backed by the support of all of our stakeholders.

Recently, the world has been dealing with dramatic changes, including the global spread of COVID-19 and the economic disruptions that followed as well as worsening environmental issues. While the automotive industry has been grappling with the serious issue of semiconductor shortages, the stable supply of resources and materials has become a significant issue for society at large due to the emergence of geo-economic divisions. Internally, we have found ourselves in a period where we must reexamine the very essence of who we are as a company, as we strive to move beyond a quality-related issue that was unprecedented in scale.

What exactly kind of company is DENSO? And, can we continue to succeed as society undergoes tremendous change? As we ask ourselves these questions regarding our fundamental existence as a company, I view my appointment as president as a call to contribute to the automotive industry in a way that addresses these changing times. This is a very heavy responsibility as I take on this

major role. However, I am extremely grateful for this opportunity to lead and will do so with a firm awareness that I must drive the growth of DENSO and ensure that we fully realize our management philosophy.

We adopted the Long-term Policy for 2030 under the concept of "Bringing hope for the future for our planet, society, and all people" through our efforts toward green and peace of mind. We have promoted our business activities in accordance with this policy. To bring hope to all people in the future amid the rapid changes occurring in the automotive industry and across society as a whole, we must create a cycle of joy that ensures mutual happiness between people and extend it throughout society. To do so, we must help realize a circular society through the promotion of high-value-added businesses that are green and offer peace of mind.

Accordingly, I believe my mission is to promote this cycle of joy by ensuring that our approximately 170,000 global employees mutually enhance their ability to drive future value creation by thinking intrinsically and pursuing a shared ambition.

#### My Roots and Conviction as a Member of Senior Management

My life has always been connected to *Monozukuri* (manufacturing). I was born to a family that operated a small factory in Mie Prefecture, so I have grown up since childhood interacting with *Monozukuri*. When considering my path after finishing high school, I decided to learn about production management and quality control at university. Upon graduation, I was led to DENSO, a company boasting strengths in *Monozukuri* and quality assurance. When I

joined the Company, however, I was placed in charge of software development in an electronics engineering division. To be honest, I was quite disoriented at the time, as this was not quite the way I had imagined starting my career as a working adult. Now looking back at that time, software development really helped me start to build my foundation as an engineer and led me to where I am today.

In the Electronics Engineering Department, my job was to design electronic control units (ECUs) for diesel engines. At that time, major barriers stood in the way of realizing the 100% electronic control of an engine from the perspectives of both performance and functional safety, and it was believed by many to be practically impossible. Nevertheless, under the strong leadership of the department's head, all members of my team believed that the 100% electronic control of a diesel engine was the most effective way of eliminating the pollution it causes and took on the challenge to make this a reality. Our efforts ultimately led to the practical application of the world's first diesel common rail system.

My team members came from different technical backgrounds in the fields of systems, mechanical parts, electronics, and software and had different approaches to their work. Sharing the same aspiration to build something from nothing and to change the world by doing so, our team maintained its focus on the challenges before us and pushed forward day by day to overcome them. Trying to accomplish a world first with no precedent on which to base anything was an extremely tough endeavor. Accordingly, we dealt with many issues, failures, concerns, and pain as a team, including technological barriers that could not be overcome, unmanageable tasks, looming deadlines, and problems with team unity.

Feeling overwhelmed and somewhat deflated by the situation, there were days when I could not even come to work. Extremely displeased with myself, I even considered quitting the Company. It was at this time when my supervisor said to me, "Take the load you have been carrying off your shoulders; I can handle the rest." These are words I still remember to this day. Looking back on it, his words and the kindness embodied in them truly helped me reevaluate who I was as a person and reinvigorate my motivation.

From then on, I made sure to give it my all every day, tackling each task as it arose. When confronted with difficulties from a setback, I would consult with my supervisor, my seniors, and my friends, and borrow the wisdom of my predecessors from the various writings they published. In addition to honing my technical skills, I would study various approaches to overcoming challenges, including organizational management methods and ways to adjust my mental attitude, and would put what I learned into practice. This is all that I focused my efforts on, and through the repeated experience of taking on challenges, dealing with failures, and learning from them, I developed my own outlook on history and the world and refined my personal value system. I made it my policy to look at the positives in every situation, learn openly from those around me, and always engage in my work with a positive attitude and a sense of gratitude. I still maintain this approach in my actions and decision-making today. My experience of having someone with perspective and who was kind enough to pull me out from the depths of despair and place me on a positive trajectory laid the cornerstone of my approach to organizational management.

**Understanding DENSO and the Three Elements of Its Culture**

DENSO Culture represents the Company's core and its strengths that have been steadily cultivated over time.

The first element of DENSO Culture is its people, who serve as the wellspring for the creation of new social value. Since our establishment in 1949, we have positioned our people as the most important management resource and have therefore focused our efforts on *Hitozukuri* (the development of human resources), which underpins our *Monozukuri*. DENSO is a professional organization comprising roughly 170,000 diverse employees spanning the globe who, with a strong commitment to achieving results, take on the challenge of creating value that is ahead of its time. This employee base is not something that can be built up overnight, and I therefore can say with confidence that it serves as our greatest strength.

The second element is our genuine technological and manufacturing capabilities that allow us to make products that cater closely to the needs of a broad range of customers. Throughout our history, we have cultivated technological and manufacturing capabilities that have helped us refine technologies in all of our business domains, including the mechanical parts domain, which we have been pursuing since our founding, as well as electronics and software. In addition, these capabilities have allowed us to combine such technologies in an optimized fashion to create high-quality products that can be practically applied and mass-produced. These capabilities have been and will continue to be a tremendous tool that enables us to resolve social issues.

The third element is our free and open organizational culture. To have our employees and our organization aim for even higher growth, it is essential to have an organizational culture brimming with vitality that is created based on mutual trust between labor and management. Throughout the numerous crises we have overcome, we have fostered an organizational culture focused on problem solving in which our employees can exchange differing opinions without having to quickly compromise, can gain wisdom from each other's opinions, and can draw on their mutual strengths to the greatest extent possible. This kind of culture gives us the ability to unify our diverse human resources, who are our greatest strength, bringing them together to achieve a common goal by looking beyond any differences they may have in their approach to doing so.

**Initiatives and Targets for Further Corporate Growth**

We view our long-cultivated strengths as the capital for our current and future creation of social value. Supported by this capital, we will seek to resolve social issues by maximizing the value of green and peace of mind and being truly inspiring while at the same time achieving further corporate growth.

Under our Mid-term Policy for 2025, we have adopted ROE of 10% or higher as our most important financial target with the aim of maximizing our value creation. To transition to a management approach better focused on capital costs, we have been striving to foster an understanding of the significance of ROIC-minded management and instill an awareness of corporate value enhancement among all employees. By introducing ROIC as an indicator for determining the performance-linked compensation of Board members and disclosing ROE and other relevant targets, we have clarified the commitment of our management to enhancing ROIC.



Through repeated implementation of such initiatives, I feel that we have genuinely been improving ROIC, and moving forward, we will further enhance our corporate structure with a view toward achieving our targets.

In addition, with an operating margin of 10% and ROE of 10% or higher as our medium-term targets for fiscal 2026, in fiscal 2024 we forecast revenue of ¥6.7 trillion, an operating margin of 9.0%, and ROE of 9.3% (as of the release of our first quarter financial results for fiscal 2024). This means that the probability of achieving our fiscal 2026 targets is becoming even greater. To meet the expectations of the market, we are striving to realize record-high revenue for the second consecutive year while adopting a balanced approach to highly disciplined growth investments.

To realize the principle of green, we will step up our efforts to popularize BEVs and other EVs in order to contribute to carbon neutrality. DENSO has led the way with technological development in the electrification domain and the enhancement of global production structures. With the shift toward EVs gaining speed, our ample product lineup that covers extensive output domains and our proposal-making capabilities that meet the diverse needs of customers provide us with a significant competitive advantage. We have commenced the mass production of inverters—our mainstay product in the electrification field for which we possess the leading global share—in Japan, North America, and China. In fiscal 2024, we will begin the mass production of inverters in Europe, thereby bolstering production capacity and steadily expanding sales with a view toward realizing an annual production of 12 million inverters by fiscal 2026.

To achieve the principle of peace of mind, we will aim for the development of advanced safety technologies to realize a society without fatalities from traffic accidents and in which people can move freely and safely. From an early stage, we have been striving to reduce fatalities from traffic accidents around the world, including the provision of collision-prevention and other safety products since the 1980s. In fiscal 2023, we realized the full-scale mass production of Global Safety Package 3, our third generation of advanced driver assistance systems that greatly expands the scope of traffic accident prevention, in an effort to steadily expand the value of peace of mind across the globe. Going forward, we will combine the strengths we possess in terms of sensing and semiconductor technologies and algorithm and software

technologies to provide high-value-added products, thereby enhancing our growth and profitability.

Creating a society with peace of mind and where fatalities from traffic accidents do not occur cannot be done on our own. It requires collaboration between relevant government agencies, car manufacturers, and companies from other industries in efforts that encompass people, automobiles, and traffic environments. As a member of the Japan Auto Parts Industries Association, DENSO will take the initiative in reaching out to relevant organizations to pursue such efforts.

As vehicles become more electrified and advanced, we will strive to evolve our semiconductor technologies that enhance vehicle performance and ensure the stable procurement and supply of semiconductors themselves. Recently, due to such factors as the COVID-19 pandemic, the automobile industry has dealt with a severe shortage of semiconductors. While the tight supply situation is starting to improve, there is still a great need for the further development of semiconductor technologies and the bolstering of a procurement foundation in order to deliver even better products to society, as the importance of semiconductors in automobiles continues to grow.

Guided by the experience and insight we have cultivated in our 50 years of involvement in the automobile and semiconductor domains, we are working to strengthen all aspects of our activities in these domains, from advanced technology development to production structures. In addition to promoting the development of cutting-edge technologies at subsidiaries specializing in R&D, we have invested in Rapidus Corporation, a company established for the domestic production of advanced semiconductors. Through these means, we are promoting the development of next-generation 2nm semiconductors. In terms of semiconductor production and supply, we are taking steps to secure a more stable supply structure, including through collaboration with United Semiconductor Japan Co., Ltd. and joint investment with partner companies in a subsidiary of Taiwan Semiconductor Manufacturing Company Limited. Regarding procurement, we have been concluding long-term fixed order contracts with suppliers and establishing structures for transitioning to alternative parts. In these ways, we have been moving forward with activities to ensure a stable supply that even go so far as to rethink business practices specific to the automotive industry. As a company that has long been involved in



both automobiles and semiconductors and that has a deep understanding of both, we will serve as a bridge that connects both industries and helps them achieve growth and will lead the way with efforts to optimize supply chains.

Software continues to play an even greater role in realizing the principles of green and peace of mind, including in terms of the electricity management of EVs and automated driving via AI. DENSO has led the way in the industry by establishing software as a focus field and, going forward, will accelerate the following three strategies as pillars of this focus field.

The first strategy is to strengthen cross-domain development from a perspective that encompasses the entire automobile. We have accumulated software know-how in all functional domains of automobiles. As cars become more advanced in the future and the connections between cars, people, and society at large become more diverse, we will promote proposals to maximize value for our customers by offering cross-domain solutions.

The second strategy is to promote the standardization of foundational software. The increasing scale and complexity of software development has become an industry-wide issue. To that end, we will contribute to the standardization of fundamental software in domains that require industry-wide coordination by engaging in discussion with other companies in the automotive industry. By doing so, we will enable car manufacturers to focus their efforts on enhancing the appeal of their specific vehicles.

The last strategy is to further strengthen our structure of global software developers. To realize a structure comprising 12,000 software developers by fiscal 2026 and to significantly enhance the quality of these developers, we will enhance our human resource development and portfolio by strengthening skill enhancement and career development programs for software developers, including recurrent training for talent coming from other fields.

The essence of these strategies is to enhance value for our customers, with software serving as the means to do so. Remaining committed to this belief, we will strengthen our software development capabilities going forward.

In these growth domains of semiconductors and software, we will transform our development structure to promote more refined technological development and maintain an awareness of the development speed needed to meet market needs. Through the combination of R&D investment and capital expenditures over the past 10 years, we have allocated roughly ¥8 trillion to investments in future growth fields, the highest level of such investments in the industry. Through these investments, we have welcomed companies with development styles that differ from DENSO's, including various foreign-owned companies and IT companies. While doing so, it is important that we promote balanced R&D investments linked with our management strategies to ensure that we enhance our competitiveness while maintaining the strengths that we have cultivated to date. We will continue to aggressively invest in R&D, which provides us with a competitive edge for creating future value, while transitioning to a resource allocation approach that leads to higher quality output. Through the results gained by doing so, we will pursue investments in future growth domains at the scale of ¥10 trillion over the next 10 years.

From the perspective of enhancing development speed, we will take decisive action to revise the way we work throughout the entire supply chain, from development to manufacturing. To that end, we will redefine the roles of our global headquarters in Japan and our bases located around the world. In Japan, which serves as the leader for development-related strategies, we will bolster our

ability in each region to collect and analyze information and to draft strategies. We will also enhance our capabilities to monitor business execution. At the same time, we will increase our focus on development at our overseas bases while assessing signs of change in the markets of each region. Through these efforts, we will promote bold, cutting-edge development activities.

In pursuit of the optimal operating structure for sustainable growth into the future, we are steadily moving forward with the reshuffling of our business portfolio. Accordingly, we have determined our business direction based on the three elements of realizing our principles, accelerating growth, and boosting profitability in terms of ROIC, and are moving forward with internal discussions to clarify growth domains and domains that are to be de-emphasized or discontinued. In the growth domains of CASE and new businesses, we will strengthen and expand the competitiveness of our in-house manufacturing capabilities and make use of business alliances with partner companies with which we can demonstrate synergies.

In the five-year period until fiscal 2023, we invested roughly ¥270 billion in alliances with approximately 40 companies, and we will continue to accelerate our business alliance strategy with a view toward further growth. Meanwhile, for businesses nearing their final stage, we aim to enhance the power of internal combustion engines as a product by providing the best owners of reliable quality, cost, and delivery with our technologies and *Monozukuri* capabilities. Through this effort, we will enhance our lineup of products attractive to consumers from both the perspectives of performance and cost across the entire automotive industry, including internal combustion engine vehicles and EVs. We will also contribute to the swift realization of a carbon-neutral society. We have thus far implemented the transfer of our fuel pump module and type III alternator businesses, and in fiscal 2024, we have commenced examinations on the transfer of our spark plug and exhaust gas sensor business as well. In turn, we will shift to new corporate value creation by leveraging the elemental technologies, know-how, and human resources that we have cultivated through these businesses in future growth fields.

By earnestly working to achieve our targets for the near term as well as the medium to long term and striving together with our stakeholders to overcome challenges, I firmly believe that we can continue to achieve record-high revenue in fiscal 2024.

### Closing

Based on the principles of green and peace of mind, DENSO will continue to push forward with its efforts to create a cycle of joy that ensures mutual happiness between people. By doing so, we will enhance our corporate value on a sustainable basis and become a company that inspires society.

We will actively engage in open dialogue with various stakeholders, including not only our employees but also suppliers, car manufacturers, and shareholders, and reflect in our management the various things we notice and learn in order to continue to be a company that provides value to society. Valuing these opportunities for dialogue with investors and all of our stakeholders, we will step up our efforts to communicate the progress and accomplishments of our various strategies as we work to accelerate them going forward.

Through stable, long-term shareholder returns with an awareness of DOE (dividend on equity ratio) and the flexible acquisition of treasury stock, we will seek to meet the expectations of all of

the stakeholders who have supported us as a company. Recently, the improvement in the PBR (price-to-book ratio) of Japanese companies has been garnering significant attention, and thanks to the support of many of our stakeholders, DENSO has been able to maintain its PBR at a relatively high level within the automotive industry. Without becoming complacent with the current situation, we will continue to aim for steady corporate growth and appropriate increases in share prices linked to the value we provide. I would like to ask our stakeholders for their continued support as we strive to do so.

I believe my most important mission as president is to unleash the full potential of our employees. To steadily achieve growth as we aim to reach the aforementioned targets, I will strive to create environments in which all employees can continue to pursue individual challenges with peace of mind so that each one of them can deliver value to society. This particular aspect of my vision for management is what I inherited from my supervisor from all those years ago.

With our many years of experience in electronics and software, we believe that there are many accomplishments we can make as the automotive industry undergoes a paradigm shift due to the progression of CASE. By promoting management that draws on our uniqueness that our predecessors have cultivated, we promise to engage in business execution that allows us to create social value and steadily achieve growth.

September 2023



Shinnosuke Hayashi  
President & COO  
Representative Member of the Board





## Message from the Chairman & CEO

**With our sights always set on the external environment, we will boldly pursue the resolution of social issues with great passion while evolving DENSO Culture.**

### Fiscal 2023—A Year When an Air of Positivity Returned

Looking back on fiscal 2023, economic activities and various in-person events that had been suspended during the COVID-19 pandemic resumed, and interaction between people started to become livelier again. In this environment, we saw an increase in positive developments during the year, including the strong performance of Japan's teams in the FIFA Men's World Cup and the World Baseball Classic. For DENSO, we started to see a positive response to our efforts to promote management reforms and enhance our corporate structure, and in terms of performance, we successfully achieved record highs for both revenue and operating profit.

In other good news for the Company, we were awarded the IEEE Corporate Innovation Award for helping the world benefit from the dynamic capabilities of the QR Code®. The IEEE Corporate Innovation Award, one of the most prestigious technical awards in the world, is presented to organizations that have made a significant global impact with innovative technologies and products and contributed to the development of electrical and electronic engineering. Established by the Institute of Electrical and Electronics Engineers (IEEE) in 1985, the award has been presented to leading companies and organizations worldwide. The QR Code® was developed in 1994 by DENSO (currently DENSO WAVE) as a next-generation code with high capacity, high speed, and high reliability that can serve as a replacement for barcodes. The code was

originally used for inventory management at our manufacturing plants, but later its use expanded significantly across the globe, including for electronic tickets and cashless payments. The use of QR Codes® for vaccination verification during the COVID-19 pandemic is a very recent example of their new application.

### DENSO's Culture Embodied through the QR Code®

While I will not get into the details regarding the creation and development of the QR Code®, DENSO's ability to lead the way with the development of such groundbreaking information technology stems from the massive volume of data it has handled within its production activities as a global automotive components manufacturer. We have carried out these activities while exchanging a large volume of parts and materials with suppliers around the globe. Additionally, the receipt of the IEEE Corporate Innovation Award has given us an opportunity to reflect on the technological value and academic significance of the QR Code®. It also gave us a chance to reexamine DENSO's culture, which helped support the code's development. At the time of the code's creation, we were promoting a shift in our *Monozukuri* activities from mass production to the production of a wide variety of products in small volumes. In addition to our ability to anticipate the trends of an era in which electronic transactions between companies were starting to become mainstream, the code's development was made possible by rigorous research and benchmark-setting activities geared toward highly reliable code development. Its development was also

made possible through collaboration with our business partners around the world in making patents free of charge to promote popularization of the QR Code®. In these ways, the QR Code® development process embodied the DENSO Creed at every step. The process also encapsulated DENSO Culture in terms of being pioneering, innovative, and creative while cherishing modesty, sincerity, and cooperation. I believe that these are the reasons why the QR Code® was able to inspire people and society at large and be adopted around the world as a truly useful technology.

### Restoring DENSO Culture as We Move into the Future

In my time as president, I devoted my efforts to restoring DENSO Culture. My eight years in this position were marked with various chaotic events, including the once-in-a-century paradigm shift due in part to the progression of CASE as well as the occurrence of a quality-related issue, the COVID-19 pandemic, material shortages, and rapid price increases. Throughout this time, I endeavored to bring the Company back to its starting point and restore the spirit of our founding. As we expanded our business operations over the years, we lost sight of some very important things, including our commitment to quality, our customer-first approach, and our organizational culture of close relationships and open communication between employees. I therefore continued to engage in honest dialogue with employees in each workplace in a sincere effort to change their awareness and behavior.

As a result of Companywide initiatives, we have steadily fortified our management foundation and culture, which is a major prerequisite for corporate growth. I also feel that we have formulated a strong future outlook, including the vision for our business portfolio in 2035. In terms of our management indicators, in fiscal 2024 we forecast revenue of ¥6.7 trillion, an operating margin of 9.0%, and ROE of 9.3% (as of the release of our first quarter financial results for fiscal 2024). This means that we are well within the range of achieving our targets under the Mid-term Policy for 2025, which include an operating margin of 10% and ROE of 10% or higher. What has allowed us to reach this position has undoubtedly been the support of not only the customers and global suppliers who have assisted us on a daily basis, starting with car manufacturers, but also our shareholders and other investors, who have offered us their wholehearted encouragement. As a result of the many years of support from these stakeholders, our market capitalization has increased from roughly ¥3.9 trillion in 2015 to approximately ¥7.6 trillion in 2023, nearly doubling over this eight-year period (as of June 30, 2023). We are deeply grateful for the unrelenting support of all of our stakeholders, throughout the good times and the bad, and we are firmly committed to continue offering them good news and to meet their expectations moving forward.

### Continuing to Provide Value to Society While Always Keeping Our Sights on the External Environment

As we boldly pursue the resolution of significant social issues, including the pressing global issues of carbon neutrality and circular economies, we will focus our attention on the flow of five essential elements in order to keep society in motion: people, goods, energy, resources, and data. By connecting these elements and managing them in an integrated manner, we aim to create a cycle of joy that ensures mutual happiness between people. To

that end, we will further refine the three-pronged approach of mechanical parts, electronics, and software, which we have cultivated in the mobility domain, and seek to expand this approach into social domains. In addition, we will leverage our accumulated cutting-edge information technologies, such as the QR Code®. By doing so, we will pursue value creation that is uniquely DENSO. To accomplish this, it is imperative that we keep our sights on the external environment and maintain a firm understanding of society itself. In my role as chairman, I will put forth every effort to support internal business execution while striving to further enhance our involvement with external organizations. I also serve as chairman of the Japan Auto Parts Industries Association, and in this position I aim to lead efforts that help strengthen the competitiveness of the overall supply chain in the automotive industry while closely collaborating with small and medium-sized enterprises. Furthermore, I will strengthen connections with companies that are outside of the automotive industry and seek to reflect insight and ideas from other industries and opinions from a diverse range of customers in DENSO's internal operations. With a firm awareness that DENSO's growth is made possible by the support of its customers, I will strive to ensure that we remain a company that is truly useful to society through proactive dialogue with our customers.

### Passionately Taking On Challenges under a New Management Structure to Bring Smiles to People and Greater Society

Looking at the world today, the operating environment continues to be challenging and the outlook of the global economy remains uncertain. In such an era, our resilience, willpower, and insight as a company are needed more than ever. If we lose our passion as a company, we then cannot face the changes occurring in the world and pursue bold challenges without the fear of failure. As we seek to restore DENSO Culture, we transitioned to a new management structure in June 2023, in which I finally passed the baton of management to the new president. It is my hope that, under this new structure, we can further boost our level of passion and push ahead with greater speed. The impetus for doing so is the passion we receive from our employees across the globe. As long as we can remain a passionate company empowered by the passion displayed by our employees in their interactions with each other, I believe that under this new structure we will surely be able to resolve social issues and create a future brimming with smiles. No matter what changes occur ahead of us, we will always cherish our starting point and continue our efforts to bring smiles to people and greater society, evolving DENSO Culture to cater to each generation. I kindly ask for the continued support of our shareholders and other investors as we endeavor to do so.

September 2023

Koji Arima  
Chairman & CEO  
Representative Member of the Board



## Past, Present, and Future

DENSO's innovations start from a focus on the future and what makes people happy. Our mission is to resolve social issues from the perspective of sustainability. Based on this mission, we have continued to realize growth while consistently leading changes in the mobility domain to increase our areas of contribution and repeatedly pursuing innovations and new creations. During this 74-year journey, we have also boldly transformed our business portfolio while cultivating strengths and capital that will continue to be the source of our value creation well into the future. To ensure that we can leverage these strengths and be an essential company a century from now, we will forge ahead with portfolio reform that increases our areas of contribution further still.

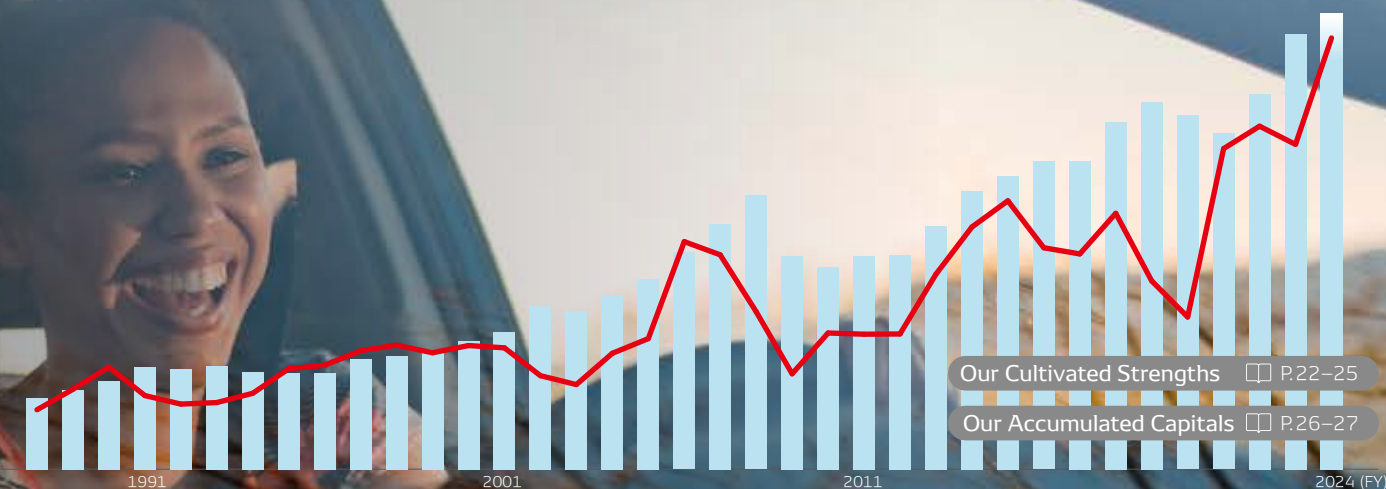
### Revenue

Fiscal 1951 to fiscal 1978 show non-consolidated revenue, while fiscal 1979 and thereafter 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.)

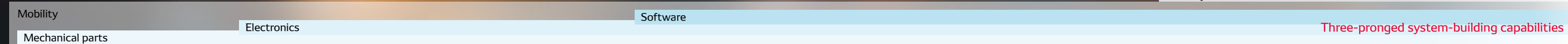
1950 1961 1971 1981

### Market capitalization\*

\* Before adjustment for treasury stock



### Increasing Our Areas of Contribution



### History of Creating Value to Address Social Issues and Ambitious Initiatives for the Coming Era

1950s Postwar Reconstruction and Motorization	1960s and 1970s Popularization of Private Cars and Emergence of Numerous Social Issues	1980s Globalization and Trade Friction	1990s and 2000s Global Warming and Spread of Digital and Information Technologies	2010s ICT Advancement and SDG Adoption	2020s Escalation of Social Issues
<b>Taking on the challenge of resolving social issues using cutting-edge technologies from the time of our founding</b> <ul style="list-style-type: none"><li>Developed the DENSO-GO electric vehicle</li><li>Developed Japan's first car and bus air-conditioning systems</li></ul>	<b>Taking measures ahead of exhaust gas regulations and laying foundations for "peace of mind" products</b> <ul style="list-style-type: none"><li>Developed exhaust gas-controlling products compliant with the world's strictest regulations</li><li>Began development of semiconductors in anticipation of the coming era</li></ul>	<b>Accelerating the commercialization of safety systems for preventing traffic accidents causing fatalities</b> <ul style="list-style-type: none"><li>Gradually realized the practical application of safety systems, including airbag sensing systems</li><li>Commenced the mass production of vacuum sensors, which represented the world's first in-vehicle semiconductor sensor</li></ul>	<b>Contributing to eco-friendly lifestyles with core technologies</b> <ul style="list-style-type: none"><li>Developed the QR Code®, which increases efficiency at manufacturing sites</li><li>Developed the world's first electronic control-type common rail system</li><li>Developed the world's first inverter with dual-side cooling</li></ul>	<b>Entering into a once-in-a-century paradigm shift</b> <ul style="list-style-type: none"><li>Developed Global Safety Package, the first generation of our advanced safety system</li><li>Began providing services in the agriculture and factory automation fields</li></ul>	<b>Aiming for excellence in the domains of green and peace of mind</b> <ul style="list-style-type: none"><li>Developed Global Safety Package 3, the third generation of our advanced safety system</li><li>Developed our first inverter to use SiC power semiconductors</li></ul>

## Four Ideals of the DENSO Creed

Established at the time of the Company's founding, the DENSO Creed sets forth a clear commitment to pursuing innovation in anticipation of changing times and to addressing social issues through quality products and services. This commitment is also the starting point of our sustainability management, which we are currently accelerating.

### Be trustworthy and responsible.

The trust that our predecessors worked earnestly to build over the years underpins the DENSO of today. We will therefore maintain this trust and seek to build it up further so that we can pass it on to the next generation. By doing so, we will meet the expectations of society and fulfill our responsibility to ensure DENSO's future.

### Cherish modesty, sincerity, and cooperation.

We work to refine not our appearance or job title but the essence of who we are as a part of DENSO, and we work in collaboration to perform our duties with sincerity. The sincere and cooperative relationships we have with each other as employees will bring forth inspiration and help us build long-lasting relationships with our customers and business partners.

### Be pioneering, innovative, and creative.

By consistently leading the times with our research and creativity and continuing to refine our technologies and know-how, we will swiftly create new value that truly benefits society, thereby paving the way to the future.

### Provide quality products and services.

We will earnestly approach each issue facing this ever-changing society and continue to bring hope and happiness to all people while aiming to provide our customers and society with products and services of the very best quality.

## Tradition of Sustainability Management

The DENSO Creed calls on us to "provide quality products and services," expressing the essence of our approach to sustainability management, which focuses on benefiting society by utilizing businesses to pursue ambitious initiatives that address social issues. Our mission is to continue our legacy by putting into practice the commitment that our predecessors established when drafting the creed and by passing on this commitment to the next generation.

In advancing sustainability management, DENSO has incorporated future social issues into its Long-term Policy for 2030 and as an integral part of its material issues (Materiality), and the Company is addressing these social issues through business activities. As well as maximizing our provision of green value and peace of mind value—two long-standing areas of focus—we have established "inspiring" as a watchword. Accordingly, we will provide society with new value that inspires diverse stakeholders.



### Establishment of the DENSO Heritage Center

In December 2021, we established the "Heritage Center" with the aim of enabling all employees to return to DENSO's origins, which are represented by the DENSO Creed and the principles of quality and safety, and to provide them with an opportunity to consider what they themselves want to pass on to the next generation of DENSO. At the DENSO Heritage Center, we have established areas that introduce events that happened at the time of the Company's founding, which represent the starting point of DENSO. We also have areas where visitors can reflect on DENSO's history of offering quality and peace of mind. The Heritage Center is visited by a large number of employees every day.



# History of Innovation and Creation

Just as it did when DENSO was founded, the commitment set out in the DENSO Creed is the Company's starting point to this day. With our second founding well underway, we must boldly take on unprecedented challenges, such as promoting initiatives toward CASE\* and realizing carbon neutrality. By once again reflecting on the desire embodied in the DENSO Creed and returning to our starting point as a company, we will steadily move forward toward our aim of bringing happiness to people and society as a whole.

\* CASE: Connected, autonomous, shared & service, and electric

## 1930s to 1950s: Taking on the challenge of resolving social issues using cutting-edge technologies from the time of our founding

External Environment	Postwar Reconstruction and Motorization	Social Needs	International Standards of Technology and Quality
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### 1935: Taking On the Challenge of Producing Electrical Equipment In-House

An automobile department was established within Toyoda Automatic Loom Works, Ltd. (currently Toyota Industries Corporation). In 1935, the executive director of Toyoda Automatic Loom Works, Kiichiro Toyoda, instructed Ryuichi Suzuki (who would later become a member of the Board at DENSO) to take on the challenge of producing electrical equipment in-house. However, developing such equipment proved challenging due to the unreliable quality of electrical equipment at the time. In fact, Mr. Toyoda stated to Mr. Suzuki that this task seemed to be far harder than he had imagined, and he asked Mr. Suzuki whether they should quit at that juncture. Mr. Suzuki pleaded to Mr. Toyoda to allow him to continue his efforts for one more month in order to realize in-house production. Sometime after doing so, the enthusiasm and persistence of Mr. Suzuki and the young engineers on his team led to the official adoption of electrical equipment in Toyoda vehicles.



**Team in Charge of Electrical Equipment Development**  
At the time, a team of approximately 30 engineers and technicians devoted themselves to the in-house development of electrical equipment, often going without sleeping and eating.

### 1949: Birth of NIPPONDENSO

With the Japanese economy in an extremely difficult state due to the promotion of the Dodge Line by the General Headquarters of the Supreme Commander for the Allied Powers, the electrical equipment department split off from Toyota Motor Co., Ltd., and was established as NIPPONDENSO CO., LTD. The company's first president, Torao Hayashi, aimed to rapidly expand the company not just in Japan but also overseas. For that reason, he expressed the company's determination to become independent by choosing the name NIPPONDENSO ("Nippon" meaning Japan), rather than KARIYADENSO, AICHIDENSO, or TOKAIDENSO, which are names of the local area where the company was founded.



### 1953: Start of Technical Cooperation with Robert Bosch GmbH

In the early 1950s, a technological gap clearly existed between NIPPONDENSO and Western companies. Consequently, we urgently needed to achieve world-class technologies and quality. At this juncture, we encountered German-based company Robert Bosch GmbH, which was an order of magnitude larger than us. Thanks to the mediation of Dr. Tokushichi Mishima, who was the inventor of MKM steel, and the determination of our management, we concluded a technical alliance with Robert Bosch. By learning from our new partner, we established the foundations of internationally competitive technologies and quality.



#### Specific Initiatives

- Beginning in the 1950s, we catered to the needs of customers, especially Toyota Motor Corporation. At the same time, we established and grew a business field centered on mechanical parts and realized the provision of products supported by internationally competitive technologies and quality.

#### Green Value and Peace of Mind Value Provided

- Developed and mass-produced the DENSO-GO electric vehicle to help mitigate global gasoline shortages
- Developed Japan's first car and bus air-conditioning systems. Although there was a concern that such systems would impede driving performance, these systems were able to overcome that notion and quickly grew in popularity due to their high level of convenience and comfort.

● Green ● Peace of mind

## 1960s and 1970s



External Environment	Popularization of Private Cars during the Period of Rapid Economic Growth Together with the Emergence of Traffic Accidents, Air Pollution, and Numerous Other Social Problems
Social Needs	High-Mix, Variable-Volume Production Capabilities and Development of Environmental and Safety Technologies



#### Specific Initiatives

- Received the Deming Prize, the most prestigious award for quality control. Winning this prize laid the foundations for the "Quality First" approach and corporate culture that we still adopt to this day.
- Received the Okochi Memorial Production Prize in recognition of the high-precision, high-quality *Monozukuri* enabled by our integrated in-house production system
- Established the IC Research Center in 1968 in anticipation of a shift to the electronic control of automotive components; began developing semiconductors; and manufactured the automotive industry's first semiconductors. Accumulated a large amount of knowledge on semiconductor and IC specifications by conducting thorough analysis
- Established Nippon Soken Inc. through a joint investment with 10 other automotive component manufacturers with the aim of researching technologies to address exhaust gas

#### Green Value and Peace of Mind Value Provided

- Achieved the practical application of electronic fuel injection (EFI) systems ahead of regulations on exhaust gas. After doing so, we continued to develop products that respond to environmental regulations, one after the other.
- Developed O<sub>2</sub> sensors as an important tool for controlling exhaust gas. Vehicles equipped with DENSO systems comprising EFI, O<sub>2</sub> sensors, and a three-way catalyst were able to comply with Japan's Showa 53 (1978) exhaust gas regulations, which were said to be the world's strictest regulations at that time. The number of cars equipped with these systems began to rapidly increase.
- Participated in the Comprehensive Automobile Traffic Control System (CACS) project initiated by the Ministry of International Trade and Industry (currently the Ministry of Economy, Trade and Industry). The technologies cultivated through our participation in this project would later help us develop car navigation systems and connected driving products.



Electronic fuel injection system



Received the Deming Prize

## 1980s



External Environment	Globalization and Trade Friction
Social Needs	Overseas Production and Higher-Performance Vehicles



#### Specific Initiatives

- Established manufacturing companies and technical centers overseas to realize regionally optimized product development, manufacture, and supply capabilities
- Helped address pollution, global warming, and other social issues by acting as a trailblazer in the creation of products compliant with environmental regulations
- Launched a project for the practical application of robots. Furthermore, the development of such technologies as barcode readers and RFID,\* which we pursued in a similar manner as we did with robots, helped establish the foundation of our current factory automation (FA) business.
- Focused efforts on progressing in electronic control-type systems and other software fields
- Commercialized a series of safety system products that helped improve the safety performance of vehicles

\* RFID (radio frequency identification): A non-contact system that reads data from RF tags using electromagnetic waves

#### Green Value and Peace of Mind Value Provided

- Developed the world's first electronic control-type diesel pumps, which impressed the world with their ability to control exhaust gas, reduce fuel consumption, and realize high output
- Commenced the mass production of vacuum sensors, which represented the world's first in-vehicle semiconductor sensor. With this technology, we led the way ahead of other companies by equipping semiconductors with sensors and thereby adding value.
- Gradually realized the practical application of safety systems, including anti-lock brake systems, airbag sensing systems, and forward collision warning systems



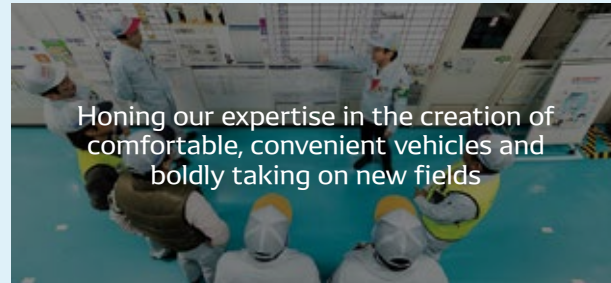
DENSO (MALAYSIA) SDN. BHD. at the time of its establishment in 1980



In-vehicle test in Europe



## 1990s



Honing our expertise in the creation of comfortable, convenient vehicles and boldly taking on new fields

External Environment	Collapse of the Bubble Economy and Acceleration of International Debate on Global Warming
Social Needs	Compact, Fuel-Efficient Vehicles and Environmentally Friendly Lifestyles

## 2000s



Utilizing electronics and software technologies to promote the introduction of electric vehicles and to popularize safety products

External Environment	Spread of Digital and Information Technologies and Creation of International Frameworks and Regulations for Global Warming Prevention
Social Needs	Diversification of Powertrain Technologies and Introduction of Products for Hybrid Electric Vehicles (HEVs) and Other Electric Vehicles

## 2010s to 2020s



Tackling a once-in-a-century period of change by maximizing value in the domains of green and peace of mind

External Environment	ICT Advancement and SDG Adoption, and an Escalation of Social Issues
Social Needs	Conversion to CASE Vehicles

## 2030s ~



Aiming for excellence in the domains of green and peace of mind

External Environment	Global Warming, Resource Shortages, and Escalation of Such Social Issues as an Aging Society
Social Needs	Recycling-Based Society Centered on Renewable Energy

### Specific Initiatives

- Established the Fundamental Research Center (currently the Advanced Research and Innovation Center), which has created a large number of innovative technologies that have led to the development of world-first and world-best products
- Commenced Excellent Factory (EF) activities. We began to expand activities on a global basis to improve our factories, led by personnel on the front lines of production. These EF activities represent the origins of DENSO's ambitious activities focused on quality improvements.
- Utilized core technologies to develop products that contributed to eco-friendly lifestyles
- Developed the QR Code® with large capacity and high-speed readability that is compatible with high-mix, low-volume production at plants

### Specific Initiatives

- Established DENSO Training Academy Thailand, our first overseas regional training center. This center helped us build a structure for educating engineers and technicians on a global basis.
- Formulated Eco Vision 2005. Leveraged outstanding environmental technologies to accelerate the reduction of CO<sub>2</sub> emissions from business activities
- Marketed products for CASE vehicles to promote the introduction of electric vehicles and the popularization of safety products

### Specific Initiatives

- Completed the establishment of technical centers in seven regions across the globe. Through these centers, we have set up a structure to create competitive products that can promptly meet diversifying local needs.
- Formulating comprehensive strategies in the domains of green and peace of mind
- Established the Electrification Innovation Center (EIC), which promotes efforts to strengthen the development and production of products powered by electricity, and Global R&D Tokyo-Haneda, which conducts the development of automated driving and other technologies. By doing so, we have accelerated our R&D activities in the domains of green and peace of mind.
- Developed high-performance advanced safety systems and improved the safety performance of existing vehicles through the provision of retrofitted products
- Began providing services in the agriculture and factory automation fields
- Strengthening our development structure and global production structure for products powered by electricity, including at the Hirose Plant and the EIC. Through these efforts, we aim to realize an annual production of 12 million inverters by 2025.

### Specific Initiatives

- Expand businesses and address social issues in the fields of mobility, industry, and society with a view to realizing a carbon-neutral society and eliminating traffic accident fatalities by 2035
- Accelerate the development of technologies and partnerships with regard to five essential elements (the free movement of people, the flow of goods, energy utilization, minimization of resource requirements, and the flow of data) with the aims of realizing high-value mobility and manufacturing that contributes to peace of mind, supporting the continuation of society's activities, and catering to diverse values and views of well-being

### Green Value and Peace of Mind Value Provided

- Focused on the development of car air-conditioning systems that use natural refrigerant to curb the destruction of the ozone layer caused by conventional refrigerant
- Developed the world's first electronic control-type common rail system. Pioneered the way with common rail systems that would later dominate the market
- Commercialized household heat pump water supply systems that contribute to energy savings. Also, developed water filters, QR Codes®, and other products that make people's lives more comfortable



Advanced Research and Innovation Center



QR Code®

### Green Value and Peace of Mind Value Provided

- Developed the world's first inverter with dual-side cooling. DENSO's technological capabilities were acknowledged through the development of these inverters, leading to a rapid increase in their production volume.
- Developed the world's first forward-looking radar sensor using millimeter waves. Able to operate even in rainy and foggy environments, these sensors helped enhance the safety of automobiles.

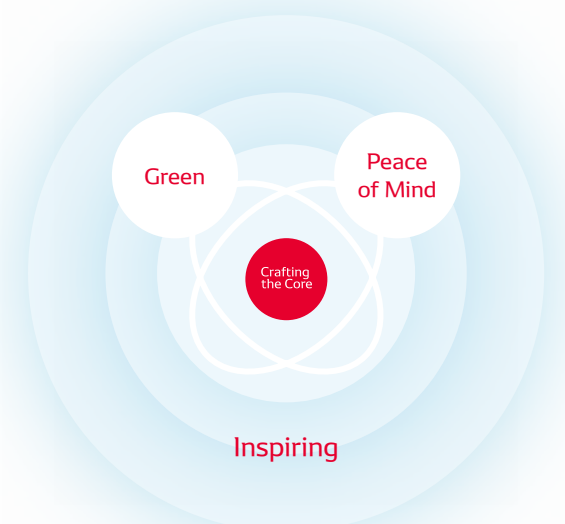


Structure for cooling both sides of the inverter

### Green Value and Peace of Mind Value Provided

- Developed motor generators. These motor generators realize highly efficient, eco-friendly power generation and driving.
- Saw cumulative production of inverters, which are our mainstay product in the environment field, reach 20 million units worldwide in 2021
- Developed Global Safety Package, an advanced safety system using a monocular camera and millimeter-wave radar sensor. Equipped with this safety system, the Toyota Prius received the top five-star rating in the European New Car Assessment Programme (Euro NCAP).
- Developed Global Safety Package 3, which helps improve safety performance by recognizing the environment surrounding the vehicle. We are expanding the scenarios in which to use accident prevention, safety, and driver support products. We are also commencing efforts to expand the global sales of such products based on the concept of realizing compactness and low cost.
- Developed retrofitted acceleration control devices for when drivers accidentally step on the gas pedal, thereby enhancing the safety performance of vehicles already sold and on the road

### Our Vision for the Future: Long-term Policy for 2030



## DENSO's Value Creation Process

# Maximizing the Value of "Green" and "Peace of Mind" to Continue to Grow with Society

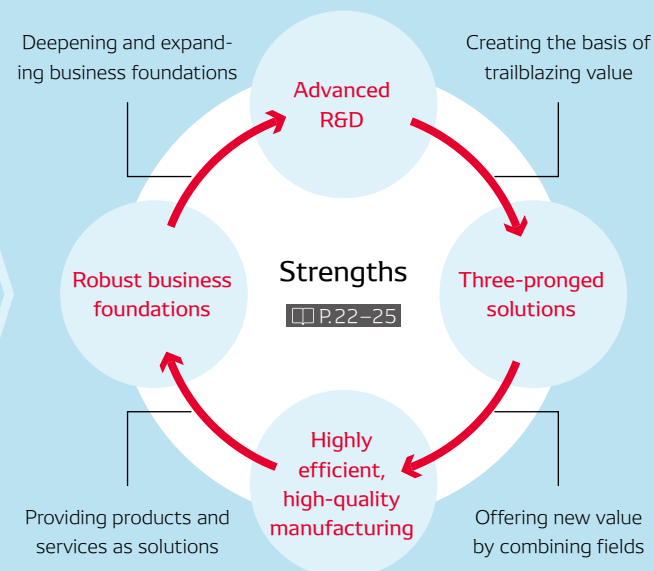
DENSO puts sustainability management into practice by taking the resolution of social issues as a starting point and then utilizing accumulated strengths and capital to implement business activities and advance value creation processes. Through this approach, we aim to contribute to a sustainable society and enhance our corporate value.

Tradition of Sustainability Management [P.28-29](#)



Reinforcing Our Strengths

### Cycle of Strengths



## Principal social value we offer and related indicators (Fiscal 2026)

- ➔ Realization of carbon-neutral manufacturing: Achievement of carbon-neutral plants through the procurement of renewable energy and the utilization of carbon credits (carbon neutrality without carbon credits by fiscal 2036)
- ➔ Contribution to an environmentally friendly mobility society: Dissemination of electric vehicle components (production of inverters: 12 million units; production of thermal management products: 2.8 million units; production of power supply systems: 7.6 million units)
- ➔ Contribution to the elimination of traffic accident fatalities: The types of traffic accident covered by DENSO safety products account for 56% of the traffic accidents that result in fatalities (aim to increase this to 100% by fiscal 2036)

## Principal financial value we offer and related indicators (Fiscal 2026)

- ➔ Expansion of equity spread over the medium to long term (ROE: 10% or higher; operating margin: 10%)
- ➔ Cash generation through business portfolio reform (Electrification domain revenue: ¥1 trillion; ADAS domain revenue: ¥500 billion)
- ➔ Balance between disciplined restraint and targeted investment (Capital expenditures: ¥350 billion; R&D expenditure: ¥450 billion)
- ➔ Long-term, stable shareholder returns (DOE: 3.0% or higher; flexible share buybacks)

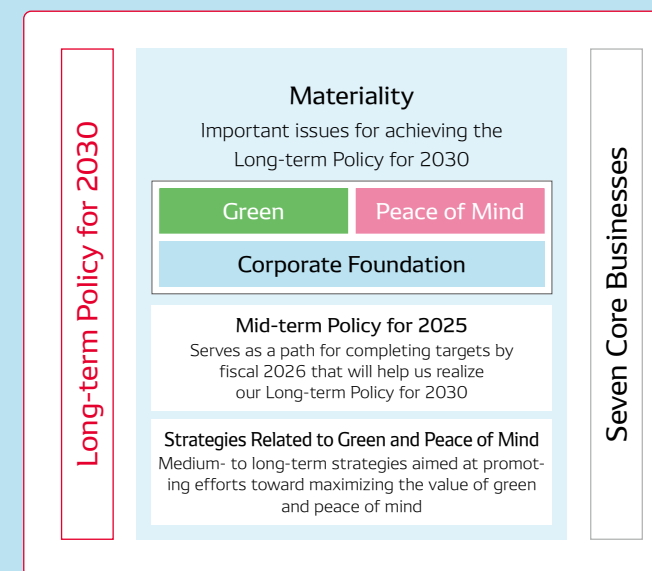
## Realizing a Sustainable Society

Contributing to the SDGs through our corporate activities



Strengthening Our Capitals

### Growth Strategy



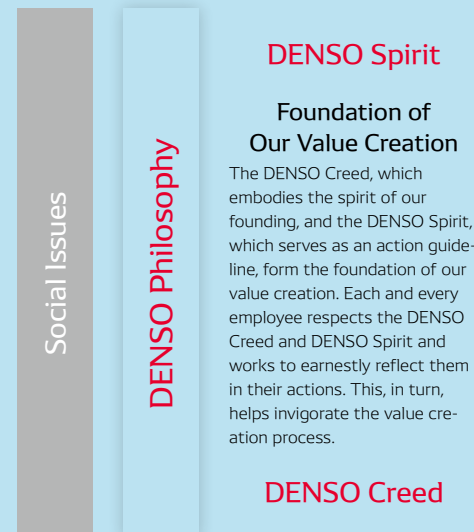
Overview by Product [P.48-65](#)

### Advancement of Three Priority Areas



### DENSO's Vision

Maximizing the Value of "Green" and "Peace of Mind" to Be Inspiring



### Foundations Underpinning Value Creation

**Human Capital**

[P.74-77](#)

**Corporate Governance**

[P.98-118](#)

### Controlling Factors That Negatively Impact Our Value Creation

We are implementing measures to respond to risks that could negatively impact our value creation.

Efforts to Maximize the Value of "Green" [P.90-93](#)

Risk Management and Compliance [P.114-118](#)

Undertaking Initiatives toward Respecting Human Rights [P.96](#)



## Our Cultivated Strengths

Over its 70-year history, DENSO has cultivated various unique strengths. Since the founding of the Company, these strengths have been augmented and passed down to become part of its DNA—the DENSO Spirit—which permeates the actions of all DENSO employees around the world. The connections between these strengths have driven DENSO’s growth over the years. Amid a challenging business environment going forward, DENSO will further enhance these strengths as the driving force behind value creation that is uniquely DENSO.



### Robust Business Foundations

DENSO’s business activities are supported by robust foundations built over many years, giving the Company an advantage that cannot be easily replicated. The driving force behind all our business activities is our relationships with diverse stakeholders, including customers, suppliers, and business partners, as well as the expertise of our approximately 170,000 employees and 200 Group companies worldwide. By evolving and increasing such relationships and expertise, we will realize further growth.

#### Roots of Our Strengths

- 1954** Established the Technical Training Center. This center fostered the principles of “*Monozukuri is Hitozukuri* (Our performance relies on our people)” and “Engineering and technique go hand in hand.” These principles continue to be passed down within the Company. Began establishing a network of service stations (centers) to enhance quality for end-users in each region across Japan
- 1959** Deepened cooperation with suppliers by establishing the DENSO Cooperative Association (currently DENSO HISHOKAI), which currently accounts for annual procurement of ¥2.7 trillion from approximately 7,360 suppliers
- 1966** Opened a Chicago sales office and a Los Angeles branch office. Anticipated trade liberalization and other global trends through the establishment of this first overseas sales office
- 2016** Formulated Eco Vision 2025. Accelerated concrete measures aimed at addressing environmental and energy issues and thereby helping realize a sustainable society
- 2020** Opened the Hirose Plant, which together with the Electrification Innovation Center established outstanding development and production capabilities and became the core of our electrification domain

#### The Key to Our Strengths

Human Resources	Stakeholders	Global Presence
<b>Monozukuri is Hitozukuri</b>	<b>Creation of Allies</b>	<b>Bases in 35 Countries and Regions</b>
<b>Personnel Who Create New Value</b> Based on the belief that excellent personnel make the best products, we view human resources as our most important management resource. DENSO is developing the leaders and highly skilled engineers and technicians who will drive the Company forward.	<b>Mutual Advancement with Business Partners</b> As our business domain extends beyond automobiles, we are strengthening our alliances even further based on trust cultivated over many years. These alliances will enable us to combine our strengths with those of partners and thereby realize entirely new types of value.	<b>Delivery of Value to People Worldwide</b> To grasp the needs and trends of each region in a timely, accurate manner and reflect them in R&D and manufacturing, we have established production, development, and sales bases around the world. At the same time, all of our employees make concerted efforts to develop our businesses and deliver value.
Number of employees worldwide: Approximately 170,000	Number of alliances: Stakes in more than 80 companies* * In the 10 years through fiscal 2023	Number of bases worldwide: 191

##### Further Enhancing Our Strengths

#### Accelerating Global Expansion of the Agricultural Production Business to Address Global Food and Agriculture Issues

With the climate change-related instability of agricultural production and a decrease in the number of farmers emerging as issues in recent years, the establishment of stable, sustainable agricultural production capabilities is needed. Aiming to address such issues in the food and agriculture field, in August 2023 DENSO announced its acquisition of all shares of Certhon Group, a Dutch horticultural facility operator. With a history of more than 125 years, our new acquisition is a leading corporate group renowned for world-class advanced technologies related to horticulture. The group excels not only in the development of solutions tailored to diverse customers but also in integration capabilities that combine multiple systems to realize optimal solutions. By combining the process design and automation technologies that DENSO has developed in the automotive field with Certhon Group’s cultivation and horticultural system technologies, the companies will develop innovative farm models and globally roll out solutions that meet regional characteristics and needs.



### Advanced R&D

With a commitment to world-first and world-best offerings, DENSO has contributed to mobility by creating an array of competitive products that accurately cater to social needs. Amid increasingly complex social issues and diversifying values, we aim to extend the scope of our contribution beyond mobility to encompass society as a whole. To this end, we have defined priority fields in accordance with our green and peace of mind principles. Moreover, we are planning technologies and strengthening R&D capabilities with an eye on the future.

We will continue creating new value through our technical centers and laboratories around the world as well as through collaborative initiatives that transcend Group boundaries and include external research institutions and universities.

#### Roots of Our Strengths

- 1953** Commenced a technical cooperation agreement with Robert Bosch GmbH. Under this agreement, we established a technological and production base with the aim of becoming a comprehensive manufacturer of automotive parts that can keep pace with global companies.
- 1985** Established Nippondenso America, Inc., with which we jointly created our first overseas technical center. Through this center, we built an optimized structure for the development, production, and supply of local products.
- 1991** Established the Fundamental Research Center (currently the Advanced Research and Innovation Center), which conducts R&D on future technologies that cover a wide range of fields
- 2014** Completed the establishment of technical centers in seven regions across the globe. Through these centers, we have set up a structure to create competitive products that can promptly meet diversifying local needs.
- 2020** Established the Electrification Innovation Center (EIC), which strengthens our capabilities in the development and production of electric vehicle components. Accelerated R&D activities in the green and peace of mind domains
- 2022** Received IEEE Corporate Innovation Award in recognition of our development of the QR Code® and our contribution to its global popularization

#### The Key to Our Strengths

Foresight	Speed	Advanced Technologies
<b>Commitment to World-Firsts</b>	<b>Global Development Network</b>	<b>Advanced Research with a View to the Future</b>
<b>Creating Over 180 World-First Products</b> We have established “contributing to a better world by creating value together with a vision for the future” as the DENSO Philosophy. By keenly ascertaining social changes, we have been engaging in product development with a commitment to world-firsts since our establishment. We have created over 180 world-first products, including gas injection heat pump systems, common rail systems, millimeter-wave radar sensors, and ejectors, which have provided us with a driving force for growth.	<b>Technical Centers in Seven Regions throughout the World and Laboratories in Epicenters of Innovation</b> We have established technical centers in seven regions across the globe, in addition to laboratories in Canada, Israel, Silicon Valley, and other epicenters of innovation. We also promptly incorporate diversified regional needs into our development process to create competitive products, which are subsequently delivered to our customers.	<b>Advanced Research That Anticipates Future Mobility</b> Since its establishment in 1991, our Advanced Research and Innovation Center’s mission has been to contribute to an advanced automotive society through the creation of innovative technologies. Guided by this mission, the center has pioneered advanced technologies in such fields as semiconductors, electronic materials, AI, and ergonomics. By integrating in-house technologies and skills as well as by creating industry–government–academia partnerships and collaborations with business partners, the Advanced Research and Innovation Center creates innovative technologies that help resolve social issues.
Number of world-first products: Over 180	Number of global R&D bases: 13	Number of new patent registrations in the automotive industry (fiscal 2023): Japan, 3; United States, 8

##### Further Enhancing Our Strengths

#### Developing Secure Industry-wide Data Linkage for the Electric Vehicle Age

In addressing increasingly complex social tasks, such as the realization of a resource-recycling society and carbon neutrality, the establishment of systems that facilitate accurate transmission of data throughout the supply chain is becoming increasingly important.

With a view to building an industry-wide ecosystem for electric vehicle batteries, NTT DATA JAPAN CORPORATION and DENSO have begun studying the establishment of a data space that will enable data management throughout battery life cycles. The companies will build the data space by leveraging DENSO’s traceability technologies—which utilize in-house-developed QR Code® and in-vehicle blockchain technology—as well as the Company’s expertise in the automotive industry together with NTT DATA JAPAN’s know-how and extensive track record in building and operating large-scale platforms.

NTT DATA JAPAN and DENSO have concluded a basic agreement on studying a joint venture. Also, to create an industry-wide ecosystem for electric vehicle batteries, the companies made a joint application to a solicitation of proposals under the subsidy program of the Ministry of Economy, Trade and Industry, officially receiving approval as business operators in September 2022.

Our goal is for the ecosystem’s platform to serve as a next-generation information infrastructure that allows the secure use of data not only among companies in industries related to electric vehicle batteries but also companies in other industries. With the aim of commercializing services by the end of fiscal 2024, NTT DATA JAPAN and DENSO will launch a study on a common platform for the automotive and manufacturing industries.



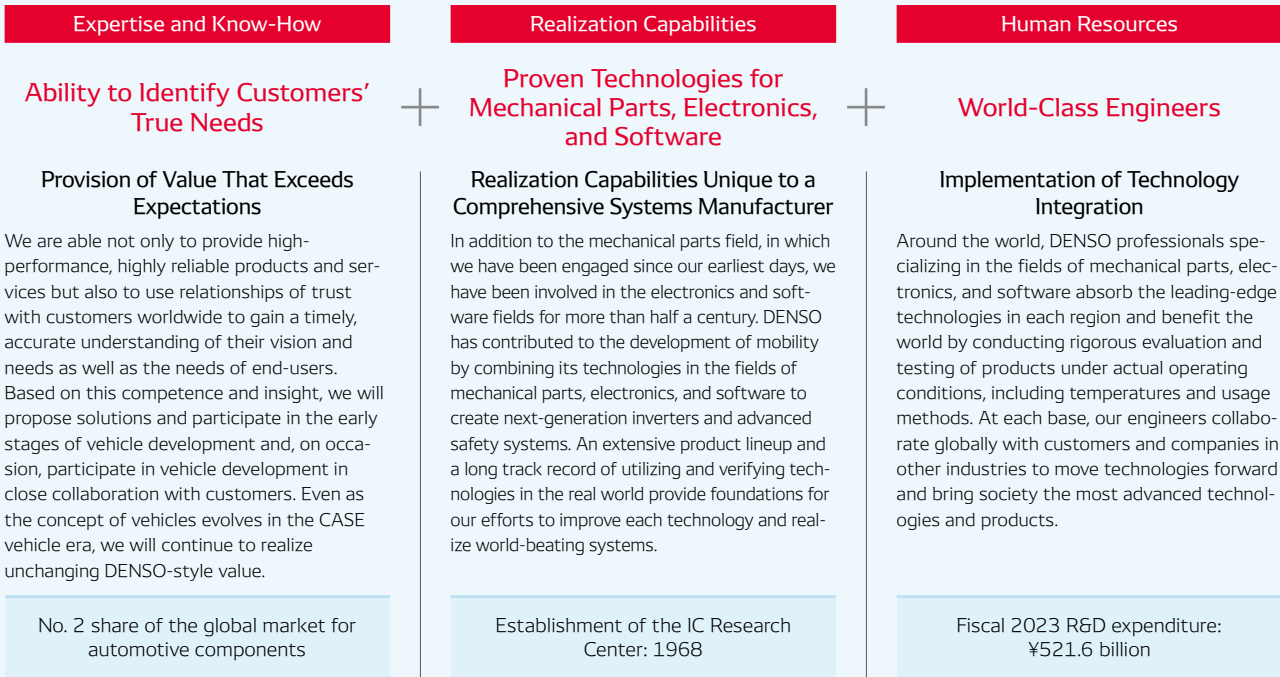
## Three-pronged Solutions for Systems

DENSO has always optimized its business portfolio ahead of the times to provide society with valuable products and services that meet customer needs. For example, we expanded from our founding business in the mechanical parts field to foray into the electronics and software fields. While expanding, we enhanced our capabilities in each field and, as a result, we are now able to go beyond the manufacture of stand-alone components to offer optimal whole-system solutions that combine mechanical parts, electronics, and software. These system solution capabilities set us apart from competitors.

### Roots of Our Strengths

- 1995** Became the first in the world to mass-produce an electronic fuel injection system (common rail system), a precursor to current system solutions, which are aligned with overall vehicle specifications as a matter of course
- 2007** Mass-produced an inverter with dual-side cooling. Combined our proprietary technologies from the mechanical parts, electronics, and software fields to develop a differentiated hybrid system, which was highly acclaimed by the market
- 2008** Launched the DENSO Project Companywide initiative. Adapted to stricter environmental regulations by enhancing ability to provide optimal vehicle solutions that straddle technology fields
- 2017** Developed the world's first gas injection heat pump system for mass-produced vehicles. Helped increase driving distance by managing the heat of the entire vehicle
- 2021** Began recurrent education program for software engineers. Met the growing need for software development and supported employees in transfer to growth fields

### The Key to Our Strengths



#### Further Enhancing Our Strengths

### Evolving Our Software Capabilities—Toward Realization of a Vehicle Security Monitoring Service

NTT Communications Corporation and DENSO are collaborating to provide a security monitoring service for vehicles that will protect vehicles from cyberattacks. With the rapid proliferation of connected vehicles in recent years, cyberattacks are steadily increasing in sophistication. Utilizing their respective expertise in the IT and automotive fields, the companies will work together to provide a service that monitors connected cars, detects and analyzes attacks at an early stage, and takes appropriate countermeasures. Moreover, DENSO is actively promoting the standardization of vehicle security technologies through Japan Automotive Software Platform and Architecture (JASPAR).<sup>\*1</sup> Also, we are contributing to the Japan Automotive Information Sharing and Analysis Center (J-Auto-ISAC),<sup>\*2</sup> which enhances the security readiness of the wide range of companies in the automotive industry by expediting the sharing of information on cyberattack methods and software flaws targeted by cyberattacks.

<sup>\*1</sup> A standardization body for automotive technology

<sup>\*2</sup> A general incorporated association that collects and analyzes cybersecurity information and promotes the creation of infrastructure to protect connected vehicles



## Highly Efficient, High-Quality *Monozukuri*

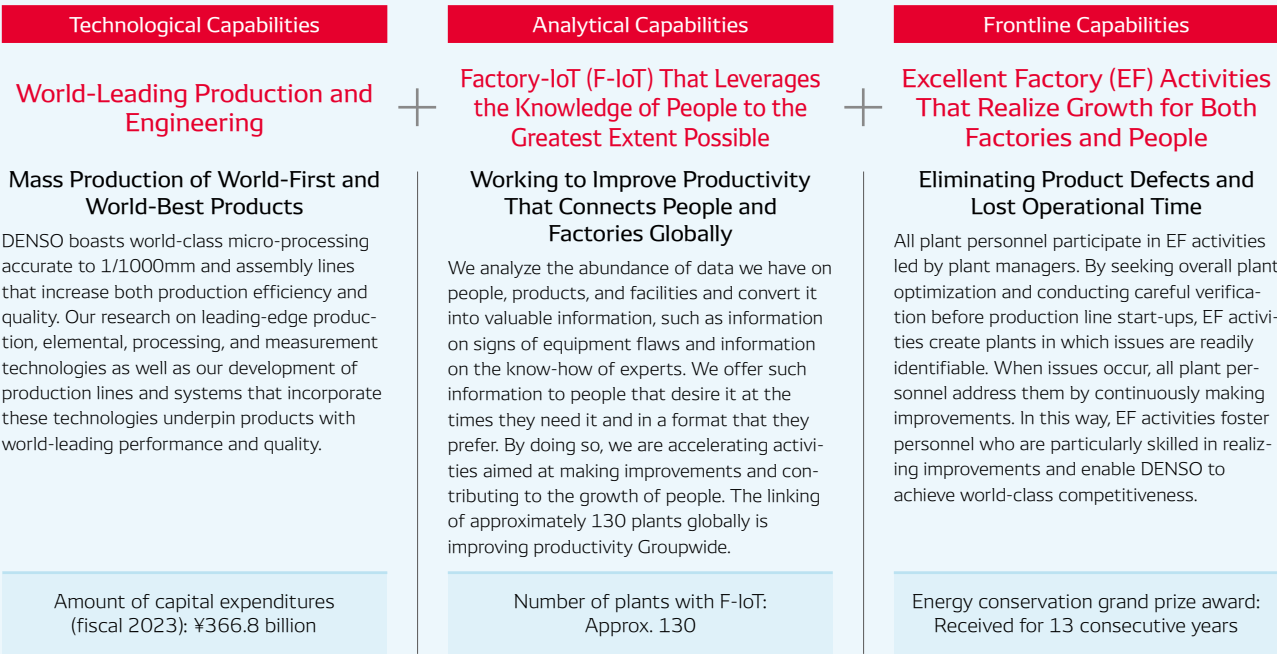
Since its inception, DENSO has consistently emphasized the creation and utilization of in-house technologies. We design and manufacture equipment, production lines, materials, and processing methods. This emphasis on in-house *Monozukuri* (manufacturing) has enabled us to provide society with products that give concrete form to the leading-edge technologies conceived by our R&D team. Having our own production technologies has also allowed us to develop high-speed, efficient production lines and compact facilities as well as streamline distribution and inspection. Moreover, in recent years we have been digitalizing know-how accumulated over many years of manufacturing and utilizing it as explicit knowledge. Such initiatives are enabling us to realize highly efficient, high-quality *Monozukuri* that adds even more competitiveness and value to our products.

### Roots of Our Strengths

- 1968** Created the IC Research Center to establish a structure for the production of semiconductors completely in-house in anticipation of the shift to the electronic control of automotive parts in the future
- 1972** Established our first overseas production company. Since then, we have accelerated the establishment of additional overseas production companies and conducted production activities that meet the needs of each region.
- 1979** Received the Okochi Memorial Production Prize. This prize was received in recognition of our highly accurate, high-quality *Monozukuri* that was realized through our comprehensive in-house manufacturing of production lines and equipment.
- 1984** Launched a project for the practical application of robots. Furthermore, the development of such technologies as barcode readers and RFID,\* which we pursued in a similar manner as robots, helped establish the foundation of our current factory automation (FA) business.
- 1997** Commenced Excellent Factory (EF) activities. Through plant improvement led by frontline production personnel, globally developed a *kaizen* (improvement) culture, which is the source of our ambitious improvement activities
- 2019** Began operating Factory-IoT, which networks plants worldwide to enable the accumulation, analysis, and utilization of various data. Took advantage of digital technologies to accelerate long-standing improvement activities

\* RFID (radio frequency identification): A non-contact system that reads data from RF tags using electromagnetic waves

### The Key to Our Strengths



#### Further Enhancing Our Strengths

### Saving Energy by Utilizing Data and Mobilizing All Personnel

To save energy in frontline *Monozukuri* operations, DENSO is incorporating data utilization expertise it acquired when improving the efficiency and quality of production activities.

- (1) Converting veteran employee insights into explicit knowledge so that anyone can benefit from the veterans' understanding and wisdom
- (2) Using dedicated tools to visualize normal and abnormal conditions, automatically calculate effects, and facilitate the data-driven flagging of situations requiring attention
- (3) Calculating the energy required for the manufacture of a single product to establish management indicators that can evaluate improvement efforts regardless of production fluctuations

By incorporating the above three features of data utilization into the management of energy-saving activities and systematizing them, we have realized data-driven energy-saving activities that are not dependent upon particular individuals and to which all employees can proactively contribute. More specifically, we created energy loss analysis models based on veteran employee insights, standardized data analysis results into "diagnostic tables," and then introduced KPIs that were acceptable to all personnel. As a result, production line personnel are now able to manage energy savings themselves.


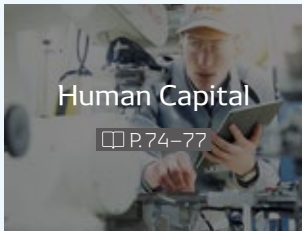

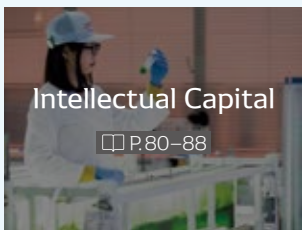
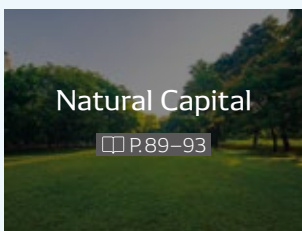

The aforementioned efforts have led to the discovery of new measures, which are enabling energy savings of between 1% and 5% on each production line. Moreover, personnel continuously pursue a 4% annual improvement in energy savings—DENSO's ambitious energy-saving target. In recognition of its advanced data-driven energy-saving initiatives, in fiscal 2023 DENSO received an energy conservation award—the Director-General Prize of the Agency of Natural Resources and Energy.



## Our Accumulated Capitals

The capitals that we have accumulated while achieving growth as a company now support our business activities and provide us with a source for enhancing our corporate value. Efforts to refine the substance of the strengths that drive our growth will allow us to reinforce our human, manufacturing, intellectual, natural, and social and relationship capitals, which in turn will help us increase our financial capital. To realize sustainable growth through this kind of cycle, we will not only maintain but also strengthen these capitals going forward.

### Correspondence of Financial and Non-Financial Capitals to Business Growth and Social Issue Resolution

Capitals	Our Vision	KPIs (FY2026 Targets)	Initiatives to Strengthen Capitals	Business Growth			Social Issue Resolution	Relationship with SDGs
				Creation of New Value	Profit Growth	Reduction in Capital Cost		
 <b>Financial Capital</b> P.66-73	<b>Striving to Realize a Lean, Sturdy, and Flexible Operating Structure</b>	<b>ROE: 10% or higher</b> <b>Operating margin: 10%</b>	<ul style="list-style-type: none"><li>Reinforce profit structure</li><li>Reduce low-profit assets</li><li>Improve capital structure</li><li>Engage in dialogue with markets</li></ul>	<ul style="list-style-type: none"><li>Bold investment in new and growing fields through well-focused investment</li><li>Development of next-generation technologies through swift R&amp;D, including collaboration with partners</li></ul>	<ul style="list-style-type: none"><li>Improvement in ROIC through business portfolio reweighting</li><li>Growth in profits based on realization of growth in the CASE vehicle field</li><li>Curbing of fixed costs through disciplined investment management</li><li>Improvement of asset efficiency based on reduction of cross-shareholdings and reduction of cash on hand</li></ul>	<ul style="list-style-type: none"><li>Improvement of capital structure through utilization of borrowings and augmentation of shareholder returns</li><li>Reduction in cost of shareholders' equity through stepped-up investor relations activities</li></ul>		
 <b>Human Capital</b> P.74-77	<b>People and Organization That Form a Group of Professionals with the Ability to Make Their Ambitions a Reality</b>	<b>Rate of affirmative responses in employee engagement survey: 78%</b> <b>Number of women in management positions</b> <b>Business fields: 200</b> <b>Technical fields: 200</b>	<ul style="list-style-type: none"><li>Renewal of human resource policies and systems</li><li>Support for employee career realization</li><li>Creation of open workplaces full of vitality</li></ul>	<ul style="list-style-type: none"><li>Creation of innovation through interaction among employees who are diverse in terms of their personalities, values, and experience</li></ul>	<ul style="list-style-type: none"><li>Increase in profits through deployment of personnel to growth fields</li><li>Improvement of efficiency based on enhanced digital transformation literacy</li><li>Optimal resource utilization through deployment of personnel to the most suitable in-house positions</li></ul>	<ul style="list-style-type: none"><li>Increase in highly productive personnel through the utilization of evaluation and compensation systems based on roles and performance</li></ul>		
 <b>Manufacturing Capital</b> P.78-79	<b>Realization of Resilient Monozukuri through Technical Skills That Continuously Evolve and the Utilization of Global and Digital Technology Capabilities</b>	<b>Capital expenditures: ¥350.0 billion</b> <b>Planned investment in efforts to reduce CO<sub>2</sub> emissions: ¥100.0 billion (FY2023-FY2026)</b> <ul style="list-style-type: none"><li>Increase in ability to respond on a global basis to volatility</li></ul>	<ul style="list-style-type: none"><li>Establishment of global production and supply capabilities</li><li>Realization of digital-twin plants</li></ul>	<ul style="list-style-type: none"><li>Realization of a circular economy through energy recycling systems and resource reuse</li></ul>	<ul style="list-style-type: none"><li>Pursuit of sales growth and profits through global production and supply capabilities</li><li>High quality and production efficiency that are enabled by digital-twin plants</li><li>Productivity improvement based on data analysis</li><li>Cost reduction through disciplined investment decisions</li><li>Contribution to energy and resource savings</li></ul>	<ul style="list-style-type: none"><li>Reduction of supply risk through the building of a resilient supply network</li><li>Stable manufacturing based on integration of the supply chain</li></ul>		
 <b>Intellectual Capital</b> P.80-88	<b>Promoting R&amp;D Activities That Realize World-First and World-Best Offerings with a Focus on the Trends of the Times</b>	<b>R&amp;D expenditure: ¥450.0 billion</b> <b>Number of software engineers: 12,000</b> <ul style="list-style-type: none"><li>Expansion and acceleration of R&amp;D</li></ul>	<ul style="list-style-type: none"><li>Augmentation of semiconductor development</li><li>Increase in the efficiency of mass production development</li><li>Development of software engineers</li><li>Acceleration of advanced research</li><li>Building of an intellectual property portfolio</li></ul>	<ul style="list-style-type: none"><li>Creation of world-best and world-first products through leading-edge technology research</li></ul>	<ul style="list-style-type: none"><li>Establishment of competitive advantages for CASE vehicles and semiconductors through investment in and deployment of personnel to growth fields</li><li>Improvement in the efficiency of software development through the utilization of digital transformation</li></ul>	<ul style="list-style-type: none"><li>Establishment and maintenance of competitive advantages inside and outside the automotive industry through an increase in the creation of patents that can be utilized by other companies</li></ul>		
 <b>Natural Capital</b> P.89-93	<b>Pursuing Environmental Neutrality to Both Preserve the Global Environment and Create Economic Value</b>	<b>Realization of industry-leading carbon neutrality (manufacturing) FY2026 (with carbon credits) FY2036 (without carbon credits)</b> <ul style="list-style-type: none"><li>Efficient utilization of natural capital</li><li>Reduction of environmental impact</li></ul>	<ul style="list-style-type: none"><li>Thorough energy-saving activities in all facets of our operations</li><li>Introduction of renewable energy based on economic rationality</li><li>Efficient utilization of natural capital through recycling, among other measures</li><li>Minimization of environmental impact based on the reduction of waste and emissions</li></ul>	<ul style="list-style-type: none"><li>Creation of innovative energy-saving technologies, such as CO<sub>2</sub> recycling systems, through the application of automotive environmental technologies</li></ul>	<ul style="list-style-type: none"><li>Monozukuri that is both carbon neutral and profitable</li><li>Development and popularization of electric vehicle components in response to increasingly stringent environmental regulations</li></ul>	<ul style="list-style-type: none"><li>Environmental impact reduction activities that lower the cost of countermeasures for future physical risks related to the environment</li><li>Reduction of resource depletion risks through the effective use of resources</li><li>Acquisition of excellent human resources through the establishment of an environmental brand</li></ul>		
 <b>Social and Relationship Capital</b> P.94-97	<b>Strengthening Our Bonds with Diverse Stakeholders through Dialogue in Pursuit of Mutual Growth</b>	<b>Number of suppliers: Approx. 7,360 (FY2023 results)</b> <ul style="list-style-type: none"><li>Establishment of good relationships</li><li>Reinforcement of other capital through the creation of allies</li></ul>	<ul style="list-style-type: none"><li>Enhancement of dialogue with all stakeholders</li><li>Building of an unshakable corporate foundation</li></ul>	<ul style="list-style-type: none"><li>Creation of new value through collaboration with business partners</li></ul>	<ul style="list-style-type: none"><li>Offering of products and solutions that inspire customers and greater society</li><li>Achievement of supply stability through reinforcement of relationships with suppliers and reduction of production costs through risk management</li></ul>	<ul style="list-style-type: none"><li>Elimination of information asymmetry with shareholders and investors through the provision of timely, appropriate information</li></ul>		

- Carbon-neutral society
- Elimination of traffic accident fatalities
- Carbon-neutral Monozukuri
- Optimal logistics systems with no waste
- Stable global production and supply
- Creation of a global environment where people can live with peace of mind
- Development of Monozukuri personnel



# Tradition of Sustainability Management

Since its founding, DENSO has taken on ambitious initiatives to address social issues through its businesses. In other words, we practice sustainability management and continuously provide society with new green value and peace of mind value. Our consistent approach to business reflects the DENSO Creed, which calls on us to “provide quality products and services.”

To continue in the spirit of our creed and keep practicing sustainability management even as times change, we have established the DENSO Group Sustainability Policy and incorporated social issues into the Long-term Policy for 2030 and as an integral part of our material issues (Materiality [P36-37](#)). We are currently tackling these social issues through our business activities. This section provides an overview of our structure for promoting sustainability management implementation as well as specific related initiatives.



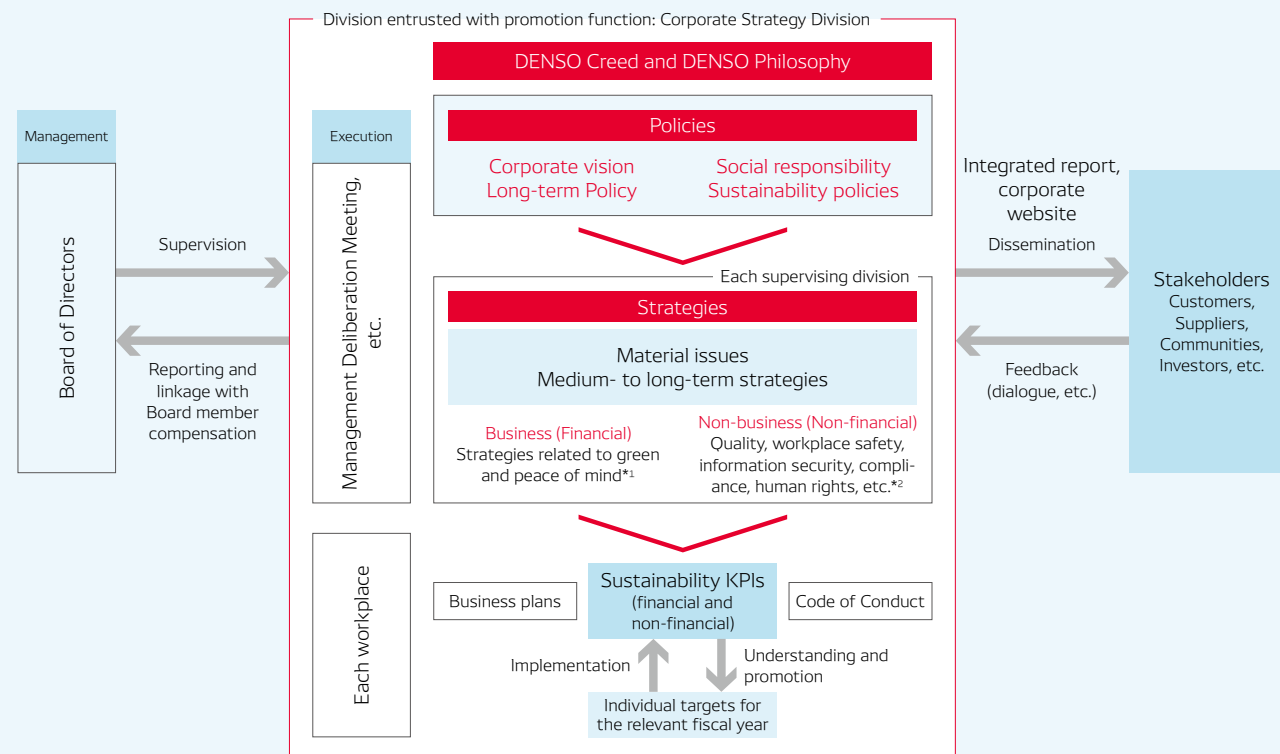
## Promotion Structure for Sustainability Management

The executive vice president and representative member of the Board supervises the Corporate Strategy Division, which is responsible for promoting Companywide sustainability management. This division is involved in such efforts as drafting policies and action plans related to sustainability, providing follow-up support for the sustainability activities of each division, and engaging in internal and external communication.

Furthermore, matters such as the direction of sustainability management and the status of Companywide sustainability activities are reported to and deliberated on by the Company's formal committees (such as the Management Deliberation Meeting) and overseen by the Board of Directors. In addition, the divisions in charge of individual sustainability themes promote activities to address these themes in collaboration with relevant divisions and after deliberation on said themes by each expert committee.

Also, to promote and entrench a culture of sustainability and disseminate related information, each DENSO CORPORATION division, domestic Group company, and overseas regional headquarters appoints one sustainability leader, who is tasked with ensuring the penetration of a culture of sustainability throughout workplaces.

## Promotion Structure and Division for DENSO's Sustainability Management



\*1 Strategies deliberated on by the Management Strategy Meeting and the Management Deliberation Meeting (see page 100)

\*2 With committees in charge of these themes, such as the Quality Assurance Meeting and the Companywide Safety, Health, and Environment Committee serving as the secretariat, initiatives to address these themes are deliberated on by the Company's formal committees.

Please see this URL to view the DENSO Group Sustainability Policy.  
<https://www.denso.com/global/en/-/media/global/about-us/sustainability/management/management-doc-sustainability-policy-en.pdf>



## TOPIC

The DENSO Group is further accelerating the implementation of sustainability management by advancing the following initiatives.

<b>Company and Management</b>	Establishing sustainability KPIs and following up on progress toward Company goals <a href="#">P36-37</a> Incorporating sustainability KPI achievement levels into evaluation indicators for officer remuneration <a href="#">P104-106</a>
<b>Employees</b>	Group companies and regional headquarters educate and communicate information to employees in effective ways that reflect the culture of their respective region or company so that each individual can practice and discuss sustainability in their work.

### Example 1: Communication Sheet (Personal Work Goals) × SDGs × Employee ID Cards (Japan and other countries)

When setting personal work goals for the year, employees consider which SDGs their work contributes to, and the icons of these SDGs are then displayed on their employee ID cards and business cards. This allows employees to recall at any time the SDG-related personal goals that they have set themselves. Also, sharing these goals with coworkers from time to time provides employees with an opportunity to talk about contributions to the SDGs.



### Example 2: “The SDGs and I” Essay Contest (China)

To encourage each employee to think about the connection between their work and the SDGs, we invited employees throughout China to submit essays themed on “The SDGs and I.” From among the approximately 500 submissions, we selected a first-place essay and other excellent essays and presented awards accordingly. Via the intranet, the essays were shared with the DENSO Group employees not only in China but also in other countries to provide Group employees with a reference for thinking about the connections between their work and the SDGs.



### Example 3: Caravan Activities for Group Companies in Europe

In Europe, our Group companies operate across multiple countries. To share the sustainability management philosophy throughout our operations in the region, SDG ambassadors and SDG experts held briefing sessions for the senior management of European Group companies. We also instilled the philosophy by sharing a video on the SDGs, which the head of the European headquarters created, and by holding workshops at Group companies, which sustainability leaders from the European headquarters conducted.



## MESSAGE

### Each Employee × Sustainability Realization of Sustainability through My Work



**I want to realize carbon-neutral Monozukuri and create a sustainable society.**  
Yusuke Shioya  
Safety, Health & Environment Division

I formulate and promote energy strategies aimed at achieving carbon-neutral *Monozukuri*. I find my work very satisfying because purchasing the most inexpensive and stable renewable energy helps DENSO achieve both competitiveness and CO<sub>2</sub> emissions reduction, which in turn advances the Company. My goal is to realize carbon neutrality so that we remain competitive while helping society as a whole grow sustainably.



**I am proud that the spread of automated driving will save many lives.**  
Nanami Maki  
Vehicle Safety System Technology Department

I am responsible for the development specifications of the interface of Global Safety Package, a product that assists drivers and helps improve the safety performance of vehicles. My mission is to provide society with high-quality products. I take great pride in the fact that my work is directly linked to the reduction of automotive accidents, which saves many lives.



## Special Feature: Value Creation in Action

# Popularizing Carbon Recycling by Taking On the Challenge of Efficiently Capturing CO<sub>2</sub> Anywhere

In the quest for carbon neutrality, as well as the reduction of CO<sub>2</sub> through decarbonization, the capture and reuse of CO<sub>2</sub> emissions, known as carbon recycling, is becoming a focus of attention. To efficiently realize CO<sub>2</sub> capture anywhere, DENSO is developing and introducing a compact, highly efficient CO<sub>2</sub> capture system.

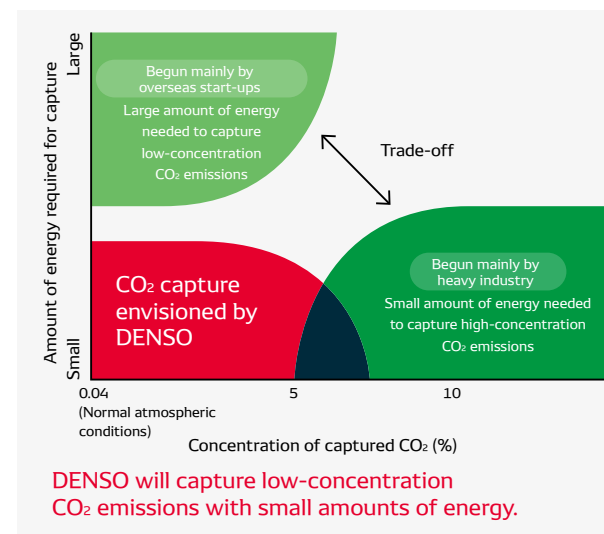
### Social Backdrop

Although society's realization of carbon neutrality is premised on the decarbonization of the power generation sector, other sectors must also convert to energy that does not emit CO<sub>2</sub>, such as electricity and hydrogen. However, in fields where utilizing electricity or hydrogen is challenging, other approaches are required. The basis of such approaches are CO<sub>2</sub> capture, utilization and storage (CCUS) technologies. These technologies must not only capture the CO<sub>2</sub> emitted in the future but also the CO<sub>2</sub> emitted by humans in the past. For example, since 2022 DENSO has been using a CO<sub>2</sub> recycling plant installed at the Anjo Plant to conduct verification tests of CCUS technologies.

### Developing a System That Can Efficiently Capture CO<sub>2</sub> Anywhere

In developing systems that efficiently capture CO<sub>2</sub> anywhere and enable carbon recycling to become ubiquitous, making CO<sub>2</sub> capture possible in a wide range of locations and with minimal energy consumption is critical. If we are to realize carbon neutrality, we must economically capture the massive amounts of CO<sub>2</sub> emitted by manufacturing, transportation, and other human activities.

The energy used to capture low-concentration CO<sub>2</sub> emissions must be less than the energy gained through emissions capture. Also, ideally, CO<sub>2</sub> emissions should be captured near utilization locations to minimize CO<sub>2</sub> emissions resulting from the transport of captured CO<sub>2</sub>.



With respect to the trade-off between the energy consumed for CO<sub>2</sub> capture and CO<sub>2</sub> concentration, DENSO aims to realize a compact, highly efficient CO<sub>2</sub> capture system by taking advantage of the vehicle technologies that the Company has developed. If we can create a compact system that efficiently captures low-concentration CO<sub>2</sub> and is usable anywhere, CO<sub>2</sub> capture that is more closely integrated with daily life will become possible through installation of the system on rooftops, in homes, and in myriad other locations.

### Developing a System That Leverages DENSO's Strengths

To enable the efficient capture of CO<sub>2</sub> anywhere, DENSO is developing a system that utilizes a new capture method. Conventional CO<sub>2</sub> capture uses a thermal method, which entails temperature increases and decreases. Consequently, this method requires large amounts of energy for heating and cooling. Systems that use this method tend to be large.

DENSO is utilizing its vehicle technologies to develop a CO<sub>2</sub> capture technology known as the electric-field method. This method captures CO<sub>2</sub> by switching voltages, rather than by raising and lowering the temperature. Our system

only requires small amounts of energy to capture CO<sub>2</sub>. Moreover, it is more compact than conventional systems as the unit does not need heating and cooling equipment.

In developing technologies for the electric-field method, we are using many of the elemental technologies that we have developed over the years, including air, heat, and power management technologies as well as our expertise in ceramic catalyst manufacturing. In addition to elemental technologies, we have expertise in system optimization that advances both hardware and software elements as well as in technologies for the mass production of high-quality products at low cost. By combining these advantages, we aim to realize and popularize a compact, highly efficient CO<sub>2</sub> capture system.

### Utilizing CO<sub>2</sub> in the Future

We plan to proceed with the in-house verification of the aforementioned CO<sub>2</sub> capture system and begin real-world utilization and verification of the system in fiscal 2024. We will gather feedback from the market and our partners to discover the type of locations in which DENSO's compact CO<sub>2</sub> capture system is needed and then explore various ideas for its utilization.

There are multiple ways to utilize CO<sub>2</sub>. As well as the direct use of CO<sub>2</sub> for such applications as food processing,

we anticipate the recycling of captured CO<sub>2</sub> for other applications. The various potential uses of CO<sub>2</sub> are attracting attention, which include utilization for conversion to minerals, the production of chemicals such as plastics, and as an alternative to city gas and other fuels.

For carbon recycling to succeed, however, technologies related to hydrogen and other such substances are also necessary. Therefore, we are collaborating with our hydrogen-related development team and many different partner organizations to explore optimal recycling approaches. At the Anjo Plant's CO<sub>2</sub> capture verification plant, we are conducting verification tests in which methane is synthesized from captured CO<sub>2</sub> and hydrogen that is produced through the use of solar power-derived electricity. The methane is then reused as a heat source for the Anjo Plant.

We will contribute to carbon neutrality by adopting a two-pronged approach to technology development for CO<sub>2</sub>-based carbon recycling. On the one hand, we are focusing on utilizing captured CO<sub>2</sub> as soon as possible. In parallel with these efforts, we are adopting a longer-term viewpoint and exploring carbon recycling methods that use captured CO<sub>2</sub>.

### Value Provided to Society

#### Showing the Way to Carbon Neutrality by Increasing the Potential of CO<sub>2</sub> Capture

By promoting the widespread utilization and verification of our compact, highly efficient CO<sub>2</sub> capture system, we will enable CO<sub>2</sub> capture in all manner of locations, making carbon recycling more accessible and increasing the options for its introduction. Our aim is to contribute to carbon neutrality by establishing a different paradigm to that of decarbonization. As well as our current utilization of the CO<sub>2</sub> recycling plant at the Anjo Plant to conduct verification tests, we are promoting CO<sub>2</sub> capture in various situations to accelerate the trend toward energy recycling throughout society. Through utilization of the CO<sub>2</sub> capture system and other initiatives, we aim to achieve a 25% reduction in our Scope 3 CO<sub>2</sub> emissions compared with fiscal 2021 by fiscal 2031.

### MESSAGE

#### Capturing Humanity's Legacy CO<sub>2</sub> Emissions

DENSO has supplied society with numerous automotive systems. For example, we develop systems with excellent environmental performance that minimize CO<sub>2</sub> emissions. However, entirely eliminating the CO<sub>2</sub> emitted by vehicles that use our systems and by manufacturing processes is not possible. Therefore, we hope to utilize in-house developed technologies to effectively capture and recycle past and future CO<sub>2</sub> emissions. We believe advancing such efforts is our corporate responsibility.

Going forward, the flexibility of the CO<sub>2</sub> capture system, which makes full use of DENSO's technologies, may facilitate CO<sub>2</sub> local-production-for-local-consumption arrangements whereby CO<sub>2</sub> emissions captured from households and commercial buildings are utilized for an array of different applications. With our sights set on carbon neutrality, we will work with various partners to create a major carbon-recycling trend.



From left:  
Minoru Morisaka, Business Development Department,  
Environment Neutral Systems Development Division  
Kenji Tani, CO<sub>2</sub> Systems Development Department,  
Environment Neutral Systems Development Division  
Kurumi Usuki, Social Energy Design Project Department,  
Automotive & Life Solutions Division

# Road Map for Our 2030 Vision

The DENSO Philosophy provides the foundation for drawing the outline of the Company’s management policies, and sustainability management acts as the core mechanism for realizing these policies. In light of the aforementioned changes in the business environment and from the perspectives of both risks and opportunities, DENSO has formulated its Long-term Policy for 2030. In addition, to provide a medium-term milestone on the way toward achievement of this policy, we have established the Mid-term Policy for 2025. In parallel with the long-term policy, we are moving forward with Strategies for “Green” and “Peace of Mind” as medium- to long-term strategies for the furtherance of measures focused on the long-term policy’s goal of maximizing the value of green and peace of mind.

**Growth Indicators to Realize the Long-term Policy for 2030 and Social Issues We Aim to Resolve**  
To realize its Long-term Policy for 2030, DENSO is working to achieve business growth by realizing growth in new mobility domains and promoting management reforms, among other efforts. However, with the increased level of uncertainty regarding the outlook for consumption demand, and, based on the fact that our highest priority issue recently has been to establish a structure that is resilient to changes in the business environment, we are now placing the most emphasis on profitability as an indicator for growth and aim to achieve ROE of 10% or higher and an operating margin of 10% by fiscal 2026.  
Furthermore, we have made connections between the social issues we aim to resolve through our business activities and the Sustainable Development Goals (SDGs), and have clarified the goals we aim to achieve on a Companywide level. At the same time, our employees have set individual SDGs that they can work toward through their job and are working on a daily basis to do so.

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

| 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |

## Sustainability Management

### 2 Mid-term Policy for 2025

Path for achieving goals in fiscal 2026 that will help us realize the Long-term Policy for 2030

Aim to become a company indispensable to society by creating new value

Growth Indicators (Fiscal 2026)

ROE: **10% or higher**

Operating margin: **10%**

### 3 Strategies for “Green” and “Peace of Mind”

Medium- to long-term strategies for further maximizing the value of green and peace of mind

Fiscal 2026 targets in the environment and peace of mind domain

Help realize a carbon-neutral society

**Green**  
Total CO<sub>2</sub> emissions of plants (versus FY2021): **Carbon neutral** (use of carbon credits)  
Electrification domain revenue: **¥1 trillion**

Become a leading company in the provision of peace of mind to society

**Peace of Mind**  
ADAS domain revenue: **¥500.0 billion**

### Long-term Policy for 2030

Slogan

Bringing hope for the future for our planet, society, and all people

Our Goal for 2030

A company that continuously generates value to enrich mobility that achieves sustainability, happiness, and peace of mind for everyone

Green

Lasting vitality for the environment

Contribute to sustainability by increasing efficiency and reducing environmental impact

Peace of Mind

Providing a sense of well-being

Contribute to future mobility that is safer, more comfortable, and convenient for everyone

Inspiring

Making a difference

Contribute to happiness for everyone through inspiring value-added offerings

Green

Fiscal 2036 objective  
**Carbon-neutral Monozukuri**  
(without use of carbon credits)

Peace of Mind

Elimination of traffic accident fatalities

### 1 Materiality

Important issues for achieving the Long-term Policy for 2030

Green

Peace of Mind

Corporate Foundation

Awareness of the projected business environment of 2030 used to formulate the Long-term Policy for 2030

SDGs We Aim to Achieve through Our Business Activities

Main targets to be achieved using our products and services





# Awareness of Business Environment

Amid the ever-increasing global population, aging societies, and advancing urbanization, the progression of global warming and the increase in traffic accidents are becoming serious social issues. In addition, people’s values are diversifying and these issues are becoming increasingly more complex as a result of the digitalization of society and the advancements in intelligent robotics, a change in outlooks since the COVID-19 pandemic, and rising geopolitical risks. Further, the mobility field faces numerous tasks, such as achieving carbon neutrality, reducing traffic accidents, and easing traffic congestion. In tandem with the evolution of the IoT and AI, advances are being made in implementing new solutions that help accomplish these tasks, including vehicle electrification, automated driving, and connected driving.

Going forward, we will continue to pursue the resolution of social issues while accurately assessing and responding to risks and opportunities related to these various social changes.

Forecasts of Future Society
Politics
<div><div>Tightening supply-demand situation for energy across the globe and the shift from low carbon to carbon free</div><div>Acceleration of international cooperation to respond to climate change in light of the urgent need to address global warming.....①</div><div>Necessity of promoting renewable energy and a hydrogen-based society.....①</div><div>Restrictions on power generated from fossil fuels and internal combustion engines.....①</div><div>Establishment of laws to control adverse impacts on the environment and human rights throughout the entire supply chain.....①②</div><div>Intensifying division and confrontation due to differences in political structures (trade, technologies, human rights, etc.).....④</div><div>Rising geopolitical risks.....②③④</div></div>
Economy
<div><div>Declining economies in advanced countries, rise in prominence of emerging countries, and global multi-polarization.....②③④</div><div>Rise in nationalism due to growing regional disparities.....③④</div><div>Establishment of economic blocs advantageous to individual countries and ongoing regional optimization.....④</div><div>Expansion of ESG investment and acceleration of divestment.....①②</div></div>
Society
<div><div>Threat to the sustainability of society due to the rapid increase in population, with the global population exceeding 8.5 billion.....①②③④</div><div>Aging populations around the world, declining workforces, acceleration of growth in life expectancies.....②③④</div><div>Urbanization in emerging countries, acceleration of urban regeneration due to the shift to smart and compact devices, and an increase in logistics volumes.....③④</div><div>Consumption behavior becoming more ethical and experience-based with the shift to the sharing economy.....①②</div><div>Progression in the transition to labor offered by AI and robotics, changes in work ethic and available free time.....②</div><div>Change in value systems related to social distancing and mobility.....②</div></div>
Technology
<div><div>Integration of digital and physical domains due to the proliferation of IoT-related technologies (communications and other devices).....②</div><div>Productivity enhancement and value chain integration through the use of big data.....②</div><div>Transition from the development phase to the phase of AI and quantum computer utilization and the versatile implementation of AI in manufacturing, finance, and services.....②</div><div>Accelerating shift to non-contact and full automation in various industries as a result of the COVID-19 pandemic.....②</div></div>
Keywords for Social Changes by 2030
① Shift toward a carbon-free society and a circular economy Changes in the powertrain mix (electrified vehicles, internal combustion engine vehicles), energy savings, renewable energy, and resource recycling
② Diversification of people’s values and consumption behavior Diversifying consumption behavior and value systems Evolution of IT communications × Automobiles
③ Emergence of social issues Aging populations, depopulation, overcrowding, and congestion
④ Structural changes and instability within the international community Political conflicts and geopolitical risks Growth of new emerging markets

Risks and Opportunities	Response Measures to Risks and Opportunities
① Shift toward a carbon-free society and a circular economy	
<div><div>Risks</div><div><div>Tightening and acceleration of environmental regulations on the automotive industry</div><div>Introduction and expansion of environmental taxation by the governments in each country and region</div><div>Increasing demand for the transition to carbon neutrality within the product production process</div></div></div>	Regarding the risk of climate change, we believe there will be greater opportunities for us to popularize our long-cultivated technologies for fuel efficiency, low exhaust gas, and electrification around the world. Also, particularly in Europe, expectations are increasing with respect to initiatives for the creation of a recycling-based society. Through flexible cooperation and competition with other companies, we aim to accelerate the development of technologies for reducing CO <sub>2</sub> emissions and realize the stable supply of such technologies on a global scale. At the same time, we will help reduce CO <sub>2</sub> emissions across society through the development of new technologies such as those that capture, store, and reuse CO <sub>2</sub> and the traceability technologies needed for resource recycling. With a view to achieving a carbon-free society and a circular economy, we will also strive to reduce and curtail CO <sub>2</sub> emissions across our supply chain and promote resource recycling.
<div><div>Opportunities</div><div><div>Increasing needs for systems to respond to electrification and alternative fuel (e-fuel, hydrogen fuel, and biofuel)</div><div>Heightened expectations for new technologies that contribute to carbon neutrality and resource recycling (capture, storage, and reuse of CO<sub>2</sub> and traceability, etc.)</div><div>Growing demand for highly efficient production technologies that achieve solid energy-saving effects</div></div></div>	
② Diversification of people’s values and consumption behavior	
<div><div>Risks</div><div><div>Reduction in transportation as the customs of the new normal era become commonplace</div><div>Intensifying competition due to the increasing entry of IT companies in the automotive industry in response to the digitization of cars</div></div></div>	By swiftly responding to diversifying needs such as automated driving and the provision of safe and comfortable vehicle interiors, we can increase the number of growth opportunities for DENSO. To respond to the risk of companies from other industries entering the automotive industry, we are collaborating with other companies both inside and outside the automotive industry to leverage our respective fields of expertise while also strengthening our unique technological and <i>Monozukuri</i> (manufacturing) capabilities. By doing so, we will invigorate our development activities in new domains with a sense of speed.
<div><div>Opportunities</div><div><div>Heightened awareness of “peace of mind,” leading to the diversification of technologies related to peace of mind and expansion in value systems (social distancing, privacy, disaster alerts, etc.)</div><div>Rising need for added value due to the accelerating shift to digital technologies and IT</div><div>Growing awareness of eco-friendly products</div></div></div>	
③ Emergence of social issues	
<div><div>Risks</div><div><div>Trend in turning away from automobiles due to the impact of social issues (increase in traffic accidents due to the declining birthrate and aging population, air pollution, worsening traffic congestion resulting from urbanization, etc.)</div></div></div>	Alongside the proliferation of material goods, social issues such as aging societies, the depopulation of rural areas, overcrowding of urban areas, and traffic congestion have become more severe. To resolve these issues, we will accelerate the development of technologies that help prevent accidents and eliminate traffic congestion. By leveraging the know-how we have cultivated through our <i>Monozukuri</i> activities, including in-vehicle, automation, and IoT know-how, we will strive to constantly develop technologies and create businesses in the non-automotive domain that help keep people safe and work to expand these technologies and businesses across the globe.
<div><div>Opportunities</div><div><div>Expansion of businesses that contribute to the resolution of social issues (growing needs for automated driving, the prevention of traffic accidents, food safety, electrification to address labor shortages, etc.)</div></div></div>	
④ Structural changes and instability within the international community	
<div><div>Risks</div><div><div>Revisions to business models (regulation response and supply chains) due to conflicts between countries and regions</div><div>Rising threats toward DENSO’s business management (military strikes, cyberattacks, etc.)</div></div></div>	Against the backdrop of differences between political structures, the international community is becoming increasingly confrontational and factionalized in various fields, and we forecast that this will bring about dramatic change in our operating environment and increase business risks. To achieve stable business management under these circumstances, we are strengthening our governance and risk management systems so that we can respond flexibly to changes and risks.
<div><div>Opportunities</div><div><div>Progressing expansion of new markets and business partnerships with the aim of resolving social and environmental issues</div></div></div>	

## Social Changes as of 2030 and Key Initiatives for DENSO

We are narrowing down our forecasts of future society, revising them through PEST (political, economic, social, and technological) analysis, using social changes as of 2030 as a key theme. In accordance with this theme, we have analyzed risks and opportunities and identified key initiatives for DENSO moving forward. We will work to gain an accurate understanding of the outlook for the CASE revolution and changes in the mobility society, and thoroughly examine whether or not these changes will have an impact on the key initiatives of DENSO.

### Key Initiatives for DENSO

#### Maximizing the Value of Green and Peace of Mind to Be Inspiring

The rapid changes in society that will occur going forward, such as changing values and behavior, present a significant opportunity for a company such as DENSO, which has continued to refine technologies and gain experience in the mobility domain. With the aim of reducing our environmental burden and realizing a society without traffic accidents, we will actively promote the creation of a better mobility society with a view to achieving the goals of “lasting vitality for the environment” and “safe, comfortable, and flexible mobility for all people.” Furthermore, we will leverage the technologies we have cultivated through automotive products, system development, and *Monozukuri* to offer peace of mind and safety not just in the mobility domain but to all people in society. By doing so, we will continue to create new value.



#### Reinforcing the Corporate Foundation That Underpins Our Value Creation

To flexibly resolve social issues, which are becoming more complex and diverse, we need to strengthen our risk management and other governance frameworks with the goal of minimizing the impacts of risk. It is also important that we cultivate professional human resources and establish a vibrant organizational culture. In these ways, we will support the creation of high-quality value at faster speeds by reinforcing our management foundation.



1 Materiality

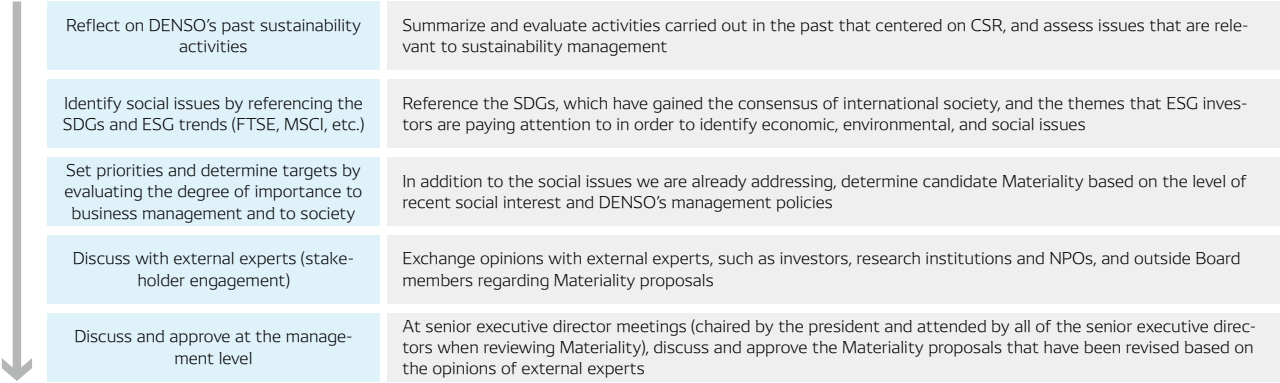
We have determined material issues (Materiality) to be addressed in order to achieve our Long-term Policy for 2030 and are accelerating sustainability management in an effort to resolve these issues. Among our social forecasts based on our awareness of the projected business environment of 2030 as well as the various social issues that are present today, including those highlighted in the SDGs, we have adopted the three themes of “green,” “peace of mind,” and “corporate foundation” as areas that have a high level of importance for realizing a sustainable society and areas in which we can make particularly significant contributions. Accordingly, we are sharing information on the material issues we have identified in each of these fields on a Companywide basis and have established a specific vision and KPIs (numerical indicators, or guides) related to each material issue we have identified. By achieving these KPIs through our business activities, we will strive to realize our Long-term Policy for 2030 and resolve social issues going forward.

Materiality

DENSO has selected important issues from among the various issues society faces within the three areas of “green,” “peace of mind,” and “inspiring” declared under DENSO’s Long-term Policy for 2030.

Process for Determining Materiality

In fiscal 2019, DENSO identified its material issues (Materiality) by evaluating the importance of issues to society as well as their importance to business management, by receiving opinions and advice from third parties, and by implementing an approval process at the senior management level. In light of changes in social conditions, in our strategies, and in other internal and external factors, we will check for changes in the importance of our Materiality as appropriate.



Materiality KPIs

We establish KPIs for each of the identified material issues (Materiality), incorporate them into Company targets, and follow up on and discuss their status at the Management Deliberation Meeting and the Board of Directors’ meeting. Furthermore, the level of achievement for some KPIs is evaluated as a calculation index for executive compensation. [P104–106]

Materiality		Vision	KPIs	Fiscal 2023		Fiscal 2024	Fiscal 2026	Related SDGs
				Targets	Results	Targets	Targets	
<div>Green</div>	Prevention of global warming ③	Contribute to an eco-friendly and sustainable society by reducing environmental burden and realizing highly efficient mobility <ul style="list-style-type: none"><li>Reduce our CO<sub>2</sub> emissions from our factories to zero</li><li>Contribute to the electrification of automobiles and reduce our CO<sub>2</sub> emissions to the greatest extent possible</li><li>Contribute to realizing a carbon-neutral society through technologies that capture, store, and reuse CO<sub>2</sub></li><li>Reduce environmentally harmful substances, emissions, and waste to help permanently preserve the global environment</li></ul>	• CO <sub>2</sub> emissions from plants (compared with fiscal 2021) (including carbon credit use)	25% reduction	26% reduction	50% reduction	100% reduction (implementation of energy-saving measures and introduction of renewable energy for electricity, implementation of energy-saving measures for gas, and use of carbon credits to realize carbon neutrality)	<div><div>3</div>GOOD HEALTH AND WELL-BEING<div>6</div>CLEAN WATER AND SANITATION<div>7</div>AFFORDABLE AND CLEAN ENERGY<div>9</div>INDUSTRIAL INNOVATION AND INFRASTRUCTURE<div>11</div>SUSTAINABLE CITIES AND COMMUNITIES<div>12</div>RESPONSIBLE CONSUMPTION AND PRODUCTION<div>13</div>CLIMATE ACTION<div>17</div>PARTNERSHIPS FOR THE GOALS</div>
	Prevention of air pollution / Reduction of environmental burden ③							
	Effective utilization of resources ③		• Popularization of products in the electrification domain Electrification domain revenue	¥760.0 billion	¥680.0 billion	¥840.0 billion	¥1 trillion	
	Conservation of water resources							
<div>Peace of Mind</div>	Reduction of traffic accidents ③	• Popularize safe products in order to eliminate fatalities due to traffic accidents • Address the need for ensuring a safe air environment and provide comfortable spaces • Support working people by offering technologies that help resolve the issues associated with a declining workforce • Provide high-quality safety products that satisfy and gain the trust of customers	• Popularization of safety products ADAS domain revenue	¥428.0 billion	¥391.0 billion	¥435.0 billion	¥500.0 billion	<div><div>3</div>GOOD HEALTH AND WELL-BEING<div>8</div>DECENT WORK AND ECONOMIC GROWTH<div>9</div>INDUSTRIAL INNOVATION AND INFRASTRUCTURE<div>11</div>SUSTAINABLE CITIES AND COMMUNITIES<div>12</div>RESPONSIBLE CONSUMPTION AND PRODUCTION<div>17</div>PARTNERSHIPS FOR THE GOALS</div>
	Provision of flexible and comfortable movement ③							
	Provision of safe and secure products ③							
	Response to decrease in birthrate and aging population ③							
<div>Corporate Foundation</div>	Compliance	• Ensure that each employee acts in a fair, honest, and ethical manner while complying with laws and regulations in each country and region • Provide safe and reliable products to customers, protect information assets, and prepare for cyber-security risks that the “connected society” faces	• Serious violations of laws	None	None	None	None	<div><div>3</div>GOOD HEALTH AND WELL-BEING<div>4</div>QUALITY EDUCATION<div>5</div>GENDE R EQUALITY<div>8</div>DECENT WORK AND ECONOMIC GROWTH<div>9</div>INDUSTRIAL INNOVATION AND INFRASTRUCTURE<div>10</div>REDUCED INEQUALITIES<div>12</div>RESPONSIBLE CONSUMPTION AND PRODUCTION<div>16</div>PEACE, JUSTICE AND STRONG INSTITUTIONS<div>17</div>PARTNERSHIPS FOR THE GOALS</div>
	Information security ③		• Serious incidents	None	None	None	None	
	Diversity and inclusion	• Promote the development of people, organizations, and the working environment to encourage our employees to maximize their abilities and work with enthusiasm and peace of mind • Respect the rights of all our stakeholders, including our employees and people throughout our supply chain, in our business activities • Pursue business activities that take into account environmental issues, human rights issues, and compliance together with our suppliers	• Local employees promoted to leadership roles at overseas bases	20 employees	20 employees	21 employees	20 employees or more	
			• Number of women in management positions at DENSO CORPORATION	145 in business fields and 145 in technical fields	139 in business fields and 136 in technical fields	160 in business fields and 146 in technical fields	200 in business fields and 200 in technical fields	
			• Employee Lifestyle Score*1 at DENSO CORPORATION	77 points	74.5 points	77 points	Over 77 points	
	Healthy and safe working environment		• Safety points*2 (Lower is better.)	Non-consolidated: 50.0 points Domestic Group: 36.0 points Overseas Group: 48.5 points	Non-consolidated: 23.0 points Domestic Group: 46.0 points Overseas Group: 24.5 points	Non-consolidated: 45.0 points Domestic Group: 31.5 points Overseas Group: 44.5 points	Non-consolidated: 40.0 points Domestic Group: 22.5 points Overseas Group: 36.5 points	
	Workstyle reform / Job satisfaction enhancement		• Percentage of affirmative responses with respect to engagement (non-consolidated)	72%	73%	74%	78%	
	Protection of human rights / Sustainable procurement		• Percentage of employees receiving human rights training (non-consolidated)	100% (new hires and new managers)	100% (new hires and new managers)	100% (expansion to include production line managers and domestic Group companies)	100%	
	Corporate governance							
		DENSO will support the above targets for Materiality and progress to a more effective governance system as						
			necessary based on factors such as social trends, changes to the external environment, and DENSO’s corporate culture.					

③ Targets that can be achieved using our products and services

\*1 Employee Lifestyle Score: Original health management indicator that provides a score for the lifestyle habits of each individual employee using data obtained from health exams

\*2 Safety points: Scoring depending on scale and type of accident. The lower the number the better the score

Note: The main reasons for the non-achievement of fiscal 2023 KPI targets are as follows.

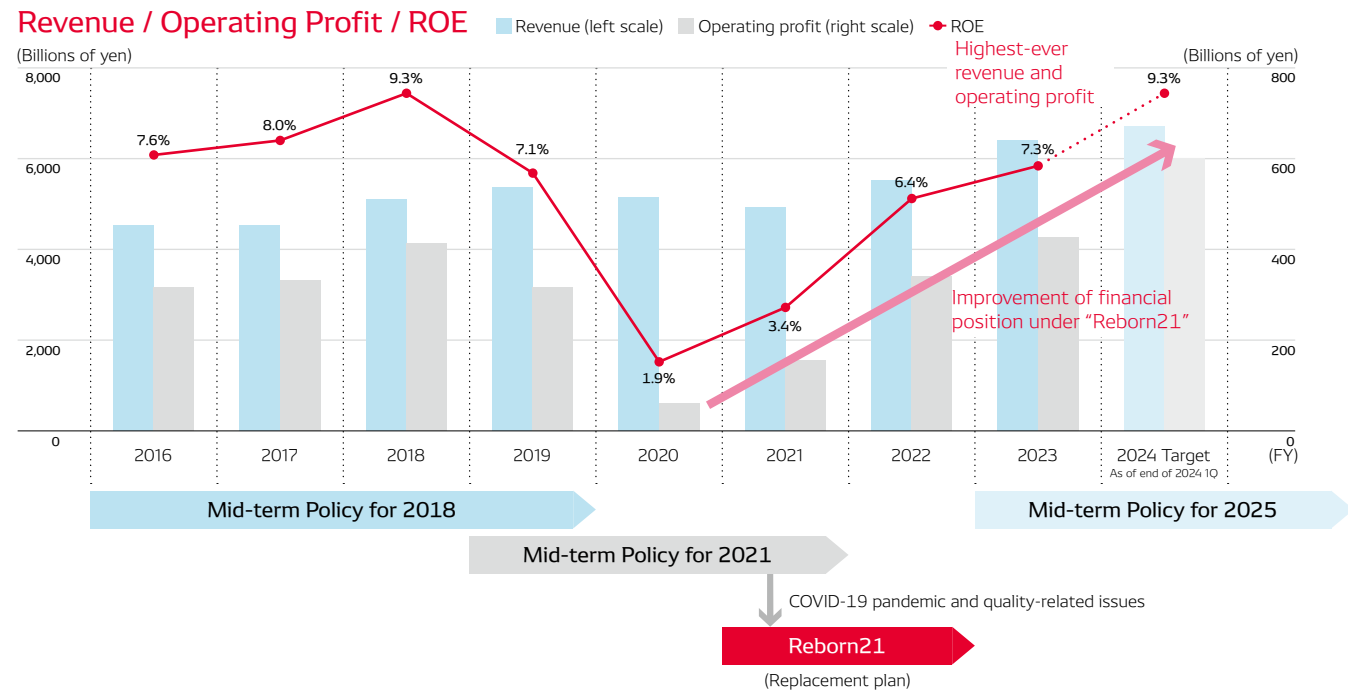
(1) Electrification domain and popularization of safety products: Low level of vehicle production due to a shortage of semiconductors and a lockdown in China (However, vehicle production increased year on year.)

(2) Safety points (domestic Group companies): Reliance on personnel to ensure safety is a factor. Priority activities to reassess and reduce risks of personnel-dependent work are currently underway.



## Recent Forward-Looking Initiatives and Their Achievements

In accordance with the philosophy of sustainability management, DENSO has kept its focus firmly on the future and continuously developed strategies aimed at both addressing social issues and enhancing corporate value. In fiscal 2019, we began steadily implementing an action plan based on the Mid-term Policy for 2021. In fiscal 2020, however, our foundations were shaken by the COVID-19 pandemic and quality-related issues on an unprecedented scale. In response, DENSO replaced the policy with “Reborn21,” a plan aimed at reflecting the latest business conditions and transforming the Company into a “high-quality DENSO.” Under this new plan, we rebuilt our management foundations, and the benefits of these efforts are steadily emerging. For example, we posted record revenue and operating profit in fiscal 2023.



Mid-term Policy for 2018 (FY2016 to FY2019)		“Reborn21” (FY2021 to FY2022)
Tasks	Strengthen the foundations for taking on new challenges and realize steady growth Establish foundations for long-term growth by investing upfront in the green and peace of mind and safety fields in preparation for expansion of the CASE vehicle field, by expanding overseas, aftermarket, and new businesses in line with growth in emerging countries, and by strengthening global development and increasing <i>Monozukuri</i> efficiency	Transform the Company into a “high-quality DENSO” Respond to shaken management foundations and changes in the business environment in the wake of the COVID-19 pandemic and quality-related issues on an unprecedented scale by rebuilding management foundations through the restoration of quality and transformation that gives the Company a lean, resilient corporate structure
Main achievements	<b>Green and peace of mind</b> <ul style="list-style-type: none"><li>Launched Global Safety Package, our first active safety system</li><li>Established Electrification Systems Business Group for vehicle electrification</li></ul> <b>Aftermarket and new businesses</b> <ul style="list-style-type: none"><li>Formulated and promoted a growth scenario by positioning factory automation (FA) and the agricultural field as new business mainstays</li></ul> <b>Overseas</b> <ul style="list-style-type: none"><li>Introduced a uniform human resource system worldwide</li><li>Increased development personnel in the vehicle electrification, advanced driver assistance systems (ADAS), and software fields</li><li>Established <i>DANTOTSU</i>* plants in Japan and advanced their establishment overseas</li></ul>	<b>Quality</b> <ul style="list-style-type: none"><li>Reinforced our fundamental technologies, created excellent working environments that ensure open communication, and adopted a humble stance</li></ul> <b>Business</b> <ul style="list-style-type: none"><li>Accelerated business portfolio reweighting in accordance with the green and peace of mind principles</li></ul> <b>Our people and organization</b> <ul style="list-style-type: none"><li>Improved employee engagement and introduced PROGRESS as a new vision for our people and organization</li></ul> <b>Finance</b> <ul style="list-style-type: none"><li>Reduced costs by ¥91 billion over two years and improved the break-even point by 6 percentage points</li></ul>
Remaining tasks	<ul style="list-style-type: none"><li>Strengthen ability to propose system solutions that reflect the increasing complexity of automobiles</li><li>Establish a business model for mobility services</li><li>Establish <i>DANTOTSU</i> plants overseas</li></ul>	<ul style="list-style-type: none"><li>Promote human resource portfolio transformation (human capital <a href="#">□□P24-27</a>)</li><li>Increase adaptability to inflation and other changes in the environment (financial capital <a href="#">□□P66-73</a>)</li></ul>

\* A plant operating at such a high level that it cannot be compared to other plants

## 2 Mid-term Policy for 2025

Building on the management foundations laid by “Reborn21,” in fiscal 2023 we formulated the Mid-term Policy for 2025 with a view to fully embracing the DENSO Culture developed since our founding while giving concrete form to the Long-term Policy for 2030 slogan: Bringing hope for the future for our planet, society, and all people. The Mid-term Policy for 2025 sets forth a road map and goals for the initiatives we will focus on and the corporate profile we will achieve by 2025.

### Prerequisites for Realizing the Goals of the Mid-term Policy for 2025

We aim to continue to be an organization of people who can think and act in an independent and self-reliant manner. Accordingly, we are prioritizing investment in human resources and strongly promoting *Hitozukuri*, which nurtures professionals with the ability to turn ideas into reality, and diversity and inclusion. Through such efforts we are working to establish a vibrant organization that is able to flexibly adapt to change.

### Aims

Green	Lead the industry by realizing an environmentally neutral manufacturing industry, thereby creating a sustainable society		Mobility products	FY2036 target 50% reduction (versus FY2021) Base value: CO <sub>2</sub> emissions from mobility products in fiscal 2021
			Energy use	
Peace of Mind			<i>Monozukuri</i>	FY2036 target Carbon neutral (Carbon neutral, including the use of carbon credits, by FY2026)
	Safety	Realize a society without fatalities from traffic accidents	Eliminate fatalities from traffic accidents	
New Businesses	Comfort	Realize safe and secure air quality	FY2026 target Provide spaces with AQI* of less than 50	
	Create new value by providing solutions that resolve social issues		Expand business and resolve issues in the domains of mobility, industry, and society	

\* Air Quality Index (AQI): An index that determines air quality levels based on six atmospheric pollutants with the aim of curtailing harmful substances in the air

### Important Milestones for Realizing Our Aims (Fiscal 2026)

ROE: **10% or higher** Operating margin: **10%** Revenue: **¥6.7 trillion**

Electrification domain revenue: **¥1 trillion** ADAS domain revenue: **¥500.0 billion**

### FY2024 Targets

ROE: **9.3%\*** Operating margin: **9.0%\*** Revenue: **¥6.7 trillion\***

Electrification domain revenue: **¥840 billion** ADAS domain revenue: **¥435 billion**

\* As of the end of the first quarter of fiscal 2024

### FY2023 Results

ROE: **7.3%** Operating margin: **6.7%** Revenue: **¥6.4 trillion**

Electrification domain revenue: **¥680 billion** ADAS domain revenue: **¥391 billion**

Five Pillars of Global Management

Aiming to realize the target profile set out in the Mid-term Policy for 2025, DENSO’s global workforce of approximately 170,000 employees will focus their efforts on the following five pillars of global management.

1. Realization of Sustainability Management

Establish a Solid, Unshakable Business Foundation Financial Capital, Risk Management P.66–73, 114–116

Initiatives		Progress and Strategy Going Forward
Safety and Quality	Establish a sound safety and quality foundation that meets the expectations of society and earns the trust of our customers	<b>Progress</b> <ul style="list-style-type: none"><li>Generally achieved KPI by returning to the philosophy of total quality management and by strengthening management foundations</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Advance the establishment of capabilities in anticipation of changes in the mobility society and customer needs</li></ul>
Risk Management	Fulfill social responsibility by enhancing and implementing risk management initiatives so that we are able to immediately respond to changes in the external environment	<b>Progress</b> <ul style="list-style-type: none"><li>Clarified rules for responding to emergencies and completed introduction of predictive management for all risk items</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Map and monitor risks in new business fields and geopolitical risks and build readiness for evolving risks</li></ul>
Earnings	Establish a robust earnings structure by promoting reforms to our business portfolio	<b>Progress</b> <ul style="list-style-type: none"><li>Accelerated reweighting toward a business portfolio that simultaneously realizes profitability and our fundamental principles by realizing growth in priority fields, including growth in sales of electric vehicle components and advanced safety products, and by de-emphasizing and discontinuing internal combustion engine products, including the disposal of internal combustion product businesses</li><li>Reflected material cost hikes in prices upon obtaining the agreement of customers and suppliers; currently collaborating with industry bodies to create rules aimed at reforming business practices in the industry</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Continue to promote activities with a view to business disposal; at the same time, in growth businesses determine the five priority fields for alliances (vehicle electrification, ADAS, semiconductors, new businesses, and software) and then forge ahead on a Companywide cross-divisional basis</li></ul>

2. High Aspirations and Meticulous Work

Transform Workstyles through Digitalization with the Aim of Realizing World-First and World-Best Offerings Manufacturing Capital, Intellectual Capital P.78–88

Initiatives		Progress and Strategy Going Forward
1	Swiftly provide our stakeholders with the best possible value and experiences by maximizing our performance through the Core & Customization Strategy and data utilization	<b>Progress</b> <ul style="list-style-type: none"><li>Conducted prior development with customers from the product concept stage; currently incorporating customer needs into product concepts and growing sales</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Meet diversifying needs by reinforcing the product lineup through identification of DENSO’s core technology fields and customized technology fields and strengthen sales expansion strategies by product</li></ul>
2	Pursue competitive reorganization of production structure, implement digital-twin technologies, and promote automation, thereby transforming the landscape of our plants around the globe	<b>Progress</b> <ul style="list-style-type: none"><li>In light of business portfolio transformation, currently implementing competitive reorganization, including consolidation and elimination of bases</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Realize next-generation plants by establishing and advancing a development road map, and develop and implement general-purpose production systems</li></ul>

3. Business Portfolio Transformation

Transform Business Structure by Achieving Growth and Promoting De-Emphasis and Discontinuation in Collaboration with the Industry and Our Business Partners Overview by Product, Financial Capital, and Intellectual Capital P.48–65, 66–73, 80–88

Initiatives		Progress and Strategy Going Forward
1	Rebuild core businesses and transition business portfolio toward BEV products	<b>Progress</b> <ul style="list-style-type: none"><li>Made steady progress in growing sales to Japan-based and overseas customers—which was reflected in contributions to electrification domain revenue from inverters, thermal management products, power supply systems, and other products—by strengthening development and production capabilities (FY2023 result: ¥680 billion)</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Realize further sales expansion in the vehicle electrification field and other growth fields; advance fundamental reform of the earnings structures of core businesses by accelerating the de-emphasis and discontinuation of internal combustion engine products, including the disposal of businesses and production reorganization on a global scale</li></ul>

Initiatives		Progress and Strategy Going Forward
2	Accelerate efforts to de-emphasize and discontinue internal combustion technology and commercialize new energy businesses, thereby contributing to carbon neutrality	<b>Progress</b> <ul style="list-style-type: none"><li>Prepared scenarios for de-emphasizing and discontinuing internal combustion engine products in collaboration with customers and supply chain companies and disposed of five businesses* (As of the end of September 2023)</li><li>Began verification of green hydrogen production and in-plant hydrogen utilization at DENSO FUKUSHIMA CORPORATION</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Accelerate the de-emphasis and discontinuation of internal combustion engine products by globally reorganizing production and disposing of businesses</li><li>Plan to extend the scope of new energy businesses’ verification activities beyond plants to include automobiles</li><li>* Including basic agreements on beginning consideration of business disposal</li></ul>
3	Promptly establish a structure for electrification that enables a flexible response to diversifying customers’ needs and realize steady sales expansion and growth	<b>Progress</b> <ul style="list-style-type: none"><li>Unified teams from the Electrification Systems Business Group and the Powertrain Systems Business Group in order to increase systems development and sales activities based on customer priorities</li><li>Developed an inverter that incorporates SiC power semiconductors; incorporated this inverter into the eAxe of the new-model RZ, the first dedicated BEV LEXUS</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Increase our ability to meet diversifying customer needs by improving the competitiveness of various products and by offering systems solutions based on an extensive product lineup that includes thermal management systems</li></ul>
4	Fully strengthen electronic and software technologies in an effort to contribute to the ideals of green and peace of mind and realize business growth	<b>Progress</b> <ul style="list-style-type: none"><li>Currently expanding ECU sales by utilizing our expertise in electronics technologies for all aspects of automobiles to focus on specific customer needs and co-create electronic platforms accordingly</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Accelerate business growth by further expanding sales and globally strengthening software development competitiveness</li></ul>

4. Realization of Carbon Neutrality

Lead the Industry in Becoming Carbon Neutral Strategies for “Green” and “Peace of Mind” P.42–47

Initiatives		Progress and Strategy Going Forward
1	Transition to globally competitive, carbon-neutral plants through the utilization of innovative energy-saving technologies	<b>Progress</b> <ul style="list-style-type: none"><li>Invested globally in energy-saving measures and private power generation through the use of solar panels and other methods based on a policy of simultaneously realizing carbon neutrality and economy</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Advance the medium- to long-term development of carbon-neutral <i>Monozukuri</i> technologies, including technologies for materials and manufacturing methods</li></ul>
2	Realize stable long-term procurement of renewable energy at a low cost	<b>Progress</b> <ul style="list-style-type: none"><li>Introduced renewable energy to production bases in Japan (Anjo, Nishio, Hirose, and Fukushima) and all production sites in Europe (23% of power from renewable energy)</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Follow medium-term procurement plans and policies and analyze market prices with a view to selecting bases where the introduction of renewable energy will achieve optimal economy and then advance the introduction of renewable energy accordingly</li></ul>
3	Develop energy businesses together with robust business partners	<b>Progress</b> <ul style="list-style-type: none"><li>Concluded an agreement on a basic plan for utilizing the Green Innovation Fund and conducting demonstration tests with customers in relation to CO<sub>2</sub> capture and hydrogen businesses</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Conduct verification tests with customers to build know-how, alliances, and a supply chain and pursue early commercialization in cooperation with the government</li></ul>

5. Creation of New Value

Achieve Business Growth through the Provision of Products and Solutions in New Fields Materiality, Intellectual Capital P.36–37, 80–88

Initiatives		Progress and Strategy Going Forward
1	Promote the development and practical application of cutting-edge technologies that underpin the digital-twin society	<b>Progress</b> <ul style="list-style-type: none"><li>Prepared a hypothesis on 2035 social issues based on 2050 megatrends with the aim of taking pre-emptive action regarding dramatic changes in the business environment and possible social issues; focused on five trends from the perspective of ways in which DENSO can help address social issues based on its business fields and strengths</li><li>Established the Social Innovation Business Development Function Unit, an organization tasked with realizing business growth based on the five trends</li></ul> <b>Strategy going forward</b> <ul style="list-style-type: none"><li>Identify fields for the creation of businesses and establish new ways of working that align with business formats in order to extend our business field from mobility to society as a whole and contribute to a society that promotes a cycle of well-being</li></ul>
2	Create new value by further refining and combining our technologies while establishing growth scenarios based on popularizing our technologies throughout society	
3	Establish efficient and flexible workstyles that cater to new business models and establish non-financial KPIs	



### 3 Strategies for “Green” and “Peace of Mind”

With the aim of contributing to the happiness of people, DENSO has been working to maximize the value it provides through its business activities in the fields of “green” and “peace of mind.” To that end, we have established medium- to long-term targets to accelerate the maximization of value in these fields and are promoting the following specific initiatives in order to achieve these targets.



#### Aiming to Become Carbon Neutral by Fiscal 2036

We aim to realize carbon neutrality within our *Monozukuri* activities in the not-too-distant future of fiscal 2036 by further promoting the environmental efforts in which we have engaged thus far. To make this ambition a reality, we are pursuing efforts in the three fields of “*Monozukuri* (manufacturing),” “mobility products,” and “energy use,” while making use of the Green Innovation Fund\* and other frameworks.

\* Green Innovation Fund: An initiative offered by the New Energy and Industrial Technology Development Organization (NEDO) to provide ongoing support to companies committed to achieving ambitious goals related to achieving carbon neutrality through the research, development, demonstration, and practical application of their technologies over the long term within the priority areas for which action plans have been established under the Green Growth Strategy

#### Monozukuri (Manufacturing)

**Aim:** Realize complete carbon neutrality in our *Monozukuri* activities

We will reduce CO<sub>2</sub> emissions by utilizing renewable energy such as solar power and enhancing the efficiency of our manufacturing process. In addition, we aim to realize complete carbon neutrality in our *Monozukuri* activities, without the use of carbon credits, by capturing the CO<sub>2</sub> emitted in the production process and reusing it as energy.

Specific Initiatives	Target for Fiscal 2036
<ul style="list-style-type: none"><li>At our plants, rigorously engage in energy-saving activities and promote the use of renewable energy by promoting in-house power generation through reforms to our production and supply structure</li><li>Seek to achieve carbon neutrality in fiscal 2026 by offsetting the CO<sub>2</sub> emitted from electricity-derived energy through the procurement of renewable energy and offsetting the CO<sub>2</sub> emitted from gas-derived energy through the use of carbon credits</li><li>Realize carbon neutrality at our plants by fiscal 2036 and work to expand carbon neutrality throughout the supply chain</li></ul>	Achievement of complete carbon neutrality in our <i>Monozukuri</i> activities
	Current Level of Achievement
	CO <sub>2</sub> emissions (global): 1.41 million t-CO <sub>2</sub> e (Scope 1 and 2)

Note: The above CO<sub>2</sub> emissions figure reflects the utilization of carbon credits. The targets are domestic and overseas production bases (including DENSO Group production companies).

#### Mobility Products

**Aim:** Contribute to the electrification of cars to reduce CO<sub>2</sub> emissions to the greatest extent possible

We will help popularize HEVs, BEVs, FCEVs, and other electrified vehicles (xEVs) by advancing products powered by electricity. In addition, we will apply the electrification technologies cultivated in the automotive industry to the field of air mobility in an effort to significantly reduce CO<sub>2</sub> emissions in all facets of mobility.

Specific Initiatives	Target for Fiscal 2026
<ul style="list-style-type: none"><li>Centered on driving systems, such as inverters, and thermal systems, promote farsighted technological development in all facets of mobility, from HEVs, BEVs, and FCEVs through to eVTOL (electric vertical take-off and landing) aircraft, thereby realizing energy management that connects cars and other forms of mobility with society</li><li>Apply electrification technologies to the new field of air mobility. At the same time, utilize the high-output, high-efficiency, and ultra-lightweight technologies acquired through this effort in the manufacture of automobiles</li></ul>	Electrification domain revenue ¥1 trillion
	Current Level of Achievement
	Electrification domain revenue ¥680.0 billion

#### Energy Use

**Aim:** Realize an energy-recycling society through the development and popularization of technologies that make effective use of renewable energy

We will establish technologies that store and reuse energy in a highly efficient manner, regardless of location or time, and work to popularize them. By doing so, we will help realize an energy-recycling society.

Specific Initiatives	Target for Fiscal 2036
<ul style="list-style-type: none"><li>Develop and commercialize batteries that store fluctuating or excess renewable electricity, hydrogen manufacturing technologies, and fuel conversion technologies. Make full use of renewable energy and further contribute to its expanded introduction</li><li>Realize technologies that can reuse energy by capturing CO<sub>2</sub> emitted from industry and CO<sub>2</sub> in the atmosphere at the necessary locations, then solidifying said CO<sub>2</sub> and converting it into resources, thereby reducing CO<sub>2</sub> emissions in society as a whole</li></ul>	Revenue from commercialization of renewable energy ¥300.0 billion
	Current Level of Achievement
	Accelerated verification tests (CO <sub>2</sub> capture and recycling systems, solid oxide fuel cells, and solid oxide electrolyzer cells)

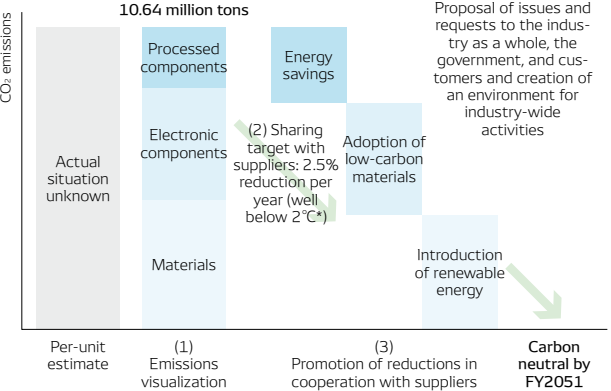
#### Toward Carbon Neutrality throughout the Value Chain

As the world accelerates decarbonization efforts, DENSO has been boldly tackling environmental issues through initiatives for environmentally friendly *Monozukuri*. Specifically, we have been developing mobility products with excellent fuel and energy-saving technologies, which have been areas of strength since our founding. In fiscal 2022, we declared that our goal was to achieve complete carbon neutrality in *Monozukuri* activities by fiscal 2036. Since then, we have been increasing the pace of efforts to achieve carbon neutrality throughout the entire value chain. For details on this goal, please see “Natural Capital” on [P89–93](#).

#### Scope 3: Upstream (Suppliers)

CO<sub>2</sub> emissions reduction target: 25% by FY2031 (versus FY2021), carbon neutral by FY2051

##### Road Map for Scope 3 Carbon Neutrality



##### Strengthening Collaboration with Suppliers

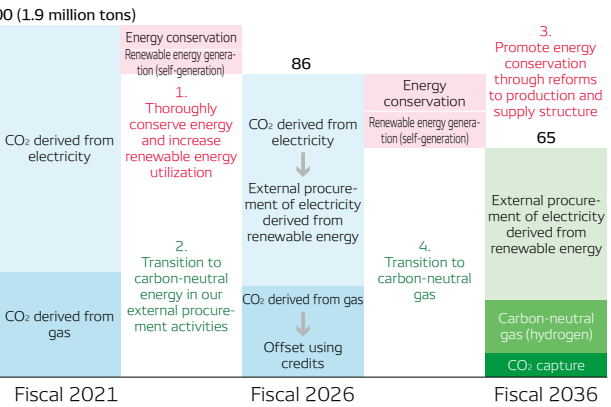
Having visualized emissions and shared specific CO<sub>2</sub> emissions reduction targets with 360 major suppliers, we are promoting various initiatives for the realization of carbon neutrality. For example, we are sending managers from our facilities’ management-related division to suppliers’ operating bases to analyze and offer recommendations on energy-saving measures, lending suppliers energy measurement equipment, encouraging the active use of aluminum and plastic materials that emit less CO<sub>2</sub>, and promoting the introduction of renewable energy. Moreover, by compiling feedback on the problems and requests of suppliers arising from our support activities and making proposals to industry associations based on this feedback, we are driving the industry-wide establishment of conditions conducive to carbon neutrality and strengthening competitiveness.

\* The target of keeping the rise in temperature well below 2°C, which is a Scope 3 target under the 1.5°C standard

#### Scope 1 and 2: DENSO Plants

CO<sub>2</sub> emissions reduction target: Completely carbon-neutral *Monozukuri* by FY2036

##### Road Map for Scope 1 and 2 Carbon Neutrality



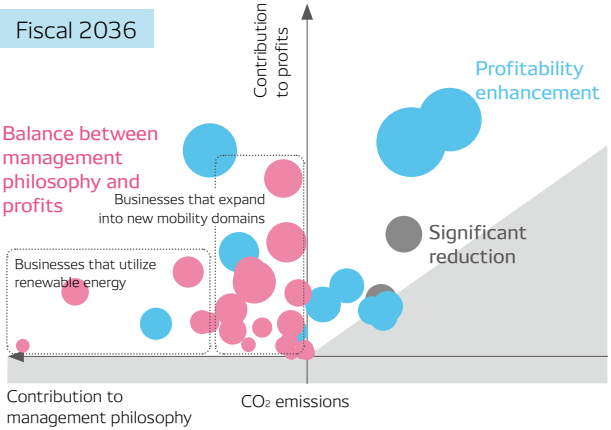
##### Realizing New *Monozukuri* through Unflinching Efforts and Innovative Technologies

DENSO is thoroughly implementing energy-saving activities, which have always been one of its strengths, and securing and utilizing renewable energy sources, including the utilization of carbon credits. In addition, we are developing innovative energy-creating technologies by combining our many different types of manufacturing expertise. At model plants in Japan, we will verify and enhance the leading-edge technologies required for energy creation and then incorporate them into optimal energy creation activities tailored to the energy situations of respective regions. Also, by introducing internal carbon pricing into business feasibility assessments, which serve as an indicator for investment decisions, we are virtually converting CO<sub>2</sub> emissions into losses and reflecting them in these assessments. Consequently, internal carbon pricing is accelerating our investments in energy-saving measures and renewable energy facilities. Further, we achieved carbon neutrality at the Anjo Plant in fiscal 2022 as well as at the Nishio Plant, the Hirose Plant, DENSO FUKUSHIMA CORPORATION, and all DENSO plants in Europe in fiscal 2023.

#### Scope 3: Downstream (Product Use)

CO<sub>2</sub> emissions reduction target: 25% by FY2031 (versus FY2021)

##### Relationship between CO<sub>2</sub> Emissions and Profits by Product Category



##### Accelerating Business Portfolio Transformation

When analyzing business strategies, the Strategy Deliberation Meeting discusses the positioning of and strategies for each product category based on three decision-making criteria: CO<sub>2</sub> emissions, profitability, and growth potential. As a result of this approach, we are promoting the de-emphasis and discontinuation of internal combustion engine (ICE) products, which entails rightsizing and withdrawing from businesses related to these products, an accompanying shift of resources to battery electric vehicles (BEVs) and other areas of the vehicle electrification field, and a changeover to new businesses, such as those that utilize renewable energy. Thanks to these activities, the growth of revenue from our inverters, heat pumps, and other products in the vehicle electrification field is outpacing market growth. By fiscal 2026, we aim to double revenue from this field compared with that of fiscal 2022, to ¥1 trillion.

Note: Size of circles indicates scale of revenue.  
● New businesses  
● Growth businesses (CASE)  
● Maturing businesses (ICE-related)  
■ Domains that produce a deficit when factoring in carbon price

Peace of  
Mind

Aiming to Become a Leading Company That Provides “Peace of Mind”  
to Society

For a company like DENSO, which aims to contribute to the happiness of people, part of our mission is to provide peace of mind to society by resolving social issues through our business activities. This section introduces the three pillars of DENSO’s contributions to the field of “peace of mind,” through which we aim to become a leading company that provides peace of mind to society.

Elimination of Traffic Accident Fatalities

**Aim:** Popularize safety products through efforts focused on “depth” and “width,” thereby realizing free mobility without fatalities from traffic accidents

With the aim of eliminating traffic accident fatalities, we are promoting efforts under a two-pronged approach focused on “depth,” which involves reaching the cutting edge of technology, and “width,” which involves realizing the widespread adoption of safety products in a large number of cars. For “depth,” we are further evolving our safety products and working to have them adopted in a greater number of advanced mobility fields. For “width,” we are promoting the further popularization of our safety products by working to realize attractively priced safety products and enhance our lineup of retrofitted products.

Specific Initiatives	Target for Fiscal 2026
<ul style="list-style-type: none"><li>Respond to various accident situations and strive to prevent accidents through not only 360-degree sensing but also in-vehicle sensing and vehicle–infrastructure linkages</li><li>Fully leverage AI technologies to predict “unseeable danger” and inform the driver about it, thereby ensuring the driver avoids hazardous situations</li><li>In tandem with the evaluation of ADAS, expand lineup of retrofitted products that can be applied to already-sold vehicles in an effort to provide value that responds to various situations, vehicle types, and needs</li></ul>	ADAS domain revenue ¥500.0 billion
	Current Level of Achievement
	ADAS domain revenue ¥391.0 billion

Road Map for the Development of ADAS Technologies: Business Analysis (Mobility Electronics) 

Creation of Comfortable Spaces

**Aim:** Enhance relevant technologies for creating peaceful, comfortable spaces

Following the progression of automated driving, there has been a growing need for providing cars not simply as a means of transportation but also as a “private space that enables mobility.” To that end, DENSO seeks to create comfortable spaces by evolving the environment within vehicles.


Specific Initiatives	Target for Fiscal 2026
<ul style="list-style-type: none"><li>Innovate purification and sensing technologies to eliminate viruses and visualize toxic substances, thereby realizing safe and secure air quality</li><li>Refine technologies to create and expand comfortable interiors in passenger vehicles and public transportation vehicles</li></ul>	Popularize in-vehicle general-purpose products
	Current Level of Achievement
	Investment in the market for radiant heaters that efficiently heat passengers’ legs

Support for Working People

**Aim:** Draw on the technologies we have cultivated in the mobility domain to establish a society where people are supported and their potential is nurtured

One major social issue is the significant decline in the workforce in various industries. To address this issue, DENSO will draw on the technologies it has cultivated in the mobility domain, such as automation technologies and ICT, to realize a society where all people are supported and can take on new challenges with peace of mind.

Specific Initiatives	Target for Fiscal 2031
<ul style="list-style-type: none"><li>In the agricultural field, contribute to the stable and secure supply of food by resolving issues throughout the food value chain</li><li>In the logistics field, provide ultra-high-quality comprehensive solutions that cover everything from framework improvement through to the rationalization of entire factories</li><li>For plant operations and factory automation (FA), combine core technologies such as robots and sensors with automation technology and improvement know-how in order to provide systems and products catered to the front lines</li></ul>	Revenue from the agricultural, logistics, and plant operation/FA fields: ¥300.0 billion
	Current Level of Achievement
	Gradual progress in business expansion

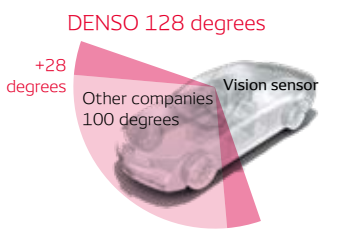
Overview by Product (Factory Automation, Social Solutions, and Food Value Chain) 

Wider-Angle Vision Sensors for Improved Accident Scenario Coverage Elimination of Traffic Accident Fatalities

We have further widened the detection angle of our vision sensors, which support safe driving by recognizing pedestrians and bicycles in the vicinity of vehicles. In Japan, traffic accidents caused by pedestrians suddenly stepping out from roadsides are said to account for approximately 30% of all traffic accidents involving pedestrians. With this in mind, DENSO took on the challenge of further widening the angle of its vision sensors. As a result, we have realized vision sensors with a detection angle of 128 degrees—28 degrees wider than the products of other companies. The wider angle improves the detection of bicycles crossing roads when vehicles are moving at low speeds and helps prevent accidents caused by pedestrians suddenly stepping out from roadsides at intersections and in other areas.

While a wider angle enables the detection of more objects, it also enables vision sensors to detect objects that may not actually pose any danger. One example would be a scenario in which a bicycle that is about to cross the road is detected, but the bicycle then brakes and stops, meaning that the vehicle will be able to pass by without colliding with the bicycle. In such a scenario, activation of the vehicle’s automatic braking system to avoid a collision could in fact cause another dangerous situation due to the vehicle’s sudden, unexpected stop. Therefore, we have reduced the occurrence of unnecessary vehicle movements by incorporating AI technology to estimate time-series movement and determine whether a collision will actually occur. In this way, DENSO has created vision sensors that simultaneously realize the advantages of wider-angle detection and real-world usability.

Our vision sensors have been incorporated into certain grades of the Subaru Outback (North American specifications) and into the new Subaru Crosstrek (Japanese specifications), both of which were launched in 2022.



Newly Developed Radiant Heater That Warms Passengers’ Legs Creation of Comfortable Spaces

DENSO’s newly developed radiant heater was incorporated into the Toyota bZ4X, launched in 2022. Our radiant heater has a distinctive safety structure and contributes to passenger comfort and longer driving distances.

Radiation is energy from the infrared rays emitted by highly heated objects. Rather than using warm air, radiant heaters warm occupants’ legs directly by using far-infrared rays emitted from the heater surface, which reaches temperatures of up to 100°C. The radiant heat from the heater surface is efficient because it only warms the occupants. When used in combination with a heat pump system, our heaters reduce the air-conditioning energy required by the entire vehicle, thereby helping to extend the distance that can be driven with the heater on.

Moreover, the adoption of a thin film structure for the heater surface enables its temperature to increase to a maximum of 100°C in about one minute, quickly warming occupants’ legs and creating a comfortable environment. In addition, our products are the world’s first heaters with structures that instantly reduce the temperature of the surface to 50°C or lower when anyone comes into contact with it. Heat generation is stopped through the combined use of control technology and surface film with an in-built sensor that detects human contact. Thus, the new product achieves both high temperatures and advanced levels of safety.



Utilization of ICT during Disasters Support for Working People

Aiming to create ICT-enabled systems and capabilities for efficient emergency countermeasures as well as for recovery and reconstruction in the event of a disaster, we have concluded an agreement on cooperation and collaboration with the city of Kirishima in Kagoshima Prefecture. The initiative will entail mutual cooperation through systems development and the utilization of Kirishima municipal authority’s disaster prevention app, which is supported by DENSO’s Life Vision local information distribution system.

The app is used by the municipal authority as a communication tool. Benefiting from DENSO’s expertise in the development of car navigation systems and other mobility products, the app features a user-friendly interface that allows anyone to readily understand information issued by the municipal authority. Going forward, we will further enhance the app’s functions to realize efficient disaster countermeasures through the provision of a framework for managing evacuation center supplies and facilitating exchanges of supplies between evacuation centers.





## Main Results of Our Strategies for “Green” and “Peace of Mind” in Fiscal 2023

Since our founding, we have been working to maximize the value of green and peace of mind, and efforts to do so have been steadily accelerating. In this section, we look back on the results we achieved with our initiatives over the course of fiscal 2023. In addition, the following three projects, which are featured in this integrated report, have been selected as Green Innovation Fund projects by the New Energy and Industrial Technology Development Organization (NEDO).

- Development of manufacturing technology for next-generation power semiconductor devices (for electric vehicles)
- Development of next-generation storage batteries and motors
- Development and verification of technology for the small- and medium-scale separation and capture of CO<sub>2</sub> from plant exhaust gas

For more details, please see the “Newsroom” section of our corporate website.  
<https://www.denso.com/global/en/news/newsroom/>



## Independent Third-Party Verification of Environmental Performance Data

To enhance the reliability of its environmental performance data on greenhouse gas emissions, energy consumption, and other matters, DENSO has received independent third-party verification from SGS Japan Inc. We will continue to improve our environmental performance data by extending the scope of verification activities.

For details, please visit the website below.  
<https://www.denso.com/global/en/about-us/sustainability/environment/verification/>



Note: The verification results included on the above website are for environmental performance data in fiscal 2022. We are currently undergoing an audit for fiscal 2023 (April 1, 2022 to March 31, 2023), and the results of this audit are scheduled to be available on our website around January 2024.

2022

2023

### Green

We are striving to reduce CO<sub>2</sub> emissions from our *Monozukuri* activities and develop and popularize mobility products that contribute to the electrification of automobiles.

Mobility Products

#### First Adoption of a DENSO Electric Motor for Electric Aircraft

For the first time, one of our electric motors has been incorporated into an aircraft. A compact, lightweight, and high-power electric motor jointly developed by DENSO and Honeywell International Inc. has been adopted by Lilium N.V. for its electric aircraft. We will use the launch of this product to begin accelerating our development of products for electric aircraft.



Mobility Products

#### Collaboration with USJC in the Manufacture of Automotive Power Semiconductors

We have agreed to collaborate with United Semiconductor Japan Co., Ltd. (USJC), a subsidiary of global semiconductor foundry United Microelectronics Corporation, in the manufacture of power semiconductors needed for electric vehicles. In May 2023, we began shipping next-generation insulated gate bipolar transistors that are compact and have low loss.

Mobility Products Monozukuri Energy Use

#### Highest Evaluation from CDP

In recognition of outstanding initiatives with respect to climate change and water security as well as in relation to disclosure of these initiatives, DENSO has received an “A List” rating from CDP, the highest rating provided by the international non-profit organization.

Energy Use Mobility Products

#### Trial Introduction of an Energy Management System That Uses BEVs

In collaboration with Chubu Electric Power Company, Incorporated and Chubu Electric Power Miraiz Company, Incorporated, we will conduct the trial introduction of a system that maximizes the convenience of car sharing as well as the effectiveness of BEVs as storage batteries and which enables the sharing of renewable energy within communities.

Mobility Products

#### Development of the First Inverter to Use SiC Power Semiconductors

The first DENSO inverter to use SiC power semiconductors has been integrated into the BluE Nexus eAxe and incorporated into the new LEXUS RZ. By significantly reducing power loss, our highly efficient inverter increases the electric mileage of BEVs, thereby helping to extend their driving distance.

Monozukuri Energy Use

#### Verification Test Aimed at Realizing Hydrogen Local Production for a Local Consumption Model

In partnership with Toyota Motor Corporation, DENSO FUKUSHIMA CORPORATION has begun a verification project for the production of green hydrogen and in-plant hydrogen utilization. Through this project, we aim to build hydrogen local production for a local consumption model and realize a carbon-neutral plant.



Energy Use

#### Joint Technical Verification Using Our CO<sub>2</sub> Capture System

By using its CO<sub>2</sub> capture system to efficiently capture and utilize CO<sub>2</sub>, DENSO will conduct joint technical verification with TAISEI CORPORATION. We will promote installation of the system in buildings, thereby contributing to the realization of a carbon-neutral society.

Monozukuri Energy Use

#### Verification Test of a Plant Energy Management System That Utilizes Solid Oxide Fuel Cells

We will realize a more-efficient energy management system, which meets the power demand of plants by controlling the recharging and discharging of batteries for storing solar-generated power and by controlling the amount of power that our in-house developed solid oxide fuel cells generate.

### Peace of Mind

We are striving to develop safety products, provide services that realize comfortable spaces, and utilize the technologies we have cultivated in the mobility domain.

Elimination of Traffic Accident Fatalities

#### Launch of the Obu yuriCargo Project

Through traffic safety initiatives based on driving data and support for maintaining and improving the driving skills of elderly drivers, we aim to help develop towns where safe, unrestricted mobility is available to everyone.

Elimination of Traffic Accident Fatalities

#### Verification Tests of the Utilization of Drive Recorders to Support the Driving Safety of Seniors

In partnership with the Toyota Mobility Foundation, we are conducting verification tests of an AI driving diagnosis system that helps lower the accident risk of seniors by providing advice on safe driving that is based on AI analysis of drive recorder images and other data.

Elimination of Traffic Accident Fatalities

**Development of Wider-Angle Vision Sensors**  
DENSO has further widened the detection angle of its vision sensors, which recognize objects in the vicinity of vehicles. Our vision sensors help detect pedestrians and bicycles suddenly emerging from roadsides and have been installed in the new Subaru Crosstrek.



Support for Working People

#### Comprehensive Partnership Agreement with Kumamoto Prefecture in the Fields of Food and Agriculture

We will take advantage of our *Monozukuri* technologies to optimize the food value chain by improving efficiency and adding value in the production and distribution fields.



Creation of Comfortable Spaces

#### Collaboration to Provide Security Monitoring Services for Vehicles

We have begun collaborating with NTT Communications Corporation to provide a vehicle security monitoring service that protects vehicles from the threat of cyberattacks.

Support for Working People

#### Agreement on Collaboration with the City of Kirishima for ICT Utilization during Disasters

By utilizing our Life Vision local information distribution system to establish disaster readiness capabilities, we aim to heighten the efficiency of emergency countermeasures, recovery, and reconstruction in the event of a disaster.

Support for Working People

#### Launch of Mimamori Maintenance Package to Support the Logistics Industry

To help ensure the stable operation of vehicles and alleviate labor shortages in the logistics industry, we will offer a package that comprises maintenance services and D-FAMS, a remote monitoring service for refrigeration equipment. Moreover, by identifying the early signs of abnormalities, our package helps curb CFC emissions through the minimization of refrigerant (CFC substitute) leakages resulting from breakdowns.



### Management Foundation

We are working to bolster our management foundation to underpin efforts to maximize the value of green and peace of mind.

#### Briefing on Semiconductor Strategies

With demand for semiconductors increasing due to the proliferation of CASE vehicles, we presented our strategies for semiconductors in three fields: microcomputers and system-on-a-chip, power and analog, and sensors.

For details, please visit the website below.  
<https://www.denso.com/global/en/news/newsroom/2022/20220601-g01/>



#### Gold Medal at the WorldSkills Competition

Viewing the foundations of *Monozukuri* as being the advanced skills and expertise that enable the realization of technologies, we are focusing efforts on training technicians and passing on skills.

#### IEEE Corporate Innovation Award

In recognition of our development of the QR Code® and our contribution to its global popularization, we received the IEEE Corporate Innovation Award from the Institute of Electrical and Electronics Engineers (IEEE), the world's largest technical professional organization for electrical and electronic engineering.

#### DENSO DIALOG DAY 2022

DENSO announced distinctive initiatives that are focused on five essential elements and aimed at helping realize a society that promotes cycles of well-being. We also announced our corporate value enhancement strategy, which will bolster the corporate foundations that support value creation.

For details, please visit the website below.  
<https://www.denso.com/global/en/news/newsroom/2022/20221216-g01/>



# Business Portfolio and Value Creation

DENSO operates seven core businesses in a broad range of domains, with particular emphasis on the mobility domain. The Company has built its business portfolio with a view to creating new value for the future and maximizing the value created by each business. Moreover, at present reweighting the business portfolio is a priority strategy. Even in a volatile operating environment, a reweighted business portfolio will allow us to market products and services that reflect demand and to continue to grow.

### Business Composition

In its automotive businesses, DENSO supplies an extensive lineup of products and systems as a Tier 1 supplier that is trusted by car manufacturers around the globe. We have five automotive businesses: the Electrification Systems Business, which is pivotal to the popularization of electric vehicles; the Powertrain Systems Business, manufacturing powertrains for an array of different vehicles; the Thermal Systems Business, engaged in the manufacture of in-vehicle air-conditioning systems that account for the largest share of the global market; the Mobility Electronics Business, which aims to eliminate traffic accident fatalities; and the Advanced Devices Business, essential for mobility-related development going forward. These five businesses are contributing to electric vehicle popularization, advanced safety, automated driving, and connected driving. Meanwhile, our non-automotive businesses are leveraging technologies fostered in the automotive businesses to advance growth in the fields of factory automation (FA) and agricultural technology (AgTech).

### Introduction of Sustainability KPIs

To further promote initiatives aimed at maximizing green value and peace of mind value, we introduced sustainability KPIs in fiscal 2023. One such KPI is a target for revenue from green and peace of mind products, which corresponds to the proliferation of these products. We have begun monitoring results in relation to this new KPI. DENSO's green and peace of mind lineup is steadily growing revenue and providing value throughout society.

### Relationship between Companywide Strategy and Business Strategies

Business strategies linked to the Companywide strategy are key to realizing the Mid-term Policy for 2025 and achieving green and peace of mind strategies. We are maximizing the value we provide to society by steadily reweighting our business portfolio based on a Companywide strategy—which entails ensuring growth through the de-emphasis and discontinuation of internal combustion engine products—and by accelerating the development and sales growth of green and peace of mind products. In light of the current business

environment and the progress of business strategies, DENSO annually reviews, deliberates, and revises specific short-, medium-, and long-term scenarios that envision leveraging the distinctive advantages and capital of each business to realize the Companywide strategy. The following pages focus on the progress of business strategies linked to the Mid-term Policy for 2025 as well as specific green and peace of mind strategies.

### Fiscal 2023 Summary

**Global economy:** The global economy trended toward modest recovery with the easing of COVID-19 pandemic-related restrictions on economic activities. On the other hand, the prolonged invasion of Ukraine by Russia and other factors led to worldwide shortages of energy and in-vehicle semiconductors as well as hikes in the prices of various goods and services. In addition, uncertainties persisted due to concerns that monetary tightening in the United States and Europe would lead to an economic recession and to turmoil caused by China's zero-COVID policy.

**Revenue and operating profit:** The Company posted record revenue and operating profit. Revenue increased 16.1%, or ¥885.8 billion, year on year, to ¥6,401.3 billion, as higher sales in the vehicle electrification and advanced safety fields coupled with a recovery from the impact of the operational restrictions imposed during the COVID-19 pandemic outweighed lower vehicle production, which resulted from a semiconductor shortage and other factors. Operating profit rose 24.9%, or ¥84.9 billion, year on year, to ¥426.1 billion, thanks to sales growth, rationalization that included R&D efficiency improvements, and the passing on of cost hikes to prices, which absorbed the effect of external factors such as the soaring cost of materials, logistics, energy, and components, particularly electronic components.

### Principal Changes in the Business Environment (Future Opportunities and Risks)

**Proliferation of electric vehicles:** The pace of initiatives, regulatory implementation, and rulemaking that are aimed at realizing carbon neutrality is increasing. Meanwhile, large amounts of CO<sub>2</sub> are

emitted not only when conventional vehicles are used but also when vehicles are manufactured. Given these factors, interest is growing in the automotive industry's initiatives to popularize electric vehicles. According to the International Energy Agency, electric vehicles accounted for less than 10% of vehicle sales in 2021 but are projected to account for 36% by 2030. In 2030, approximately 80% of electric vehicles sold are expected to be BEVs. Further, China and Europe are likely to lead the growth in sales of electric vehicles. Accordingly, BEV-related product development and production capacity increases are being accelerated. (Electrification Systems, Powertrain Systems, and Thermal Systems [P.54–59](#))

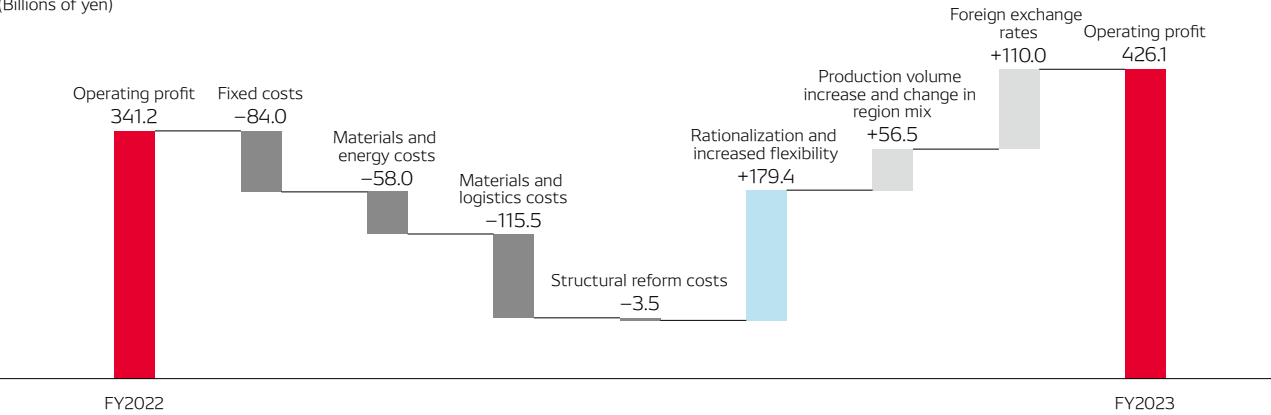
**Rising demand for in-vehicle semiconductors:** Currently, the global semiconductor market accounts for revenues of approximately ¥50 trillion. This market is expected to grow steadily and reach ¥100 trillion by 2030. As a struggle for supremacy continues to unfold in the global semiconductor market, the in-vehicle semiconductor market is likely to see new growth due to the advent of a decarbonized society and technological innovation in mobility. Mainly reflecting increased demand accompanying the popularization of electric vehicles and automated driving, the growth rate of the in-vehicle semiconductor market continues to outpace that of the semiconductor market as a whole. (Advanced Devices [P.62–63](#))

**Increased utilization of in-vehicle software:** As vehicles become more sophisticated due to the popularization of electric vehicles and the development of advanced driver assistance systems (ADAS), in-vehicle software is increasing in quantity and complexity. As for connected vehicles, which link with a range of objects, the use in recent years of over-the-air systems will enable wireless, remote software updates and performance improvements on an ongoing basis. In addition, due to the entry of IT companies into the automotive industry, competition with companies from other industries is becoming fierce. (Mobility Electronics [P.60–61](#))

**Intensification of labor shortages:** Since 2019, the number of people facing hunger worldwide has increased by approximately 122 million due to the COVID-19 pandemic, frequent climate-related crises, and conflicts in various regions, including Russia's invasion of Ukraine. Food insecurity is more pronounced among those living in rural areas, and the need for stable, large-scale agricultural production is only increasing. Also, labor shortages are becoming more serious, particularly in developed countries. A conspicuous example of this trend is the "2024 problem"\* in Japan's logistics industry. In establishing a society that can sustain production activities, expectations are growing with respect to the comprehensive automation of plant production functions. (Factory Automation and Social Solutions; Food Value Chain [P.64–65](#))

\* The "2024 problem" in logistics refers to the logistical delays that are expected to result from two regulations related to truck driver working hours, both set to take effect in April 2024.

Operating Profit: Breakdown of Positive and Negative Factors  
(Billions of yen)



Industry-wide De-Emphasis and Discontinuation of Internal Combustion Engine Products

Since fiscal 2022, DENSO has been optimizing its business portfolio to maximize green value and peace of mind value. Our aim is to focus management resources on fields that contribute to profits and the realization of our management philosophy. To this end, we are considering the de-emphasis and discontinuation of internal combustion engine products in certain businesses. To establish a favorable model for DENSO and its customers and suppliers, as well as the companies assuming its businesses, the disposal of businesses will be premised on continuing to safely and reliably provide customers with products of the same high quality. Based on this premise, we have been de-emphasizing and discontinuing internal combustion engine products. To date, we have decided to dispose of type III alternator and fuel pump module businesses. In fiscal 2024, we announced our plan to begin examining the disposal of certain ceramic product businesses (as of the end of July 2023). Ceramic products are core components of internal combustion engines. The aim of transferring businesses engaged in the manufacture of these components to Niterra Co., Ltd., which has some of the world's leading technological capabilities in the ceramics field, is to integrate the technological and *Monozukuri* capabilities of both companies and thereby enable the realization of enhanced internal combustion engine components. In addition, DENSO will accelerate the development of products for electric vehicles in preparation for their full-scale popularization. At the same time, we will work on the development of energy management systems for entire vehicles, which will become increasingly important with the proliferation of electric vehicles. Through such initiatives, DENSO will offer products that are appealing to customers in terms of both performance and price across the entire automotive market, including internal combustion engines and electric vehicles, and contribute to the early realization of a carbon-neutral society. Going forward, the Company will optimize its business portfolio even more vigorously with the aim of continuing to provide society with new value.



# Business Analysis

By utilizing technologies and expertise developed in respective businesses to realize products that meet current trends, DENSO has provided society with value. Today, each of our businesses continues to grow and transform itself based on business strategies that are linked to a Companywide strategy. This section provides a close-up on the achievements, advances, strategies, and initiatives that will enable our businesses to continue providing value going forward—a topic that is often the focus of our dialogues with investors, analysts, and other external stakeholders.

## Electrification Systems

**Q: As the penetration of BEVs increases, how competitive will DENSO's inverters be?**

**A:** DENSO has many different business segments and fields of expertise and will ensure competitiveness by offering system solutions that meet the expectations of markets and customers. For many years, DENSO has worked on improving entire systems, including battery control systems and thermal management systems. In other words, we approach improvements from the perspective of overall vehicle specifications. In addition, by evolving, improving, and utilizing the SiC power semiconductors that are incorporated into inverters, we will help enhance the driving distance of BEVs. Moreover, increasing the commonality between BEV inverters and those of hybrid electric vehicles (HEVs) will shorten lead times for bringing inverters to market and allow us to increase cost competitiveness by leveraging the volume of HEV inverters.

**Q: Given that automakers are increasingly manufacturing electric drive components (motors and inverters) in-house, what is your strategy for growing sales?**

**A:** Motors and inverters are as important to electric vehicles as engines are to internal combustion engine vehicles. Therefore, some customers prefer to insource the manufacture of electric drive components to keep workforces employed. With electric mobility demand diversifying globally, DENSO's mobility electronics and motor businesses give the Company in-house capabilities covering all stages of electronic product manufacture—from wafers through to components—as well as a development platform for the integrated in-house production of all sizes of motors, encompassing design, manufacture, and inspection processes. Thus, our strength lies in an ability to provide and contribute to systems in terms of mobility performance and quality. We can also provide standardized components and modules that meet diverse customer needs, thereby advancing the popularization of electric vehicles and helping the realization of a carbon-neutral society.

## Powertrain Systems

**Q: Could you please explain your future strategy for internal combustion engine products as the trend toward carbon neutrality gains momentum?**

**A:** The spread of electric vehicles will accelerate mainly in Europe, the United States, and China. However, the pace of electric vehicle introduction will differ depending on the energy situation in each region and vehicle type, such as commercial, agricultural, and construction vehicles. To meet the wide variety of future demand, we

must provide a range of power source options with low environmental impacts. By leveraging technologies fostered for internal combustion engine products and developing engines that use hydrogen, biofuels, e-fuel, and other fuels with high energy efficiency and low environmental impact, we will support customers and industry as a whole in the current phase of transformation. In this way, we will contribute to the realization of environmental measures globally.

## Thermal Systems

**Q: DENSO's target is to realize capacity for the manufacture of 5.4 million thermal management products by fiscal 2031. Can you please explain this target as well as your strategies for sales growth and technologies?**

**A:** By 2030, we expect that BEVs will have transitioned from an introductory phase to an “infancy” phase in which automakers adopt dedicated BEV platforms in earnest and begin mass production, leading to diversification of automakers' thermal management needs. Catering to diversifying needs risks increasing development man-hours and creating a bloated value chain for current thermal management systems, which are realized through the alignment of various functional components. With its sights set on the

aforementioned infancy phase of BEVs, DENSO will further improve the core technologies established by the Thermal Systems Group, such as thermal control and system construction technologies and technologies for creating high-performance compact products and miniaturized products. These initiatives will enable the creation of differentiated products that heighten our competitiveness. In addition, we are formulating a concept that entails improving development efficiency through model-based systems engineering\* and then integrating various component functions into modules. Through different combinations of these modules, we will create modular products tailored to meet the needs of each customer. To realize this concept, we will participate in the early development

phases of major customers, seek solutions to issues through our modules, and work with customers to clarify future requirements for the development of thermal management and to establish understanding of the value that should be realized. We will use these close collaborations to increase our sales even further. Also, DENSO is reorganizing its production and supply system so that it can deliver 5.4 million thermal management products. We are consolidating existing products in step with shrinking demand for internal combustion engine products and focusing the utilization of

facilities, personnel, and other existing assets on the thermal management area. DENSO has also begun examining reorganization that transcends business boundaries by utilizing the production bases and technological capital of other business divisions. Through these initiatives, we will achieve our sales growth target for thermal management products and achieve business portfolio transformation while maintaining our business structure and competitiveness.

\* An engineering method that improves efficiency and quality by basing the entire systems engineering process, including business processes, on digital models

## Mobility Electronics

**Q: Electronic platforms are likely to see demand growth. What is your strategy for them?**

**A:** As the introduction of software-defined vehicles (SDVs)\* and BEVs advances, demand for electronic platforms will increase even more. DENSO has long been involved in electronic systems for entire vehicles, including the powertrains, bodies, chassis, cockpits, and ADAS. Consequently, we have accumulated extensive technological capabilities and expertise in electronics and software for entire vehicles. Further, over many years we have built networks with automakers around the world. In addition to these advantages, we will incorporate the latest digital transformation and automation methods to accelerate the development of electronic platforms that support the realization of highly appealing SDVs and BEVs.

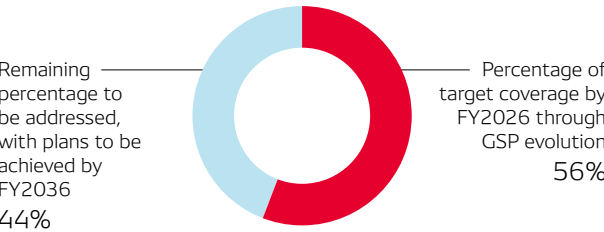
\* Vehicles (or vehicle manufacturing) in which software plays a central role in the realization of electrification, automated driving, and vehicle security

**Q: What is your road map for the development of ADAS technology?**

**A:** We will further improve the performance of Global Safety Package (GSP), an advanced safety system. As shown in the chart, we will continue development with the goal of eliminating 56% of traffic accident fatalities by fiscal 2026. As for the remaining 44%, we will develop high-performance sensors that recognize hazards in the entire area surrounding vehicles and vehicle–infrastructure cooperative systems that detect hazards in vehicle blind spots. Moreover, for accidents

resulting from hazards that cannot be detected by GSP or vehicle–infrastructure cooperative systems, DENSO will develop technologies that monitor the driver's condition and skills. We will then develop algorithms that constantly monitor both the vehicle's surroundings and the driver's condition and integrate the acquired data. Through these system development efforts, we aim to eliminate traffic accident fatalities.

Percentage of Traffic Accident Fatalities Covered by GSP



Note: Estimated figures based on accident analysis conducted by the Institute for Traffic Accident Research and Data Analysis in 2018  
Estimate subject: Fatal accidents in which passenger cars (standard motor vehicles or light motor vehicles) were the first party, excluding car–train accidents

## Advanced Devices

**Q: Could you please explain DENSO's SiC supply strategy, including external collaborations?**

**A:** With the introduction of carbon-neutral regulations globally, automakers are accelerating product development to comply with them, and the spread of electric vehicles in the market is expected to advance rapidly. DENSO will seek differentiation by rolling out inverters with silicon carbide (SiC) semiconductors, which have lower loss, higher quality, and larger areas (8-inch diameter) than conventional silicon (Si) semiconductors. By doing so, we will claim a larger share of the market for electric vehicle inverters and contribute to the market penetration of electric vehicles and the reduction of CO<sub>2</sub> emissions. SiC power semiconductors with DENSO's unique trench-type metal-oxide-semiconductor structure\*<sup>1</sup> improve the output per chip by simultaneously achieving high voltage and low on-resistance\*<sup>2</sup> operation and by reducing power loss associated with heat

generation. This increased output extends driving distance. In addition, to increase the resilience of supply capabilities and ensure that we can stably supply SiC power semiconductors with the required quality in the same way that we do for Si power semiconductors, we will disclose patent-protected technologies and in-vehicle specifications and provide technical support to contracted manufacturers within the supply chain. Having been adopted by the Green Innovation Fund in 2022, this supply chain initiative is also utilizing a subsidy from the fund. Through development aimed at increasing the efficiency of energy management in vehicles, the initiative will help realize a carbon-neutral society.

\*<sup>1</sup> Semiconductor devices with a trench gate that uses DENSO's patented electric field relaxation technology

\*<sup>2</sup> A measure of the ease of current flow; the lower the value, the lower the power loss

Contribution Fields and Mainstay Products

Since its establishment as a manufacturer of electrical equipment and radiators, DENSO has reflected changes in society by extending the Company's business domain to encompass lifestyle-related and industrial equipment through the application of technologies that were originally developed for the automotive field. Through seven core businesses, DENSO is currently utilizing technologies accumulated in the automotive field to develop a range of businesses that will provide solutions for the mobility society of the future.

Value Creation in Our Businesses

In accordance with the Long-term Policy for 2030, our seven core businesses are pursuing innovations in leading-edge technologies to maximize the value of green and peace of mind. In addition, through our business activities, we will work to achieve the targets of the SDGs and create new value for the future mobility society.

Segment		Contribution to Long-term Policy for 2030 (Value of Green and Peace of Mind)	Fiscal 2023 Revenue Breakdown	Revenue (Billions of yen)	Relevant SDGs	Core Products That Contribute to Green and Peace of Mind	GreenPeace of mind
Automotive businesses	Electrification Systems	<div><div>Green</div><div>Peace of mind</div></div>	<div><div>16.3%</div></div>	<div><div>874.6</div><div>1,042.2</div></div> <div>(FY)2223</div>	<div><div>7</div><div>9</div><div>13</div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div>P.54</div></div>
	Powertrain Systems	<div><div>Green</div><div>Peace of mind</div></div>	<div><div>23.3%</div></div>	<div><div>1,324.5</div><div>1,489.3</div></div> <div>(FY)2223</div>	<div><div>9</div><div>12</div><div>13</div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div>P.56</div></div>
	Thermal Systems	<div><div>Green</div><div>Peace of mind</div></div>	<div><div>24.8%</div></div>	<div><div>1,282.0</div><div>1,585.0</div></div> <div>(FY)2223</div>	<div><div>7</div><div>12</div><div>13</div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div>P.58</div></div>
	Mobility Electronics	<div><div>Green</div><div>Peace of mind</div></div>	<div><div>25.2%</div></div>	<div><div>1,356.4</div><div>1,615.6</div></div> <div>(FY)2223</div>	<div><div>7</div><div>9</div><div>17</div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div>P.60</div></div>
	Advanced Devices	<div><div>Green</div><div>Peace of mind</div></div>	<div><div>5.6%*</div></div>	<div><div>358.3</div><div>361.7</div></div> <div>(FY)2223</div>	<div><div>7</div><div>9</div><div>13</div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div>P.62</div></div>
Non-automotive businesses	Factory Automation and Social Solutions	<div><div>Green</div><div>Peace of mind</div></div>	<div><div>2.8%</div></div>	<div><div>186.9</div><div>177.1</div></div> <div>(FY)2223</div>	<div><div>2</div><div>8</div><div>9</div><div>17</div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div>P.64</div></div>
	Food Value Chain	<div><div>Green</div><div>Peace of mind</div></div>	<div><div>2.8%</div></div>	<div><div>186.9</div><div>177.1</div></div> <div>(FY)2223</div> <div>Note: The year-on-year decrease in revenue was due to lower revenue from the cell phone agency business and other new businesses.</div>	<div><div>9</div><div>17</div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div>P.65</div></div>

\* Revenue including semiconductors (power semiconductors, application-specific integrated circuits, sensors, etc.) produced internally for other businesses: ¥590.0 billion



# ELECTRIFICATION SYSTEMS

## Making electric vehicle components widely available and contributing to carbon neutrality

We provide products suitable for the energy optimization and market penetration of all types of vehicles.

To market electric systems that contribute to carbon neutrality, we have enhanced the performance, compactness, and fuel savings of key components that are essential for vehicles. Going forward, DENSO will leverage its broad business domain to connect all manner of vehicle systems and products and manage energy efficiently, thereby further improving fuel efficiency and extending driving distance. Moreover, by offering products suitable for market penetration, we will help reduce CO<sub>2</sub> emissions.



Katsuhiko Takeuchi  
Head of Business Group

### Business Strengths

System Development Capabilities

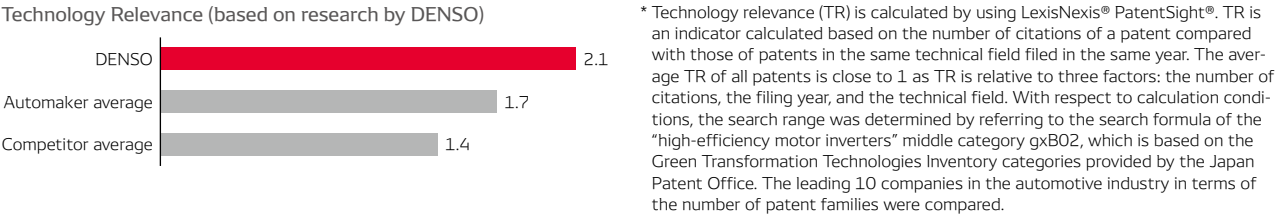
It has become increasingly important to improve the environmental performance of vehicles as electrification intensifies. To meet the needs of markets and customers, we provide systems that optimally integrate vehicle functions for driving, turning, stopping, and comfort. The DENSO Group offers the full range of components used in electric drive systems, the heart of electric vehicles. Based on a thorough understanding of how hardware is used, our system development capabilities heighten the overall performance and reliability of systems, thereby satisfying diversifying market demand.

Fundamental Technological Capabilities

After the development of electric vehicles roughly 70 years ago, we took on the challenge of developing winding technology—which became the core of our founding electrical equipment business—and achieving semiconductor production in-house. The electronics technologies established through these initiatives enabled us to realize power conversion capabilities, while we accumulated heat management capabilities by developing car air conditioners and radiators. In this way, we have evolved fundamental technologies for electric vehicles. We will expand and improve our product lineup by continuing to enhance the compactness and efficiency of fundamental technologies for components that are supported by world-leading technology relevance.\*

Monozukuri Capabilities

At the Anjo Plant, the Electrification Innovation Center is rapidly and efficiently developing and introducing next-generation manufacturing technologies. For example, on the mass production lines of the adjoining electric vehicle component plant, the center is conducting verification tests of a CO<sub>2</sub> recycling plant and an energy-saving environmental production line that curbs CO<sub>2</sub> emissions. The Anjo and Hirose plants—which serve as mother plants in the electric vehicle component field—together with approximately 50 bases in Japan and 18 other countries will deliver high-quality components to customers worldwide.



### Business Strategy

In fiscal 2024, by anticipating diversifying needs through the development of a customer-driven product lineup and by establishing globally competitive production, safety, and quality capabilities that incorporate business continuity plans, we will not only build a system to support the production of more than 10 million BEVs by fiscal 2031 but also contribute to carbon neutrality.

Reinforcement of Business Foundations	To ensure that the production foundations are in place to underpin the transformation of its business portfolio, DENSO will maximize the use of existing HEV assets through their mixed utilization or utilization for other purposes. At the same time, we will introduce our leading-edge technologies, including automated logistics, digital transformation of production preparation processes, and robotic cell production lines capable of high-mix, low-volume production. As well as securing stable production and uninterrupted supply through the establishment of a global bridge production system and “nonstop” production lines with high-capacity utilization, we will improve quality levels by expanding systems that ensure equivalence. Through the aforementioned measures, DENSO will globally develop a new <i>Monozukuri</i> system befitting the age of electric vehicle proliferation.
Business Portfolio Transformation	Anticipating the diversifying needs of our customers, we will expand and enhance systems, components, and parts comprising the different strata of our product lineup. To minimize the risk of semiconductor depletion, we will strengthen in-house collaboration while bolstering partnerships with global semiconductor manufacturers without being constrained by existing frameworks. In addition, DENSO will grow sales and strengthen competitiveness by leveraging its accumulated weight reduction, low-loss, and electric system technologies to advance the development of new electromechanically integrated rotating machines that surpass segment conductor technology.*

\* Proprietary winding technology that achieves compactness, lightness, and high output

## Specific Initiatives to Achieve Strategic Aims Meeting Diverse Customer Needs through Core Products for Electric Mobility

BEVs are becoming an increasingly large part of the powertrain mix, especially in Europe, China, and North America. As the needs of customers diversify, our business models will also diversify. To respond swiftly to such diverse changes, DENSO's electrification business must expand and enhance its lineup of core products, namely, inverters, motor generators, and battery management units. We will offer not only stand-alone components but also systems that bundle multiple components together. In other words, we will

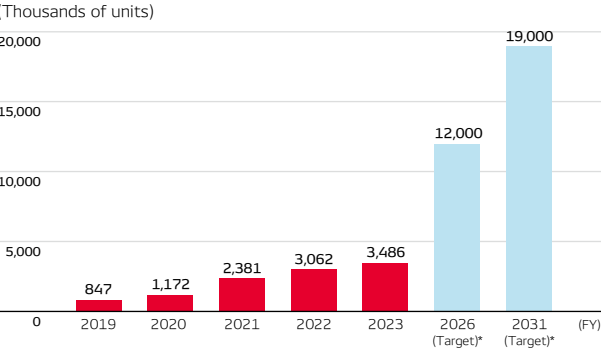
### Outcome of Strategies for “Green” and “Peace of Mind”

Objective:	Provide electric drive system products with a view to carbon neutrality
Results:	In response to a diversifying market, rolled out new products, including low-loss, high-output, compact SiC inverters that help enhance the practicality of BEVs by extending their driving distance, shortening charging time, and lengthening battery life. Selected electric drive systems, products, and components from our lineup that are suited to customer needs and market penetration and, focusing on energy management, established development capabilities and initiated projects for electric drive systems and products
Objective:	Create new businesses and develop new products by applying the Group's core technologies
Results:	<ul style="list-style-type: none"><li>Our project for the development of electric propulsion systems (motors and inverters) for electric aircraft adopted by the New Energy and Industrial Technology Development Organization (NEDO)'s Green Innovation Fund under the category of “Next-generation Storage Battery and Motor Development.” Strengthened collaboration with NEDO for real-world implementation</li><li>Utilized our track record for in-vehicle electric power steering motor control units to advance the development of propulsion machinery for compact vehicles, such as in-plant automatic guided vehicles, autonomous mobile robots, and “last one mile” delivery robots</li></ul>

provide added value by marketing systems that link thermal management to competitive, electromechanically integrated systems, such as eAxle. Also, by providing power modules and other competitive modules and components, we will further deepen our ability to meet the needs of all types of customers and create business models together with industry-leading customers.

To prepare for global business expansion associated with BEV proliferation, we established mass production capabilities in North America and China in fiscal 2023, and we are building similar capabilities in Europe in fiscal 2024.

### Unit Production of Inverters



For details on the “Next-generation Storage Battery and Motor Development” project adopted by NEDO, please visit the website below.  
<https://green-innovation.nedo.go.jp/en/project/development-next-generation-storage-batteries-next-generation-motors/>



## Resolving Social Issues through Our Businesses

Relevant SDGs

7  
affordable and clean energy

13  
climate action

### Inverter with SiC Power Semiconductors Enhancing the Driving Distance of BEVs through a Highly Efficient Inverter

We have developed and launched an inverter that utilizes SiC power semiconductors. This inverter is used in the new LEXUS RZ, released in March 2023 as the first dedicated BEV model. Our product has been incorporated into the eAxle, an electric driving module developed by BluE Nexus Corporation.

The aforementioned SiC power semiconductors are made of a semiconductor material that significantly reduces power loss. Inverters drive and control the motors that power BEVs. Compared with inverters that use conventional Si power semiconductors, our inverter that uses SiC power semiconductors in its drive devices reduces power loss by more than 50% under certain driving conditions,\* helping to extend the driving distance of BEVs. Going forward, we will continue contributing to the proliferation of electric

vehicles by utilizing our technologies for mechanical parts and electronics to realize energy savings for all kinds of vehicles.

\* Midsize SUV, driving mode stipulated by the United States Environmental Protection Agency: Federal Test Procedure (City Schedule)

Inverter with SiC power semiconductors:  
Approximately 7% improvement in electric mileage (reduction in vehicle loss) compared with conventional products

Inverter

Power card

# POWERTRAIN SYSTEMS

## Balancing the joy of life with vehicles with superior environmental performance—Providing solutions that help overcome this seemingly contradictory task

We will reduce the environmental burden of vehicles to the greatest extent possible and respond to the diversification of fuel and various environmental regulations, which are becoming stricter by the year. We will also work to supply high-quality systems and components. By doing so, we will strive to create and deliver new value in order to contribute to society as a whole.



Hisashi Iida  
Head of Business Group

### Business Strengths

**R&D Capabilities That Have Led Development of World-First Products and Advanced Powertrains**

DENSO has mass-produced a number of world-first products, such as common rail systems and a product that directly injects fuel in diesel internal combustion engines, while pursuing greater environmental performance in vehicles. Our core technologies and development capabilities are also compatible with the expansion of options for carbon-neutral powertrains, such as hydrogen and biofuel engines.

**Highly Reliable Manufacturing Technologies That Facilitate the Safe Driving of Vehicles**

To enable the high-performance driving of vehicles, DENSO has refined its highly reliable manufacturing technologies that are integrated from materials preparation to molding and sintering, as well as its technologies for high-speed assembly and highly complex and precise processing at the micron-unit level. DENSO aims to sharpen its technological edge further by fusing together cutting-edge AI and digital technologies with robots and its accumulated skills and manufacturing knowledge.

**Personnel, Masters of Powertrains, Form Organically Coordinating Organizational Capabilities**

In working with automakers on the creation of vehicles that can satisfy tough environmental regulations and withstand harsh operating environments, we have developed a varied range of professionals, each of whom has expertise in particular elemental technologies or technical skills and works in a team of professionals focused on vehicle specifications. In other words, we have advanced organizational capabilities that allow us to leverage specializations in all areas, from components through to systems.

### Business Strategy

The Powertrain Systems Business has helped the spread of mobility by pursuing the simultaneous realization of lower environmental impact and convenience. The extensive experience garnered through these efforts has enabled us to acquire additional technologies and skills. Moreover, meeting the needs of markets and customers has developed and strengthened our personnel and organization. We have a responsibility to utilize these technologies and skills and thereby continue contributing to the realization of a sustainable mobility society. With a view to helping achieve a sustainable future while ensuring that all our personnel can continue working with cheerfulness, pride, and vitality, in fiscal 2024 we will continue efforts to de-emphasize and discontinue internal combustion engine products throughout supply chains and to commercialize new energy businesses (demonstrating the effectiveness of measures).

Business Portfolio Transformation	<p>As the internal combustion engine market enters a period of maturity and contraction, the Powertrain Systems Business Group will transform its business portfolio, which developed during the previous period of rising production volume. In this way, we will establish a profitable structure that enables continued earnings even during a phase of declining production. At the same time, the business group has a responsibility to pass on the baton by shifting the freed-up resources—personnel, products, and money—to growth fields.</p> <p>Attempting to shift such resources as personnel, products, and money to growth fields in a short period would not only require excessive manpower and expenses but would also impact and burden a wide range of stakeholders, including customers and suppliers. Collaboration with other business groups to identify needs in growth fields and then swiftly initiating activities and making adequate preparations is extremely important. With this in mind, we will begin initiatives as soon as possible, complete preparations promptly, and de-emphasize and discontinue internal combustion engine products in a decisive manner that precludes backtracking.</p>
Realization of Carbon Neutrality and the Creation of New Value	<p>In the field of utilizing new sources of energy, such as hydrogen and exhaust heat, our activities have led many people to entertain great expectations of our efforts and express interest in them. On the other hand, to realize commercialization we must gain the genuine endorsement of the business partners who create, use, and buy our products. For this reason, demonstrating the tangible value of products is essential. In fiscal 2024, we will conduct commercial product installation and advance demonstration activities in relation to exhaust heat power generation, fuel cells, and carbon neutrality at DENSO FUKUSHIMA CORPORATION and prepare concrete plans for commercialization.</p>

### Specific Initiatives to Achieve Strategic Aims

**Preparatory Activities for the De-Emphasis and Discontinuation of Internal Combustion Engine Products**  
Our preparatory activities are ensuring the safety, reliability, and stability of our products and businesses. In other words, we are establishing conditions that will enable us to safely deliver products with reliable quality. Specifically, in de-emphasizing and discontinuing internal combustion engine products, we must put in place four key elements: quality, business conditions, products, and supply chains. Therefore, we will strengthen the foundations of quality, revise sustainable business conditions and product specifications, and reorganize supply chains so that they reflect changes in scale. In the internal combustion engine field—where the new investment of resources is likely to become challenging—we will advance the aforementioned preparatory activities in collaboration with customers, suppliers, and other stakeholders so that we maintain supplies of internal combustion engines for those continuing to require them due to regional or timeframe-related issues. In this way, we will help realize the multi-pathway development of powertrain systems.

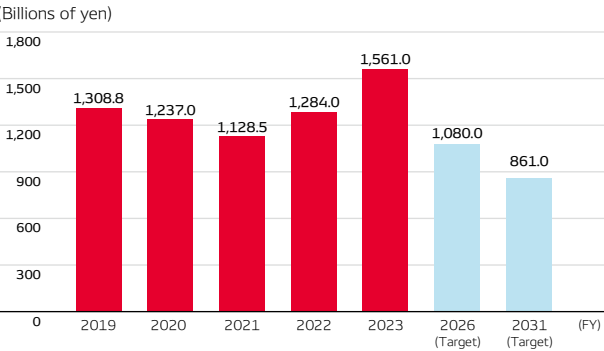
### Outcome of Strategies for “Green” and “Peace of Mind”

<b>Objective:</b>	Promote efforts to de-emphasize and discontinue internal combustion engine products together with customers, suppliers, and other industry participants
<b>Results:</b>	Began discussions with customers and suppliers and initiated agreement on future strategies and scenarios; in fiscal 2024, expanding the scope and securing sufficient time for discussions and preparation by starting early
<b>Objective:</b>	Achieve commercialization in the new energy field through activities to promote related parties’ understanding
<b>Results:</b>	Through discussions with industry stakeholders, agreed on moving forward with various projects; in fiscal 2024, shifting to implementation by realizing commercialization through implementation demonstrations

### Preparatory Activities

<b>Preparing quality (strengthening the foundations of quality)</b>
• Eliminating dependence on the skills of individuals and creating processes not overly reliant on personnel
<b>Preparing business conditions (replacing businesses in our portfolio)</b>
• Thinking through sustainable measures and establishing the required elements
<b>Preparing products (standardizing products)</b>
• Establishing manufacturing that is easy to manage by improving the robustness of quality and by integrating product types to reduce component varieties
<b>Preparing supply chains</b>
• Building a flexible production system in line with scale
• Integrating the production lines of manufacturing bases and introducing high-mix, low-volume production lines

### Revenue of Internal Combustion Engine Products Designated to Be De-Emphasized or Discontinued\*



\* Powertrain Systems Business Group overall

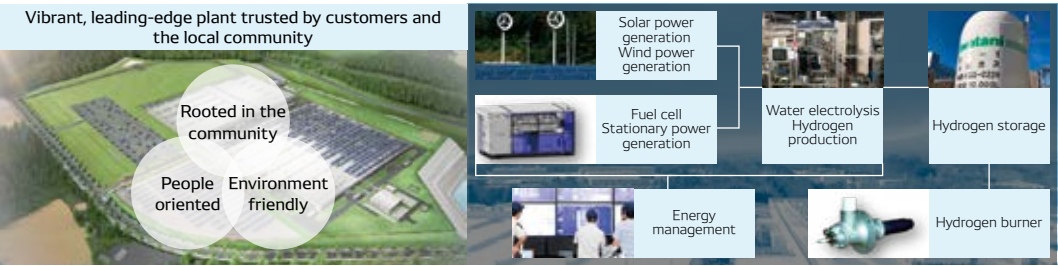
### Resolving Social Issues through Our Businesses



### Acquisition of Like-Minded Partners through Early Implementation of Demonstrations in the New Energy Field

With our sights set on a society where a range of energy-saving and renewable energy solutions become ubiquitous and energy and resources are used without waste, we have been creating core products that realize the concept of utilizing hydrogen, heat, and water, and we have been analyzing the value that these products offer. However, simply providing products that have value is not enough. Together with partners who share our vision, we must provide a value model that includes the establishment of suitable conditions. We will develop commercialization models that take into account safety, statutory regulations, infrastructure, regional characteristics, and economics, and together with our partners we will begin implementation demonstrations aimed at the start-up and expansion of operations.

### Realization of Plant Decarbonization Technologies through On-site Hydrogen Production and Combustion Utilization at DENSO FUKUSHIMA CORPORATION





# THERMAL SYSTEMS

## Contributing to a more pleasant world by solving heat-related issues faced in a mobility society

With the arrival of a carbon-neutral society and the era of CASE vehicles,\* the automotive industry is undergoing a paradigm shift. Amid this shift, the Thermal Systems Business Group is helping create the society of the future by taking maximum advantage of strengths as the leading global supplier of thermal systems to provide thermal management systems that increase the value of BEVs and realize comfortable, reassuring vehicle interiors.

\* CASE vehicles: Connected, autonomous, shared & service, and electric vehicles



Yasuhiko Yamazaki  
Head of Business Group

### Business Strengths

Thermal Management Technologies	Relationships of Trust with Diverse Customers	Global Supply Chain
A differentiating strength of the Thermal Systems Business Group is its thermal management technologies, which are backed by world-first products and approximately 2,400 patents—approximately 1.5 times more than those of competitors. We have built up these technologies through the development of cooling and air-conditioning products since our establishment. Due to the transition from internal combustion engines, which utilize engine heat, to BEVs, which have no heat source, demand for thermal management that efficiently controls heat in vehicles and utilizes it without waste is set to increase even further.	Through our mainstay heating, ventilation, and air-conditioning units and compressors, which firmly maintain the No. 1 shares of their respective markets, we have built relationships of trust with a wide range of customers, including not only Toyota Motor Corporation and other Japanese automakers but also European, American, and Chinese automakers, as well as manufacturers of commercial, agricultural, and construction equipment. DENSO will continue using its diverse customer network and nine technical centers located around the world to identify technological trends and needs worldwide and provide solutions based on thermal management technologies.	To enable the delivery of products to many different customers, the Thermal Systems Business Group operates more than 50 production bases in 26 countries around the world. We achieve optimal costs in each region through manufacturing that is rooted in regions. For example, we encourage local procurement and the rationalization of facilities on a regional basis. On the other hand, global supply networks and standardized product lineups enable the provision of inter-region production backup in emergencies. We will maintain and strengthen our global supply network through production reorganization in line with business portfolio transformation.

### Business Strategy

We will both help realize a carbon-neutral society and build a highly profitable business structure by advancing transformation of our portfolio from businesses that provide products for internal combustion engines toward businesses that offer thermal management products for BEVs.

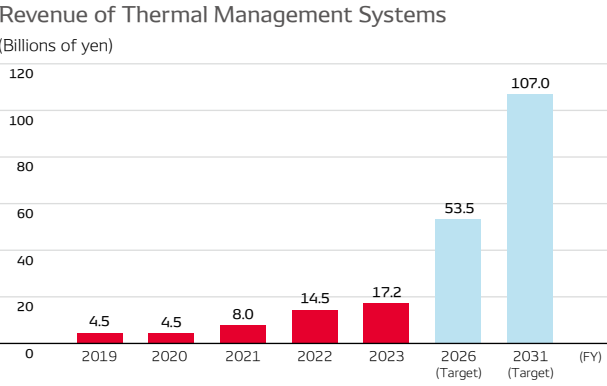
Realization of Sustainability Management	To lay solid business foundations for business portfolio transformation, we will continue strengthening our ability to adapt to changes. For example, we will streamline operations, establish manufacturing that can adjust to fluctuating volume, and establish a system for using entire supply chains to mitigate market volatility.
High Aspirations and Meticulous Work	In catering to diversifying thermal management needs, transformation of development processes and manufacturing is essential. To simultaneously expedite development and heighten quality, DENSO will build an environment for model-based systems engineering development and entrench digital technology-enabled development processes. As for manufacturing, we will improve production efficiency through Factory-IoT (F-IoT) while realizing the concept of factory innovation through flexible production lines that incorporate the Core & Customization concept.
Business Portfolio Transformation	We will accelerate the development and sales growth of thermal management products for BEVs by transferring resources and assets freed up through the de-emphasizing or discontinuation of internal combustion engine products. In addition, we view the maintenance of supply chains and the discontinuation of businesses during the transitional phase of de-emphasizing and discontinuing internal combustion engine products as an issue for the entire automotive industry. Accordingly, we will give concrete form to exit strategies and co-create schemes that transcend the boundaries of customers, affiliates, and competitors.
Realization of Carbon Neutrality	Through increased sales of thermal management products, we will contribute to the popularization of BEVs, thereby helping realize a carbon-neutral society. Further, DENSO will step up carbon neutrality efforts throughout the value chain. For example, we will promote carbon-neutral materials that use recycled materials and begin demonstration tests of plants that achieve carbon neutrality through the utilization of renewable energy and hydrogen power generation.
Creation of New Value	We will solve thermal issues in fields beyond our traditional field of mobility by providing such products as air conditioners for air mobility and other new types of mobility and temperature controllers for computers compatible with self-driving cars.

**Specific Initiatives to Achieve Strategic Aims**  
**Realization of a Scenario for the De-Emphasis and Discontinuation of Internal Combustion Engine Products with the Aim of Business Portfolio Transformation**  
As BEV penetration accelerates, demand for internal combustion engine products will gradually contract. A major challenge going forward is the replacement of products in our lineup with thermal management products for BEVs while minimizing losses and fulfilling business obligations with respect to existing internal combustion engine products. Based on a strategy for internal combustion engine products formulated in fiscal 2023, the

Thermal Systems Business Group will work closely with customers and affiliates to realize a scenario for reorganizing and consolidating the global production of internal combustion engine products. In addition, to maximize the use of existing human resources, technological assets, and production foundations for the thermal management products of the next generation, we will tackle as an industry issue the building of a reorganization scenario that has continuity in all aspects, including technological development, human resource development, and manufacturing.

### Outcome of Strategies for “Green” and “Peace of Mind”

<b>Objective:</b>	Complete planning for the de-emphasis and discontinuation of internal combustion engine products
<b>Results:</b>	Based on internal combustion engine products, which will see contraction as BEVs are introduced, completed formulation of strategies in line with the business phase of each product (mature, late stage, end stage); in addition, activities underway to maintain competitiveness during the transitional period, including revision of appropriate selling prices to reflect business phases, establishment of optimal production systems, and cost reductions through the use of general-purpose materials
<b>Objective:</b>	Complete conceptualization of thermal management modules incorporating differentiated technologies
<b>Results:</b>	Completed product concepts and strategy development; became involved in the early stages of our main customers’ vehicle development and began product development; aiming to realize concepts during fiscal 2024



Driving distance: 20% increase

One barrier to the proliferation of BEVs is driving distance, and a factor that limits driving distance is the electricity consumed for heating. DENSO’s heat pump systems use heat in the air as a thermal source for heating, thereby reducing the consumption of electricity and greatly extending driving distance. Moreover, thermal management systems that use heat pumps enable the efficient adjustment of temperatures in vehicles and the cooling of batteries, which helps to inhibit battery degradation and shorten recharging times.

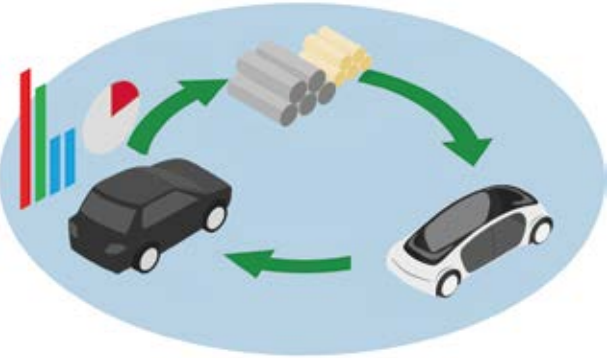
### Resolving Social Issues through Our Businesses



#### Reduction of CO<sub>2</sub> Emissions throughout Product Life Cycles by Utilizing Recycled Materials

Aluminum is the main material of heat exchangers, and the large amount of electricity needed to refine this metal is an issue. As well as efforts to realize carbon-neutral *Monozukuri* through energy savings and the use of renewable energy, we are involved in materials development, entailing the development of technologies that utilize post-industrial recycled\*<sup>1</sup> materials. Through these efforts, we aim to significantly reduce CO<sub>2</sub> emissions during the aluminum refining process. Our goal is to help realize a recycling-based society by reducing energy utilization and CO<sub>2</sub> emissions throughout product life cycles and by utilizing materials in ways that minimize resource requirements. To these ends, we will establish products with environmentally friendly designs that incorporate post-consumer recycled\*<sup>2</sup> materials and introduce the repair and restoration of products themselves.

\*<sup>1</sup> In-house reuse of end materials by a materials manufacturer  
\*<sup>2</sup> Reuse of scrap materials that are on the market



MOBILITY ELECTRONICS

Realizing a society in which all people can access mobility conveniently and with peace of mind (enhancing the quality of mobility)

DENSO helps realize zero traffic fatalities and carbon neutrality by continuing to introduce products in tune with the times, using its software and electronics technologies (sensors, semiconductors, ECUs), while precisely understanding the needs of users and advances and developments in society brought about by the CASE revolution.



Hiroshi Kondo  
Head of Business Group

Business Strengths

Ability to Create Large-scale Integrated Systems from an All-Vehicle Perspective

Needs for electronic systems in the CASE era are evolving into large-scale systems that integrate and coordinate powertrains, bodies, chassis, cockpits, advanced driver assistance systems (ADAS), and other single-domain control systems. DENSO has experience in all of these systems. We create compelling products from an all-vehicle perspective with a broad range of technological capabilities.

Product Development Capabilities with Reliability and Sophistication Accumulated in Automotive Products

Automotive products must realize high quality and performance in harsh environments and under operational restrictions. We have been engaged in the automotive electronic product business for many years, ever since vehicles began to become more electronic, and we have accumulated extensive knowledge of vehicles as a result. DENSO develops competitive products through a combination of this knowledge with the latest electronics and software technologies.

Global Network

DENSO has honed its human capital, intellectual assets, and a global production structure by overcoming numerous obstacles with automakers around the world. Using these strengths, we will refine our CASE-related technologies while providing various solutions to customers, thereby moving the world one step closer to safe mobility that provides peace of mind and is environmentally friendly.

Business Strategy

With the transition to software-defined vehicles (SDVs) and BEVs, electronic platforms are undergoing major renewal, and the mobility electronics market is polarizing into the traditional field of single-function electronic control units (ECUs)\*<sup>1</sup> and the growth field of large-scale integrated ECUs.\*<sup>2</sup> Using this shift as an opportunity, we will develop and grow our businesses through portfolio management that strengthens our presence in the growth field.

\*<sup>1</sup> Engine ECUs, etc. \*<sup>2</sup> ADAS ECUs, etc.

Creation of New Value	We aim to sustain business growth by improving our electronic platform planning capabilities and elemental technologies, both of which contribute directly to heightening the product appeal of SDVs and BEVs. <ul style="list-style-type: none"><li>Supported by our comprehensive knowledge of vehicle-related electronics and software, we will work very closely with customers and jointly develop electronic platforms with the aim of creating new added value. Further, increased sales of ECUs based on these optimized electronic platforms will enable us to further lower costs by taking advantage of the economies of scale resulting from mass procurement and production.</li><li>Through the development of ECUs, we will hone our in-vehicle software, semiconductors, and manufacturing technologies and increase the automation and speed of software development. We will utilize these technological assets—which are our strengths—to contribute to the development of the automotive industry.</li></ul>
Business Portfolio Transformation	With our sights set on further growth of the safety systems business, we will expand our lineup of products that cater to specific market segments and regions and move forward with global rollouts. We will also focus on the software business and the development of electronic platform products for BEVs with the aim of creating new value. At the same time, we will identify businesses that do not conform to the green and peace of mind principles as well as products that are becoming commoditized and replace them in our portfolio systematically and in close coordination with our customers.
Realization of Carbon Neutrality	We will help achieve carbon neutrality by advancing the formation of a circular economy through contributions to the increased introduction of BEVs, the utilization of F-IoT to visualize manufacturing issues, the sourcing of recycled materials, the development of repair technologies, and the development of products with structures that facilitate disassembly.
Realization of Sustainability Management	By establishing business foundations that are adaptable to change, we will achieve sustainability management. <ul style="list-style-type: none"><li>Development system reinforcement: With the aim of achieving large-scale, cross-domain software development, DENSO will redeploy human resources through portfolio management while developing and enhancing the capabilities of globally competent personnel through the Company's distinctive training system.</li><li>Manufacturing competitiveness: In anticipation of the mass production of large-scale integrated ECUs, we will further refine and combine our strengths, namely, in-vehicle quality, mass production, and adaptability. In addition, we will collaborate with external manufacturing partners to strengthen our global manufacturing foundations and increase their resilience in changing conditions.</li></ul>

Specific Initiatives to Achieve Strategic Aims  
Initiatives Aimed at the Growth of the Safety Systems Business and New Value Creation

(1) Safety systems: To meet global customer needs, we will expand our lineup of products that cater to specific market segments and regions. In addition, through collaboration between initiatives for ADAS and human-machine interface (HMI), we aim to evolve recognition and estimation algorithms and grow cross-domain ECUs. (To this end, the AD & ADAS Business Unit and the Cockpit Systems Business Unit were integrated to form the Safety Systems Business Unit in January 2023.)

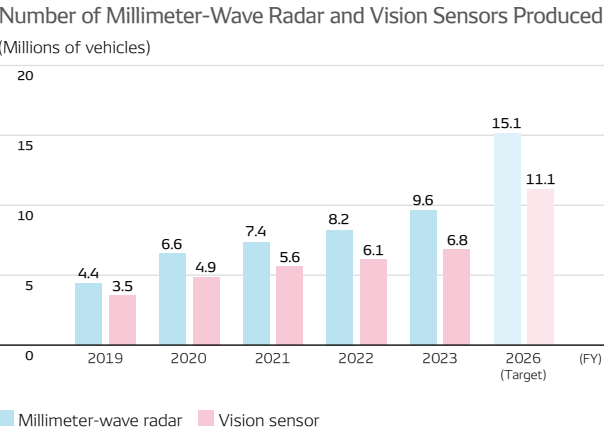
(2) Advancement of BEV electronic platform planning and development for individual vehicles: To respond to market evolution, we will evolve the Core & Customization design approach and cater to respective automakers and grades.

(3) Strengthening of software development capabilities: We will increase the percentage of automation and promote the use of AI. (Message from the Chief Software Officer [P85](#))

(4) Stable procurement of semiconductors and strengthening of competitiveness: The Company will promote stable procurement by standardizing components and sharing medium- to long-term strategies with partners. Also, we will achieve differentiation by using proprietary technologies to realize compact products that consume less power.

Outcome of Strategies for “Green” and “Peace of Mind”

<b>Objective:</b>	Popularize ADAS with a view to eliminating traffic accident fatalities
<b>Results:</b>	Increased the penetration of Global Safety Package 3 (GSP3),* featuring heightened safety performance * A system that uses millimeter-wave radar and vision sensors to assist driving
<b>Objective:</b>	Augment product lineup and develop electric, low-power consumption control systems with a view to carbon neutrality
<b>Results:</b>	As well as offering a lineup of hybrid electric vehicle (HEV), plug-in hybrid electric vehicle (PHEV), and BEV products, advanced the development of low-power ECUs and electronic control systems that help lower power consumption and electronic platforms that minimize energy usage by optimally integrating control of all vehicle systems



Vision sensor detection angle: 128 degrees (28-degree increase versus other companies)  
Millimeter-wave radar detection angle: 103 degrees (13-degree increase versus other companies)  
Note: Detection angles based on DENSO's measurements

Global Safety Package (GSP) is a system that assists driving by combining a millimeter-wave radar that detects the shape of objects on the road, such as vehicles and guardrails, and a vision sensor that uses a camera to detect the environment ahead of the vehicle. Widening the detection angles of the system enables it to provide assistance in a greater variety of situations that could lead to accidents, such as assisting in collision avoidance at intersections. Further, the GSP system has received the highest rating in the automobile safety tests conducted in Europe by the European New Car Assessment Programme (Euro NCAP).

Resolving Social Issues through Our Businesses

Technology Evolution and Product Rollouts Helping to Eliminate Traffic Accident Fatalities

To eliminate traffic accidents and realize unrestricted mobility, we must further evolve safety products and equip vehicles with leading-edge technologies. At the same time, we must promote the incorporation of these products and technologies into as many vehicles as possible by developing attractively priced products. In fiscal 2023, we began full-fledged mass production of third-generation GSP system GSP3, which equips vehicles with the leading-edge AI and sensor technologies that are our forte, thereby greatly increasing the range of accidents that this system can prevent. In this way, we are extending the areas in which we provide value in the form of peace of mind. As it realizes compactness and low cost, GSP3 is significantly contributing to the popularization of safety products. DENSO

will continue developing advanced driver assistance-related technologies with the objective of achieving a mobility society that ensures the comfort and peace of mind of drivers, pedestrians, and greater society.



GSP3 millimeter-wave radar



GSP3 vision sensor



ADVANCED DEVICES

Creating and growing businesses that solve issues faced by society and customers beyond the mobility domain

As a company reorganized to go beyond technologies and focus more on helping society and our customers, we are collaborating on the sensing and actuation fronts, and enhancing the value of systems through semiconductors that leverage our strengths derived from vertical integration. While creating new devices and systems, we aim to win the trust of our customers with an all-points approach to quality, cost, and delivery (QCD) in the expanding electrification market.



Yoshifumi Kato  
Head of Business Group

Business Strengths

Creation of New Value with Sensing and Actuation

Within the business group, our core technologies in actuation (i.e., hands and legs) are combined with semiconductors (i.e., brains) and sensing (i.e., eyes) to create new devices and systems based on nimble concepts, enabling the development of “great-if-possible” solutions for issues faced by our customers.

Leadership That Drives Collaboration with Partners and External Production Contractors, in Addition to Internal Production of Semiconductors

In preparation for expansion in the electrification market, DENSO will internally produce silicon (Si) and silicon carbide (SiC) power semiconductors, which are key devices that incorporate world-first technologies. Moreover, we will build the supply chain needed to increase cost competitiveness and supply capabilities.

On-site Capabilities That Support Production Technologies Highly Resilient to Changes in Specifications and Volumes in New Product Domains

DENSO is broadening the scope of applications for new product domains where it is competitive, thanks to human resource development and handpicked young employees. DENSO leverages digital-twin technology and collaborative robots to build a production system that can be optimally organized and configured by changing production line shapes and locations in accordance with fluctuations in volumes for new products.

Business Strategy

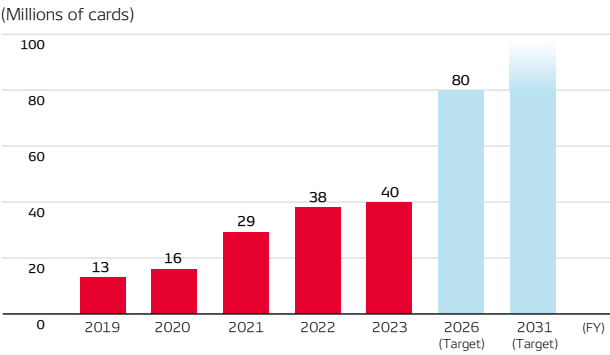
We will formulate winning scenarios and create new businesses through outstanding technological capabilities, speed, and alliances.

High Aspirations and Meticulous Work	To steadily transform our business portfolio from internal combustion engine products toward products for CASE vehicles, we will build variable-mix, variable-volume production lines that can adapt to product replacement and business environments with significant volume fluctuations. In addition, by digitalizing the expertise and knowledge of operators, we will take on ambitious production innovations that facilitate unmanned and nonstop production and compensate for a decline in the working age population.
Realization of Carbon Neutrality	As the presence of BEVs increases, we will capture demand in the vehicle electrification market through a two-pronged strategy of continuing our existing in-house production of inverter systems while establishing a business for the provision of modules catering to customers’ growing preference for producing inverters in-house. Also, we believe that the key to competitiveness will be the establishment of supply capabilities for the SiC used in BEVs. Going beyond conventional approaches, DENSO will efficiently and swiftly build a broad-based supply chain.
Creation of New Value	<p>The use of batteries is diversifying from primary to secondary usage as the introduction of BEVs gathers momentum. Given this trend, we believe that predicting battery life and reducing fire risk are important tasks. Through collaboration with other companies, DENSO will create and realize the widespread adoption of its differentiated products for sensing the health of batteries over their lifetimes, thereby providing additional safety and peace of mind when reusing and recycling batteries.</p> <p>We will identify the changes in electronic platform-related demand—which are accompanying the evolution from function-specific ECUs to the division of vehicles into multiple zones and the use of large-scale integrated ECUs controlled by central ECUs—and use semiconductor technologies to help enhance the value of systems. At the same time, DENSO will achieve business growth by increasing supply stability through alliances and outsourcing. In addition, we will support vehicle electrification by setting our sights on 2030 and accelerating the development of products for the next generation and beyond and by leveraging vertical integration to expand our lineup of control integrated circuits (ICs) for power semiconductors.</p> <p>We aim to establish multiple businesses in such areas as electric drives, human–machine interfaces, and thermal management as well as in non-mobility fields, including agriculture and plant logistics. In the CASE field, through the use of sensors and auxiliaries, DENSO will enable analysis of the energy management of individual vehicles and the optimization of system efficiency not only for such main components as batteries, motor generators, and inverters but also for other components. In these ways, we will benefit customers and society.</p>

Outcome of Strategies for “Green” and “Peace of Mind”

**Objective:** Begin collaboration with a chip foundry to meet growing demand for automotive semiconductors  
**Results:** In April 2022, concluded an agreement to collaborate on the production of insulated gate bipolar transistors (IGBTs) at a 300-mm wafer plant operated by United Semiconductor Japan (USJC), the Japanese subsidiary of United Microelectronics Corporation; in May 2023, began IGBT shipments; and combined USJC’s wafer production technologies with DENSO’s system-targeted IGBT device and process technologies

Number of Power Semiconductors Produced (Power Cards)



SiC power semiconductors: Power losses approximately 70% lower than conventional Si devices

Inverters drive and control the motors that power BEVs. Compared with inverters that use conventional Si power semiconductors, our inverters that use SiC power semiconductors in their drive devices reduce power loss by approximately 70% under certain driving conditions. Consequently, our SiC power semiconductors help extend the driving distance of BEVs by increasing their electric mileage.

Specific Initiatives to Achieve Strategic Aims

Beginning to Equip Vehicles with Inverters That Use SiC Power Semiconductors

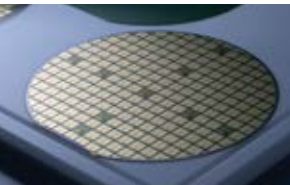
Our first inverter to use a SiC power semiconductor has been incorporated into the eAxle electric driving module. This module has been installed in the new-model RZ, unveiled as the first dedicated BEV LEXUS in March 2023. In the manufacture of power semiconductors, we have halved the number of crystal defects that cause disruption in the atomic arrangement of crystals, which prevents devices from operating properly. This improvement has been achieved based on the application of quality enhancement technology jointly developed by DENSO and TOYOTA CENTRAL R&D LABS., INC., and through the utilization of SiC epitaxial wafers,\* which incorporate the results of work commissioned by the New Energy and Industrial

Technology Development Organization (NEDO). The aforementioned reduction of defects ensures in-vehicle quality and contributes to stable production of SiC devices.

\* These are wafers formed by growing a thin film of crystals on a substrate of SiC crystals so that the upper layer of crystals aligns with the crystal plane of the substrate.



SiC power card



SiC power semiconductor wafer

Resolving Social Issues through Our Businesses

Helping to Address Global Water Shortages by Automating Agricultural Irrigation Systems

We are creating new solutions by connecting core sensing and actuation technologies developed in the mobility field. In the field of agriculture, for example, the shortage of water for global grain production has motivated us to launch an initiative tasked with applying variable flow technology used for engine coolant control valves to agricultural irrigation systems. In a demonstration test that used this technology on a farm, water savings of more than 30% were achieved compared with irrigating at a constant discharge rate. Moreover, we are

combining the technology with soil sensors that measure the appropriate moisture content and pressure sensors that detect water leakage and blockages, thereby demonstrating the value of the system as an automatic irrigation system. We are already in discussions with a global manufacturer of agricultural systems with a view to commercialization of the system, and we aim to start up mass production in 2025. In non-mobility fields, we will utilize and develop our core technologies to benefit initiatives that address such issues as labor shortages, population aging, and the realization of carbon neutrality.



## FACTORY AUTOMATION AND SOCIAL SOLUTIONS

### Enhancing the productivity of the *Monozukuri* industry and improving quality of life

Our mission in the Industrial Solutions Business Unit is to realize carbon-neutral *Monozukuri* (manufacturing) from the perspective of “green,” and to build a society that expands human potential from the perspective of “peace of mind.” Guided by this mission, we will work to earnestly address the issues facing our customers, providing them with solutions that resolve such issues in a manner that best suits their needs. By doing so, we will make significant contributions to industrial and social progress.



**Jiro Ebihara**  
Head of FA Business  
Development Division

#### Business Strengths

**Production Assets That Have Been Rigorously Honed in the Frontline Manufacturing Operations of Approximately 130 Plants Worldwide**

Using our high-quality, highly durable facilities that have been refined on auto part production lines, as well as our core factory automation equipment, such as robots and sensors, we are playing a role in improving productivity throughout the manufacturing industry and society at large while spreading our reach from stand-alone equipment to processes and modules.

***Monozukuri* Know-How That Has Supported DENSO's Products for More Than 70 Years**

DENSO solves serious issues directly affecting the manufacturing industry, such as labor shortages, carbon neutrality and digital transformation (DX), with its know-how in flexible and lean manufacturing and lean automation technologies.

**Safe and Secure Solutions for Society Using QR Codes® Developed by DENSO**

DENSO creates value for new domains and applications by incorporating outside ideas for using QR Codes® and QR Code® reader technologies that have been evolving since 2000 and which have become an international standard (ISO/IEC 18004).

#### Resolving Social Issues through Our Businesses

Relevant SDGs



##### Contributing to the Creation of Industrial and Social Settings Where People and Robots Work Together

DENSO has begun marketing COBOTTA® PRO, a high-speed human-collaborative robot. This new offering achieves industry-leading speed by employing a light, high-rigidity torque sensor that we developed in-house. At the same time, the robot's high-performance contact sensors and a touch-sensing soft cover ensure safety, helping to create industrial and social settings where people work confidently with robots. We are offering solutions not only in areas where robots have been deployed in the past—such as for simple tasks, assembly, and inspection in the manufacturing industry—but also in new areas where automation and collaboration between humans and robots has been considered difficult, such as the weighing, measuring, and serving of food in the food industry. (In recognition of its advanced features, COBOTTA® PRO received a Good Design Award in October 2022.)

Note: COBOTTA is a registered trademark of DENSO WAVE INCORPORATED.



COBOTTA® PRO

##### Focusing on Addressing Industrial and Social Issues as Creator of the QR Code®

In line with its efforts to create a society where everyone can enjoy a more fulfilling life, DENSO contributes to initiatives that are based on premium merchandise coupons. Many municipal authorities conduct such initiatives to stimulate regional economies. Consequently, the use of digital premium merchandise coupons is increasing. However, some people are being left behind because they do not own compatible devices or are not conversant with digital technologies. In response, DENSO has

developed the QR Code Subsidy Application System, which combines paper merchandise coupons and QR Codes®. Our system provides merchandise coupons and QR Codes® usable by anyone while streamlining the administrative work of municipal authorities and affiliated stores. We have completed provision of the system to an initiative based on merchandise coupons in Nakano Ward, Tokyo. Currently, DENSO is proposing adoption of this system to municipal authorities nationwide.

##### Providing a Medication Management Service That Contributes to a Healthy, Reassuring Society

One of the challenges associated with society's accelerated aging is the enhancement of home medical care. As the number of patients who take numerous medications at home increases, the provision of error-free environments for taking medications is becoming more important than ever. In addition, pharmacies need to realize centralized medication management and pharmacological guidance. To address these issues, DENSO has collaborated with a healthcare service company to develop a medication management service that utilizes IoT and automatic recognition technology. In the patient's home, a medicine box with communication functions is installed, which automatically detects and records the medication taken out and shares information on medication status with the pharmacy, family members, and other related parties via a server. This service will not only promote safe, reassuring medication management but also help mitigate the financial impact of unused medications on the medical insurance system.



Medicine box with communication functions

## FOOD VALUE CHAIN

### Combining technologies and ideas to provide new value and contribute to a society where all people can live safely and with peace of mind

Food is essential to human life. Together with our business partners, while observing the entire food value chain, we will provide solutions that deliver food safety and security to each region of the world, anytime, anywhere, and to anyone, forever.



**Hidehiro Yokoo**  
Head of Food Value Chain Business  
Development Division

#### Business Strengths

**Greenhouses That Ensure Reliable Harvests While Dealing with Labor Shortages and Climate Change**

By applying our *Monozukuri* technologies gained with automobiles to agricultural production, we are supporting technologies that condition environments for reliably harvesting agricultural products. We introduce automation technologies to create environments where people can move around easily, and globally supply solutions for greenhouses in a highly productive way that sustains growth.

**Portable Compact Freezer/Refrigerators That Help Deal with Driver Shortages and Delivery Diversification**

We provide portable freezer/refrigerators by utilizing heat control technologies developed for automobiles and by creating compact, light versions of conventional automotive freezers. Our battery-powered products allow non-specialized drivers with passenger cars to flexibly deliver a range of small-lot items without using engines or dry ice for freezing or refrigeration, which reduces CO<sub>2</sub> emissions.

**New Distribution DX Solutions That Reflect Changing Needs in Food Distribution**

Utilizing the QR Code® and RFID technologies, which we developed in frontline manufacturing operations, we are digitizing diverse information related to food in order to visualize food distribution information from production to sale, in response to consumer needs for safe and secure food. We also offer a straight-through food distribution platform that facilitates supply-demand optimization in distribution operations and rightsizes inventories.

#### Resolving Social Issues through Our Businesses

Relevant SDGs



##### Stabilizing Food Production by Introducing Industrial Approaches to Agriculture

Concern is growing over the food shortages that could result from instability in agricultural production due to climate change and a global decline in farming populations. In the field of horticultural facilities, we aim to utilize our vehicle manufacturing technologies to facilitate the introduction of industrial approaches to agriculture, thereby enabling anyone, anywhere to realize stable agricultural production.

Specifically, we have partnered with the Dutch company Certhon Build B.V., which possesses leading-edge horticultural facility technologies. By combining these technologies with our automation, environment control, and digital transformation technologies, we will create and globally market highly efficient greenhouses suited to the characteristics of each region.

Also, DENSO will contribute to regional revitalization through the realization of sustainable agricultural production. Based on a comprehensive partnership agreement concluded with the city of Date in Hokkaido, we plan to develop a business that will become a model for regional revitalization. The new business will use environment control technologies to achieve year-round cultivation of high-quality crops, foster next-generation agricultural personnel through the introduction of a remote cultivation system that digitizes greenhouse data, and utilize local resources to establish low-carbon agriculture.



Greenhouse for medium-sized and large farms



Robot for automated tomato harvesting

##### Promoting Local Production for Local Consumption through Temperature-Controlled Logistics and Product Exchanges between Roadside Stations

Based on a comprehensive partnership agreement with Kumamoto Prefecture, we are conducting verification tests of a model in which portable compact freezer/refrigerators are used for the exchange of products between roadside stations (rest stops). By enabling the transport of fresh food products between these stations, the model will solve the problems of opportunity losses due to insufficient stocks of fresh food products and waste due to surplus stocks. As a result, the model will encourage local production for local consumption and reduce food waste.



Portable compact freezer/refrigerator

##### Enhancing the Product Branding of Municipal Authorities through Production Source Verification Systems

We are contributing to safety and peace of mind in relation to food through the use of a QR Code® to visualize food distribution data. In response to the problem of the intentional mislabeling of short-necked asari clams to falsely show Kumamoto Prefecture as their production region, we have collaborated with the prefecture to jointly develop and introduce a system that uses our QR Code® to certify the production region. Thus, the system delivers safety and peace of mind to consumers by ensuring traceability from production through to sales. Going forward, we plan to roll out the system for a wide range of other regional products.



Rendering of the QR Code® being used to read production region data



## Financial Capital

### Message from the Chief Financial Officer

### Financial Strategy for Resolving Social Issues While Realizing Business Growth

Yasushi Matsui

Chief Financial Officer  
Executive Vice President  
Representative Member of the Board

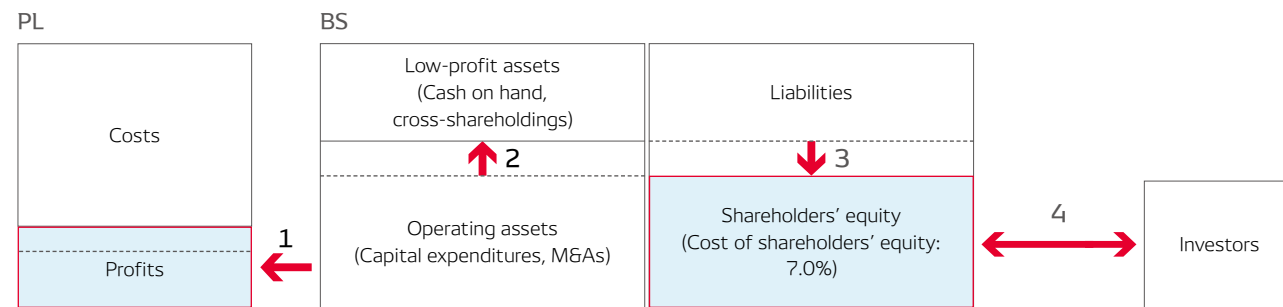
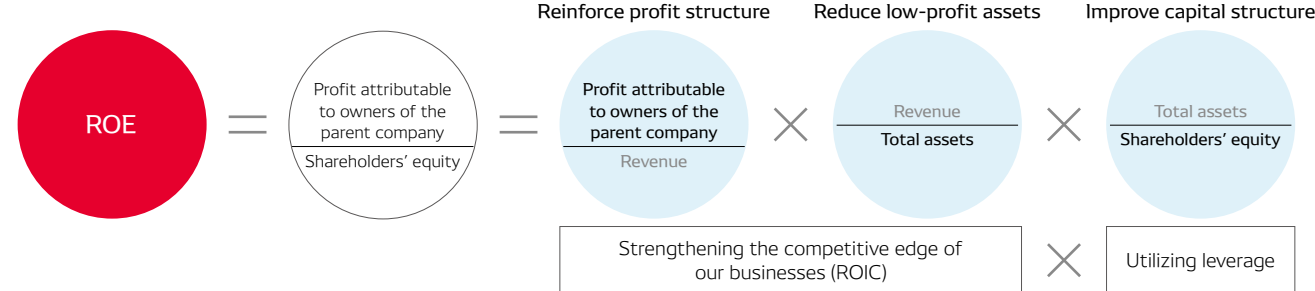
#### Financial Strategy for Realizing the Mid-term Policy for 2025

DENSO's sustainability management focuses on "resolving social issues by maximizing the value of green and peace of mind to be inspiring" and "expanding genuine equity spread over the medium to long term." By implementing this management approach, we aim to enhance our corporate value in a sustainable manner. Furthermore, guided by management with an awareness of capital cost, we established return on equity (ROE) as our most important KPI from a financial perspective.

Under the Mid-term Policy for 2025, we have set a target for ROE of 10% or higher with the aim of maximizing value creation by having ROE exceed the Company's current cost of shareholders' equity of around 7% and the minimum level expected by society, as indicated in documents like *Ito Report 2.0*, of 8%.

As CFO, I will seek to realize this target through the agile promotion of a financial strategy supported by four pillars: (1) reinforce profit structure, (2) reduce low-profit assets, (3) improve capital structure, and (4) engage in dialogue with markets.

#### Initiatives for Creating Corporate Value



1 **Reinforce profit structure:** Improve ROIC

2 **Reduce low-profit assets:** Reduce cash on hand and cross-shareholdings

3 **Improve capital structure:** Leverage loans, diversify fund procurement, renew policy for shareholder returns

4 **Engage in dialogue with markets**

#### DENSO's Important KPIs (Results for Fiscal 2023 → Targets for Fiscal 2026)

##### Reinforce profit structure

• ROE: 7.3% (Cost of shareholders' equity: 7.0%)  
→ **10% or higher**

• Operating margin: 6.7% → **10%**

##### Reduce low-profit assets

• Cash on hand compared with monthly turnover: 1.0 months  
→ **Maintain current level**

• Cross-shareholdings: 21 stocks → **Further reduction**

##### Improve capital structure

• Shareholders' equity ratio: 59.1% → **50% or higher**

• DOE: 3.2% → **Stable long-term improvement**

• Treasury stock acquisition: ¥100.0 billion  
→ **Flexibly implement and strengthen**

#### 1. Reinforce profit structure

#### 2. Reduce low-profit assets

#### 3. Improve capital structure

#### 4. Engage in dialogue with markets

#### Overcoming the Rapidly Changing External Operating Environment to Realize Further Corporate Value Creation

In fiscal 2023, despite a market recovery from the impacts of the COVID-19 pandemic, our performance was significantly impacted by negative developments in the external operating environment, including a decline in vehicle production due to prolonged semiconductor shortages, soaring prices of materials, primarily electronic components, logistics costs, and energy costs. In such an environment, we pursued efforts to expand sales in focus fields such as electrification and advanced safety systems and promote rationalization by improving productivity and other areas. We also worked diligently to strengthen our response capabilities to overcome the challenges presented by the worsening conditions in the external operating environment. As a result of these endeavors, revenue increased 16.1% year on year, to ¥6,401.3 billion, and operating profit was up 24.9%, to ¥426.1 billion, both reaching record highs.

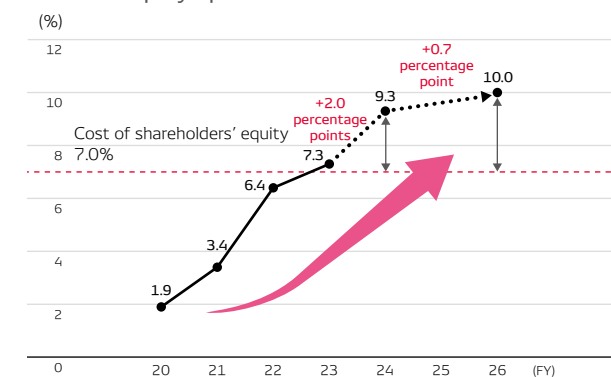
In fiscal 2024, while semiconductor shortages are likely to gradually be resolved, we expect to continue to see a challenging operating environment, including in terms of inflation. Even under these adverse conditions, we will strive to achieve record-high revenue and profits for the second consecutive year by developing and expanding sales of attractive products, rigorously controlling fixed costs, and further enhancing our ability to respond to change.

ROE in fiscal 2023 came to 7.3%, a 0.9 percentage point improvement over the previous fiscal year, thereby exceeding the Company's cost of shareholders' equity. Through efforts to further strengthen profitability, we expect to achieve ROE of 9.3% in fiscal 2024, steadily making progress toward our fiscal 2026 target (as of the release of our first quarter financial results for fiscal 2024).

Under the Mid-term Policy for 2025, we declared our commitment to creating social value by realizing the goal of "ultimate zero," meaning that we achieve carbon neutrality and eliminate fatalities from traffic accidents.

From here, I will explain specific initiatives we are implementing to both resolve social issues and realize business growth, in accordance with the four pillars of our financial strategy.

#### ROE and Equity Spread



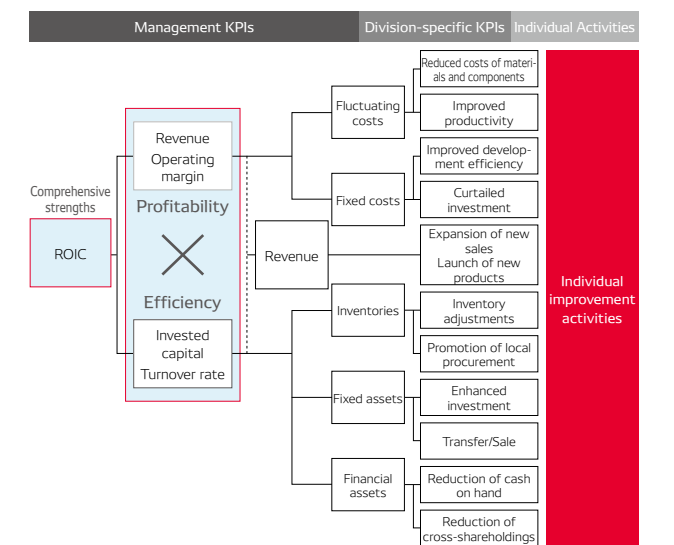
#### 1. Reinforce Profit Structure: Business Management Focused on Realizing the DENSO Philosophy

##### (1) Evolving ROIC-Minded Management Geared toward Corporate Value Enhancement

DENSO's ROIC-minded management is not a method for short-term improvement in financial indicators but rather aims to enhance corporate value over the medium to long term.

Through ongoing awareness-raising activities that cover various angles, including the in-house rollout of an "ROIC tree," regular educational activities, and the sharing of improvement

#### ROIC Tree Showing the Relationship between Management KPIs and Individual Activities



examples in global in-house publications, we are working to instill a deep understanding of the significance of our financial indicators in all of our employees. By doing so, we are implementing ROIC-minded activities on a continuous basis. Various examples of improvements have been seen in our frontline operations since the introduction of ROIC-minded management, and I feel that the ongoing efforts of our employees have gradually boosted our ROIC on a Companywide basis.

In addition, since fiscal 2023 we have added ROIC as a metric for determining the performance-linked compensation for members of the Board. By disclosing our targets for ROIC in fiscal 2024, we are further reinforcing the awareness of and commitment to ROIC by senior management.

We have entrenched a strong awareness of ROIC throughout many layers of the Company in the approximately two years since introducing ROIC-minded management, and we will seek to enhance this awareness even more moving forward.

#### (2) Reshuffling Business Portfolio to Realize the DENSO Philosophy and Achieve Business Growth

##### A. Striving for Sustainable Growth by Responding to Constantly Changing Social Issues

We believe that creating social value in the domains of green and peace of mind and inspiring our stakeholders will enable us to sustainably sharpen our competitive edge. As the value needed by society continues to change, we will perpetually reshuffle our business portfolio from the perspectives of realizing the DENSO philosophy, accelerating growth, and boosting profitability in terms of ROIC. This approach will allow us to create social value in a sustainable manner and achieve business growth.

Guided by this approach, we will reduce our number of products with a high burden on the environment, primarily internal combustion engines, and invest the resources gained by doing so in growth fields, such as electrification and advanced safety, and new businesses that offer new value. In these ways, we will achieve sustainable growth and high profitability.

##### B. Realizing Carbon Neutrality by Popularizing EVs

To date, DENSO has contributed to the electrification of vehicles, leading the way ahead of other companies with such initiatives as the development of electrification technologies and the establishment of a global production structure. With heightened environmental awareness across the globe and the

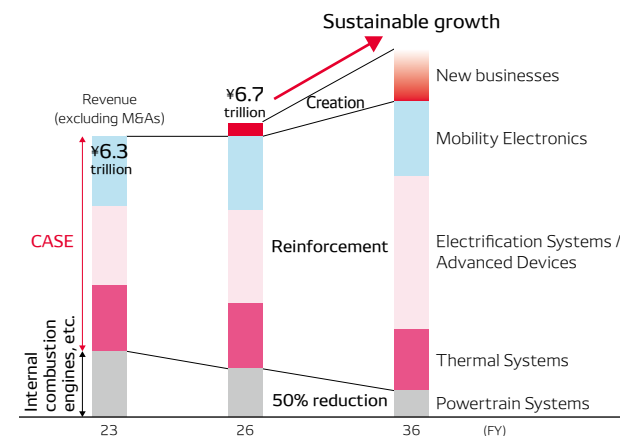
## 1. Reinforce profit structure

## 2. Reduce low-profit assets

## 3. Improve capital structure

## 4. Engage in dialogue with markets

## Business Portfolio Reshuffling over the Medium to Long Term



accelerated shift toward EVs, the needs of our customers are diversifying. In light of these trends, there are now greater expectations of DENSO due to our extensive product lineup and exceptional proposal-making capabilities.

Inverters are one of our mainstay products in the field of electrification. We have already commenced the mass production of inverters in North America and China, and we expect to do the same in Europe in fiscal 2024. By doing so, we will steadily expand sales and bolster production capacity with a view to achieving an annual production of 12 million inverters by fiscal 2026.

In terms of development, we have launched into the inverter market using silicon carbide (SiC) power semiconductors (SiC inverters), which greatly reduce the electricity consumption of BEVs. These SiC inverters have been adopted in the new LEXUS RZ, the vehicle manufacturer's first BEV model. These SiC inverters reduce power loss by nearly half compared with conventional inverters that use silicon (Si) semiconductors, thereby helping improve the driving distance of BEVs.

While SiC inverters garner even greater attention due to the rapid transition to BEVs, DENSO is striving to enhance the competitiveness of SiC inverters, in terms of both output and cost, through proprietary technologies such as trench-type metal-oxide-semiconductor (MOS) structures, which help achieve a high-voltage operation of BEVs, and dual-side engine-cooling and other long-cultivated vehicle-cooling technologies.

Furthermore, DENSO possesses both battery management systems that utilize a safe, highly efficient power source control to enhance driving distance and heat management systems that make use of waste heat and battery temperature for vehicle heating, thereby increasing driving distance by approximately 20%. In addition to these products, we have technologies that can realize eco-friendly, highly efficient electrification through system-wide control that makes use of our ECUs. These technologies represent our greatest strength as a comprehensive systems supplier.

Going forward, we will realize carbon neutrality by bringing together our broad range of technologies to further contribute to the electrification of vehicles.

### C. Developing Advanced Safety Technologies That Can Eliminate Fatalities from Traffic Accidents

In the field of advanced safety, we have been expanding product sales on a global basis and steadily increasing the value we provide through safety, including by commencing the full-scale mass production of Global Safety Package 3

(GSP3), a driver support system that greatly expands the settings in which accident prevention systems are used.

GSP3 combines sensing and image recognition technologies—two strengths of the Company—that can detect a large volume of data and process it at high speeds, thereby supporting accident prevention in a diverse range of settings. With this improved functionality, GSP3 has been praised by our customers as a high-value-added product that greatly enhances safety and has helped us significantly improve profitability.

Additionally, we are steadily undertaking the development of next-generation technologies. By extending the range of protection of our safety systems to encompass the entire vehicle, we are on track to enhance the range of applicability by 2025 to offer protection in 56% of all possible scenarios in which we anticipate fatalities from accidents occurring.

To provide coverage for the remaining 44%, in addition to our own initiatives, collaboration is needed between relevant government agencies, car manufacturers, and companies in adjacent industries so that we can promote a three-pronged approach encompassing people, cars, and traffic environments. To that end, we are pursuing the development of even more advanced safety technologies. These include infrastructure coordination systems that recognize hazards in the blind spots of vehicles and systems utilizing our superior HMI\* technologies that go so far as to monitor the driver's condition, level of skill, and driving tendencies.

Through the advancement of safety products that combine cutting-edge technologies, we will help realize freedom in mobility with zero traffic accident fatalities.

\* Human-machine interface

### D. Promoting Strategies That Position Semiconductors as Key Devices for Accelerating Growth

As cars become further electrified and advanced, there is a greater need for semiconductors as key devices for functional enhancement. For this reason, advancements in semiconductor technology and the stable procurement and supply of semiconductors themselves are essential.

With over 50 years of experience in the in-vehicle semiconductor domain, we possess thorough knowledge of both vehicles and semiconductors. Leveraging this distinct advantage, we aim to contribute to the overall semiconductor industry through efforts to comprehensively strengthen everything from the development of advanced semiconductor technologies to the establishment of production structures.

From the perspective of development, we are moving forward with the development of advanced technologies such as gallium nitride semiconductors at the R&D subsidiary MIRISE Technologies Corporation. In addition, through our investment in Rapidus Corporation, a company established to promote the domestic production of advanced semiconductors, we are pursuing miniaturization technology to accelerate the development of semiconductors with a thickness of 2nm or less.

Regarding procurement, we are seeking to realize stable semiconductor procurement through such means as transitioning to alternative parts for components with high procurement-related risks and concluding long-term fixed order contracts with suppliers. Although the tight supply-demand situation for semiconductors as a whole is gradually improving, supply concerns still remain for in-vehicle semiconductors, for which demand is booming. We will

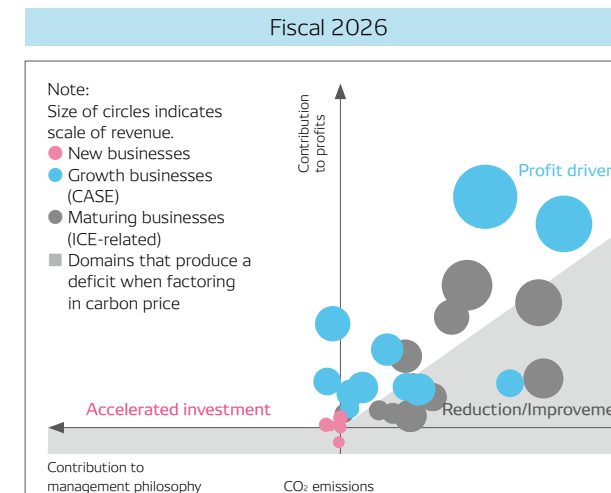
## 1. Reinforce profit structure

## 2. Reduce low-profit assets

## 3. Improve capital structure

## 4. Engage in dialogue with markets

## Example of the Reshuffling of Our Business Portfolio



In addition to improving profitability by expanding businesses focused on CASE and reducing businesses focused on internal combustion engines (ICEs), we will work to create new markets that contribute to carbon neutrality.

therefore take steps to further reinforce our procurement foundation so that we can provide society with as many quality vehicles as possible.

In terms of production and supply, in addition to bolstering our production structure both at our plants and at those of our subsidiaries, we have commenced the mass production of power semiconductors on 300mm wafers in collaboration with United Semiconductor Japan Co., Ltd. We have also invested in Japan Advanced Semiconductor Manufacturing, Inc., a subsidiary of Taiwan Semiconductor Manufacturing Company Limited. In these ways, we are working to secure a more stable semiconductor supply structure through collaboration with various business partners.

Moreover, as part of our efforts to bolster the manufacturing of SiC power semiconductors, we are developing proprietary wafer manufacturing technologies that make use of a so-called gas method. These technologies can reduce CO<sub>2</sub> emissions during the manufacturing process by 90% while curtailing costs by 30%.

In the vast field of semiconductors, we will continue to enhance our in-house manufacturing capabilities and pursue strategic collaboration with partners possessing competitive advantages.

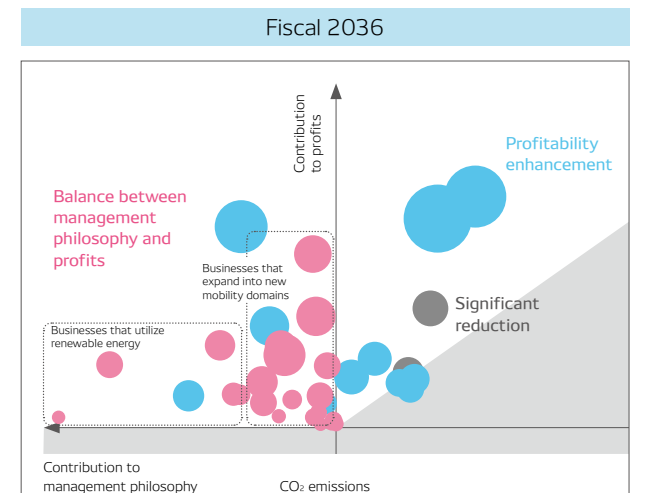
### E. Promoting Business De-Emphasis and Discontinuation to Enhance Our Overall Competitiveness in the Industry

To achieve an optimized business portfolio, it is important to downsize and/or withdraw from mature businesses in tandem with achieving growth in focus fields.

Although downsizing or withdrawing from a business can be a painful process in the near term, we are promoting Companywide efforts toward de-emphasis and discontinuation in order to pursue the next stage of growth and enhance our overall competitiveness in the industry.

Specifically, we have divided the Company's businesses into 85 product groups and once a year are determining the future direction of each group based on its contribution to the following criteria: realizing the DENSO Philosophy, accelerating growth, and boosting profitability in terms of ROIC.

Through these examinations, we transferred our fuel pump module and type III alternator businesses in fiscal 2023 and, in



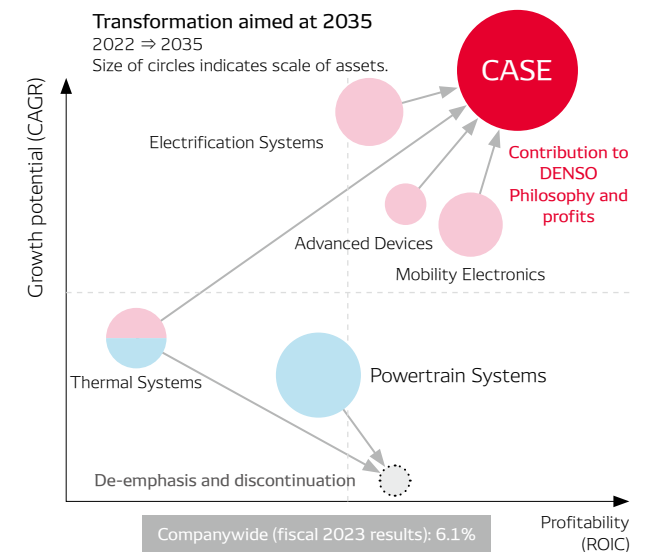
By expanding businesses in new mobility domains and businesses that utilize renewable energy, we will strive to achieve a portfolio that strikes a perfect balance between our management philosophy and profits.

fiscal 2024, we plan on undertaking several other business transfers. For example, we concluded a memorandum of understanding with Niterro Co., Ltd. regarding the transfer of our spark plug and exhaust gas sensor business. These are core products for internal combustion engines that have underpinned our growth thus far and currently contribute to profits. However, in light of our ambition to enter a new stage of growth and fully realize the DENSO Philosophy, we have decided to pass the business on to the company that can handle it best.

For businesses that we transfer to third parties, we leverage the elemental technologies and know-how we have cultivated in such businesses in future growth fields, having them serve as a foundation for new corporate value creation.

Alongside the reshuffling of our business portfolio, we are promoting structural reforms aimed at optimizing our production and supply structure in each region. In North America, we are shifting production to a subsidiary in Mexico, where production costs are low, and consolidating other plants in the region. In Asia, we have liquidated a South Korea-based subsidiary. In these ways, we are promoting the consolidation of our subsidiaries across the globe.

### Overview of Business Portfolio Reshuffling





1. Reinforce profit structure

2. Reduce low-profit assets

3. Improve capital structure

4. Engage in dialogue with markets

The resources generated from de-emphasizing and discontinuing businesses and from optimizing our production and supply structure will be shifted to bold investments in growth domains.

F. Creating New Value That Connects the Movements of Society

We have held examinations regarding the social trends we expect to see in 2035, using the megatrends anticipated for 2050 as our starting point and backcasting from there. Based on these examinations, we have declared our intention to create a cycle of joy that provides social value by invigorating and forming connections between the flow of five essential elements to keep society in motion: people, goods, energy, resources, and data. Guided by this aim, we will draw on the strengths we cultivated in the field of mobility to pursue the resolution of new social issues and the creation of new value through new businesses that extend our value provision across society as a whole. (Special Feature: Connecting the Flow of Five Elements of Society [P.86-88](#))

(3) Flexibly Responding to Changes and Risks in the External Operating Environment

In concert with realizing growth through the reshuffling of our business portfolio, we are moving forward with reforms to our profit structure to enable a flexible response to risks.

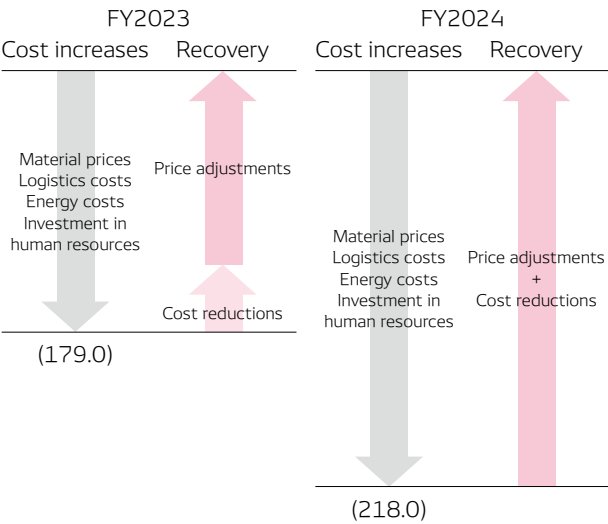
In fiscal 2023, we focused our efforts on reinforcing our ability to respond to change. To address the issue of rising costs, starting with soaring prices for materials, primarily electronic components, logistics costs, and energy costs, brought about by changes in the external environment, we promoted cost-cutting initiatives and sought to transfer costs to customers. As a result, we were able to offset nearly all of the negative impacts of cost increases on profits, which amounted to ¥179.0 billion.

In fiscal 2024, we expect cost increases to have a roughly ¥218.0 billion impact on profits compared with periods of less volatility, against the backdrop of our accelerated investment in human resources, which includes factors such as inflation and increasing salaries following tight recruiting conditions. However, we will seek to offset this entire amount by stepping up efforts to reduce costs and transfer costs to customers.

Furthermore, through efforts to offset this negative impact, we will establish rules for appropriately reflecting costs throughout the entire supply chain. By doing so, we will help enhance

Worsening Conditions in the External Environment and Our Response Measures

(Billions of yen)



the competitiveness of the automotive industry and realize a circular economy.

First, we will pay the increased prices of our suppliers, taking into consideration the impact of rising material prices, increased energy costs, and higher employee salaries on their operations. We will then reflect these increased costs in our transactions with car manufacturers, thoroughly explaining to them the reasons for price increases using data and other evidence. In this way, we will promote a cycle of appropriate price adjustments, including for end-users.

In addition to these efforts to strengthen our ability to respond to change, which focus primarily on realizing a recovery in profits from the current adverse conditions in the operating environment, we are undertaking reforms to our business model to address changes that will occur over the medium to long term. One major example of such efforts is receiving payments from customers during the stage of software development, as this development itself is becoming far more massive in scale. This does not simply mean that we move the billing period forward, but rather that we ask our customers to clearly recognize the intangible value created through software development, in

1. Reinforce profit structure

2. Reduce low-profit assets

3. Improve capital structure

4. Engage in dialogue with markets

addition to the more conventional tangible value we create through our hardware. I therefore believe that this effort will help spur a significant change in the awareness of our customers.

Through these means, not only will we provide value to our customers through our advanced technological capabilities, we will also focus efforts on promoting the appeal of the value we offer so that it is appropriately recognized by our customers, which in turn will enhance our competitiveness.

(4) Strategically Investing in Future Growth

A. Capital Expenditures and R&D Expenditure—Striking a Balance between Curtailing Costs and Executing Growth Investments

For a company such as DENSO, which boasts strengths in *Monozukuri* and R&D, capital expenditures and R&D expenditure are necessary upfront investments for the future. In recent years, we have significantly changed the ways we invest in both areas.

It is important to consider two perspectives when executing upfront investments amid the rapid changes occurring in the external operating environment: accelerating growth by establishing core strengths and curtailing fixed costs in consideration of risks related to such changes.

Looking back on the past five years, we have executed capital expenditures, including toward internal combustion engines, at a level that far exceeded depreciation. Recently, however, with the further entrenchment of ROIC-minded management and the progression of business portfolio reshuffling, we have been curtailing capital expenditures at around ¥350.0 billion, which is nearly the same as depreciation, by winding down our investment in internal combustion engines while continuing to actively invest in focus fields. From the perspective of controlling fixed costs over the medium to long term, we will engage in highly efficient investment decision-making while maintaining our current level of capital expenditures.

We have continued to bolster R&D expenditure, without reduction, even amid the dramatic changes in the external operating environment. In particular, we have invested heavily in software development, starting with the domain of next-generation advanced driver assistance systems (ADAS), and these investments account for more than half of our total R&D expenditure. We have also been striving to improve profitability by promoting more efficient operations through AI and other types of digital transformation and by transforming our business model in the ways I described earlier.

Going forward, we will continue to strengthen R&D expenditure as the bedrock of our competitiveness. However, we will target a level of ¥450.0 billion (including returns) for this expenditure as we further accelerate our efforts toward enhancing

efficiency and transforming our business model. By doing so, we will achieve an even greater competitive edge.

B. Accelerating Growth by Strengthening Strategic Partnerships

Although we have been reinforcing the in-house manufacturing of core technologies, collaboration with external partners is indispensable, in terms of both specialization and speed, as changes in the external environment become more intense and customer needs become increasingly more complex.

We have established electrification, ADAS, software, semiconductors, and new businesses as focus areas and have assembled cross-organizational task forces for each area. These task forces are stepping up efforts to examine strategies in their specific area. While we have been promoting collaboration with external partners in each of these focus areas for quite some time, we are working to swiftly narrow down candidates for collaboration that have the necessary means to help us realize our strategies. Through this approach, we will strengthen collaboration with our partners without missing out on important opportunities.

2. Reduce Low-Profit Assets: Improving Asset Efficiency by Reducing Assets While Determining Ideal Asset Levels

DENSO seeks to utilize its asset portfolio with the greatest levels of efficiency by determining the necessary levels of certain types of assets in order to downsize asset amounts.

(1) Optimizing Cash on Hand

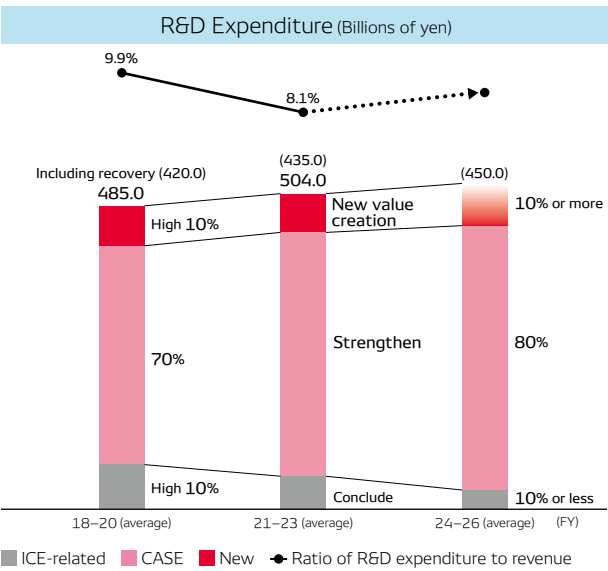
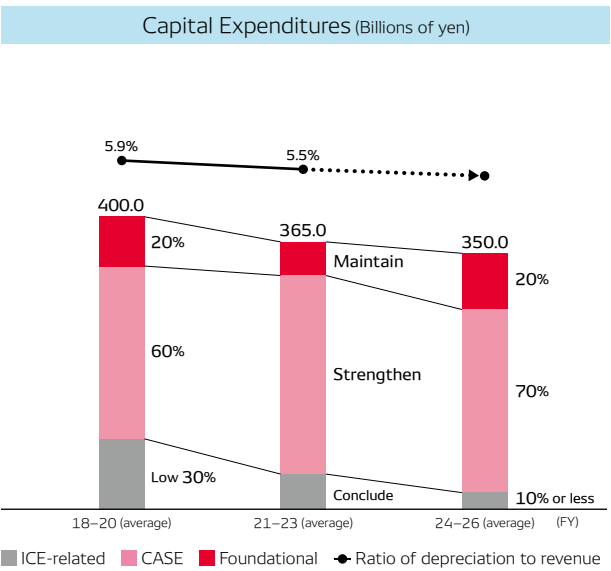
We have been working to optimize cash on hand by minimizing the funds needed for business operation (standard business funds) and reducing uneven asset distribution by region through the use of the Global Cash Management System (GCMS). By enhancing the precision of our day-to-day cash management in fiscal 2023, we were essentially able to achieve the fiscal 2026 target for cash on hand of 1.0 times\* the amount of monthly revenue for the total of standard business funds and rainy-day funds for emergency circumstances. Going forward, we will continue to promote the efficient utilization of cash as we seek to grow.

\* In the financial statements, funds under the GCMS are treated as deposits by the lending company and loans by the borrowing company, which means that they are recorded as both deposits and loans. However, the figure for actual cash on hand excludes the impact of the GCMS.

(2) Curtailing Cross-Shareholdings

We have decided to widen the scope of cross-shareholdings for which we are examining possible curtailment to include not only shares held by the Company but also those of subsidiaries. By doing so, we are promoting reductions that exceed the requirements of Japan's Corporate Governance Code. In fiscal 2023, we sold approximately ¥44.2 billion worth of holdings by the

Resource Allocation

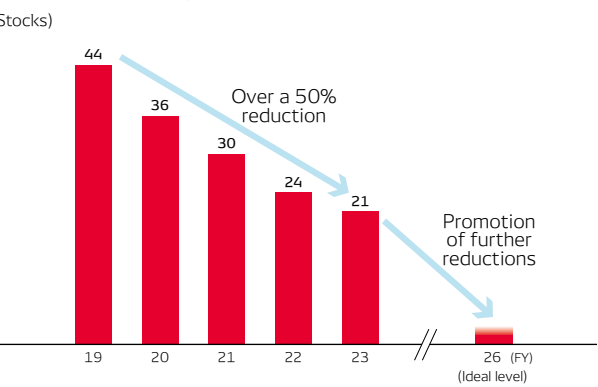


Results of Recent Collaboration with Business Partners

IN: Investment and Acquisition	OUT: Transfer and Sale
<div></div> Hirose Plant, Toyota Motor Corporation	<div></div> Fuel pump modules
<div></div> BluE Nexus Corporation	<div></div> Type III alternators
<div></div> J-QuAD DYNAMICS Inc.	<div></div> Spark plugs
<div></div> Aurora Innovation Inc.	<div></div> Exhaust gas sensor
<div></div> Renesas Electronics Corporation	<div></div> TDMobile Corporation
<div></div> Infineon Technologies AG	
<div></div> Japan Advanced Semiconductor Manufacturing, Inc.	
<div></div> Rapidus Corporation	
<div></div> Toshiba Information Systems (Japan) Corporation	
<div></div> eSOL Co., Ltd.	
<div></div> Tohoku Pioneer EG Corporation	
<div></div> Certhon Build B.V.	
<div></div> Electrification	<div></div> ADAS
<div></div> Software	<div></div> Semiconductors
<div></div> New businesses	

Note: Majority of other partner start-ups includes memorandum of understanding to start examination of business transfer.

Cross-Shareholdings



1. Reinforce profit structure
2. Reduce low-profit assets
3. Improve capital structure
4. Engage in dialogue with markets

Company through total or partial sale of holdings of seven companies. As a result, the total number of cross-shareholdings came to 21, a reduction of over half from the 44 cross-shareholdings owned as of the end of fiscal 2019. Going forward, we will continue to curtail such holdings so that the cash generated through the sales of holdings can be used to invest in creating corporate value as dictated by our growth strategies.

(3) Optimizing Inventories

We have broken down inventories into the three categories of temporary inventories, strategic inventories, and standard inventories, and track each accordingly. Temporary inventories refer to those held in response to logistics disruptions and other external factors. Strategic inventories are those held to hedge against natural disasters and various other risks. Standard inventories are those held for use in production activities under normal circumstances.

In fiscal 2023, inventories amounted to around ¥1.1 trillion as the result of our efforts to secure temporary and strategic inventories in order to ensure a stable supply to customers. In fiscal 2024, we will engage in activities to strengthen our corporate structure on a global basis, working toward inventory levels of around ¥0.9 trillion after revising inventory criteria in a timely manner and reducing temporary inventories to zero in light of the current recovery from semiconductor shortages and easing of logistics disruptions.

Moving forward, we will swiftly identify relevant inventory issues and make concerted efforts toward optimizing inventory levels, thereby further cementing our operating foundations.

3. Improve Capital Structure:  
Pursuing Targeted Capital Structure by Bolstering Funding Platform and Issuing Proactive Shareholder Returns

We seek to reduce capital costs while maintaining a balance between safety and efficiency, and to utilize borrowings, diversify funding sources, and issue proactive shareholder returns in order to create corporate value. In these ways, we will improve our capital structure.

For fiscal 2026, we target a shareholders’ equity ratio of 50% or more. We believe that this is a level that will allow us to maintain a credit score that enables fundraising even during an economic crisis.

(1) Diversifying Funding Sources and Utilizing Borrowings  
DENSO prepares for future large-scale investments by diversifying funding sources through such means as utilizing bank loans, domestic corporate bonds, and foreign-denominated funds via overseas corporate bonds. Through such efforts, we are able to raise a large amount of funds from a broad range of investors, which in turn will help us maintain a stable funding platform enabling investment in growth fields and new businesses and participation in M&A activities and business alliances.

Additionally, through the ongoing utilization of sustainability bonds, we will further accelerate efforts to resolve environmental and social issues, centered on the sustainability management initiatives that we have been implementing since our founding.

TSR (Cumulative / Annual Rate)

Investment period	1 year	3 years		5 years		10 years	
	Cumulative / Annual rate	Cumulative	Annual rate	Cumulative	Annual rate	Cumulative	Annual rate
DENSO	-3.0%	127.2%	31.5%	41.1%	7.1%	120.8%	8.2%
TOPIX	5.8%	53.4%	15.3%	31.8%	5.7%	142.1%	9.2%
TOPIX (Transportation equipment)	-4.6%	61.8%	17.4%	22.9%	4.2%	95.3%	6.9%

Source: DENSO CORPORATION

Going forward, we will seek to further improve capital efficiency by actively utilizing borrowings and bonds while maintaining a high degree of financial health.

(2) Shareholder Return Policy

DENSO aims to realize and further enhance total shareholder return (TSR)\* that exceeds the cost of shareholders’ equity steadily over the long term by increasing both dividends (income gain) and share price (capital gain).

For dividends, we have adopted a basic policy of consistently growing dividend on equity (DOE: Dividends ÷ Shareholders’ equity) using the level of 3.0% as our baseline. Guided by this policy, we increased DOE by 0.1 percentage point year on year in fiscal 2023, to 3.2%. As for treasury stock acquisition, we acquired ¥100.0 billion in treasury stock in fiscal 2023, up ¥2.5 billion year on year. The scale of this acquisition was determined by comparing our targeted capital structure and theoretical share price with actual figures based on our long-term business plan. Looking ahead, we will continue to promote the flexible acquisition of treasury stock while expanding the scale of this acquisition.

Through our efforts to enhance stable, long-term shareholder returns, we will realize TSR that exceeds the cost of shareholders’ equity. At the same time, we will curtail increases in capital and enhance our corporate value. (Financial Highlights

□P119-120)

\* TSR: Total return on investment that combines capital gains and dividends

Status of Long-term Credit Rating (As of July 20, 2023)

Rating company	Credit rating
Rating and Investment Information, Inc. (R&I)	AAA
S&P Global Ratings	A+
Moody’s Investors Service, Inc.	A2

(3) Cash Allocation

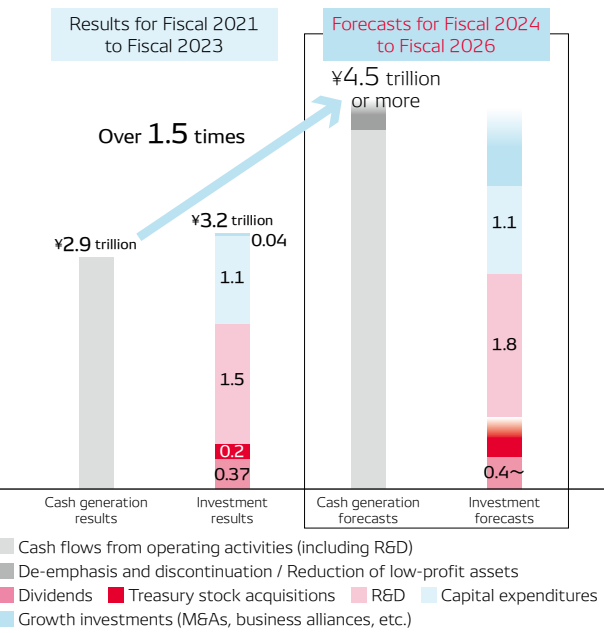
DENSO has steadily reinforced its profit structure through ROIC-minded management. As a result, we have generated a total of ¥2.9 trillion in cash flows from operating activities over the three-year period from fiscal 2021 to fiscal 2023, even amid the COVID-19 pandemic and a worsening external operating environment, including semiconductor shortages. Over the next three-year period starting from fiscal 2024, we will aim to generate ¥4.5 trillion or more in cash through the further reshuffling of our business portfolio and reduction of low-profit assets.

Meanwhile, we will seek to enhance investment efficiency by thoroughly examining capital expenditure projects, striving to maintain these expenditures at around the same level as depreciation in a highly disciplined manner. For R&D expenditure, we will step up software development, primarily for ADAS, as software becomes more deeply integrated into our products.

With a view to fiscal 2026, we also believe that growth investments such as M&As and business alliances, in addition to in-house manufacturing, are essential to the growth of our businesses and the realization of the DENSO Philosophy. To that end, we will proactively utilize borrowings to implement large-scale investments, as needed, in an effort to achieve business growth and improve our capital structure.

1. Reinforce profit structure
2. Reduce low-profit assets
3. Improve capital structure
4. Engage in dialogue with markets

Cash Allocation (Trillions of yen)



We will also seek to strengthen stable, long-term shareholder returns through continuous increases in dividend levels and the proactive acquisition of treasury stock.

Through these initiatives, we will strive to maximize ROE and enhance corporate value on an ongoing basis.

4. Engage in Dialogue with Markets:  
Increasing Communication Regarding Our Long-cultivated Non-financial Capital and Promoting the Appeal of Our Value Provision

DENSO is communicating information to investors and analysts in a timely and appropriate manner and advancing dialogue through efforts by corporate officers. Through these activities, we aim to reduce information gaps with capital markets and expand our equity spread by reducing the cost of shareholders’ equity.

In fiscal 2023, we created opportunities for dialogue, including arranging online meetings, with an aggregate total of 1,500 companies, an increase of approximately 1.5 times compared with the previous fiscal year, amid ongoing restrictions on communication with investors imposed by the COVID-19 pandemic. We communicated the opinions received through these dialogues at meetings of the Board of Directors and other official in-house organizations. We also worked to deepen investor understanding of our operations by incorporating these opinions in DENSO DIALOG DAY 2022 activities and a briefing session on our semiconductor strategy.

Please see the Status of Dialogue section of our corporate website for more details.  
<https://www.denso.com/global/en/about-us/investors/status-of-dialogue/>



Moreover, we are ramping up initiatives from an ESG perspective, centered on our sustainability management, in light of the increasing attention being turned toward ESG investment. In addition to reducing business risks over the medium to long term, these initiatives will lead to an increase in the number of business opportunities for the Company.

For example, as human capital, intellectual capital, and other forms of non-financial capital have been garnering greater attention, we have been swiftly moving forward with investments in intangible assets, including those aimed at Hitozukuri

(the development of human resources) and R&D, based on the belief that such forward-looking investments will translate directly to corporate growth. There is no denying that investments in intangible assets have been integral to DENSO’s ability to continuously provide value that preemptively addresses the needs of the times. We therefore recognize that non-financial capital will be a key factor underpinning our competitiveness over the medium to long term. Based on this recognition, we are ramping up forward-looking investment in non-financial capital.

Furthermore, we believe that communicating ESG information helps clear up any uncertainty regarding the future and helps reduce the cost of shareholders’ equity. We therefore are working to quantify the benefits of investment in non-financial capital and clarify how such investment contributes to corporate value. This effort is an important element in ensuring that stakeholders accurately evaluate our growth potential. As an effort in this regard, in *DENSO Integrated Report 2023*, we have summarized the relationship between non-financial capital and financial value and introduced our individual capital strategies with a focus on this relationship. (Our Accumulated Capitals □P26-27)

In fiscal 2023, we received a second-place ranking in the Automobiles/Parts/Tires division of the 2022 Award for Excellence in Corporate Disclosure, in recognition of our IR activities. Furthermore, *DENSO Integrated Report 2022* received the Silver Award for excellence of the WICI Japan Integrated Report Award 2022, marking the second consecutive year our report has received this award. In these ways, our IR activities and stance on information disclosure have been highly evaluated by numerous institutions.

Additionally, we are working to enhance employee awareness of corporate value by actively utilizing our integrated report in-house. Moving ahead, we will reflect the various opinions we receive through dialogue with markets in our efforts to enhance the quality of our management.

**TOPIC: Establishing Environments for Facilitating Investment in the Company**

As of September 30, 2023, the shares of common stock owned by shareholders will be split into four shares for every one share held. Through this stock split, we will lower the minimum amount required for investment, thereby making it easier for a broader range of investors to invest in DENSO stock.

Closing

Over the past several years, we have continued to deal with an adverse operating environment, including the COVID-19 pandemic, semiconductor shortages, and the global surge in raw material prices. However, by continuing to earnestly pursue our goals amid such adversity, we believe we can become an organization that can provide value that preemptively addresses the needs of the times. Guided by this belief, we sought on a Groupwide basis to reinforce our profit structure. As a result, in fiscal 2023 we achieved record-high operating profit for the first time in five years.

To continue to create corporate value moving forward, we will remain committed to aggressively promoting our financial strategies. In addition, drawing on the CASE domain and new businesses as growth drivers, I would like to promise the success of our efforts to de-emphasize and discontinue mature businesses and further accelerate the creation of corporate value. I am sure that these efforts will allow us to show you an even stronger DENSO. We ask that you look forward in anticipation as we pursue these endeavors.



## Human Capital

### Outline of Efforts to Strengthen Human Capital

The starting point for providing society with new value is the ability of our people and organization to turn ideas into reality. With this in mind, we will advance human capital-focused management to ensure that all DENSO employees have aspirations and ambitions; benefit society, customers, and coworkers; and become a “group of professionals with the ability to turn ideas into reality.” We believe that, by combining the strengths of our people and organization, we can develop our distinctive ability to turn ideas into reality even further. Based on this belief, DENSO has set out its PROGRESS vision and action plan, calling for the reform of human resource initiatives and systems to support employees as they continue taking on challenges and achieving change.

KPI Targets for Fiscal 2026	
Rate of affirmative responses in employee engagement survey	78%
Number of women in management positions	
Business fields: 200	Technical fields: 200

### Background to Our Emphasis on Strengthening Human Capital

We believe that human resource development supports manufacturing and R&D. This has been our philosophy since our founding in 1949. Accordingly, we view people as our most important form of management capital, and we have tirelessly accumulated competence that allows us to provide new solutions and address social issues. We call this competence “the ability to turn ideas into reality.” Thanks to our accumulated competence, we have created more than 180 world-first technologies and products. In 1954, DENSO established technical training schools to strengthen its technologies and skills. Tracing its roots back to these schools, DENSO Industrial School continues to train technicians. To date, the school’s students have won more than 70 medals at the WorldSkills Competition.

As the automotive industry undergoes major structural changes, DENSO aims to provide new solutions not only in mobility but also in industry and society. To these ends, we will enhance our ability to turn mass production ideas into reality—which entails meeting quality, cost, and supply requirements—as well as our ability to turn business ideas into reality by realizing customer value and services-based business models and partnerships with companies in other industries.

### PROGRESS: A Vision and Action Plan for Our People and Organization

Aiming to become a “group of professionals with the ability to turn ideas into reality,” we have established the PROGRESS vision and action plan for our people and organization. Under this plan, since fiscal 2022 we have been reforming our organization as well as specific human resource initiatives and systems so that employees can continue to evolve and pursue ambitious initiatives. DENSO’s ideal employees are professionals committed to taking on the challenge of achieving new personal bests, while the Company’s ideal organization provides a platform for the co-creation initiatives and interaction of diverse professionals. We believe that, by combining the strengths of

### Characteristics of DENSO’s Human Capital (Fiscal 2023 results)

Rate of affirmative responses in employee engagement survey	73%
Number of women in management positions	
Business fields: 139	Technical fields: 136
Redefinition of employee specializations	
Visualization of 40 fields and	535 specializations

our people and organization, we can develop our distinctive ability to turn ideas into reality even further. In line with this belief, we have set out the PROGRESS vision and action plan, which reflects our commitment to professionalism as well as to progress (evolution and ambitious initiatives). The plan calls on us to support employees in continuing their ambitious initiatives and evolution by reforming human resource initiatives and systems between fiscal 2022 and fiscal 2024. These reform efforts are focusing on four pillars: career, learning and growing, evaluation and compensation, and workstyles and culture.

### Our Approach to Human Capital-Focused Management (Value Creation Path)

The remainder of this section provides an overview of the human capital enhancement initiatives being implemented under PROGRESS as well as the benefits they will achieve and the value they will provide.

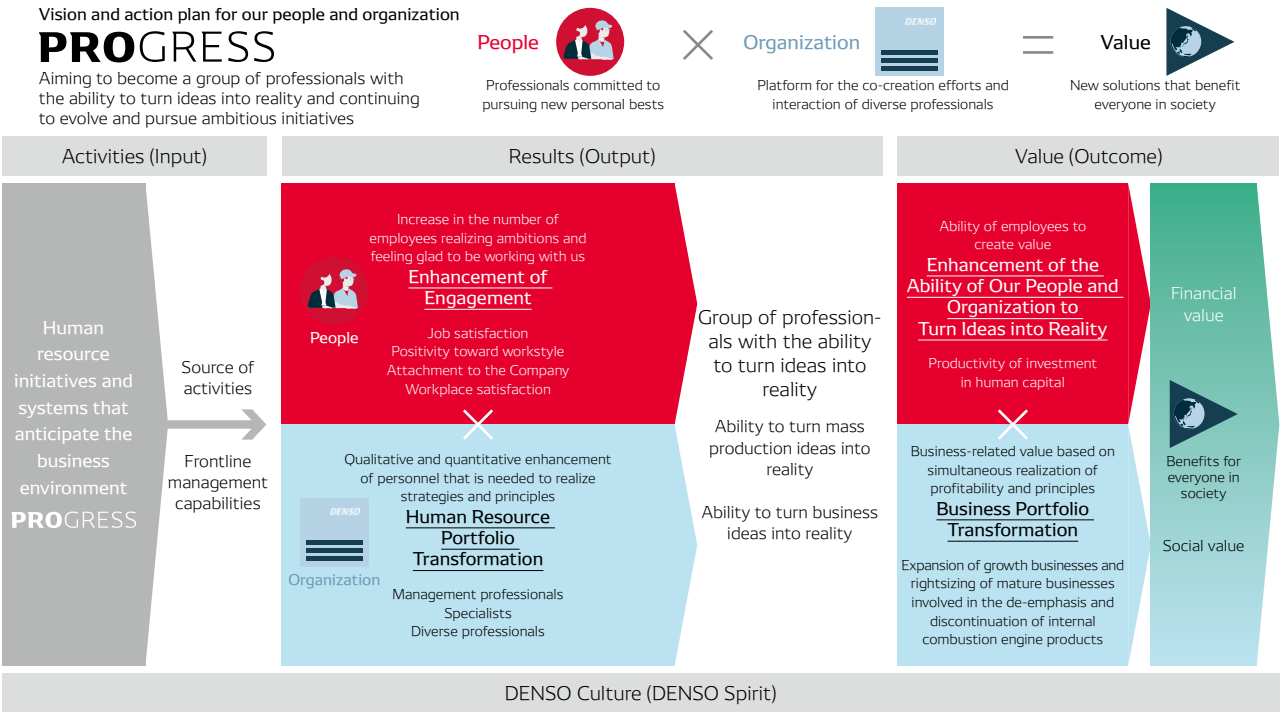
Reform of human resource initiatives and systems that anticipate the business environment will achieve our personnel and organizational objectives. With respect to our personnel, we will increase the number of employees realizing their ambitions and feeling glad to be working with us. As for our organization, we will achieve the qualitative and quantitative enhancement of human resources that is needed to realize our Strategies for “Green” and “Peace of Mind” and principles. By setting out quantitative key performance indicators (KPIs) for both the enhancement of employee engagement and the transformation of its human resource portfolio, DENSO will ensure the reform of human resource initiatives and systems.

However, reform of initiatives and systems does not produce immediate results. Therefore, we are carefully managing initiatives and systems with the goal of allowing frontline employees to really feel the benefits of reforms before they change their mindsets and behavior. Such frontline management capabilities are essential in maximizing the effectiveness of initiatives and achieving desired results.

### Four Pillars of PROGRESS

Career: PROGRESS Design	Career design system, strengthening of specialization, career innovation program, in-house recruitment, etc.
Learning and Growing: PROGRESS Development	Fostering of management leaders, trainee system, co-creation program for cross-industry partnerships, etc.
Evaluation and Compensation: PROGRESS Drive	Role- and performance-based evaluation and compensation system, benefits that support diverse lifestyles, etc.
Workstyles and Culture: PROGRESS Diversity & Digital	Initiatives to enhance engagement, development of personnel with competence in digital transformation, diversity (empowerment of women), etc.

### Our Approach to Human Capital-Focused Management (Value Creation Path)



To measure the value provided by human capital and facilitate the aforementioned frontline management, we have defined business portfolio transformation and the ability of our people and organization to turn ideas into reality as forms of value. The ability of our people and organization to turn ideas into reality is an indicator of how effectively human capital is being utilized and of whether value is being created for society. For this indicator, we use the productivity of investment in human capital, which is added value divided by investment in human capital. Business portfolio transformation refers to business-related value, which is created by simultaneously realizing profitability and the “green” and “peace of mind” principles through the inclusion in our business portfolio of growth businesses as replacements for businesses involved in the de-emphasis and discontinuation of internal combustion engine products.

By heightening employee engagement and augmenting the quality and quantity of personnel, we will empower employees to create even more added value as a “group of professionals with the ability to turn ideas into reality,” thereby increasing the financial and social value that we provide.

### Enhancement of Engagement

At DENSO CORPORATION, we conduct an employee engagement survey annually, targeting all of our roughly 45,000 employees, who belong to approximately 2,500 workplaces. The survey results show that job engagement corresponds to individuals’ willingness to take on ambitious goals and that organizational engagement corresponds to the ability of workplace teams to achieve results. The percentage of affirmative responses with respect to job satisfaction and positivity toward workstyle (job engagement) as well as in relation to workplace satisfaction and attachment to the Company (organizational engagement) increased from 70% in fiscal 2022 to 73% in fiscal 2023. Our goal is to raise affirmative responses to 78% by fiscal 2026. (Non-Financial Highlights [P.121](#))

Based on analysis of the survey results, we are improving our initiatives. More specifically, we are helping employees realize career goals and creating open workplaces full of vitality—important initiatives for increasing job and organizational engagement.

### 1. Helping Employees Realize Career Goals

With the aim of helping employees envision the professionals they want to become, we hold age group-based training that covers employees from their 20s through to their 50s and provides them with opportunities to reflect on their career plans. Moreover, we aim to achieve a 100% implementation of career interviews and dialogues between supervisors and subordinates. In particular, targeting approximately 3,200 supervisors, we hold mutual study sessions on cultivating empathy with the Company’s goals by effectively instilling in personnel an understanding of the purpose of the organization and the significance of their work. We also provide these supervisors with practical training sessions on conducting dialogues with subordinates and supporting career realization three times a year. Further, DENSO is enhancing its career consultation office and various other facets of the Company’s career support system. In addition, we are providing support by expanding in-house recruitment; increasing the number of employees who train outside the Company, including training at companies in other industries; and developing an environment for self-education on specializations and skills.

### 2. Creating Open Workplaces Full of Vitality

Based on the annual engagement survey, we classify workplace conditions into 11 categories based on levels of openness, job performance, and willingness to take on ambitious initiatives. We then encourage proactive improvement by giving all workplaces feedback on the results and examples of best practice. For workplaces with numerous issues, we use organizational development methods to provide support that is aimed at promoting mutual understanding between subordinates and supervisors. Thanks to these efforts, in fiscal 2023 the number of workplaces where employees show a high level of willingness to take on ambitious initiatives rose by 124 workplaces (approximately 5% of all workplaces) year on year.

### Human Resource Portfolio for Business Portfolio Transformation

Aiming to augment the quality and quantity of personnel so that we can simultaneously realize profitability and our

strategies and “green” and “peace of mind” principles, we have categorized our human resource portfolio into three types of professionals: management professionals, specialists, and diverse professionals. Based on these three categories, we are acquiring, developing, and deploying personnel.

**1. Management Professionals Who Will Lead a Global DENSO**

We hold global human resource development conferences, which are attended by all senior executive officers and focus on the discussion and implementation of training and placement that maximizes the performance of management candidates. The aim of these conferences is to systematically produce globally competent management leaders who will play key roles in business management and execution. Dedicated talent managers are undertaking in-depth analysis of individual management candidates with a view to developing a diverse group of 400 management candidates by fiscal 2026. In addition, our Global Leadership Development Program is strengthening the development of local personnel overseas through mutual study sessions and the assignment of personnel to global projects. The program is tasked with fostering local personnel so that they account for 50% of the heads of overseas bases by fiscal 2031.

**2. Specialists Who Will Innovate and Create Value**

With our sights set on a new era, we are advancing a Companywide reassignment of personnel from businesses involved in the de-emphasis and discontinuation of internal combustion engine products to growth businesses. Through in-house recruitment, stepped-up hiring, and other measures, we will realize a large-scale transition in our human resources by deploying approximately 4,000 personnel to the priority fields of vehicle electrification and mobility systems by fiscal 2026. At the same time, by providing opportunities for exchanges and collaborations among personnel in the mechanical parts, electronics, and software fields, we will develop professionals in the systems field who are able to design optimal combinations of products and functions from an upstream perspective. In the energy management field, which is becoming increasingly important as vehicle electrification progresses, plans call for doubling the current number of employees by fiscal 2026.

For employees, we are enhancing measures to increase expertise in each field. In the all-important software field, since fiscal 2022 we have been operating the Sommelier Certification Program, which objectively certifies the skills of software engineers, as well as recurrent education programs on software, which support personnel scheduled to transfer from positions in the hardware field to positions in the software field. As of March 2023, these recurrent programs have trained 210 employees,

who are expected to transfer to software-related positions. Further, in fiscal 2023 we redefined and visualized the employee specializations required Companywide into 40 fields and 535 categories. We also categorized and visualized the specialization of approximately 15,000 office workers into five levels. Going forward, we will use the data from these recategorizations to strengthen the specialization of each employee. Other initiatives include measures to improve the digital transformation literacy of all employees. Having categorized and visualized the digital tool utilization of all office workers into four levels, we will create opportunities for acquiring skills and putting them into practice with the goal of raising the percentage of personnel capable of advanced utilization of the latest digital tools to 50% by fiscal 2025. Regarding the approximately 22,000 employees engaged in frontline production operations, in fiscal 2022 we began providing one digital terminal to each employee, and we plan to complete distribution of digital terminals to all such employees by March 2024. Regardless of whether they work in offices or plants, all employees will use digital technologies to revolutionize the way they work.

**3. Diverse Professionals Whose Individuality, Values, and Experience Invigorate the Company**

We are advancing global initiatives to realize a working environment and organizational culture that empower diverse professionals regardless of their gender, gender identity, sexual orientation, age, race, nationality, religion, and disabilities as well as unseen differences such as experience and values. As part of efforts to empower female employees, we have established KPIs for: recruitment, balance between work and life events, and promotion. We have set targets for the number of female employees in career-track administrative and technical positions as well as the number of production-related female managers. Also, DENSO conducts diversity training for the supervisors of female employees and organizes roundtable discussions with female employees who serve as role models for other women. In Japan, North America, Europe, and India, we hold lectures, panel discussions, and other events on International Women’s Day. Moreover, we foster a sense of solidarity by encouraging personnel from respective countries and regions to participate in each other’s events.

In recognition of such efforts as our introduction of a partnership system and holding of events to promote understanding during Pride Month, we have received the highest rating of Gold in the PRIDE Index, which evaluates LGBTQ+ initiatives for sexual minorities.

Engagement-related association chart based on responses to a survey targeting all of DENSO CORPORATION’s approximately 45,000 employees



**Message from the Chief Human Resources Officer**  
**Becoming a Group of Professionals with the Ability to Turn Ideas into Reality and Heighten Corporate Value**

**Kenichiro Ito**  
Chief Human Resources Officer (CHRO)  
Member of the Board of Directors,  
Senior Executive Officer

**Wellspring of New Value: The Ability of Our People and Organization to Turn Ideas into Reality**

Since its establishment in 1949, DENSO has viewed people as the most important form of management capital, focused on developing human resources, and practiced human capital-focused management that values people. We have not only concentrated on establishing healthy workplace environments where employees can work with peace of mind over the long term but also on encouraging employees to continue their growth through the pursuit of challenging targets. These efforts have given us the ability to create entirely novel things and to formulate solutions to intractable problems. In other words, we have the ability to turn ideas into reality, and this is the source of our competitiveness.

In creating new value going forward—as the drive toward carbon neutrality and other trends significantly reshape the business landscape—the ability of our people and organization to turn ideas into reality will be more critical than ever. We can continue to grow as a “group of professionals with the ability to turn ideas into reality” by maintaining close relationships

between employees and management and between subordinates and supervisors, by exchanging frank opinions, by enabling individual employees to excel and pursue new personal bests, and by realizing mutual improvement and teamwork.

Above all, the driving forces behind the implementation of human capital-focused management are an uninhibited, vibrant workplace culture—which has developed thanks to mutual trust between labor and management—and the DENSO Spirit, which provides our employees with action guidelines. To mark our 75th anniversary in 2024, we aim to redouble efforts to pass on our human capital-related strengths through a compilation of accounts of our history in each region worldwide and through the holding of DENSO Culture Day in which employees from various countries and regions share and discuss DENSO Culture.

As a group of professionals who work to benefit everyone in society, achieve solutions, and realize their own dreams and aspirations, we will forge ahead to build a company that resonates with local communities and to create value that delights customers.

**Output: KPIs, Results, and Targets**

Situational Definition of Output Sought	Output KPIs	Output KPI Results	Output KPI Targets
<b>Enhancement of Engagement</b> Increase in the number of employees realizing ambitions and feeling glad to be working with us	<b>Employee engagement indicator</b> (percentage of affirmative responses)	FY2022: 70% FY2023: 73%	FY2026: 78%
<b>Human Resource Portfolio Transformation</b> Qualitative and quantitative enhancement of personnel that is needed to realize strategies and principles	<b>Management Professionals</b> Globally competent management leaders who are systematically developed and deployed	<b>Number of management leader candidates</b>	FY2023: Approx. 400 employees
		<b>Percentage of heads of overseas bases who are local personnel</b>	FY2022: 26% FY2023: 29% FY2031: 50%
	<b>Specialists</b> Development of personnel in each field who can innovate and create value	<b>Realization of human resource portfolio requirements</b>	Clarified 535 specializations, which are in 40 fields, required to realize business portfolio transformation and then visualized the level of expertise of individual employees Realize human resource portfolio requirements in priority fields with sights set on FY2026
		<b>Average level of expertise among all employees</b> (out of 5 levels)	FY2023: Average specialization level of 2.8 FY2026: Average specialization level of 3.1
	<b>Diverse Professionals</b> Diverse professionals whose individuality, values, and experience invigorate the Company	<b>Development of personnel with competence in digital transformation</b> (personnel capable of advanced utilization of the latest digital tools)	FY2023: Approx. 20% FY2025: 50%
		<b>Number of female managers (in technical fields)</b>	FY2022: 130 employees FY2023: 139 employees FY2026: 200 employees
		<b>Number of female managers in technical positions (section heads and team leaders)</b>	FY2022: 136 employees FY2023: 136 employees FY2026: 200 employees



# Manufacturing Capital

## Outline of Efforts to Strengthen Manufacturing Capital

Manufacturing is DENSO's forte, and the Company has accumulated an abundance of excellent manufacturing capital that includes a network of production bases throughout the world and numerous highly skilled frontline employees. As the CASE revolution progresses, we are building a global production structure to enhance the satisfaction of customers in all areas of operation in terms of quality, cost, and delivery (QCD). At the same time, we are striving to reduce our environmental burden by conducting production activities with a commitment to world-leading environmental efficiency and high productivity. In these ways, we are working to evolve our manufacturing bases. We will also evolve plants by establishing DENSO-style digital-twin plants through a combination of our long-standing creative prowess—made possible by employees' collective knowledge and efforts—with scientific, data-enabled analysis capabilities.

KPI Targets for Fiscal 2026
Capital expenditures <b>¥350.0 billion</b>
Planned investment in efforts to reduce CO <sub>2</sub> emissions <b>¥100.0 billion</b> (fiscal 2023–fiscal 2026)

## Reinforcement of Manufacturing Capital—Its Significance and the Value Created

To create new value and sustain growth in an era of major changes in business conditions, further enhancement of the manufacturing capital we have built up is essential.

In addition to existing initiatives to automate production lines, improve productivity based on data analysis, and reduce capital investment through disciplined investment decisions, DENSO is accelerating the development of manufacturing technologies for the creation of new value. These include technologies that anticipate the risk of future resource depletion, such as hydrogen technologies and technologies compatible with the use of recycled materials. In addition, we are leading the way in creating frameworks for the achievement of carbon neutrality in manufacturing. For example, we have introduced internal carbon pricing for investment decisions. Further, with the aim of minimizing costs, we are increasing efficiency through the bolstering of business continuity capabilities that ensure stable production even in volatile conditions. Business continuity measures include the utilization of bridge production and the maintenance of high-risk inventories at appropriate levels.

## Global Production and Supply Capabilities

In line with its basic principle of manufacturing in close proximity to customers, DENSO has built highly competitive production structures in six countries and regions: North America, South America, Europe, Asia, China, and Japan. At our production bases worldwide, we aim to achieve leading levels of quality, cost, and delivery in each region and realize *Monozukuri* (manufacturing) that is resilient to volatility. As well as reweighting our business portfolio to accommodate the increased production of connected, autonomous, shared & service, and electric (CASE) vehicles and to realize carbon neutrality, we are currently clarifying the roles of each region and plant so that we can stably deliver products to customers even when facing the semiconductor supply risks and various geopolitical risks that have emerged recently. Our goal is to build robust global production and supply capabilities that fully leverage DENSO-style *Monozukuri* know-how and production assets across the global supply chain, including our suppliers.

## Characteristics of DENSO's Manufacturing Capital (Fiscal 2023 results)

Capital expenditures <b>¥366.8 billion</b>
CO <sub>2</sub> emissions per unit <b>50% reduction (compared with fiscal 2013, non-consolidated)</b>
Number of regional production bases worldwide <b>127 plants in 25 countries</b>

In addition, to cater to the rapid progress in vehicle electrification, we are transitioning from internal combustion engine plants to electric vehicle component plants on a global basis. For inverters, a representative electric vehicle component, we started up production in Japan in fiscal 2006 and in North America and China in fiscal 2020, with production of these components slated to commence in Europe in fiscal 2024. Going forward, we will build production capabilities and ramp up production capacity globally with respect to electric vehicle components.

## DENSO-style Digital-twin Plants

To create even better products and production lines, we have worked to create a robust manufacturing foundation through Excellent Factory (EF) activities in which all employees participate on a daily basis. As for DENSO-style digital-twin plants, which we are currently advancing, people play the leading role. Through the combined use of ideas and creativity with a range of production-related data, we will encourage personnel to take the initiative in making improvements. In this way, frontline operations will continuously evolve. We will not only share accumulated data in plant operations but also link it with data from the engineering chain and the supply chain to increase the speed and flexibility of processes from development through to production.

Since 2019, DENSO has been steadily introducing its in-house developed Factory-IoT (F-IoT) system to Group companies in Japan and overseas and utilizing the system in day-to-day production and improvement activities. To accelerate improvement activities and enhance productivity even further, we have set up software workshops within plant facilities. These workshops enable personnel to develop their own apps, which significantly expedite the discovery and solution of problems. Plans call for development of our F-IoT system with the aim of introducing it to suppliers. A presentation on the concept of DENSO-style digital-twin plants was held at the head office's *Monozukuri* building in fiscal 2023. In fiscal 2024, we began introducing and verifying the concept at the Anjo and Daian plants, which are serving as model plants.



## Message from the Chief Monozukuri Officer

## Opening Up a New World of *Monozukuri*

Jiro Ebihara  
Chief Monozukuri Officer (CMZO),  
Senior Executive Officer

Business models are changing due to the instability of world affairs and the proliferation of CASE vehicles. Meanwhile, society is undergoing dramatic changes as a consequence of labor shortages and initiatives focused on climate change and resource recycling. DENSO will help address the social issues arising from these changes by placing importance on *Monozukuri* and *Hitozukuri* (the development of human resources) while remaining focused on the new era that is emerging. Thanks to our predecessors' farsighted establishment of global development, production, and supply capabilities, we already have development and manufacturing bases in regions worldwide, giving us the resources to deliver better products to our customers around the world.

Going forward, we will focus on the three tasks below so that we can adapt to diverse changes as rapidly as possible while implementing measures for the realization of carbon neutrality and a circular economy.

## 1. Rigorous Standardization and Digitalization

At DENSO plants, plant managers lead EF activities in which all employees participate in efforts to rigorously standardize work processes and operations. These improvement activities optimize the entire plant by focusing on not only the production line in question but also pre- and post-processes. Also, by utilizing simulations of virtual production lines to envision the movements of workers and verify automation and energy-saving benefits before production line start-ups, we create plants in which problems are readily identifiable. All employees then implement continuous improvement activities to address the identified problems. To further evolve these EF activities, we are currently building a platform that will digitalize current activities so that they can be made available as data for utilization by all personnel from design and production engineering managers through to on-site personnel.

## 2. Automation and the Development of Personnel with Digital Technology Literacy

With labor shortages becoming an issue in all industries, we will incorporate intelligent robots and combine AI and data science so that robots and machines can perform complex tasks previously performed by humans, such as incidental work and sensory inspections. In this way, we will realize safe, high-quality automated plants. Due to the introduction of digitalized and automated paper forms and other innovations, an increasing number of digital tools are available for the management of frontline operations. Therefore, we will reskill personnel so that they acquire literacy in digital technologies and can readily utilize such tools.

## 3. Digitalization throughout the Supply Chain

As well as sharing data within our plant operations, we will share it with suppliers and customers. Moreover, this data will not only enhance quality but also the ability of our supply chain to adapt to production fluctuations and risk actualization. In conjunction with these efforts, we will enhance the social value of our products by making available in reliable formats the traceability data necessary for verifying CO<sub>2</sub> emissions volumes and for verifying the history of reused and recycled materials.

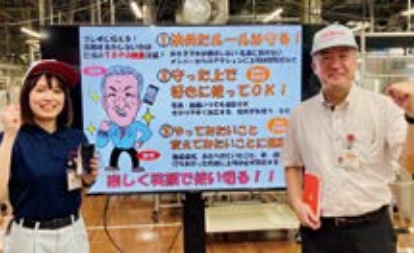
The aforementioned initiatives will realize exciting frontline operations where all coworkers involved in manufacturing are able to engage in creative work and take on challenging new tasks. Our plants are proceeding with verification and implementation with their sights set on realizing such operations, which we refer to as DENSO-style digital-twin plants.

## Message from an Employee

## *Monozukuri* Digitalization That Also Strengthens Team Unity

The digital terminals distributed to each frontline employee have revolutionized our work. For example, when a defect occurs in a manufacturing process, we used to explain the problem verbally. Now, however, we can use the terminal to photograph the situation, which leads to speedy and accurate analysis of the problem. When we are conducting inspections, the digital terminal enables us to perform a variety of tasks, from viewing work instructions and quality samples to managing the number of workpieces.

In addition, younger employees have taken it upon themselves to teach their teams how to use the terminals, which has had the unexpected benefit of stimulating communication throughout the team. We will continue utilizing the power of teamwork and digital technologies to tackle various *Monozukuri* challenges as a united team.



From left:  
Akane Oishi and Eiji Kawakami  
Production Section 6, Plug Plant, Daian Plant

# Intellectual Capital

### Outline of Efforts to Strengthen Intellectual Capital

To continue providing value to society in a turbulent era, we must understand the true needs of our customers and leverage our technological capabilities to offer them value that is ahead of its time. During a history of more than 70 years, we have driven business growth by extending the scope of our product R&D from the mechanical parts field to encompass electronics and software.

We will establish competitive advantages not only through mass production development but also through R&D that anticipates long-term changes in social conditions and technology trends and utilizes leading-edge technologies in such fields as semiconductors, materials, AI, and ergonomics. Moreover, DENSO will increase its competitive advantages by advancing intellectual property (IP)-focused management that is fully integrated with business strategies.



### Business Portfolio Reform Aimed at the Ultimate Goal of “Zero”

Ten years ago, our business portfolio reflected market demand and consisted mainly of internal combustion engine products and conventional air conditioner products. Recently, however, this business portfolio has been undergoing major reforms. In fiscal 2023, electric vehicle components, advanced driver assistance systems (ADAS), and products of other growth businesses accounted for approximately 70% of overall revenue. Our goal is for growth businesses to double their revenue by 2035 and thereby drive the increase in our corporate value. Meanwhile, our de-emphasis and discontinuation of internal combustion engine products will roughly half revenue from these products by 2035. Further, we are pursuing R&D with the aims of medium- to long-term business expansion and commercialization in non-automotive fields and other new business fields related to the connections between five essential elements, which are explained in greater detail later in this section. Through these business portfolio reforms, DENSO aims to realize carbon-neutral *Monozukuri* and eliminate traffic accident fatalities.

We have also begun to reform our business model based on medium- to long-term changes in the business environment. As well as offering conventional tangible value realized through hardware, we will respond to the increased rollout of software-defined vehicles (SDVs) by emphasizing intangible value created through software development. In this way, we will heighten our competitiveness even further.

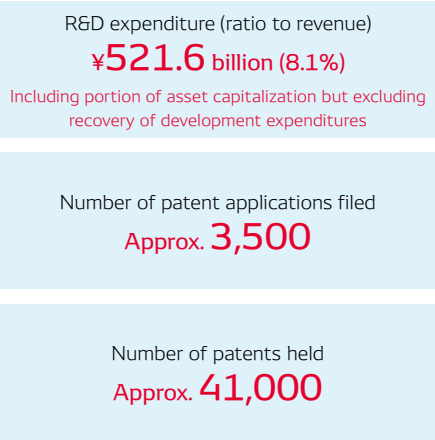
### Transition Strategy for the Realization of Business Portfolio Reform

In building the ideal business portfolio for the future, we have set out strategies for each product category based on the key goals of realizing our philosophy, accelerating our growth, and boosting our profitability in terms of return on invested capital (ROIC). To realize these strategies, we are optimally allocating resources and conducting efficient R&D.

In addition, our establishment of R&D capabilities in seven regions worldwide is enabling us to acquire talented engineers in each region and advance innovation based on regional characteristics and advantages.

While we are dedicated to improving in-house technologies even further, we are actively participating in a multifaceted range of partnerships and rulemaking initiatives through alliances, M&As, industry–government–academia collaborations, and technical liaisons. (Financial Capital [P.71](#))

### Characteristics of DENSO's Intellectual Capital (Fiscal 2023 results)



### In-Vehicle Semiconductors—Helping Maximize the Value of Green and Peace of Mind

In-vehicle semiconductors are playing increasingly important roles in the popularization of electric vehicles and automated driving. We will engage in the dynamic, strategic development of these products by utilizing strengths cultivated during more than half a century of semiconductor research and by leveraging alliances.

In the sensors field, we have strengthened our in-house R&D organization and formed strong development partnerships with highly specialized vendors of semiconductors. As for the field of microcontrollers, systems-on-chips (SoCs), and other logic semiconductors—which are indispensable for heightening the performance of vehicle control systems such as ADAS—we are strengthening partnerships with specialized manufacturers so that we can utilize the latest advances in consumer technologies and establish capabilities for the leading-edge development and stable procurement of high-quality in-vehicle semiconductors. Similarly, in the field of power semiconductors we are meeting the rapidly growing demand for electric vehicle components by continuing to bolster in-house manufacturing capabilities while building partnerships that solidify the foundations of our competitiveness and supply capabilities.

### Growing Importance of Software

Recent years have seen the dawning of an era in which software adds new value to vehicles. Software is essential for the automated driving, BEV motor control, and energy management systems that are enabled by sensors, algorithms, and AI as well as for functions that facilitate the downloading of upgraded software from cloud computing services in the same manner as smartphone systems are upgraded. As a result, software development is expected to account for 50% of vehicle development by 2030, compared with a level of roughly 20% in 2000.

Anticipating this shift, we are strengthening R&D and personnel training in the software field. (Message from the Chief Software Officer [P.85](#))

### Strengthening Capital to Grow Businesses and Address Social Issues

Over its long history, DENSO has acquired manufacturing with high levels of efficiency and quality, robust business foundations, advanced R&D, and three-pronged solution capabilities. Forged through years of business with our customers, these strengths cannot be easily replicated. Our strengths enable us

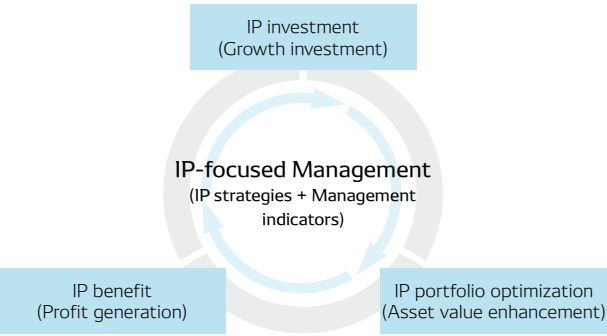
to go beyond manufacturing that focuses on components in isolation and create truly valuable products and systems as a comprehensive system supplier.

DENSO aims to address social issues and realize new value creation, profit growth, and capital cost reduction that enhance corporate value. To these ends, the Company will pursue a range of initiatives. We will advance initiatives to create world-best and world-first products through leading-edge technology research. The Company will also implement initiatives to increase sales in the connected, autonomous, shared & service, and electric (CASE) vehicle field by investing in and deploying personnel to growth fields. Other initiatives will focus on establishing competitive advantages inside and outside the automotive industry by increasing the creation of patents that can be utilized by other companies.

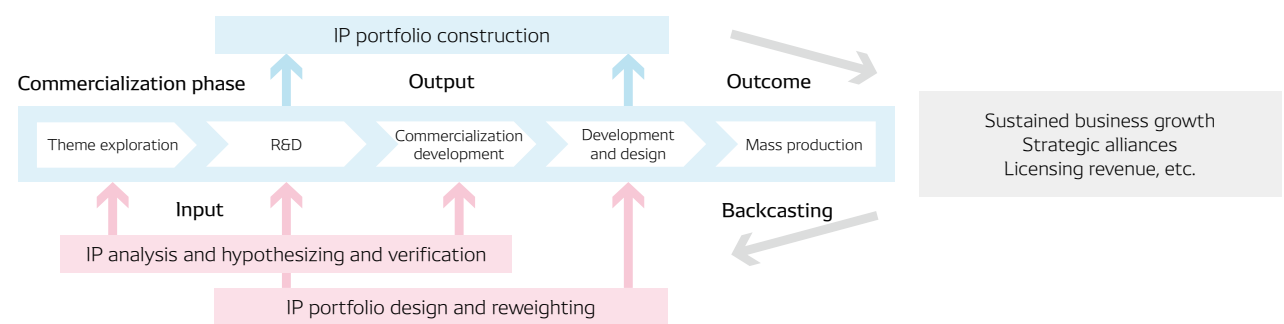
In addition, by utilizing an “ROIC tree” in-house, we are able to visualize how the intellectual capital-strengthening activities and KPIs of individuals and departments are connected to improved development efficiency, new product launches, new sales expansion, and improved ROIC. Also, we are improving development efficiency—especially in software development, which requires many man-hours—by automating testing processes to shorten the development lead times. As a result, we have achieved efficiency improvement benefits that are more than twice the amount invested. Thus, we are implementing rigorous countermeasures to heighten our competitiveness even further. (Financial Capital [P.67](#))

### From IP Strategies to IP-focused Management

In addition to the IP strategies that DENSO has advanced for individual businesses and products, the Company is strengthening IP portfolio management by redefining the IP portfolio as an asset that is indispensable to the Company’s sustained growth. In advancing these activities, our management, business, R&D,



### Business Growth and Our IP Portfolio



and IP divisions are holding dialogues to further bolster a cycle of IP asset value enhancement, profit generation, and investment in growth as well as to elevate our IP strategies to the level of IP-focused management that benefits corporate management.

### IP Portfolio Design Activities Aimed at Enhancing Corporate Value and Sustaining Growth

As the added value of automobiles changes, we will focus on R&D in growth fields and new fields. In this way, we will steadily accumulate IP in these fields, which will serve as the foundations of future businesses. In addition, while identifying a value creation story and core technologies that help to address social issues, we have backcast from our DENSO R&D Policy Guideline to design a target profile for our IP portfolio. To realize this profile, we are both adding and removing IP from the portfolio.

In designing our Companywide IP portfolio, we have divided it into three levels: a Companywide level, a business level, and a development theme level. Based on a target profile for each level, we will add and remove IP. When replacing IP in this way, we are utilizing three new indicators. A leading indicator mainly emphasizes such new fields as Mobility as a Service (MaaS) and agricultural technology (AgTech) and shows trends in our future IP portfolio. In addition, a current indicator is primarily focused on battery electric vehicles (BEVs), ADAS, and other growth fields and measures the strength of our present IP portfolio. Meanwhile, a lagging indicator mainly reflects fields related to the de-emphasis and discontinuation of internal combustion engine products and shows the track record of our established IP portfolio. Based on these indicators and in step with product life cycles, we are pursuing IP investment that contributes to the strengthening of IP competitiveness and the realization of our future vision.

With respect to the aforementioned development theme level, at the stages beginning from the exploration of commercialization themes through to commercialization development, we will analyze vast amounts of IP information, including the patents of other companies, and establish and verify hypotheses in a timely manner. These efforts will allow us to provide input that contribute to product development activities. For example, we will clarify core technologies that both underpin competitiveness and help to address social issues. Through these activities, we will ensure that our achievements lead to IP rights that become company assets. We will enhance corporate value and sustain growth by advancing timely efforts aimed at maintaining price competitiveness through differentiation, building business ecosystems through strategic alliances based on IP, and obtaining licensing revenue in “open” fields through an “open/close” strategy.



Long-term R&D and IP Strategy with a View to 2035

In recent years, pandemics, conflicts, and logistics disruptions have brought the movement of people and goods to a halt around the world, stagnating social and economic activities and forcing changes in social behavior. Meanwhile, coupled with technological innovations in AI, IT, and semiconductors, the automotive industry is undergoing dramatic structural change, and business conditions remain intensely competitive.

In this chaotic world, DENSO has hosted a series of discussions with internal and external experts to reexamine its overall direction as well as the kind of society the Company should help realize. As a result of these efforts, in fiscal 2023 we formulated our DENSO R&D Policy Guideline, which is based on five essential elements: the free movement of people, the flow of goods, energy utilization, minimization of resource requirements, and the flow of data.

Serving as a compass for Companywide R&D, the outline sets out a scenario divided into 10-year phases, which is aimed at continued realization of customer value and sustained business growth. Based on the green and peace of mind principles set forth in the Long-term Policy for 2030, the DENSO R&D Policy Guideline adopts the worldview of 2035 to express the future that we want to realize.

Priority Development Fields

In relation to the aforementioned five elements, the DENSO R&D Policy Guideline defines priority fields that will be the focal points of development efforts.

Specifically, in the green field our priority areas are carbon neutrality, the popularization of electric vehicles, energy

management, and the circular economy, while in the peace of mind field they are automation (vehicles and *Monozukuri*) and information management.

Based on the DENSO R&D Policy Guideline, we will connect academic and scientific fields with businesses and industries with a view to realizing high-value vehicles and *Monozukuri* that contribute to peace of mind, supporting the continuation of society's activities, and catering to diverse values and views of well-being.

Carbon Neutrality

To achieve carbon-neutral *Monozukuri* by 2035, we aim to achieve carbon neutrality at our approximately 130 plants worldwide. Moreover, by ensuring that society benefits from these achievements, DENSO will contribute to the realization of carbon neutrality in society as a whole. We are developing technologies for the functions that constitute energy recycling systems—such as hydrogen generation and CO<sub>2</sub> capture and utilization—by applying and advancing technologies originally developed for automotive components. The areas covered by these technologies include electrochemical reactions, materials, processes, sensors, and heat and energy management.

Popularization of Electric Vehicles

With a basic strategy of providing each country with the vehicle options best suited to it—which could mean BEVs, HEVs, or FCEVs—we are developing technologies focused on the three elements that are fundamental to the popularization of electric vehicles: motors, inverters, and battery management.

For example, the development of highly efficient inverters will enable the creation of more-compact products, allow greater freedom in designs, and reduce air resistance. In addition, for next-generation silicon carbide (SiC) semiconductors, which can reduce power consumption by more than half compared to that of conventional silicon (Si) semiconductors, we will realize dramatic cost reductions by developing new manufacturing methods that extend back as far as the growth of crystals for semiconductor fabrication.

Energy Management

As they lack the heat source provided by internal combustion engines, BEVs face issues such as having insufficient heat in cold climates and reduced battery performance at low temperatures. Another issue is the cooling of high-performance computers, which are becoming even more powerful with the evolution of automated driving. To overcome these issues and thereby improve driving distance and other aspects of vehicle performance, energy management for entire vehicles is critical.

DENSO is developing energy management technologies for entire vehicles by leveraging strengths it has fostered in the fields of thermal technologies, electric drive technologies, and connected driving technologies. With its sights set on making broader contributions beyond the vehicle field, DENSO is also developing energy management based on linkage between electricity infrastructure and vehicles that optimizes energy utilization across entire towns.

Circular Economy

The objective of a circular economy is to both facilitate resource depletion countermeasures and sustain economic growth. This approach is particularly important for the future sustained growth of industry in Japan, which relies on imports for the majority of its resources.

Specifically, we will take advantage of robot and factory automation technologies, which have been fostered in *Monozukuri* activities, as well as cognitive and decision-making technologies, which have been established for advanced driver assistance and automated driving, to develop precision disassembly technologies that separate and extract used materials without waste. These disassembly technologies will provide us with high-quality, low-cost recycled materials. Further, we will build an automotive recycling ecosystem by working in partnership with recycling companies.

Automation (Vehicles and *Monozukuri*)

As Japan's population ages, the number of seniors who find traveling challenging is expected to increase. Also, due to a shortage of truck drivers, road transport may only carry three-quarters of its current freight volume by 2028. To address these issues, we will utilize our in-vehicle semiconductor technologies as well as advanced semiconductors from semiconductor manufacturers and start-ups to further heighten the performance of cameras, radar, and light detection and ranging (LiDAR) sensors and to develop supercomputer-level in-vehicle computers that are compatible with high-speed, large-scale calculations.

In the field of *Monozukuri*, DENSO will utilize its competence in factory automation and cognitive and decision-making technologies to realize robotics-based automation across society—from factories and logistics through to AgTech and systems for urban development.

Information Management

With the progress of IT, services that utilize user data are becoming ubiquitous in daily life. Similarly, in the field of vehicles, products and services that utilize vehicle control information and driver data are expanding, which is making information management indispensable. For this reason, we will pursue technological advances with a view to realizing data services. More specifically, we will develop and standardize data communications among vehicle-related products, security technologies, and in-vehicle operating system technologies that support these communications and technologies.

Regarding standardization efforts, the monitoring and disclosure of CO<sub>2</sub> emissions and recycled material usage of battery production is a growing global trend. Consequently, the construction of a data platform that connects manufacturers is required. Through a partnership with NTT DATA JAPAN CORPORATION, in 2022 DENSO began building a platform for standardized industry data by combining blockchain and QR Code® technologies.

R&D Resource Management

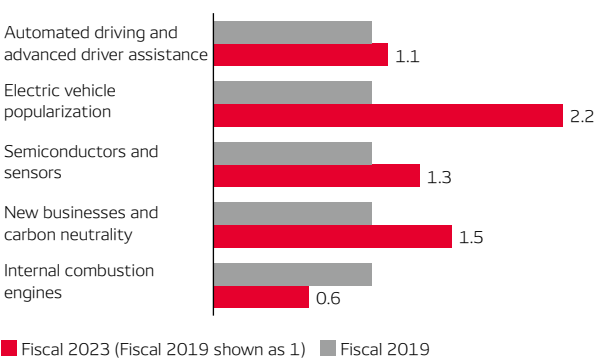
In sustaining business growth, we must conduct not only short-term development initiatives but also long-term research and early development. Over the past five years, DENSO has invested approximately ¥670 billion in leading-edge research and early development.

However, international politics and economics, industry, and technological trends have changed rapidly over the past five years. In response, DENSO has been reweighting its business portfolio by strategically shifting the focus of management resource deployment.

Comparing our current R&D expenditures in major fields with those of five years ago, we are continuing to invest in automated driving and advanced driver assistance; however, we are reducing investment in internal combustion engines while stepping up investment in electric vehicle popularization, semiconductors and sensors, new businesses, and carbon neutrality.

Going forward, while continuing to follow a basic policy that reflects its DENSO R&D Policy Guideline and priority R&D fields, DENSO will identify signs of change and undertake management resource deployment that adjusts the weighting of the business portfolio as needed. In this way, we will realize management of R&D resources that maximizes ROIC.

Changes in R&D Expenditures in Major Fields  
(Fiscal 2023 versus fiscal 2019)



Carbon Neutrality and the Circular Economy

Aiming to realize a sustainable mobility society through initiatives in the three fields of vehicles, *Monozukuri*, and energy utilization

Carbon neutrality

Achieve carbon-neutral *Monozukuri* by 2035 Energy utilization

Electrification

Popularize electric vehicles Free movement of people, flow of goods

Energy management

Pursue maximum energy efficiency and effective utilization of energy Energy utilization

Circular economy

Establish collaborations between manufacturers and recycling companies to support continuous vehicle manufacturing Minimization of resource requirements

Accident Free

Using sensors, human-machine interfaces, and ICT in combination to eliminate traffic accident fatalities and realize unrestricted mobility and to facilitate factory automation

Automation

Vehicles

Establish automated driving and infrastructure coordination with a view to eliminating traffic accident fatalities by 2035 Free movement of people, flow of goods

*Monozukuri*

Realize *Monozukuri* that utilizes digital twins

Energy utilization, minimization of resource requirements

Information management

Establish secure data connections between vehicles and society Flow of data

Message from the Chief Technology Officer

Developing Technologies to Connect the Flow of Five Elements of Society and Promote a Cycle of Well-Being

Yoshifumi Kato  
Chief Technology Officer (CTO),  
Senior Executive Officer

Supporting the Continuation of Society's Activities

Both as a supplier of vehicle systems that enable the free movement of people and the flow of goods and as a *Monozukuri* company, DENSO has a responsibility to support the continuation of society's activities and to balance global environmental protection with sustained economic growth.

With respect to the investment of management resources in technology development over the past five years, we have invested ¥600 billion in electric vehicle popularization, carbon neutrality, and other fields related to energy utilization in the green domain; ¥1,260 billion in advanced driver assistance, automated driving, and other fields related to the free movement of people and the flow of goods in the peace of mind domain; and ¥199 billion in common fundamental technologies.

As a result, in the green domain, the revenue of the Electrification Systems Business Group grew from ¥910 billion in fiscal 2019 to ¥1,040 billion in fiscal 2023. In addition, we have started up the mass production of BEV SiC inverters, which enable a significant reduction in power consumption. In the peace of mind domain, the Mobility Electronics Business, which is centered on ADAS and system control units, achieved a marked increase in revenue, from ¥1,110 billion in fiscal 2019 to ¥1,610 billion in fiscal 2023. During this period, we extended the range of accident scenarios covered by the Global Safety Package (GSP) sensor system for ADAS through the marketing of GSP2 and GSP3. In addition, for existing vehicles, we have been promoting the spread of safety devices by offering retro-fitted devices that prevent accelerator pedal errors.

To achieve carbon-neutral *Monozukuri* and eliminate traffic accident fatalities by fiscal 2036, we will further accelerate the spread of our products throughout society by ramping up technology development and business scale.

Extending the Cycle of Well-Being from Vehicles to Society as a Whole Based on Five Elements of Society

Many of our efforts are aimed at offsetting the negatives, including initiatives aimed at carbon neutrality, the minimization of resource requirements, the elimination of traffic accident fatalities, relief for those who find traveling challenging, and increasing distribution efficiency through "white logistics." A positive cycle of well-being will take effect when we not only eliminate negatives but also provide new, positive value. To achieve this, DENSO will create new value by utilizing the flow of data to visualize and connect the free movement of people, the flow of goods, energy utilization, and minimization of resource requirements. Such connections will enable a cycle of well-being to extend beyond vehicles to encompass society as a whole.

For example, when a vehicle is running it has value in terms of the free movement of people and the flow of goods. If the vehicle is electric, however, it also provides value in relation to energy utilization by storing electricity when parked. Similarly,

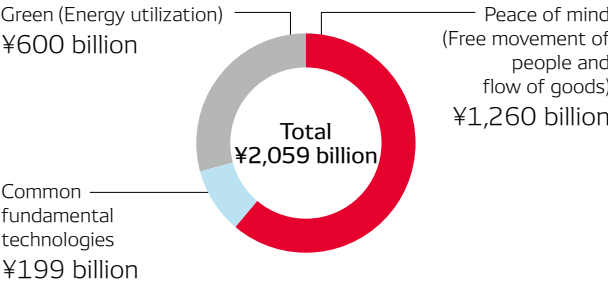
vehicles that can be recycled at the end of their service lives contribute value through the minimization of resource requirements. Moreover, the flow of data can be used to visualize the flow of these elements of society and also to connect the flow of different elements of society.

Our areas of expertise are in the movement of people and goods as a mobility-focused company, the optimization of energy and resources as a manufacturer, and data generation and management as the inventor of the QR Code®.

We will capitalize on these areas of expertise to advance development that connects things and information, manufacturers and customers, and people and vehicles. In this way, we will create and circulate new well-being value that connects society. Specifically, DENSO will conduct research on human nature and develop automated driving technology to eliminate traffic accident fatalities, provide relief for those who find traveling challenging, and advance white logistics initiatives; utilize catalyst technology in the development of fuel cells and systems for the capturing of CO<sub>2</sub> to help realize carbon neutrality; leverage factory automation technology for vehicle recycling to create systems for scrap vehicle disassembly and material sorting; and develop the QR Code® and quantum computing technology to enable the protection, distribution, and utilization of data.

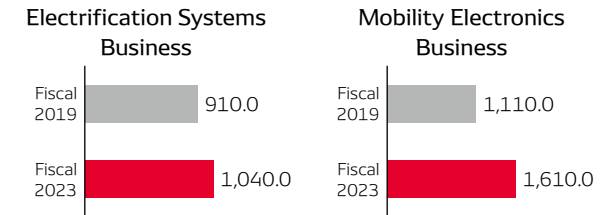
R&D Expenditures in the Domains of Green and Peace of Mind

(Total for fiscal 2019 to fiscal 2023)



Revenue

(Billions of yen)



Message from the Chief Software Officer

Software Strategies to Lead the Evolution and Future of Vehicles

Atsushi Hayashida  
Chief Software Officer (CSwO)

DENSO's Three Core Software Strategies

To gain further competitiveness in the software field, where DENSO has distinct advantages, and to meet the expectations of our customers, we are advancing activities based on three core software strategies. The first strategy is to focus on the integration and optimization of software in each vehicle by leveraging our accumulated expertise in vehicle software. The second strategy entails accelerating both the establishment of global development capabilities and partnership strategies to provide value that accurately reflects the needs and trends of each region. Lastly, we will standardize software to contribute to the reliability and efficiency of the entire industry. Through the aforementioned strategies, we will increase the value of our software and provide the industry with strong leadership.

Utilizing Our Expertise in All Types of Vehicle Software

DENSO has been involved in automotive software development since the 1980s, when software was first used in vehicles. Since then, we have accumulated expertise in software for a lineup of products that covers all vehicle functions and includes powertrains, bodies, chassis, air conditioners, cockpits, and advanced safety systems. As software becomes more extensively incorporated into all automotive control systems going forward, we will take maximum advantage of our accumulated expertise to enhance the quality of our development and provide automakers and new customers with advanced software systems. Further, in realizing highly intelligent vehicles, we must provide solutions based on heightened cross-domain value. To this end, DENSO will achieve mutual cooperation among its different domains so that the Company can provide solutions for architecture design, integration, and other tasks.

Strengthening Global Development Capabilities Even Further

To move forward with software development, which is rapidly increasing in scale and difficulty, bolstering our development capabilities not only in Japan but in other countries around the world is critical. DENSO has established software development companies in each region and established development capabilities that capitalize on each region's characteristics and advantages. Also, since 2020 we have been developing software engineers by reskilling hardware engineers. We currently have 11,000 software engineers. By fiscal 2026, 12,000 software engineers will support our development capabilities. Moreover, to ensure that we significantly increase not only the number of software engineers but also their quality, we will visualize the skill levels of software engineers around the world through a

career innovation program (Sommelier Certification Program) and advance high-quality development initiatives globally. In conjunction with these initiatives, we will work with development partners to accelerate the co-creation of leading-edge AI, security, and data science technologies, which are indispensable for providing new value to the mobility society as a whole.

Contributing to Industries through Software Standardization

In all manner of industries, software development is driving up investment, making curbing the volume of development a pressing issue. We will build a cooperative ecosystem for industries overall by actively taking the lead in standardization through utilization of the relationships of trust built with customers as well as our experience in working with various industries and standardization organizations on security technology and platform software.

Creating Businesses through Software-Based Value Creation

While leading cooperative initiatives, we will establish software businesses that capture demand resulting from the proliferation of intelligent vehicles. To enhance the value of vehicles, we will enable realization of software's unique advantages. For example, we will offer integration and architecture design solutions for the creation of the latest application software and SoCs that are of the quality required for in-vehicle utilization. Further, we will roll out software updating services that offer value throughout vehicles' lifetimes. Building a diverse product lineup will allow us to provide a wide range of solutions that meet the needs of automakers, thereby achieving business growth in systems, mechanical parts, and electronics.

Continuing the New President's Legacy

Former CSwO Shinnosuke Hayashi is the first DENSO officer to become president after a career in the software field. Although a latecomer to the long history of the automotive industry, software is currently uniting the efforts of internal and external stakeholders, including customers, to evolve vehicles and enhance their value and is supporting the coordination among technologies and teams that is needed to create good vehicles. I believe that software has the power to connect people with people, things with things, and vehicles with society. Through co-creation and competition with the diverse industries and companies involved in the evolution of a mobility society, I will do my utmost to create the kind of forward-looking value that has always been our hallmark.



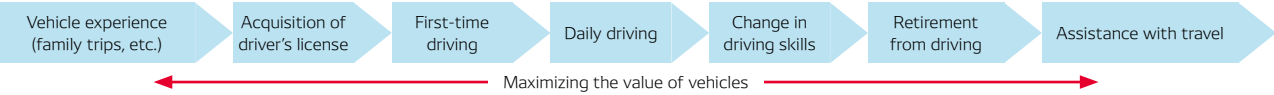
# Special Feature: Connecting the Flow of Five Elements of Society

## New Approach to Realizing a Cycle of Well-Being

Our approach of “connecting the flow of five elements of society” develops technologies and partnerships to create and maximize the value of green and peace of mind that will meet a broad range of needs going forward. Through this approach, we aim to ensure realization of the green and peace of mind strategies and the Long-term Policy for 2030, thereby supporting the continuation of society’s activities and catering to diverse values and views of well-being. This special feature gives examples of our approach in relation to the flow of each type of element of society.

**Vehicles That Offer the Value of Peace of Mind** DENSO strengths: Advanced driver assistance, automated driving, electric vehicle popularization, software, and quantum computing

### 1. Free movement of people: Eliminating the negative effects of vehicles (traffic accident fatalities) and realizing vehicles that cater to diverse values



#### Society's Needs

Following changes in behavior and values in the wake of the COVID-19 pandemic, needs and values with respect to driving and vehicles are diversifying in each generation and country.

#### Examples of Specific Initiatives

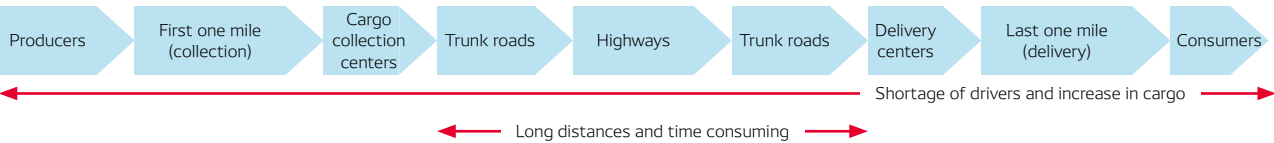
##### Providing New Experiential Value and Strengthening Our Electronic Platform and Software Development Capabilities

In providing vehicles that cater to diverse values, we will strengthen marketing globally. As part of this effort, we will identify the value that customers seek by acquiring direct feedback from them at experience-focused stores. DENSO will also identify the value sought by individuals through analysis of vehicle data. Based on our findings, we will update software to create electronic platforms that support the use of new features. To facilitate this software updating process, we will step up our software development efforts.

#### Commercialization Strategy

- Provide ADAS and promote the spread of these systems by reducing costs
- Market electrification systems for a wide range of applications

### 2. Flow of goods: Eliminating waste and loss to support the environmentally and people-friendly movement of goods



#### Society's Needs

While cargo volumes are increasing worldwide, future shortages of truck drivers due to population aging and the contraction of working-age populations are a cause for concern, particularly in developed countries.

#### Examples of Specific Initiatives

##### Developing Multi-Modal Automated Driving and Advanced Operation Systems

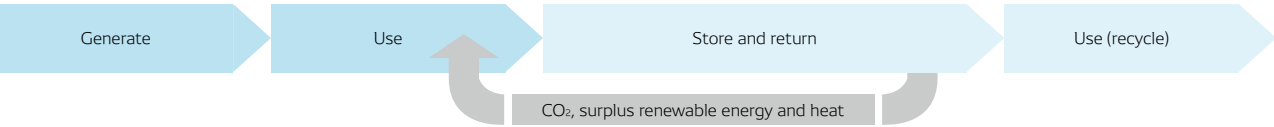
To achieve automated driving in “last one mile” transport and other transport modes and to seamlessly connect them, we will collaborate with Aurora Innovation Inc. and develop automated driving for compact vehicles. We are also accelerating the development of a shuttle line of communication (SLOC) operation system and conducting verification tests. For example, the realization of a SLOC operation system will enable trucks to exchange their containers at a relay point gateway between Tokyo and Osaka and then return to their respective departure points, thereby eliminating long operation times and cargoless return trips. Our other initiatives include utilizing quantum computing to comprehensively optimize and enhance the efficiency of logistics.

#### Commercialization Strategy

- Commercialize solutions that optimize flows of people and goods

**Earth-Friendly Monozukuri** DENSO strengths: Technologies for electric vehicle popularization, internal combustion engine technologies, thermal technologies, robotics, and Monozukuri

### 3. Energy utilization: Spreading DENSO's carbon-neutral Monozukuri throughout society and realizing an energy recycling society



#### Society's Needs

Due to the global issue of climate change, the decarbonization trend is accelerating. In addition, given the tight energy supply-demand balance, the promotion of renewable energy and a hydrogen-based society is essential.

#### Examples of Specific Initiatives

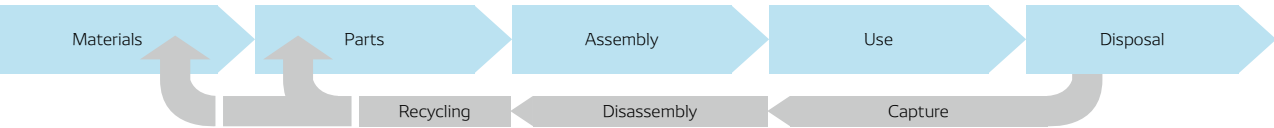
##### Realizing Carbon-Neutral Plants through the Effective Use of Renewable Energy

With the aim of realizing carbon-neutral Monozukuri, we are working on the effective use of renewable energy and the capture and reuse of CO<sub>2</sub>. In 2021, we began verifying the capture of CO<sub>2</sub> and its conversion into methane for use as fuel in plants. In the following year, DENSO began verification of the utilization of vehicle-to-everything (V2X) communication that enables vehicle batteries to be used as batteries for energy recycling systems. Most recently, we have introduced solid oxide fuel cells and solid oxide electrolysis cells to our plants and commenced verification of hydrogen generation and utilization. Our other initiatives include efforts to convert waste heat into electricity. Moreover, with a view to creating materials that efficiently convert energy, we are conducting basic research on optimizing the structure of materials at the atomic level.

#### Commercialization Strategy

- Commercialize energy recycling systems for plants
- Extend systems to establish town-use compatibility and roll them out

### 4. Minimization of resource requirements: Achieving sustainable Monozukuri that curbs resource utilization to minimize environmental impact



#### Society's Needs

The amount of resources used for each vehicle must be reduced to comply with stricter requirements for the use of recycled materials in automotive manufacturing and to address such social issues as resource depletion.

#### Examples of Specific Initiatives

##### Building an Ecological System to Recycle Automotive Resources

We are developing methods, structures, and materials suited to disassembly and recycling by using reverse engineering that leverages our Monozukuri technologies. Through precision disassembly that is enabled by robotics and automated driving technologies, DENSO is developing car-to-car technologies that extract high-purity materials\* from end-of-life vehicles and then transform them into environmentally friendly vehicles. We are also developing new, nature-friendly materials, including bio-derived materials and materials that do not contain rare earths.

\* Materials such as plastics and metals that contain few impurities

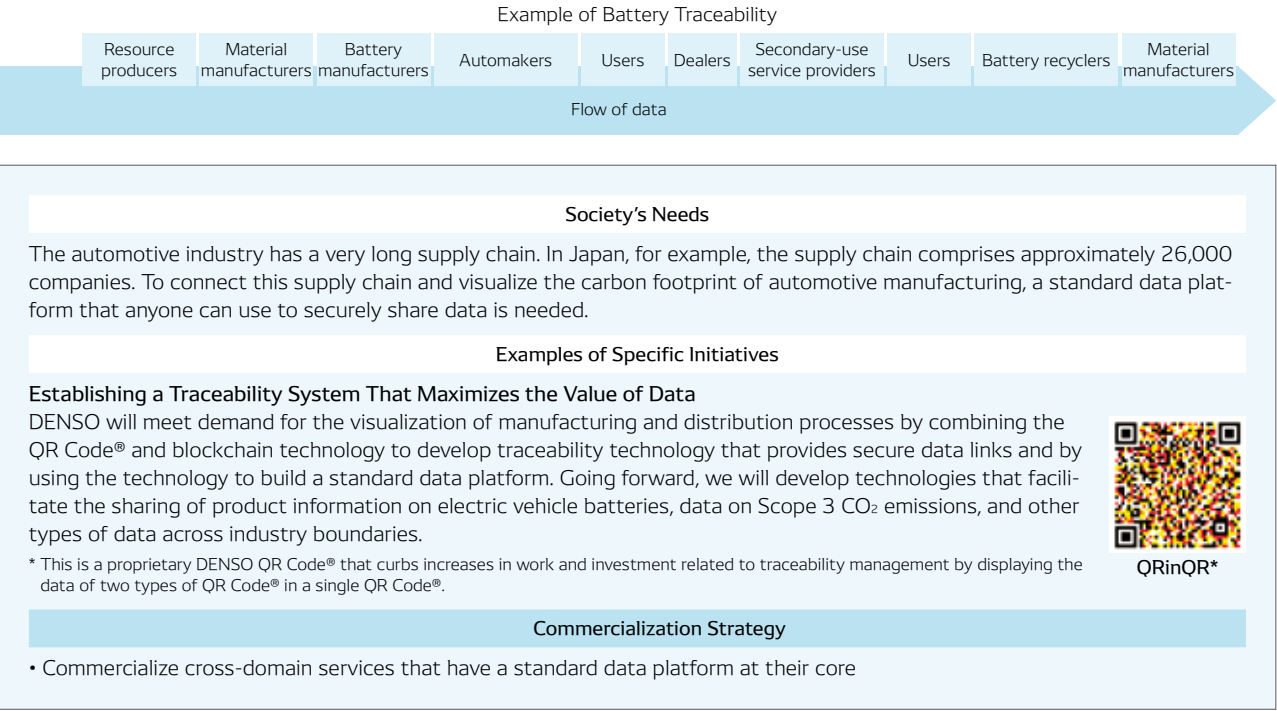
#### Commercialization Strategy

- Commercialize vehicle recycling through collaboration with recycling companies
- Launch external sales of automated systems for precision disassembly

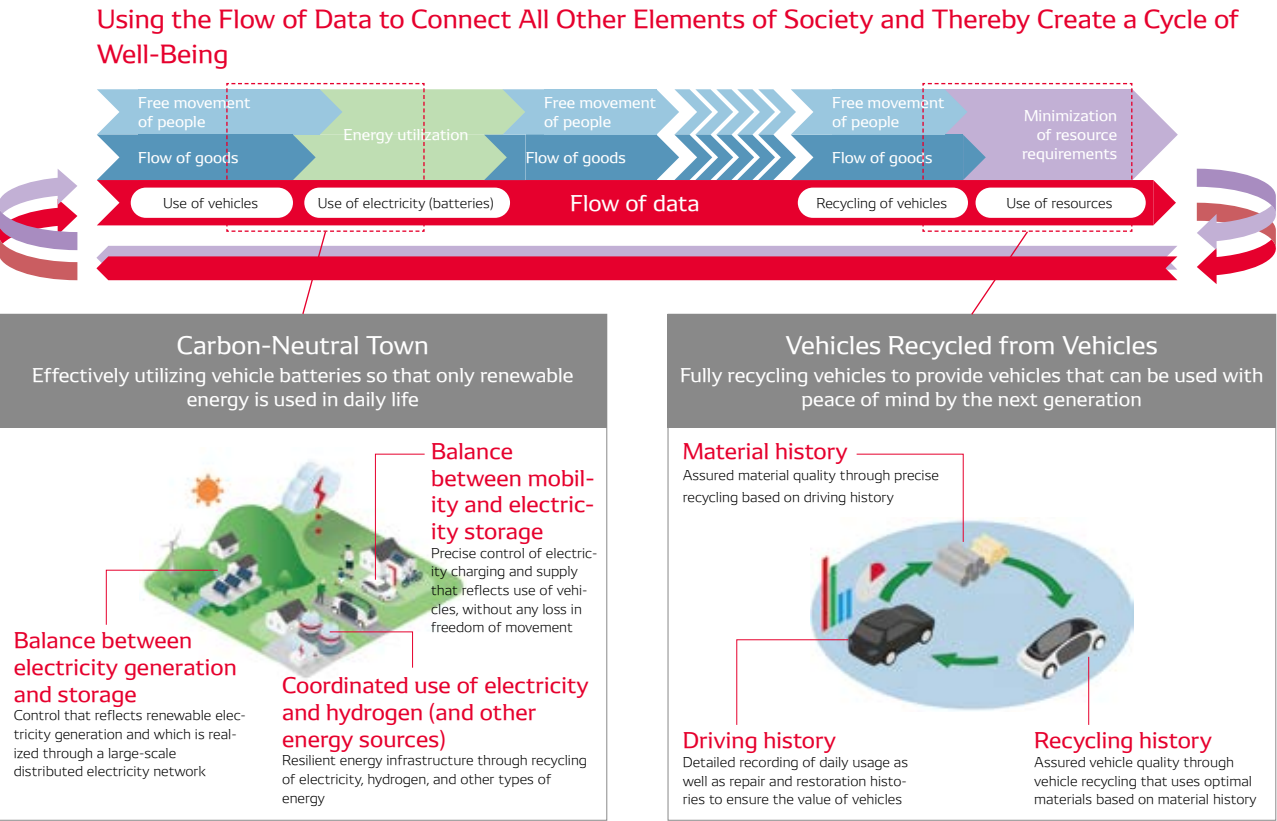
# Natural Capital

**Connection of the Flow of Elements of Society to Maximize Value** DENSO strengths: QR Code®, QR Code® readers, block-chain technology

**5. Flow of data:** Utilizing precise data to connect the flow of all elements of society and to connect people, vehicles, and society



**Value Obtained by Connecting the Flow of Five Elements of Society**



**Outline of Efforts to Strengthen Natural Capital**

DENSO's business activities have a close relationship with natural capital, including through the utilization of industrial water and the use of mineral resources as raw materials for its products. Maintaining and preserving natural capital is extremely important for DENSO. In particular, we believe we can help minimize the negative impact of the globally shared issue of climate change on natural capital and strengthen our corporate value by applying our long-cultivated environmental technologies to develop and popularize innovative environmental products.

Based on our Eco Vision 2025 environmental management policy, we assess natural capital from the perspectives of both risks and opportunities. We are pursuing environmentally neutral activities from a variety of angles, including enhancing the efficiency of natural capital use and reducing our environmental burden, thereby working to conserve the global environment and create economic value.

**Characteristics of DENSO's Natural Capital**  
(Fiscal 2023 results)

CO<sub>2</sub> emissions (global)

**1.41 million t-CO<sub>2</sub>e (Scope 1 and 2)**

Renewable energy usage amounts (global)

**607,892 MWh (Renewable energy percentage: 22.8%)**

Notes: 1. The results figures reflect the use of carbon credits.  
2. The targets are production bases in Japan and overseas (including the Group's manufacturing companies).

**Climate Change Countermeasure—Zero CO<sub>2</sub> Monozukuri**

DENSO is promoting the development of technologies for the production process and engaging in rigorous energy-saving activities with the participation of all employees. In addition, we are proactively promoting energy-saving activities to reduce CO<sub>2</sub> emissions, including Just-in-Time (JIT) activities that aim for the utilization and supply of just the right amount of energy at the necessary time. Under Eco Vision 2025, we aim to achieve the “energy half” target (reducing CO<sub>2</sub> emissions per unit by half compared with fiscal 2013). As of fiscal 2023, DENSO CORPORATION has achieved this target three years ahead of schedule, while Group companies are also expected to achieve the target ahead of schedule. (Fiscal 2023 results: DENSO CORPORATION, 50 [reduction of 50%]; domestic and overseas Group companies, 51 [reduction of 49%])

Going forward, we will continue to enhance energy-saving activities utilizing F-IoT and other technologies, and, at the same time, we will purchase electricity and gas derived from economically rational renewable energy sources, introduce self-power generation via solar panels, and gradually introduce at other plants our energy recycling systems currently undergoing verification tests. Through such efforts, we will aim to make our Monozukuri completely carbon neutral.

**Prevention of Environmental Pollution**

DENSO is working to reduce the use of environmentally hazardous substances in its products in accordance with a basic policy of minimizing the use of chemical substances throughout product life cycles and taking into consideration trends in relation to the European Union's End-of-Life Vehicles Directive\*<sup>1</sup> and REACH Regulation\*<sup>2</sup> as well as other laws and regulations in respective countries and regions. In addition, chemicals handled at our plants are classified into “prohibited,” “targeted for reduction,” and “controlled” categories, and all chemicals used in our products are subject to integrated management under a proprietary control system. Based on these systems, we continuously promote efforts to reduce the usage and emissions of chemicals. At the same time, we are advancing the development of alternative technologies.

\*1 This directive came into force on October 21, 2000 and, in principle, prohibits the use of certain chemicals in new vehicles sold from July 2003 onward.  
\*2 This comprehensive regulation on chemicals came into force on June 1, 2007.

**Resource Depletion Prevention and Resource Recycling**

With a view to achieving a recycling-based society, DENSO advances activities for the effective use of resources, which include minimizing waste and emissions, recycling, and reducing water consumption. For example, we are reducing waste generation for main materials (metals and plastics) and subsidiary materials (fats, oils, and chemicals) by developing resource-saving processing methods and designing products that result in less waste. Also, we are taking measures to reduce water consumption through the introduction of JIT water management, a management system that supplies water at the necessary time, in the necessary amount, and to the necessary place. Further, DENSO has established a recycling network through cooperation among customers, DENSO service stations (centers), DENSO SOLUTION JAPAN CORPORATION, and DENSO REMANI CORPORATION. By utilizing this network, we operate a component rebuilding business that recovers, reconditions, and ships alternators and starters whose quality is assured through performance testing of the same stringency as that used for new products.

**Biodiversity**

Ecosystems are integral to natural capital, which is essential for our businesses. For this reason, we view the conservation of ecosystems as an issue directly related to corporate management. DENSO is conserving ecosystems through initiatives to address climate change, prevent environmental pollution, prevent resource depletion, and promote resource recycling. DENSO is also advancing external initiatives aimed at realizing both biodiversity conservation and business activities. In areas near our business bases, we bring together employees, their families, NPOs, and local communities to participate in initiatives focused on conservation and restoration of local ecosystems and protection of rare species.

**Iriomote Island yuriCargo Project\*—Using DENSO's Technology to Protect a Rare Species**

In cooperation with the Iriomote Wildlife Conservation Center of the Ministry of the Environment, DENSO is conducting a project tasked with protecting an endangered rare species of Iriomote wildcat by eliminating its fatalities caused by vehicle traffic. The project is using the yuriCargo smartphone app, which has been provided by DENSO, to raise driving safety awareness among drivers on Iriomote Island in Okinawa Prefecture. The app encourages the island's drivers to drive safely and observe the speed limit by scoring their driving.

\* Period of project: May 17, 2023 to March 31, 2024





## Efforts to Maximize the Value of “Green”

Amid the pressing crisis of climate change, DENSO is exploring the ideal vision for a sustainable mobility society and is accelerating its sustainability management with a view to maximizing the value of “green,” which is a target adopted under its Long-term Policy for 2030. In 2019, we pledged our support for the Task Force on Climate-related Financial Disclosures (TCFD). Since doing so, we have been carrying out a scenario analysis regarding the impact of climate change on our businesses and the opportunities and risks related to this impact. We have also been examining ways to reflect the results of this analysis in our business strategies. In this section, we introduce the status of the initiatives we are promoting in accordance with the TCFD.

### Scenario Analysis of Business Opportunities and Risks

To understand the impact of climate change on our businesses and to identify climate-related opportunities and risks, we referenced the external scenarios of the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC) and used them as benchmarks for our scenario analysis. Also, while confirming the scenario analysis for the automotive industry, we compared and contrasted this analysis with our awareness of the business environment existing under the Company's medium- to long-term strategies to hypothesize comprehensive scenarios. Upon doing so, we were able to identify climate-related opportunities and risks by analyzing the differences between our medium- to long-term strategies and these scenarios.

### Hypothesizing Scenarios

In terms of transition risk, we have defined the Beyond 2 Degrees Scenario (B2DS) and the Sustainable Development Scenario (SDS) of the IEA's World Energy Outlook as “promotional” and “ambitious” scenarios, respectively. For the scope of these scenarios, we quantified Group CO<sub>2</sub> emissions, carbon tax, crude oil prices, renewable energy rate, and the rate of new electric vehicle (xEV) introduction by 2040, and analyzed opportunities and risks based on the differences between these scenarios and Group strategies. Also, with regard to physical risks, we have defined the RCP8.5 and RCP6.0 scenarios of the Fifth Report of the IPCC as “stagnant” and “promotion” scenarios, respectively. We visualized aspects such as weather disasters, rising sea levels, deteriorating eco systems, and water and food shortages in a qualitative manner and analyzed opportunities and risks based on the differences between these scenarios and Group strategies.

### Analysis of Climate-related Opportunities and Risks

We performed an analysis on the differences between our awareness of the business environment, which forms the basis of our medium- to long-term strategies, and the circumstances under the scenarios above. Items expected to have an impact on our businesses of over ¥10.0 billion were identified as key items and categorized into opportunities and risks. In our business strategies and financial strategies, we will incorporate measures that address these opportunities and risks, thereby simultaneously tackling social issues and enhancing our corporate value. Major opportunities and risks identified through the aforementioned analysis are as follows.

Also, for more details on this analysis and evaluation, please see our answers to the CDP Climate Change Questionnaire.

#### Major Opportunities

Key items	Timeframe / Level of impact	Major potential financial impact	Financial impact (fiscal 2026)	Response measures	Response cost (fiscal 2023)
Development of new products and services through R&D and technological innovation	Medium-term / High	<b>Increase in revenue due to higher demand for xEVs</b> Rise in demand for inverters and thermal products related to electrification and for technologies such as heat pumps that improve the heat efficiency of xEVs	¥360.0 billion	• Accelerate the development of technologies related to electrification—including power-saving technologies and compact high-output technologies—as well as the development of heat management technologies • Promote the development of engine control systems and other technologies that respond to alternative fuel (e-fuel, hydrogen, etc.)	¥90.0 billion
Diversification of business activities	Long-term / Medium	<b>Increase in revenue following higher demand for decarbonization technologies</b> Creation of business opportunities in such non-automotive fields as agricultural technology (AgTech) and factory automation (FA) by applying environmental technologies fostered in the automotive field and development of new technologies (energy utilization technologies) to capture, store, and recycle CO <sub>2</sub>	AgTech and FA, etc. ¥300.0 billion (FY2031) Energy utilization ¥300.0 billion (FY2036)	• Create technologies such as AgTech that leverage sensor, control, and robot technologies and create energy utilization technologies, such as those that leverage exhaust gas purification technologies • Actively use business alliances	¥17.0 billion
Utilization of more effective production and logistics processes	Medium-term / Relatively high	<b>Reduced energy costs through the promotion of energy conservation at plants worldwide</b> If we promote enhanced energy efficiency and are able to achieve our target under Eco Vision 2025 of reducing the amount of energy used per unit by half compared with fiscal 2013, we could achieve a CO <sub>2</sub> emissions reduction of approximately 1.65 million tons per year and reduce energy costs.	¥73.0 billion	Continue rigorous energy-saving activities; adopt low-carbon materials, equipment, and production processes; enhance production process efficiency through the introduction of Factory-IoT; and promote the development of energy-saving production technologies	¥9.0 billion

#### Major Risks

Key items	Timeframe / Level of impact	Major potential financial impact	Financial impact (fiscal 2026)	Response measures	Response cost (fiscal 2023)
New controls and regulations placed on our existing products and services	Long-term / Relatively high	<b>Decline in revenue against the backdrop of increasingly strict regulations on fuel efficiency and exhaust gas</b> We expect even tighter regulations on fuel efficiency as well as acceleration in the transition to xEVs, including HEVs (comprising 47% of all vehicles in 2030). Non-compliance with regulations resulting from an inability to adapt to changes could cause a decline in unit sales.	¥400.0 billion	• Accelerate the development of energy-saving technologies for products powered by electricity with a view to extending driving distance • Accelerate development aimed at enhancing fuel efficiency of internal combustion engines in HEVs and other vehicles to respond to new regulations on fuel efficiency	¥88.0 billion
Increased severity and occurrence of abnormal weather such as typhoons and floods	Long-term / Relatively high	<b>Decline in revenue due to suspended plant operations and supply chain disruptions</b> Revenue could decline due to damage to in-house plants or supply chain interruptions that result in a suspension of plant operations in Japan and greater Asia, where we conduct 66% of our overall production and where the possibility of abnormal weather occurring is high.	¥110.0 billion	• Implement measures to mitigate the impact of disasters on buildings, etc., and strengthen risk management in the supply chain through such measures as ensuring multiple suppliers for components • Connect our plants across the globe by using IT and IoT and establish a global production structure that can immediately respond to changing production needs	¥9.0 billion
Carbon pricing mechanism	Medium-term / High	<b>Decline in cost competitiveness due to the accelerated introduction of carbon pricing</b> Carbon costs could be added to all in-vehicle products due to the expansion and increasing strictness of international regulations, such as carbon taxes and emissions trading systems.	¥12.0 billion	• Strategically and incrementally transition to renewable energy in manufacturing activities • Continue to promote activities to conserve energy and enhance energy efficiency in the production process	¥3.0 billion

### Impact on Management Strategy

As mentioned previously, based on the results of our analysis, we have come to understand the significant impact that the climate change-related opportunities and risks expected to occur by 2030 will have on our product development and production activities, particularly the trend toward carbon neutrality.

Based on this understanding, we have set ourselves the ambitious target of becoming carbon neutral—a much more challenging environmental target than we previously undertook—and we have reflected this target in management strategies.

Specifically, we have added the perspective of carbon neutrality to our CO<sub>2</sub> reduction plans under Eco Vision 2025, the Company's environmental management policy formulated in 2016. For our *Monozukuri* activities, we have adopted the target of realizing carbon-neutral electricity by fiscal 2026 (carbon credits to be used with respect to gas) and becoming completely carbon neutral, including gas, by fiscal 2036. To achieve this target, we will continue to promote energy-saving activities, an area in which we excel as a company. At the same time, we will introduce electricity derived from high-quality renewable energy that is optimally economic and utilize carbon credits, among other initiatives. To accelerate investments toward these kinds of efforts to reduce CO<sub>2</sub> emissions, including energy conservation and renewable energy, we have introduced internal carbon pricing (ICP) within our investment decision-making approach.

For mobility products, we are working to reduce CO<sub>2</sub> emissions to the greatest extent possible by promoting the development of electrification technologies. Furthermore, we are working to achieve negative CO<sub>2</sub> emissions through the establishment of technologies to capture, recycle, store, and reuse CO<sub>2</sub>. Through these efforts, we will aim to achieve carbon neutrality across all of society. Moreover, to balance contributions to the environment with business growth, we are holding regular discussions on reshuffling our business portfolio based not only on profitability and growth potential but also on CO<sub>2</sub> emissions and the reduction of these emissions and are promoting reshuffling efforts accordingly. (Message from the Chief Financial Officer [P.66–73](#))

We launched an expert team within the Safety, Health & Environment Division to serve as a structure for steadily promoting our carbon neutral strategy. At the same time, we have established the Environment Neutral Systems Development Division and the Energy Solution Development Division (previously the FC System Business Development Division) in a Companywide effort to realize carbon-neutral manufacturing, encompassing carbon neutrality throughout all processes through to the production activities at our plants.

Meanwhile, to respond to physical risks such as floods, which are increasing in frequency due to climate change, we are carrying out disaster mitigation measures at plants (including buildings and structures) and ensuring multiple suppliers for components and other materials so that we can minimize the risk of suspended operations due to damage at plants or disruptions in the supply chain. For additional support, we are introducing F-IoT platforms. Through such efforts, we will build a global production and supply structure that can immediately respond to production fluctuations caused by weather disasters or other adverse events.



Please see the following URL for more information on DENSO's Eco Vision 2025.  
<https://www.denso.com/global/en/csr/environment-report/management/ecovision/ecovision/>



### Impact on Financial Planning

Given the trend toward carbon neutrality, we must further enhance electric vehicle components and transition to components compatible with such alternative fuels as hydrogen fuel and biofuel. Furthermore, in order to realize carbon-neutral *Monozukuri*, we need to allocate funds to procure electricity derived from renewable energy sources and purchase CO<sub>2</sub> offset certificates and carbon credits.

To that end, in our financial planning, we have reflected an increase in R&D costs related to electrification, which will follow the expansion of products powered by electricity, and products that respond to alternative fuel needs. We have also reflected costs related to the introduction of renewable energy.

In addition, we have incorporated costs related to measures to address climate change risks (reinforcing buildings and structures), such as tornadoes, floods, and other abnormal weather events that are becoming ever more frequent and more severe.

### Governance

DENSO has established the Companywide Safety, Health, and Environment Committee, which shares short-, medium-, and long-term targets set with the aim of realizing the Eco Vision 2025 environmental management policy. The committee also shares the issues and progress of activities related to the environment in general, including the results of scenario analysis, and issues instructions on measures to be taken. Chaired by the executive vice president, the committee convenes twice a year. Matters deemed to significantly affect businesses, such as medium-term management strategies and major investments, are discussed at meetings of the Management Deliberation Meeting or the Board of Directors.

In particular, with respect to carbon neutrality initiatives, the Board of Directors determines the Company's targets. Based on these targets, the Strategy Deliberation Meeting and the Executive Workshop deliberate on medium- and long-term policies and strategies, while the Annual Plan Meeting deliberates on short-term policies, targets, and plans. Progress toward achieving the aforementioned targets is monitored at the Management Deliberation Meeting and meetings of the Board of Directors in which all officers participate.

### Risk Management

In a volatile business environment, DENSO always strives to actively identify diversifying risks and conduct risk management from the perspectives of minimizing damage and ensuring business continuity. Climate change-related risks are reported to the Companywide Safety, Health, and Environment Committee, which identifies key items and clarifies the Company's response.

Also, we have designated climate change-related risks (physical risks) as one of the major risks toward which the Risk Management Meeting should particularly invest resources and promote initiatives. Based on this designation, we are strengthening our response to these risks on a Groupwide basis from the perspective of overall risk management. (Risk Management [P.114–116](#))





Metrics and Targets

In light of society's expectations and the progress of our activities based on Eco Vision 2025, in fiscal 2022 we set ourselves the more ambitious goal of becoming carbon neutral. Since then, we have been advancing activities with our sights set on this goal.

We clarified specific targets for this goal in the Mid-term Policy for 2025. At the same time, we incorporated a

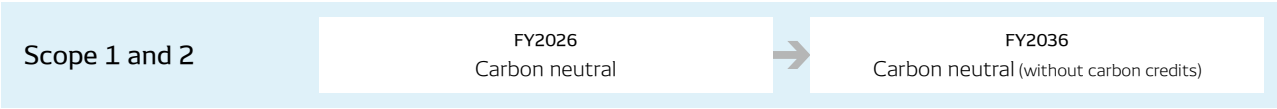
sustainability target pertaining to our material issues into part of our management targets. As previously mentioned, the status of progress and follow-up regarding these targets are shared not only at the Companywide Safety, Health, and Environment Committee but also at the Management Deliberation Meeting and the Board of Directors.

The specific company targets are shown in the table below.

Climate Change-related Targets (CO<sub>2</sub> Emissions Reduction) (Benchmark year: Fiscal 2021)

Component procurement	Scope 3 (Upstream)	Monozukuri	Scope 1 and 2	Product use	Scope 3 (Downstream)
FY2031	Reduction of 25% (equivalent to well below 2°C*)	FY2026	Carbon neutral	FY2031	Reduction of 25% (equivalent to well below 2°C*)
FY2051	Carbon neutral	FY2036	Carbon neutral (without carbon credits)		

\* The target of keeping temperature increases well below 2°C, which is a Scope 3 target under the 1.5°C standard

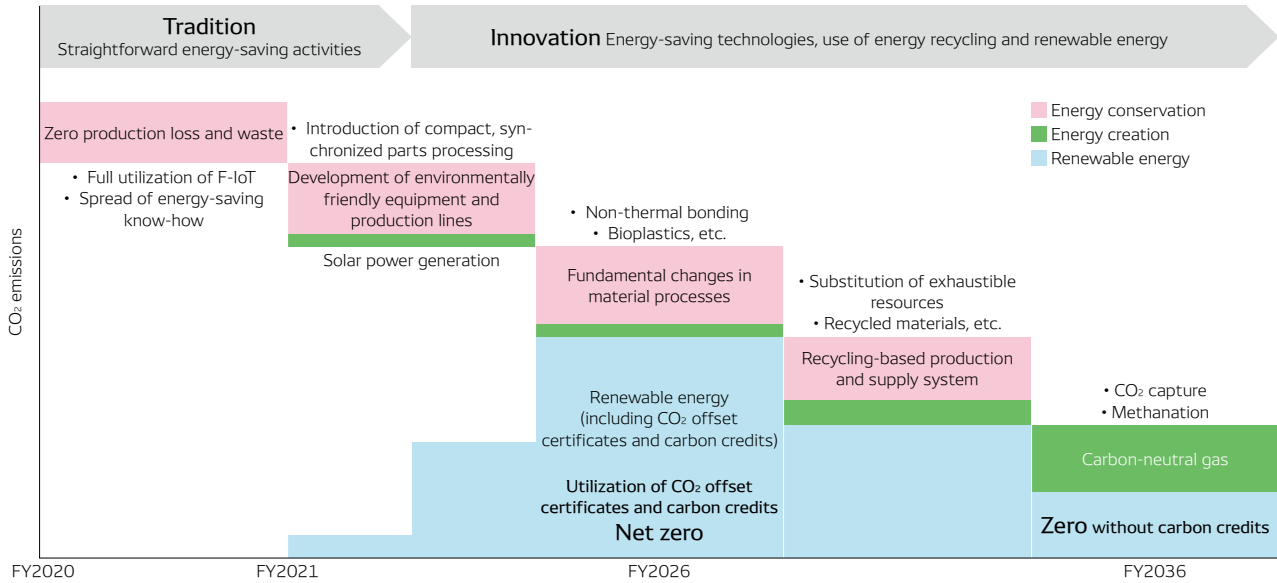


Carbon-Neutral Monozukuri

Aim	Achieve Complete Carbon Neutrality in Monozukuri
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We aim to achieve carbon neutrality in *Monozukuri* by lowering CO<sub>2</sub> emissions through energy consumption reduction based on more-efficient manufacturing processes; by using such renewable energy sources as sunlight; and by developing and commercializing technologies that capture CO<sub>2</sub> emitted in production processes and reuse it as energy.

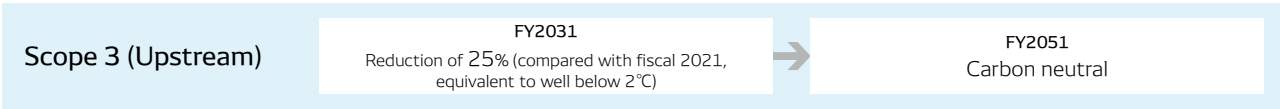
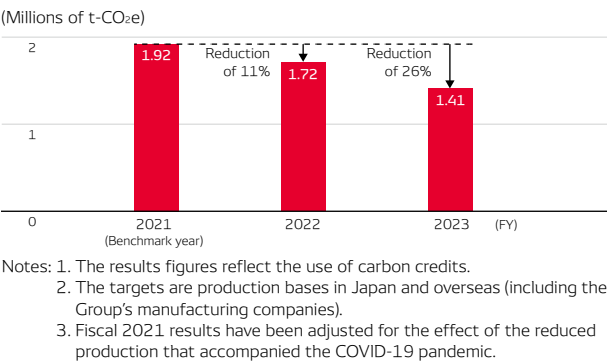
We will switch 100% of our electricity to renewable energy sources and use carbon credits for gas to become carbon neutral by fiscal 2026. By fiscal 2036, we will no longer use carbon credits and be completely carbon neutral.



Achievements to Date

We have reduced CO<sub>2</sub> emissions by 26% compared with fiscal 2021 by thoroughly implementing energy-saving activities, which are one of our long-standing strengths; by introducing renewable energy; and by utilizing carbon credits.

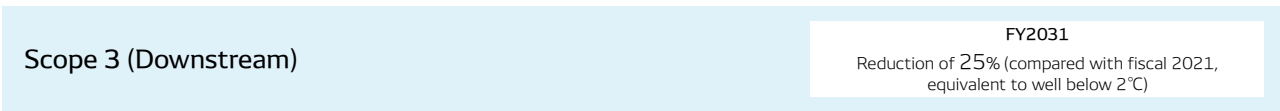
CO<sub>2</sub> Emissions



Reduction of CO<sub>2</sub> Emissions in the Supply Chain

Aim	Realize Carbon Neutrality through Collaboration between DENSO and Suppliers
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Since the progress of the initiatives conducted by suppliers varies from one supplier to another, DENSO will monitor progress through active dialogue with suppliers and provide support suited to their issues. For example, we will provide information on energy-saving know-how and help suppliers procure renewable energy and transition to low-carbon materials.



Carbon Neutrality for Electric Vehicle Components

Aim	Contribute to the Electrification of Cars to Reduce CO <sub>2</sub> Emissions to the Greatest Extent Possible
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We will help reduce CO<sub>2</sub> emissions from vehicle use by developing products and systems that support the popularization of HEVs, BEVs, FCEVs, and other xEVs. In addition, we will apply the electrification technologies cultivated in the automotive industry to the field of air mobility in an effort to significantly reduce CO<sub>2</sub> emissions in all facets of mobility.

Reduction of CO<sub>2</sub> Emissions from Energy Use

Aim	Realize an Energy-Recycling Society through the Development and Popularization of Technologies That Make Effective Use of Renewable Energy
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We will establish technologies that store and reuse energy in a highly efficient manner, regardless of location or time, and work to popularize them on a global basis. By doing so, we will help realize an energy-recycling society.

International Certification of Reduction Targets

We have established targets for the reduction of greenhouse gas emissions by fiscal 2031. These targets are based on scientific evidence and consistent with the goal of limiting the global average temperature increase to 1.5°C above pre-industrial levels, which is set forth by the Paris Agreement. As a result, our targets have obtained Science Based Targets (SBT) certification from the internationally recognized Science Based Targets initiative (SBTi).\*

\* The SBTi is a joint initiative established by World Wide Fund for Nature, CDP, the World Resources Institute, and the United Nations Global Compact. The SBTi formulates guidance that enables companies to set specific targets for the volumes and timeframes of greenhouse gas emission reductions. SBT certification is granted to companies whose targets are recognized to be in conformity with scientific findings (Science Based Targets).



We will continue conducting extensive studies and analyze in even greater detail the quantitative financial effects of key items as well as the specific business opportunities and risks that accompany them. We will then reflect our findings in business strategies and action plans.



# Social and Relationship Capital

## Outline of Efforts to Strengthen Social and Relationship Capital

DENSO advances its business activities while interacting with various stakeholders. Particularly in an era with an uncertain outlook, flexibly responding to social changes and needs on our own is extremely challenging. On the other hand, we believe that building good relationships with stakeholders and expanding our circle of associates will create new business opportunities and improve our competitiveness, thereby driving business growth and enhancing corporate value.

Furthermore, to avoid self-satisfying activities that are biased by our own logic and preconceptions, we are deepening our understanding of stakeholder expectations and options through dialogue with them and reflecting that understanding in our corporate activities. By doing so, we aim to become a company that is truly inspiring by realizing growth together with our stakeholders and society as a whole.

### Characteristics of DENSO's Social and Relationship Capital (Fiscal 2023 results)

Number of suppliers  
**Approx. 7,360**

Number of dialogues with institutional investors  
(total number of companies)  
**Approx. 1,500 per year**

## Initiatives to Enhance Corporate Value by Strengthening Relationships with Our Main Stakeholders



### Employees

Relationship between Social Capital, Corporate Value, and Each Other Type of Capital	Initiatives to Strengthen Relationships	Gained Value (Outcome)
<p>As the collective wisdom and strengths of DENSO's employees worldwide create new value, enhancing employee engagement is essential for the Company to realize growth.</p> <p>Mindful of this, we will develop a corporate culture that encourages all employees to work with enthusiasm and realize their talents. As part of these efforts, the Company will reform workstyles and human resource systems and create employee-friendly work environments.</p>	<p><b>Expectations of and Points of Concern for DENSO</b> Workplaces that facilitate good communication, flexible workstyles, fair and appropriate personnel evaluation systems, active roles of diverse human resources, workplace environments that are safe, comfortable, and promote health, etc.</p> <p>↓</p> <p><b>Initiatives to Enhance Relationships</b> Employee engagement surveys, in-house publications and information dissemination via intranet, consultation centers (hotlines, general consultation office), social gatherings between labor and management, family days, etc.</p>	<ul style="list-style-type: none"><li>Enhanced employee engagement</li><li>Improved retention rate and decrease in turnover rate</li><li>Increase in the number of improvements made by employees</li><li>Decrease in work-related injuries and accidents, etc.</li></ul>



### Customers

Automobile manufacturers, automobile users, and customers in non-automotive fields such as agriculture and FA, etc.

Relationship between Social Capital, Corporate Value, and Each Other Type of Capital	Initiatives to Strengthen Relationships	Gained Value (Outcome)
<p>In addition to increasing business opportunities by encouraging adoption of the Company's products and services, robust relationships with customers strengthen the foundations of DENSO's competitiveness. For example, transactions with customers lead to the accumulation of new technologies and expertise, personnel development, and the establishment of optimal supply capabilities.</p> <p>Through ongoing dialogue with customers, DENSO will deepen its understanding of what they need and expect from the Company, thereby enabling the creation of products and services that satisfy customers and truly earn their trust.</p>	<p><b>Expectations of and Points of Concern for DENSO</b> High-quality, high-performance products and services, products that address social issues, a stable product supply, a service network with a high level of customer satisfaction, etc.</p> <p>↓</p> <p><b>Initiatives to Enhance Relationships</b> Dialogue with customers through sales divisions and sales companies, new product exhibitions, joint R&amp;D activities, establishment of new companies through joint investment, a customer consultation center, public relations activities through corporate website and media channels, etc.</p>	<ul style="list-style-type: none"><li>Acquisition of product share on a global scale</li><li>Increase in the number of customers adopting our products/services</li><li>Establishment of a mobilized global supply structure</li><li>Acquisition of IP rights and creation of know-how, etc.</li></ul>



### Business Partners

Suppliers, service stations, and M&A business alliance partners, etc.

Relationship between Social Capital, Corporate Value, and Each Other Type of Capital	Initiatives to Strengthen Relationships	Gained Value (Outcome)
<p>The competitiveness of our products and services is underpinned by the high technological capabilities, know-how, and stable supply of our business partners. In addition, our efforts toward such matters as carbon neutrality and human rights due diligence require the understanding and cooperation of our business partners.</p> <p>Accordingly, we will strengthen our partnerships, provide products and services that inspire and are chosen by society, and engage in corporate conduct that helps us gain the support of society. By doing so, we will grow together with our business partners.</p>	<p><b>Expectations of and Points of Concern for DENSO</b> Business expansion, business alliances, cross-industry exchange, information on business trends (procurement policies, service policies, etc.), support for responding to sustainability needs (the environment, human rights, etc.), leadership in addressing industry issues, etc.</p> <p>↓</p> <p><b>Initiatives to Enhance Relationships</b> Day-to-day communication, Supplier Appreciation Meeting, sustainability self-assessments, participation in industry bodies, General Meeting of DENSO Service Stations, servicing skills competition, public relations activities through corporate website and media channels, etc.</p>	<ul style="list-style-type: none"><li>High-quality, high-performance products</li><li>Products that contribute to the environment and products that help reduce traffic accidents</li><li>Establishment of a stable supply chain</li><li>Establishment of an after-sales service network with a high level of customer satisfaction</li><li>Realization of responsible procurement</li><li>Reduction in Scope 3 CO<sub>2</sub> emissions, etc.</li></ul>



### Local Communities

Local community members, governments, NPOs and NGOs, people of the next generation, etc.

Relationship between Social Capital, Corporate Value, and Each Other Type of Capital	Initiatives to Strengthen Relationships	Gained Value (Outcome)
<p>For business continuity, we must realize coexistence and co-prosperity with the regions where we have businesses and gain acceptance as a good corporate citizen in these regions. Also, confronting regional issues gives employees opportunities to develop an awareness of the need to address social issues, which is an important facet of business activities.</p> <p>We will therefore identify the needs of local communities through dialogue. By solving issues in partnership with local communities, we will contribute to their development.</p>	<p><b>Expectations of and Points of Concern for DENSO</b> Local employment and procurement, community group activities, regional promotion (sports, culture), support for the development of the next generation, traffic safety activities, regional environment conservation, etc.</p> <p>↓</p> <p><b>Initiatives to Enhance Relationships</b> Conferences with local community members and governments, plant tours, <i>Monozukuri</i> schools, social contribution programs in collaboration with local NPOs, agreements with local governments for regional revitalization, public relations activities through corporate website and media channels, etc.</p>	<ul style="list-style-type: none"><li>New business creation</li><li>Acquisition of outstanding personnel</li><li>Enhanced level of recognition for the Company</li><li>Improved employee engagement</li><li>Acquisition of opportunities for participation in regional revitalization businesses, etc.</li></ul>



### Shareholders and Investors

Relationship between Social Capital, Corporate Value, and Each Other Type of Capital	Initiatives to Strengthen Relationships	Gained Value (Outcome)
<p>Financial capital to invest in such areas as facility enhancement, R&amp;D activities, and human resource development is required in order to realize sustainable growth and enhance corporate value. For that reason, we understand that our shareholders and other investors are valuable supporters who provide us with advice on how to promote sound management. We therefore believe it is important to build solid trust-based relationships with them.</p> <p>By enhancing the transparency of our management through timely and appropriate information disclosure and dialogue, we will aim to enhance our corporate value.</p>	<p><b>Expectations of and Points of Concern for DENSO</b> Appropriate share price, implementation of dividends and other shareholder returns, timely and appropriate information disclosure and opportunities for dialogue, disclosure of non-financial information, etc.</p> <p>↓</p> <p><b>Initiatives to Enhance Relationships</b> General Meeting of Shareholders, Dialog Day, financial presentations, technology briefings, briefings for individual investors, integrated report, securities report, public relations activities through corporate website and media channels, etc.</p>	<ul style="list-style-type: none"><li>Formation of appropriate share price</li><li>Improvement in stable, long-term dividend level</li><li>Extension of years over which shares are held (reduction of share price fluctuation risk)</li><li>Improvement in investor evaluation (credit rating)</li><li>Enhancement of management quality</li></ul>

Undertaking Initiatives toward Respecting Human Rights

Against the backdrop of the rising interest toward sustainability around the globe, corporations are strongly expected to consider human rights within their business activities.

A workplace free of harassment and discrimination helps lower the risks of quality-related issues and work-related injuries. Further, conducting business activities with due consideration for human rights increases business opportunities, helps ensure stable supplies of products, and improves employee engagement.

Viewing respect for human rights as an important issue, DENSO has established it as a material issue of sustainability management and is advancing initiatives accordingly.

Human Rights Policy

Our Sustainability Policy and the Code of Conduct clearly prohibit labor practices or similar actions that infringe upon human rights, and we have worked to ensure rigorous compliance with these policies.

To advance human rights-related initiatives even further and comply with the Universal Declaration of Human Rights, the Guiding Principles on Business and Human Rights, and other international norms, we have formulated the DENSO Group Human Rights Policy as an individual policy on human rights.

Promotion Structure

We have established the Human Rights Promotion Team, which is headed by the chief human resources officer (CHRO), who is a member of the Board of Directors; managed by the human resources division; and comprises representatives from related divisions, including the corporate strategy, purchasing, and legal affairs and compliance divisions. The team formulates action plans, shares information on the initiatives of divisions, shares and discusses measures in response to the latest trends in human rights, and reports findings to the Management Deliberation Meeting and other meetings as appropriate.

In addition, the team exchanges information and engages in discussions with human rights experts, such as third-party organizations and external stakeholders, to gain a clear understanding of human rights and appropriately assess related international situations and legislative trends.

Promoting Employee Education and Enlightenment

DENSO promotes education and enlightenment activities for employees at each Group company with the aim of encouraging employees to act based on the DENSO Group Human Rights Policy.

Through education programs by grade (for corporate officers, newly appointed management, new employees, mid-career hires, and employees on a fixed-term contract, etc.) and compliance tests that target all employees, including those at domestic Group companies, DENSO CORPORATION is engaging in education and enlightenment activities to deepen employee awareness and understanding of human rights.

Overseas Group companies also conduct awareness-raising activities based on important issues in their respective regions. For example, in North America our bases establish internal policies prohibiting harassment and conduct education on mutual respect and sexual harassment prevention for all employees, from members of senior management to new hires.

Human Rights Due Diligence

In accordance with the DENSO Group Human Rights Policy, we identify and evaluate human rights-related risks that can occur as a result of our business activities and promote human rights due diligence, which is aimed at implementing measures to prevent such risks and minimizing their impact should they occur.



Interview conducted by members of the Caux Round Table Japan

(1) Implementation of a Risk Assessment

With the cooperation of a third-party organization specializing in human rights, we have conducted a risk assessment to identify and evaluate potential human rights risks. As a result, four issues have been identified as potential human rights risks that are highly relevant to the DENSO Group. These include the rights of non-Japanese workers in Japan and complicity in forced labor in the supply chain.

(2) Implementation of an Impact Assessment: Non-Japanese Workers in Japan


Among the human rights risks identified by the risk assessment, human rights issues facing non-Japanese workers in Japan, particularly non-Japanese technical interns, are highly relevant, important human rights risks in the automotive supply chain.

DENSO has conducted written surveys of domestic Group companies and suppliers and confirmed the presence of approximately 2,500 non-Japanese technical interns. To identify potential human rights risks, the impact assessment included in-person interviews with non-Japanese workers, which were conducted by representatives of a third-party organization with expertise in human rights. As a result, the third-party organization reported that, although some improvements are needed, there are no major issues that could lead to human rights violations. We were also able to confirm that the surveyed companies are taking various measures to ensure that the human rights of non-Japanese technical interns are not negatively affected. DENSO will share the impact assessment with other domestic Group companies and suppliers as an example of good practice that should be referred to when employing non-Japanese technical interns.


Grievance Mechanism

We have established an internal whistleblowing system that can be used by domestic Group companies and suppliers. In the event an issue arises that impacts human rights or contributes to an impact on human rights, this system provides relief to the affected party.

Going forward, in addition to steadily promoting the DENSO Group Human Rights Policy, we will enhance the level of our initiatives toward respecting human rights in such ways as bolstering our human rights due diligence and relief measures.



For details on initiatives related to the DENSO Group Human Rights Policy and our respect for human rights, please visit the website below.  
<https://www.denso.com/global/en/about-us/sustainability/society/humanrights/>



Supply Chain Management

As a global company operating in 35 countries and regions, DENSO aims to optimize the procurement of components, raw materials, and equipment. Our annual procurement accounts for approximately ¥2.7 trillion and utilizes approximately 7,360 suppliers, with approximately 80% of procurement reliant upon local suppliers.

In conformity with its basic policy of ensuring open and fair business practices and responsible procurement activities, the Group promotes sustainable business activities together with its suppliers around the world so that the entire Group and all of the companies in its supply chain fulfill their social responsibilities and continue to advance in unison.

Promotion of Sustainable Business Activities Based on the Supplier Sustainability Guidelines

DENSO asks all suppliers to endorse the DENSO Group Sustainability Policy and to conclude a basic business contract at the time of new transactions that requires fulfillment of such social responsibilities as compliance, human rights protection, environmental conservation, and workplace safety. We also request that suppliers clarify their sustainability policy or assign a sustainability manager.

In addition, we have established Supplier Sustainability Guidelines, which set forth the behavior expected of suppliers in more concrete terms. We share these guidelines with all suppliers and ask them to advance activities accordingly. Also, we ask our major suppliers to periodically conduct self-checks using a self-evaluation form. When necessary, DENSO managers visit suppliers, conduct inspections and dialogues, and then seek improvements.

In fiscal 2023, the results of self-evaluations were as shown in the table below.

Results	Percentage	Details and Activities
No concerns	95%	
Concerns	5%	<b>Main concerns</b> Policy not passed on to their own suppliers (DENSO's Tier 2 suppliers) <b>Actions</b> Sent letter requesting improvement with respect to concerns, held dialogues with major suppliers, and provided support for policy formulation as necessary

Initiatives for Responsible Procurement of Resources and Raw Materials

With the globalization of businesses, supply chains are becoming increasingly global and diversified. In certain regions of the world, however, workers' rights are not taken into consideration. In particular, mineral mines involve a great deal of dangerous work. At such mines, cash outflows to armed groups and such human rights issues as child and forced labor have been reported. For this reason, responsible procurement of mineral resources and raw materials is an important task in supply chains.

Of particular concern in this regard are conflict minerals from the Democratic Republic of the Congo and surrounding countries. With this in mind, we have formulated a policy on conflict minerals, which we share with our suppliers. Also, we conduct an annual survey on conflict minerals with the cooperation of suppliers. In fiscal 2023, we received responses from all of the approximately 5,000 suppliers surveyed, and no instances of conflict mineral use were found. As the popularization of electric vehicles transforms the market, we will periodically review the minerals subject to risk and consider methods of responding to emerging risks.

DENSO will continue working with suppliers to avoid the use of minerals of concern throughout its supply chain.


Green Procurement and the Promotion of Carbon Neutrality in the Supply Chain

Eco Vision 2025 sets out the DENSO Group's environmental management policy. In accordance with this policy, we have formulated the Green Procurement Guidelines, which stipulate the management and reduction of environmentally hazardous substances (substances of concern) and the establishment of environmental management systems, and we ask suppliers to conduct procurement and management in strict compliance with these guidelines.


Particularly with regard to climate change, DENSO must promote activities not only in-house but among suppliers and throughout its supply chain. We have shared with suppliers our goal of reducing CO<sub>2</sub> emissions from purchased products and services by 2.5% per year. To this end, we are advancing initiatives in partnership with suppliers.


To achieve the aforementioned reduction target, we are analyzing the CO<sub>2</sub> emissions and issues of suppliers and providing them with support measures tailored to their needs. Specifically, our multifaceted support includes applying our energy-saving expertise, reducing CO<sub>2</sub> emissions in logistics, switching to low-carbon materials, and sharing methods of renewable energy procurement. In these ways, we aim to achieve carbon neutrality throughout the supply chain.

In addition, we ensure that activities closely align with the situations and plans of suppliers by organizing carbon neutrality briefings and providing other opportunities for communication with suppliers as appropriate.




For details on the DENSO Group's procurement policies, please visit the website below.  
<https://www.denso.com/global/en/about-us/sustainability/society/procurement-policy/>





For details on the DENSO Group's initiatives focused on promoting sustainability throughout the supply chain, please visit the website below.  
<https://www.denso.com/global/en/about-us/sustainability/society/supply-chain/>





## Corporate Governance

## Basic Stance

DENSO recognizes the establishment of corporate governance as a priority initiative for achieving sustainable long-term increases in corporate performance in a fast-changing global market. Based on its Basic Policies on Corporate Governance, DENSO has adopted a corporate auditor system under which it has established the General Meeting of Shareholders, Board of Directors, Audit & Supervisory Board, and Accounting Auditors as statutory bodies. In addition to these legal functions, the Company has established various governance-related frameworks. At the same time, the Company shares information and conducts dialogues regarding its business conditions with its shareholders and other investors on an ongoing basis, thereby implementing sound, efficient, and transparent management.



Please see the following URL for Basic Policies on Corporate Governance.

<https://www.denso.com/global/en/-/media/global/about-us/sustainability/governance/management/management-doc-corporate-governance-policy-2023-en.pdf>



## Efforts to Improve Corporate Governance

DENSO is working to evolve its corporate governance and enhance strategic discussions Companywide to realize sustainable increases in corporate value.

DENSO has implemented all of the principles of the Corporate Governance Code that was revised in June 2021. DENSO discloses in its Corporate Governance Report its sustainability initiatives and efforts to ensure diversity in core personnel.

Going forward, we will continue to implement sound, efficient, and transparent management including through the significant reduction of cross-shareholdings.

## Evolution of Corporate Governance Structure

(Fiscal year)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Number of officers*	52	50	51	53	56	28	27	25	23	20	
Number of members of the Board	14	13	13	9	7	8	8	8	8	8	
Number of outside Board members	2	2	2	2	2	3	3	3	3	3 (37.5%)	
Number of female members of the Board						1	1	1	1	(12.5%)	
Number of Audit & Supervisory Board members	5	5	5	5	5	4	4	4	4	4	
Number of outside Audit & Supervisory Board members	3	3	3	3	3	2	2	2	2	2 (50.0%)	
Number of female Audit & Supervisory Board members						1	1	1	1	1 (25.0%)	
Basic Policies on Corporate Governance		June 2015 Formulated									
Separation of management and execution	June 2014					April 2019	January 2021				
	<ul style="list-style-type: none"><li>Separated and clarified the roles between members of the Board, who are responsible for management (decision-making and supervision), and senior executive directors (newly established position) and executive directors, who are responsible for the execution of business operations</li><li>Appointed outside Board members</li></ul>					<ul style="list-style-type: none"><li>Changed title of "senior executive director" to "senior executive officer"</li><li>Changed title of "executive director" to "executive officer"</li></ul>	<ul style="list-style-type: none"><li>Integrated the positions of executive officer, executive fellow, and senior director into the role of senior director</li></ul>				
			June 2016			January 2020	March 2021				
			<ul style="list-style-type: none"><li>Established the Officer Nomination and Compensation Advisory Council, comprising independent outside Board members, as an ad-hoc committee that corresponds to the Nomination Committee and the Compensation Committee</li></ul>			<ul style="list-style-type: none"><li>Appointed independent outside Board member as the chair of the Officer Nomination and Compensation Advisory Council</li></ul>	<ul style="list-style-type: none"><li>Changed the name of the Officer Nomination and Compensation Advisory Council to the Executive Nomination and Remuneration Council, adopting a new structure under which independent outside Board members make up the majority and an independent outside Board member serves as chair</li></ul>				
					April 2017		January 2021				
				<ul style="list-style-type: none"><li>Reduced the number of appointed members of the Board</li><li>Changed the timing of appointment of officers from the date of the General Meeting of Shareholders in June to April, which is the beginning of the fiscal year</li></ul>			<ul style="list-style-type: none"><li>Changed the appointment timing of senior executive officers and senior directors to January in conjunction with the changes to our Companywide organization and position structure</li></ul>				

\* Officers: Members of the Board, Audit & Supervisory Board members, the executive vice president, and senior executive officers

## Corporate Governance System

## Corporate Governance System and Principal Organizations

DENSO has adopted a corporate auditor system under which it has established the General Meeting of Shareholders, Board of Directors, Audit & Supervisory Board, and Accounting Auditors as statutory bodies. Through an executive vice president and 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 officers, 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 executive vice president and senior executive officer to ensure that the Board maintains an overall balance of knowledge, experience, and ability. 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 further clarifying management responsibility during the business year.

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

## Board of Directors

The Board of Directors resolves matters stipulated by laws and regulations, as well as matters of importance to the Company's decision-making. As much as possible, the Board delegates authority to those in charge of business execution. This approach simultaneously accelerates execution and enables the Board to spend more time deliberating on management policies and strategies.

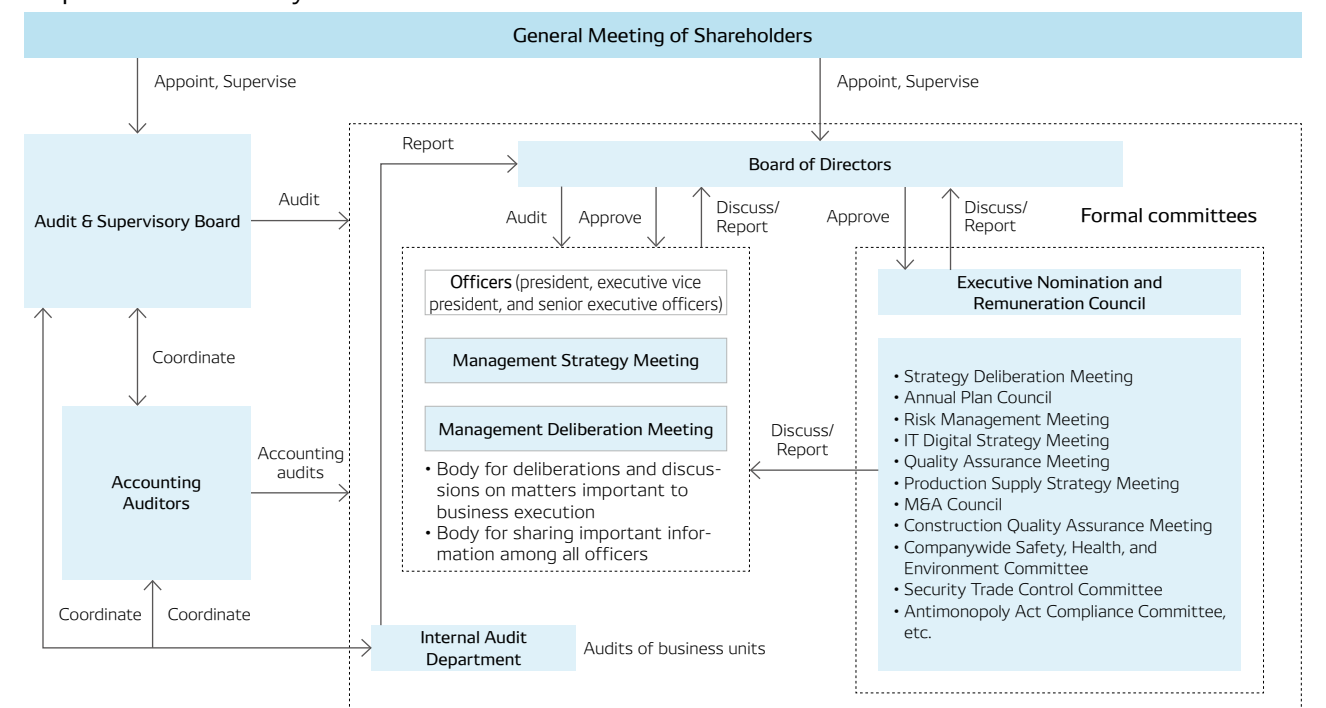
The Board of Directors meets once a month, in principle, and is composed of 12 members: eight members of the Board (including three outside Board members), two standing Audit & Supervisory Board members, and two outside Audit & Supervisory Board members. With respect to the independence of outside Board members and outside Audit & Supervisory Board members, the Company has selected a total of five independent officers (three outside Board members and two outside Audit & Supervisory Board members). These officers must fulfill the independence criteria stipulated by the financial instruments exchanges, and they are required to have a wealth of experience and specializations in such fields as corporate management, legal affairs, and accounting and to actively provide recommendations and opinions on management issues.

Resolutions must be approved by a majority of the members present at a Board of Directors' meeting, and the meeting itself must be attended by a majority of members of the Board. We have been enhancing our support structure for the outside officers to ensure the productive and efficient operation of the Board of Directors when making resolutions. Further, before a Board meeting is convened, detailed prior briefings are provided and opinions and approval are received from any members of the Board who are unable to attend on the day of the Board meeting.

### Results of Board Meetings Held in Fiscal 2023

Number of meetings	13
Attendance rate	Members of the Board: 92% Audit & Supervisory Board members: 100%

## Corporate Governance System



Specific Topics Discussed at Meetings of the Board of Directors

The main topics discussed and the number of reports submitted for discussion at meetings of the Board of Directors convened in fiscal 2023 are shown in the table below. In fiscal 2023, the Board received and discussed numerous reports on priority topics, namely, strategies over the medium to long term as well as measures in response to the tight situation for semiconductor-related supply and demand.

Main Topics Discussed and Number of Reports Submitted for Discussion at Meetings of the Board of Directors in Fiscal 2023

Classification	Reports Submitted for Discussion
Management strategy	10
Financial results and financing	8
Governance, risk management, and internal control	7
Human resources	3
Strategies and plans	2
Individual matters	6

Management Oversight Function of the Audit & Supervisory Board

Pursuant with internal regulations, the Internal Audit Department conducts internal audits on the legality, appropriateness, and efficiency of the Company's operations. Based on the issues identified by these audits, each department of the Company establishes and subsequently enhances operational control and management systems.

As well as attending meetings of the Board of Directors and other important meetings, Audit & Supervisory Board members convene meetings of the Audit & Supervisory Board once a month, in principle. The Audit & Supervisory Board comprises four Audit & Supervisory Board members, two of whom are outside Audit & Supervisory Board members. In addition, one alternate outside Audit & Supervisory Board member is appointed to provide against eventualities whereby attendance of the legally required number of Audit & Supervisory Board members is not possible.

At meetings of the Audit & Supervisory Board, resolutions on legally required matters are approved and exchanges of opinions are held with members of the Board, members of the senior management team, members of the Internal Audit Department, and Accounting Auditors regarding the Company's sustained growth and the medium- to long-term enhancement of corporate value. Also, the Audit & Supervisory Board fulfills its management oversight function through audits of the execution of duties by members of the Board and of the operations and financial position of the Group as a whole.

Overview of Deliberating Bodies on Business Execution

	Deliberating Bodies	
	Management Strategy Meeting	Management Deliberation Meeting
Chairperson	President	President
Composition	President, executive vice president, the heads of each business group and functional department, general managers, and standing Audit & Supervisory Board members	President, executive vice president, the heads of each business group and functional department, general managers, and standing Audit & Supervisory Board members
Purpose	Hold strategic discussions from a medium- to long-term perspective, focused on businesses, functions, and regions	Deliberate on important items related to the Company's overall management, starting with the agenda items at meetings of the Board of Directors. In addition, sharing important information regarding business management and promptly utilizing such information to facilitate swift business execution
Number of meetings held in fiscal 2023	46	43

Results of Audit & Supervisory Board Meetings Held in Fiscal 2023

Number of meetings	14
Attendance rate	100%

Specific Topics Discussed at Meetings of the Audit & Supervisory Board

In fiscal 2023, Audit & Supervisory Board meetings included numerous discussions and reports on priority topics, namely, the appropriateness of the Company's management direction and stance and enhancement of organizational governance.

Main Topics Discussed and Number of Reports Submitted for Discussion at Meetings of the Audit & Supervisory Board in Fiscal 2023

Classification	Reports Submitted for Discussion
Accounting audit	10
Corporate management	10
Execution of duties by senior executive officers	10
Auditing policy and plan	5
Individual matters	9

Support Structure for Outside Officers

When holding Board meetings, we provide outside Board members and outside Audit & Supervisory Board members with explanations on important agenda items before the meetings with the aim of ensuring access to information between the inside and outside officers and maximizing the performance of our outside officers. In this way, we make concerted efforts to ensure the efficient operation of Board meetings. Furthermore, we conduct on-site visits to deepen outside officers' understanding of operations. In conjunction with these efforts, we enhance discussions on medium- to long-term strategies by including outside officers in the Executive Workshop.

In addition, we have established the Audit & Supervisory Board Office as an organization dedicated to supporting the Audit & Supervisory Board members in conducting their duties. The office reports the condition of audits at meetings of the Audit & Supervisory Board. We also hold meetings between the Audit & Supervisory Board members and the outside Board members to exchange opinions, in addition to regular meetings of the Independent Officer Meeting. Through these means, we



Visit to a manufacturing site by outside Board members

are striving to actively provide information to our outside officers as well as invigorate communication between them.

Structure for Business Execution

DENSO CORPORATION separates the functions of the Board of Directors, which conducts management oversight, and the executive directors, who handle business execution.

As bodies for deliberating important matters pertaining to business execution, the Company has established the Management Strategy Meeting and the Management Deliberation Meeting. These two bodies, together with the Board of Directors, are positioned as executive committees.

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

DENSO has all members of the Board participate in a survey aimed at evaluating the operation of the Board of Directors, the agenda items discussed, the process for approving resolutions, and support for outside officers. With a view to obtaining the frank opinions of members of the Board regarding issues and areas requiring improvement, interviews with inside officers are held, and outside officers discuss these matters at the Independent Officer Meeting.

Issues and areas identified as requiring improvement are reported to the Board of Directors and incorporated into a plan-do-check-act (PDCA) cycle for planning and implementing improvement activities. This process helps enhance the effectiveness of the Board of Directors.

Review of Initiatives in Fiscal 2023

Thanks to the initiatives shown in the table below, the results of the survey, interviews, and discussions confirmed that in fiscal 2023 the Board of Directors was even more effective than in the previous fiscal year, improving in terms of eliminating the information gap between inside and outside officers and deepening discussions on strategies.

Fiscal 2022 Issues	Results of Fiscal 2023 Initiatives
Support for outside officers • Eliminate information gap with inside officers	• Disclosed information about important matters in a timely manner • Supported efforts to fully understand businesses by organizing visits to domestic Group companies
Oversight by the Board of Directors • Enhance ideas for improving corporate value • Deepen strategic discussions	• Put strategic discussions on agenda for Board of Directors' meetings • Established opportunities for discussions outside of Board meetings (Executive Workshop)
Dialogue with stakeholders • Increase discussion and reporting from the perspective of stakeholders	• Reported on the status of dialogue with stakeholders

Issues and Improvement Measures for Fiscal 2024

DENSO aims to improve the effectiveness of the Board of Directors by implementing improvement measures for the following issues in fiscal 2024.

Fiscal 2023 Issues	Fiscal 2024 Measures for Improvement
Discussion of strategies • Enhance discussion of strategies by individually deliberating on investments	• Submit strategy-related agenda items in a planned manner to the Board for discussion • Delegate authority to consolidate the Board's agenda items and facilitate transition to discussion of strategies • Utilize opportunities outside of Board meetings to deepen discussion of strategies
Support for outside officers • Increase opportunities for on-site visits	• Support efforts to fully understand businesses through more on-site visits related to discussion of strategies • Arrange opportunities for communication with employees and officers other than members of the Board
Operation of the Board of Directors • Have various personnel explain agenda items	• Deepen discussions by enhancing explanations of agenda items
Dialogue with stakeholders • Eliminate information gap between inside and outside officers	• Report comprehensively on dialogue with stakeholders

Schedule and Process for Analysis and Evaluation of the Effectiveness of the Board of Directors

Early March	Quantitative evaluation through a questionnaire survey of all members of the Board
Late March to April	Individual interviews (inside officers) and discussions at the Independent Officer Meeting (outside officers) based on the results of the survey
Early May	Reporting and discussion on the results of the Board effectiveness evaluation and improvement action plans at the Board meeting
Late May onward	Implementation of improvement activities to enhance effectiveness

Evaluation Items of the Survey for Evaluation of the Effectiveness of the Board of Directors

1. Composition and operation of the Board (composition of members, delegation of authority, and uninhibited and lively discussion)
2. Support for outside officers (prior briefing, provision of information, and exchange of opinions and interaction)
3. Oversight by the Board (management philosophy, medium- to long-term strategies, governance, important risks)
4. Dialogue with stakeholders (status of dialogue with stakeholders and discussion from the perspective of stakeholders)



**Requirements for Members of the Board and Audit & Supervisory Board Members and Our Approach to Diversity**

In appointing members of the Board and Audit & Supervisory Board members, the Company facilitates appropriate, timely decision-making by emphasizing diversity in terms of age, gender, and nationality and by seeking a balanced composition in terms of experience, ability, and specializations.

DENSO has set out 11 types of experience and specializations to ensure that the Company has the experience and specializations required to realize its Long-term Policy for 2030 and to underpin stable corporate management. The experience and specializations of the Board of Directors as a whole are disclosed in the form of a skill matrix.

**Long-term Policy for 2030** Bringing hope for the future for our planet, society, and all people

**Experience and Specializations Required to Realize DENSO's Long-term Policy for 2030**

- Corporate management experience that enables anticipation of the future in uncertain and ambiguous times and the provision of recommendations on the course that the Company should pursue
- Environment/energy and software/digital experience and specializations that enable maximization of the value of “green” and “peace of mind” as well as social contributions, including initiatives focused on realizing carbon neutrality and eliminating traffic accident fatalities
- Marketing experience and specializations that enable correct understanding of market trends as well as social needs and expectations, which help in addressing not only mobility-related issues but a wide range of other social issues

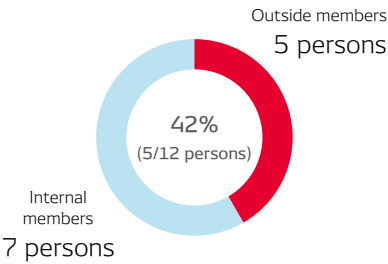
**Experience and Specializations Required to Underpin Stable Corporate Management**

- Governance, global, finance/accounting, human resources, technological development, production/quality, and sales/procurement experience and specializations that serve as foundations for DENSO's sustained growth, regardless of the era or environment

Skill Matrix [□□P113](#)

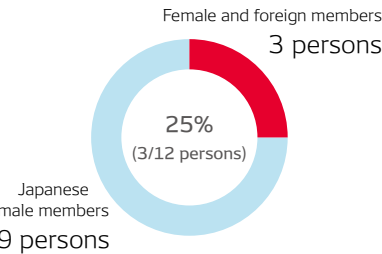
**Diversity of the Board of Directors and the Audit & Supervisory Board**

Ratio of Outside Members to the Board of Directors and the Audit & Supervisory Board

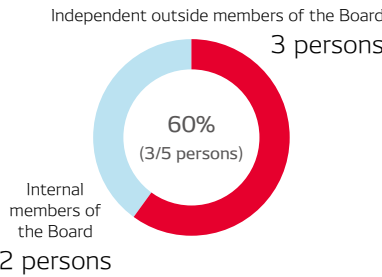


Note: Ratio of independent outside members to the Board of Directors: 38% (3/8 persons)

Diversity of the Board of Directors and the Audit & Supervisory Board



Composition of the Executive Nomination and Remuneration Council



Note: The Executive Nomination and Remuneration Council is chaired by an independent outside member of the Board

**Procedures for the Appointment of Members of the Board and Audit & Supervisory Board Members**

Procedures	1	• The president and relevant members of the Board listen to opinions based on various perspectives and select suitable candidates to serve as a member of the Board of Directors, comprehensively taking into account their background, personality, insight, and other factors. The Executive Nomination and Remuneration Council, which is chaired by an independent outside Board member and also has a majority of independent outside Board members serving as its members, then holds debate on these candidates and lists the candidates for selection for the current fiscal year.
	2	• Members of the Board are selected based on an informal resolution by the Board of Directors and deliberation at the General Meeting of Shareholders. • Audit & Supervisory Board members are selected based on an informal resolution by the Board of Directors and deliberation at the General Meeting of Shareholders, with the consent of the Audit & Supervisory Board.

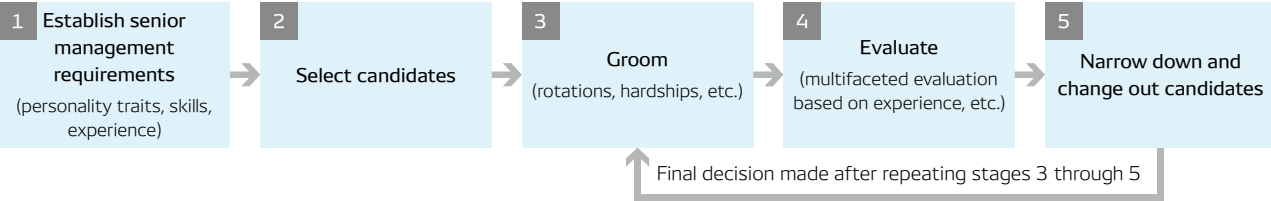
**Senior Management Succession Plan**

DENSO regards president & CEO succession planning as one of its most important management tasks. The Executive Nomination and Remuneration Council, of which a majority of the members and the chair are independent outside Board members, leads the search for the next president based on a highly objective and transparent process.

The Executive Nomination and Remuneration Council establishes requirements that reflect the type of senior management sought by DENSO. In searching for an optimal successor, the

council conducts ongoing discussions based on a diverse range of information concerning the candidates. Such information is obtained from parties inside and outside the Company and includes past achievements, employment histories, character evaluations, and assessments of suitability for management positions. In addition, for CxO positions and below, DENSO identifies candidates for the succession of key core management posts inside and outside Japan and grooms these candidates from medium- and long-term perspectives.

**Succession Planning Process**



**Senior Management Requirements**

Personality traits	<ul style="list-style-type: none"><li>• Integrity, strong sense of ethics</li><li>• Impartiality, highly trustworthy, and popular</li><li>• Positive attitude toward taking on new challenges</li><li>• Strong sense of responsibility, courage</li><li>• Physical and mental toughness</li></ul>
Skills	<ul style="list-style-type: none"><li>• Decisiveness to forge ahead with reforms, sound judgment</li><li>• Leadership that builds global networks and mobilizes the organization as a team</li><li>• Ability to anticipate change and build strategies that form a vision for the Company</li></ul>

**Composition of the Executive Nomination and Remuneration Council**

Chair	Shigeki Kushida	Independent Outside Board Member
Members	Koji Arima	Chairman & CEO, Representative Member of the Board
	Shinnosuke Hayashi	President & COO, Representative Member of the Board
	Yuko Mitsuya	Independent Outside Board Member
	Joseph P. Schmelzeis, Jr.	Independent Outside Board Member

**Activities of the Executive Nomination and Remuneration Council**

In fiscal 2023, president & CEO succession planning was the most important topic, and discussions were held throughout the year on the evaluation of presidential candidates as well as the timing and method of replacement. To conduct in-depth discussions with each member of the council and reflect objective and multifaceted opinions in decision-making, seven one-on-one discussions with outside Board members were held. In addition, the council formally held three general discussions at significant junctures, with all members attending each meeting. The main topics discussed by the council are as follows.

First meeting:	Fiscal 2022 performance evaluation and remuneration of individual officers, revision of officer remuneration system, and June 2022 officer personnel changes
Second meeting:	January 2023 officer personnel changes and president & CEO succession planning
Third meeting:	President & CEO succession planning, officer personnel changes attendant on the June 2023 General Meeting of Shareholders, and structure of the Executive Nomination and Remuneration Council

Outside Board Members and Outside Audit & Supervisory Board Members

Classification	Name	Main Activities and Duties Performed in Relation to Expected Roles
Outside Board Members	Shigeki Kushida	Shigeki Kushida attended 13 out of 13 meetings of the Board of Directors convened in fiscal 2023. At these meetings, he made statements and conducted supervision regarding the Company's overall business management based on his experience at the Bank of Japan and extensive knowledge of the global monetary economy. As the chair of the Executive Nomination and Remuneration Council, Mr. Kushida wrapped up deliberations on the revision of the officer system and on succession planning.
	Yuko Mitsuya	Yuko Mitsuya attended 13 out of 13 meetings of the Board of Directors convened in fiscal 2023. At these meetings, she made statements and conducted supervision regarding the Company's overall business management based on her wealth of experience in diverse fields, which includes many years of experience in the management of companies and institutions and experience as a director or a committee member of various sports associations.
	Joseph P. Schmelzeis, Jr.	After his appointment on June 21, 2022, Joseph P. Schmelzeis, Jr. attended 10 out of 10 meetings of the Board of Directors convened in fiscal 2023. At these meetings, he supervised the overall business management of the Company, drawing on his extensive experience in business management and strategic consulting as well as knowledge of geopolitics based on his experience as a senior advisor to the U.S. ambassador in Japan.
Outside Audit & Supervisory Board Members	Yasuko Gotoh	Yasuko Gotoh attended 13 out of 13 meetings of the Board of Directors and 14 out of 14 meetings of the Audit & Supervisory Board convened in fiscal 2023. At these meetings, she made statements on the Company's overall business management based on her wealth of experience and deep insight in relation to government agencies and the private sector.
	Haruo Kitamura	Haruo Kitamura attended 13 out of 13 meetings of the Board of Directors and 14 out of 14 meetings of the Audit & Supervisory Board convened in fiscal 2023. At these meetings, he made statements on the Company's overall business management based on his professional view as a certified public accountant and as a management consultant.

Note: All five outside members are independent officers.

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

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

corporate management, law, accounting, and finance and are required to be able to proactively make proposals, suggestions, and give opinions about management issues. The Company declares that the five outside officers who meet the qualifications for independent member of the Board and Audit & Supervisory Board member are independent officers.

Executive Compensation

Basic Policy

- Achieve medium- to long-term enhancement of corporate value and management from the perspective of shareholders
- Incentivize eligible members of the Board to enhance business performance by linking the Company's performance with individual performance

Composition of Remuneration

The compensation system for members of the Board (excluding non-executive members of the Board and outside Board members) at DENSO consists of basic compensation as fixed compensation, as well as bonuses and share-based compensation as performance-linked compensation. An overview of each compensation system and the ratio of compensation by position for basic compensation amounts are as detailed in the table below. However, note that these ratios may vary depending on fluctuation in performance-linked compensation amounts, which are based on the achievement of corporate earnings for the fiscal year. Compensation for non-executive members of the Board and outside Board members consists of only basic compensation (fixed amount) from the standpoint of ensuring impartiality. Compensation for Audit & Supervisory Board members also comprises only basic compensation (fixed amount), in light of their roles and responsibilities as auditors in charge of compliance audits.

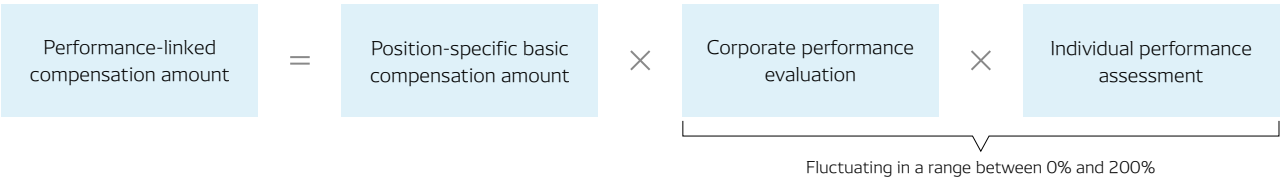
Type of Compensation		Overview	Ratio		
			Chairman, President	Executive Vice President	Members of the Board and Senior Executive Officers
Fixed compensation	Basic compensation (fixed amount)	• Paid as monthly fixed compensation based on position	40%	45%	50%
Performance-linked compensation	Bonus (short-term incentive)	• Paid at a certain time each fiscal year after the conclusion of the General Meeting of Shareholders	30%	30%	30%
	Share-based compensation (medium- to long-term incentives)	• Payment amount calculated based on corporate earnings indicators (consolidated operating profit, ROIC, sustainability score) and individual performance evaluation results	30%	25%	20%

Compensation Levels

The level of compensation for members of the Board and Audit & Supervisory Board members is set at the median level for comparable companies while also referencing levels at major manufacturers of similar scale in similar sectors and business models as DENSO, based on board member compensation survey data compiled by external research institutions each year.

Method for Calculating Performance-Linked Compensation

To establish linkage with corporate performance and to incentivize members of the Board to enhance corporate performance and sustain growth, a performance-linked compensation amount is calculated by reflecting a corporate performance evaluation and an individual performance assessment—which is based on an evaluation of the business results and achievements of the individual and their medium- to long-term initiatives—in a position-specific basic compensation amount. Depending on corporate performance and individual performance, the performance-linked compensation amount fluctuates in a range that is between 0% and 200% of the basic compensation amount.



Corporate Performance Evaluation Indicators

Connected with corporate strategies that are aimed at enhancing DENSO's corporate value, corporate performance evaluation indicators comprise consolidated operating profit, ROIC, and sustainability score. The fiscal 2023 score weighting and evaluation method for each evaluation indicator are shown below. Further, targets for each fiscal year, the basis of these evaluations, are set each year based on medium- to long-term objectives.

Indicator	Score Weighting	Evaluation Method	Fiscal 2023 Results
Consolidated operating profit	70%	Evaluation based on degree of achievement of fiscal year targets	¥426.1 billion
ROIC	20%	Evaluation based on degree of achievement of fiscal year targets	6.1%
Sustainability score	10%	Evaluation based on overall achievement of fiscal year targets for addressing the following priority issues in the Company's sustainability management Priority issues: (1) Workplace safety, (2) quality, (3) total CO <sub>2</sub> emissions, (4) information security, (5) employee engagement, (6) expansion of "green" and "peace of mind" products, (7) local personnel serving as heads of overseas bases, and (8) number of female managers	5 out of 8 issues addressed

Share-Based Compensation

Share-based compensation is paid in the form of restricted shares, and the restriction on transfer is removed when the officer retires, in principle. During the period of restriction on transfer, in the event of a violation of laws and regulations by the officer or for other reasons determined by the Company's Board of Directors, the Company shall acquire all allotted shares without providing compensation.

The Board of Directors has passed a resolution on the total amount of compensation for fiscal 2023, which is within the scope of compensation established by a resolution of the General Meeting of Shareholders. The Board has also passed a resolution to entrust decisions on individual compensation amounts to the Executive Nomination and Remuneration Council. This council determines individual compensation based on consideration of the officer compensation system, corporate performance, the responsibilities and achievements of the member of the Board, and conformance with the Board-approved policy on determining compensation.

Method for Determining Compensation

DENSO has established the Executive Nomination and Remuneration Council, of which a majority of the members and the chair are independent outside Board members, in order to ensure impartiality, fairness, and transparency in Board member compensation.

Compensation for Audit & Supervisory Board members is determined through a consensus of members and set within the total amount approved by resolution at the General Meeting of Shareholders.



Total Amount of Compensation by Board Member Classification, Total Amount of Each Type of Compensation, and Number of Eligible Board Members

Board member classification	Total amount of compensation (¥ million)	Total amount of each type of compensation (¥ million)			Number of eligible Board members
		Fixed compensation	Performance-linked compensation		
		Basic compensation	Bonus	Share-based compensation	
Members of the Board (Outside Board members)	501 (49)	267 (49)	132 (—)	102 / 12,400 shares (—)	9 (4)
Audit & Supervisory Board members (Outside Audit & Supervisory Board members)	119 (26)	119 (26)	— (—)	— (—)	4 (2)
Total	620	386	132	102 / 12,400 shares	13

Notes: 1. The figures above include Member of the Board George Olcott, who retired as of the conclusion of the 99th Ordinary General Meeting of Shareholders held on June 21, 2022.  
2. Performance-linked compensation is the amount based on a resolution adopted at the Board of Directors' meeting held on May 15, 2023.  
3. For share-based compensation, the number of shares granted is calculated by dividing the amount of compensation approved by resolution of the Board of Directors' meeting held on May 15, 2023, by the closing price on the day before the adoption of this resolution.

Strategic Shareholdings

Basic Stance

DENSO actively reduces low-earning assets and has a basic policy of not owning strategic shareholdings unless ownership of them is deemed rational. Further, to maintain and improve corporate value over the long term, it is essential that we collaborate with outside parties, including promoting joint technological development with various other companies and maintaining and strengthening relationships with business partners. To that end, we hold the minimum number of strategic shareholdings necessary for our business strategies.

Verification of the Rationality and Appropriateness of Ownership

With the fiscal year-end as the date of record, the appropriateness of owning each issue is comprehensively analyzed in light of qualitative and quantitative criteria and is verified annually by the Board of Directors. If ownership is no longer deemed rational due to such factors as the ending of a joint development project, the Company proceeds with disposal after providing a full explanation to the investee company.

In fiscal 2023, given the results of verification conducted at a meeting of the Board of Directors convened in May 2022, the Company entirely disposed of three specified issues and partially disposed of four issues (disposal amount of ¥44.2 billion).

Qualitative criteria	Whether there is management significance in holding the issue, including in terms of promoting joint development and strengthening business collaboration
Quantitative criteria	Whether the return on holding the issue (dividends, increased share prices, relevant business profit, etc.) is greater than the Company's weighted average cost of capital

Standard for Exercising Voting Rights

DENSO believes that its investee companies should engage in management that emphasizes improving shareholder returns over the medium to long term, rather than pursuing shareholder returns only in the short term. Giving first and foremost priority to investee companies that contribute to our profits, we exercise voting rights in an effort to help investee companies realize sustained improvement in their corporate value.

We comprehensively consider the merits of each item under examination regarding the exercising of votes based on our established internal rules. When necessary, we hold dialogues with our investee companies regarding the content of our proposals.

Shares Held for Purposes Other Than Pure Investment (from securities filings)

Number of stocks		Balance sheet amounts	
		Stocks for which the number of shares increased during the fiscal year under review	Stocks for which the number of shares decreased during the fiscal year under review
Unlisted shares	81 stocks ¥54,886 million (year-on-year change: +¥17,482 million)	3 stocks ¥18,028 million	1 stock ¥111 million
Shares other than unlisted shares	20 stocks ¥656,011 million (year-on-year change: -¥5,939 million)	—	7 stocks ¥44,235 million

Note: The increase in stocks for which the number of shares rose is due to the acquisition of shares necessary for business strategies toward realizing the Group's sustainable growth.

Relationship with Major Shareholders

As with other general transactions, the terms and conditions of individual transactions with major shareholders are determined through negotiations after the presentation of a suggested price that is based on due consideration of market value. If price revisions are significant, depending on the amount, deliberations are conducted and internal approval procedures are implemented in accordance with regulations on operational decisions.

Relationship with Toyota Motor Corporation

DENSO provides products and systems to Toyota Motor Corporation and many other types of manufacturers around the world. While analyzing the technological characteristics and local conditions in each region of the world and meeting exacting market requirements, the Company refines its leading-edge technologies and manufacturing capabilities and then utilizes them to realize enhanced products and systems for the next generation.

At the same time, the Company is strengthening collaboration with other Toyota Group companies to create synergies within the Toyota Group. By combining Toyota Motor's insights

with respect to mobility with Toyota Group companies' insights regarding products and systems, the Company will promote efficient and expedited R&D and manufacturing. The Company is advancing collaboration in a wide range of fields. Specific examples include the 2019 establishment of BluE Nexus Corporation as a joint venture with AISIN CORPORATION to develop and market drive modules for vehicle electrification and the Company's 2020 assumption of Toyota Motor's electronic components business and Hirose Plant.

In addition, one of the Company's members of the Board, Akio Toyoda, is a prominent leader in the automotive industry and a driving force behind the creation of a next-generation mobility society, serving as chairman of the Board of Directors (representative director) of Toyota Motor Corporation, one of our principal shareholders, and as chairman of the Japan Automobile Manufacturers Association, Inc. In 2019, he was appointed as a member of the Board so that he could provide the Company with a wide range of advice and recommendations on its business management as well as supervise overall business management from a broad perspective that encompasses the entire automotive industry.

Establishing and Strengthening 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 see the following URL for DENSO Basic Policies for Internal Control.  
<https://www.denso.com/global/en/-/media/global/about-us/sustainability/governance/management/management-doc-internal-control-policy-2023-en.pdf>



Internal Reporting System

In accordance with the circumstances in each region of operation, the DENSO Group has set up internal reporting systems at its regional headquarters and each business site. These systems allow 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.

For example, at DENSO CORPORATION, we have established a Business Ethics Hotline in accordance with Japan's Whistleblower Protection Act that allows anonymous reporting; is independent from the normal chain of command; and is administered by outside attorneys and the Business Ethics Hotline Secretariat. This hotline can be used by all persons working at DENSO CORPORATION and domestic Group companies, including employees, temporary employees, and employees contracted from other companies, in addition to suppliers. In fiscal 2023, the hotline received 107 reports and consultations regarding matters such as employment, labor, work environment, information management, business transactions, and accounting, all of which were addressed appropriately after staff investigated the situation and confirmed the facts.

	Fiscal 2021	Fiscal 2022	Fiscal 2023
Number of reports and consultations received (Group companies)	74 (24)	103 (44)	107 (46)

## Dialogue with the Outside Board Members

# Surviving in a Changing Business Environment by Developing Management and Corporate Governance

Having formulated “Reborn21” and the Mid-term Policy for 2025, DENSO transitioned to a new management system in June 2023. We invited our three outside Board members, who were deeply involved in selecting the new president & COO, to discuss candidly the significance of the new management system as well as the progress made and the tasks that lie ahead regarding DENSO’s corporate governance and sustainability management.



### Joseph P. Schmelzeis, Jr.

Outside Board Member

After serving in such positions as corporate director at SEGA SAMMY HOLDINGS INC. and senior advisor to the ambassador at the U.S. Embassy in Tokyo, Mr. Schmelzeis currently works as executive manager at Cedarfield Godo Kaisha. He was appointed as outside Board member of DENSO in 2022.

### Shigeki Kushida

Outside Board Member

Mr. Kushida has been serving as an outside Board member at the Company since 2019. He also serves as president and representative executive officer at Japan Securities Finance Co., Ltd., and has experience working at the Bank of Japan.

### Yuko Mitsuya

Outside Board Member

Ms. Mitsuya has been serving as an outside Board member at the Company since 2019. She also serves as representative director of SORA Corporation and has a long history in the sports world.

## Balanced Responses to a Changing Environment and Medium- to Long-term Tasks

**Kushida** Although the past several years have seen the emergence of the COVID-19 pandemic and a range of other issues, DENSO’s business management has minimized their impact on businesses and governance. During this period, the Board of Directors has placed more emphasis on discussing medium- to long-term strategies such as CO<sub>2</sub> emissions reduction and vehicle electrification. This long-term approach is characteristic of the automotive industry, where model changes take several years to accomplish. I believe that the strategies set out in the Long-term Policy for 2030 and the Mid-term Policy for 2025 are appropriate overall.

**Schmelzeis** Supply disruptions accompanying the COVID-19 pandemic and recent geopolitical tensions have again highlighted the negative effects of dependence on specific countries and regions. DENSO’s investment strategy shows the senior management team’s awareness of the urgent need to ensure supply chain resilience.

**Mitsuya** The quality issues that coincided with the COVID-19 pandemic were a major event that put DENSO’s real worth to the test. In dealing with a situation that shook the foundations of business management, president & CEO at the time Koji Arima (currently chairman & CEO and representative member of the Board) showed superb leadership. As well as swiftly launching the DENSO Revolution Plan “Reborn21,” the senior management team demonstrated its commitment to reform through the leadership of the chief corporate revolution officer. In addition, a series of rigorous in-house discussions were held with the aim of creating a more open organization. The dramatically improved quality and risk management that resulted from these initiatives was the driving force behind subsequent Companywide efforts that overcame a global semiconductor shortage to achieve record profits in fiscal 2023.

DENSO is investing a significant amount of money in R&D in the connected, autonomous, shared & service, and electric (CASE) vehicles field. The difficulty here is that the funds for such R&D are being generated through the earnings from internal combustion engine products, a field that is projected to shrink. I feel that DENSO’s approach of steadily shifting to growth fields while being attentive to the feelings of employees engaged in shrinking businesses is extremely well-balanced.

## Management That Values People

**Kushida** Among the many aspects of human capital-focused management, heightening employee engagement is one of the most important considerations. To increase the number of employees who take steps based on ownership of management issues and are sympathetic to the Company’s value creation approach, a willingness to actively convey management thinking to employees is essential. DENSO’s senior management team takes considerable pains to ensure that employees are kept fully informed, with “Reborn21” being a good example of such efforts.



Another important factor related to employee engagement is enhancement of workplace environments. In this regard, even though the COVID-19 pandemic has been contained, DENSO is continuing to promote telecommuting and various other workstyles. We believe that, over time, such initiatives will enable the realization of human capital-focused management.

**Schmelzeis** The expertise of personnel is the key to portfolio transformation. Fully aware of this, the executive side is advancing appropriate measures, which include reskilling engineers and stepping up mid-career hiring.

In new business fields, DENSO is likely to face fierce competition from global IT giants. The advantages they lack but which DENSO enjoys are a legacy of continuous support for safe, reliable mobility as well as the trust and reputation that have been established over many years not only in the Toyota Group but with various other automakers and industries in Japan and overseas. I believe these strengths provide the foundations for collaboration with external parties and cannot be easily replicated by other companies.

**Mitsuya** As well as the details of numerical trends, discussions on human resources are the most important focus at Board meetings. In our roles as outside Board members, we are actively encouraging transformation of the Company’s business portfolio. Meanwhile, the executive side is de-emphasizing and discontinuing internal combustion engine products in a way that maximizes the value that the shrinking businesses create for society as a whole going forward. The executive side is providing in-depth explanations to employees and customers affected by the downsizing of existing businesses. Such efforts are a testament to the senior management team’s attitude, which has contributed to high levels of loyalty and compliance awareness among DENSO employees.

**Schmelzeis** From an American perspective, DENSO’s efforts to take into consideration the impact on customers when transforming its business portfolio is slightly surprising. Nonetheless, I am sure the Company’s attitude has been instrumental in sustaining the DENSO brand.





### New Leadership for Change under “Team Hayashi”

**Kushida** In June 2023, Koji Arima, who served as president for eight years, assumed the position of chairman & CEO, while Shinnosuke Hayashi became president & COO. In preparation for this change of presidents, we established a succession plan more than three years ago and selected the next president based on a series of deliberations at the Executive Nomination and Remuneration Council. The council's five members included then-president & CEO Koji Arima and three outside Board members, who constituted a majority. As chair, I focused on ensuring that the most suitable person for the position of president was selected based on fair criteria and an appropriate process. Specifically, we conducted an evaluation based on the attributes required of the senior management team's leader, which comprised the five personality traits of integrity, reliability, resilience, accountability, and positivity and the three skills of decisiveness, strategy formulation capabilities, and leadership. Then, we interviewed candidates and discussed our impressions of them with reference to in-house opinions. As a result, we decided to appoint Shinnosuke Hayashi as the new leader.

The strengths of the new president include his expertise with respect to software and digital technologies. I look forward to seeing him combine this competence with his knowledge of in-house hardware and mechanical parts to build a new corporate profile for DENSO. As he has both firm convictions and the ability to unite and mobilize the organization, I think the appointment was excellent.

**Mitsuya** The establishment of the succession plan resulted from the strong desire of the former president, Koji Arima, to foster his own successor. The selection process could hardly have been more methodical and procedurally correct.

The new appointments have formed “Team Hayashi,” which is led by the new president, Shinnosuke Hayashi, and supported by the chairman, Koji Arima, and the executive vice president, Yasushi Matsui. When a huge company like DENSO seeks business transformation on a global scale, appointing a leader who has insight into the growth fields that are the focus of such transformation and enabling everyone to support him makes sense. Through the

selection process, I have come to know many of DENSO's talented personnel and furthered my understanding of the Company.

**Schmelzeis** I have very high expectations of the new senior management team. First of all, the new president has a wealth of experience in developing automotive software and is someone who can take the next step forward with confidence. Moreover, he has adequate support.

In particular, the retention of Koji Arima through his appointment as chairman is a big plus for the Company's business management. In the course of a long career, he has become thoroughly conversant with each business field and acquired a wealth of overseas experience. Moreover, he has well established relationships with the senior management teams of automakers and holds a key industry position as chairman of the Japan Auto Parts Industries Association. He will be able to pass on lessons learned to the new president by sharing with him the successes and failures of decisions made during his eight-year tenure as president.

In addition, Yasushi Matsui, who is the chief financial officer as well as the executive vice president, combines an aptitude for figures with an understanding of how to achieve a balance among businesses that maximizes profits. These attributes make him ideally suited to managing and transforming DENSO's business portfolio. By working together, these three individuals are sure to form a powerful team.

**Mitsuya** The new president is approachable and has the magnanimity to accept whatever is said to him. With the addition of supplementary explanations from financial expert Yasushi Matsui, I think discussions at meetings of the Board of Directors have become more readily understandable and lively.

**Kushida** The new president is able both to take on board feedback from junior employees and see things on a large scale and from a broad perspective. This ability probably stems from his inherent openness and people skills as well as his experience in integrating multiple business divisions to align them with electronics technologies. I also think the relationships between the three members of the new senior management team are ideal.

### Toward More Effective Operation of Board Meetings

**Kushida** As it aims to separate management and execution, DENSO's governance policy is consistent with the spirit of Japan's Corporate Governance Code. Although DENSO has a Company with an Audit & Supervisory Board institutional design, the Company's establishment of the Executive Nomination and Remuneration Council and other governance measures has reached a level that makes DENSO comparable to a Company with a Nominating Committee institutional design. Another step forward is the clear separation of roles that has been achieved by appointing a chairman who chairs the Board of Directors and a president who leads the executive side. That said, I think we

need further innovations to narrow down the number of agenda items discussed at Board meetings.

Given the volatility of the current environment, we would like to devote more time to discussions on big-picture strategies that focus on the business portfolio and overall market trends, but doing so can be challenging because the agenda items that a Board resolution can approve are stipulated by the Companies Act of Japan. At present, time tends to be taken up with approving resolutions on small individual agenda items. On the other hand, when formulating major medium- to long-term strategies, bottom-up discussions tend to be held within the Company first, resulting in drafts that are close to completion. This approach may be due to an open corporate culture. However, I think the Board should begin discussions at an earlier stage, communicate overall strategy to divisions, and then receive feedback from them.

**Schmelzeis** I have only been participating in the meetings of DENSO's Board for a year. Looking back over the past year, while the scope of individual agenda items has certainly varied, I feel that we have been able to have discussions about overall strategies. Our discussions have been unreserved and very lively. By maintaining an external viewpoint and calling attention to issues as appropriate, we help the Board function well and fulfill our roles as outside Board members. Under the new senior management team, such positive features of Board meetings are likely to become even more pronounced.

Personally, I hope that we can involve overseas personnel in discussions to a greater extent. Feedback from frontline operations will invigorate Board discussions and further heighten employee morale.

**Mitsuya** The Board's consistently in-depth follow-ups with respect to past investments deserve praise.

However, with a view to better operation of Board meetings, I would like to see more effective utilization of prior briefings. Using up the limited time available for Board meetings with explanations of the complicated backgrounds of individual agenda items is a waste of time. Devising ways to separate prior briefings from Board meetings would enable broader-based discussions at the Board meetings.

### Toward Integration of Financial and Non-Financial Goals

**Kushida** In May 2022, following resolutions approved by the Executive Nomination and Remuneration Council and the Board of Directors, we fundamentally reformed the officer compensation system. The reform has two main features. The first is an increase in performance-linked compensation as a percentage of total compensation from 40% to 50% for general officers and to 60% for the president. The second feature is an increase in the key performance indicators (KPIs) used to calculate performance-linked compensation. In addition to the existing consolidated operating profit KPI, we have included return on invested capital (ROIC) and sustainability score as KPIs. These additions reflect the senior management team's greater focus



on capital efficiency and environmental, social, and governance (ESG) factors.

Sustainability score is arrived at by evaluating the achievement of workplace safety and quality, environmental tasks, employee engagement, and diversity and inclusion. Currently, sustainability score accounts for 10% of performance-linked compensation, but we envision an increase in this percentage.

**Mitsuya** Only pursuing financial efficiency can lead to sacrifices in relation to safety and other matters. In this regard, however, the chief financial officer, Yasushi Matsui, is fully aware of the importance of non-financial matters, which is reassuring. I believe that the concept of integrated value creation is highly compatible with DENSO's management style as it emphasizes people. Accordingly, we have established a sustainability score KPI that is consistent with our belief in the importance of integrated value creation.

**Schmelzeis** While linking the KPIs to officer compensation is important, business management must also be premised on the numerical analysis and visualization of issues. For example, the concept of carbon pricing entails managing CO<sub>2</sub> emissions as if they were financial receipts and expenditures. Analysis of the Company's current situation through a large-scale survey of diversity and employee engagement would provide the starting point for a range of initiatives.

**Kushida** The idea that corporate management which is focused on environmental and social issues will positively impact financial indicators in the long term may, at the moment, be just that—an idea. Nevertheless, the fact that many people are taking action based on such a belief is significant and provides a good opportunity to think about services and businesses from a long-term perspective. In fact, other countries are achieving concrete results through ESG initiatives, particularly in the field of diversity.

DENSO's introduction of KPIs that link non-financial and financial performance is likely to grow in significance, as such linkage is an area where Japanese companies are notably lagging behind. I hope the new KPIs continue to be adjusted as needed and carefully developed by DENSO.

Members of the Board and Audit & Supervisory Board Members

(As of June 20, 2023)

Members of the Board



Chairman & CEO,  
Representative Member of the Board  
**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 & CEO, Representative Member of  
the Board, DENSO CORPORATION  
2023 Chairman & CEO, Representative Member of  
the Board, DENSO CORPORATION  
(current position)



President & COO,  
Representative Member of the Board  
**Shinnosuke Hayashi**  
(Date of birth: January 15, 1964)  
1986 Joined DENSO CORPORATION  
2015 Executive Director, DENSO CORPORATION  
2021 Senior Executive Officer, DENSO  
CORPORATION  
2023 President & COO, Representative Member of  
the Board, DENSO CORPORATION  
(current position)



Executive Vice President,  
Representative Member of the Board  
**Yasushi Matsui**  
(Date of birth: July 3, 1964)  
1987 Joined DENSO CORPORATION  
2014 Executive Director, DENSO CORPORATION  
2019 Senior Executive Officer,  
DENSO CORPORATION  
2021 Member of the Board and Senior Executive  
Officer, DENSO CORPORATION  
2023 Executive Vice President, Representative  
Member of the Board, DENSO  
CORPORATION (current position)



Member of the Board,  
Senior Executive Officer  
**Kenichiro Ito**  
(Date of birth: October 1, 1962)  
1985 Joined DENSO CORPORATION  
2012 Executive Director, DENSO CORPORATION  
2019 Senior Executive Officer,  
DENSO CORPORATION  
2021 Member of the Board, Senior Executive  
Officer, DENSO CORPORATION  
(current position)



Member of the Board  
**Akio Toyoda**  
(Date of birth: May 3, 1956)  
1984 Joined Toyota Motor Corporation  
2000 Member of the Board of Directors, Toyota Motor Corporation  
2002 Managing Director, Toyota Motor Corporation  
2003 Senior Managing Director, Toyota Motor Corporation  
2005 Executive Vice President, Toyota Motor Corporation  
2005 Outside Member of the Audit & Supervisory Board,  
Koyo Seiko Co., Ltd. (currently JTEKT CORPORATION)

2006 Outside Audit & Supervisory Board Member,  
TOYOTA BOSHOKU CORPORATION  
2009 President, Toyota Motor Corporation  
2018 Chairman, Japan Automobile Manufacturers Association, Inc.  
(current position)  
2019 Member of the Board, DENSO CORPORATION  
(current position)  
2023 Chairman of the Board of Directors (Representative Director),  
Toyota Motor Corporation (current position)



Outside Board Member **Independent Officer**  
**Shigeki Kushida**  
(Date of birth: June 8, 1958)  
1981 Joined Bank of Japan  
2004 Branch Manager, Kochi Branch, Bank of Japan  
2009 Director-General, Personnel and Corporate Affairs  
Department, Bank of Japan  
2010 Director-General, Planning Department, Bank of Japan  
2011 Branch Manager, Nagoya Branch, Bank of Japan  
2013 Executive Director, Bank of Japan  
Entrusted Branch Manager, Nagoya Branch and  
Osaka Branch, Bank of Japan

2017 Senior Advisor, American Family Life Assurance Company  
(currently Aflac Life Insurance Japan Ltd.)  
2019 Director, Representative Executive Officer & President,  
Japan Securities Finance Co., Ltd. (current position)  
2019 Outside Board Member, DENSO CORPORATION  
(current position)



Outside Board Member **Independent Officer**  
**Yuko Mitsuya**  
(Date of birth: July 29, 1958)  
1981 Joined Hitachi, Ltd.  
2010 Representative Director, PSY-fa Co., Ltd.  
2014 Outside Audit & Supervisory Board Member,  
ASICS Corporation  
2015 Outside Director, Fujita Kanko Inc.  
2015 Outside Director, Paloma Co., Ltd.  
2016 President, Japan Basketball Association (current position)  
2018 Representative Director, SORA Corporation  
2018 Outside Director, The Fukui Bank, Ltd. (current position)

2019 Outside Director and Audit and Supervisory Committee  
Member, JXTG Holdings, Inc. (currently ENEOS Holdings, Inc.)  
(current position)  
2019 Outside Board Member, DENSO CORPORATION  
(current position)  
2021 Vice President, Japanese Olympic Committee  
(current position)  
2023 Outside Director, Japan Airlines Co., Ltd.  
(current position)



Outside Board Member **Independent Officer**  
**Joseph P. Schmelzeis, Jr.**  
(Date of birth: November 2, 1962)  
1984 Joined Bain & Company  
1988 Vice President, American Express International  
1998 Chief Operating Officer, Fontworks International  
1999 Interim CEO, Crimson Ventures  
2001 Representative Director, JPS International, Inc.  
(current position)  
2011 Corporate Director, Division Manager, SEGA CORPORATION  
2015 Senior Advisor, SEGA SAMMY HOLDINGS INC.  
2018 Senior Advisor to the Ambassador, U.S. Embassy in Tokyo

2021 Executive Manager, Cedarfield Godo Kaisha (current position)  
2022 Outside Board Member, DENSO CORPORATION  
(current position)  
2023 Outside Director, Central Japan Railway Company  
(current position)  
2023 Outside Director, Hitachi Construction Machinery Co., Ltd.  
(current position)

Audit & Supervisory Board Members



Standing Audit & Supervisory  
Board Member  
**Shingo Kuwamura**  
(Date of birth: August 16, 1959)  
1982 Joined DENSO CORPORATION  
2009 Executive Director, DENSO CORPORATION  
2017 Senior Executive Director,  
DENSO CORPORATION  
2019 Senior Executive Officer,  
DENSO CORPORATION  
2021 Standing Audit & Supervisory Board Member,  
DENSO CORPORATION (current position)



Standing Audit & Supervisory  
Board Member  
**Motomi Niwa**  
(Date of birth: November 3, 1962)  
1985 Joined DENSO CORPORATION  
2007 Head of Function Products Planning Division  
(currently Powertrain Systems Business  
Planning Department,  
Powertrain Components Business Unit),  
DENSO CORPORATION  
2013 Director, Human Resources Division,  
DENSO CORPORATION  
2014 Vice President, DENSO Manufacturing  
Athens Tennessee, Inc.  
2018 Standing Audit & Supervisory Board Member,  
DENSO CORPORATION (current position)



Outside Audit & Supervisory Board Member **Independent Officer**  
**Yasuko Gotoh**  
(Date of birth: February 19, 1958)  
1980 Joined the Ministry of Transport (currently Ministry of Land,  
Infrastructure, Transport and Tourism [MLIT])  
2004 Head, New York Office, Japan National Tourism Organization  
2005 Vice Governor, Yamagata Prefecture  
2008 Director, Regional Transport Bureau of Hokuriku and  
Shinetsu Regions, MLIT  
2013 President, Policy Research Institute for Land, Infrastructure,  
Transport and Tourism, MLIT  
2015 Managing Director, Deputy General Manager of Railway  
Operations Headquarters and General Manager of Tourism  
Business Headquarters, Kyushu Railway Company

2017 Managing Director in charge of Finance Department,  
Kyushu Railway Company  
2018 Director (Audit & Supervisory Committee Member),  
Kyushu Railway Company  
2019 External Audit & Supervisory Committee Member,  
Shiseido Company, Limited (current position)  
2019 Outside Audit & Supervisory Board Member,  
DENSO CORPORATION (current position)  
2023 Outside Corporate Auditor, Mitsui Chemicals, Inc.  
(current position)



Outside Audit & Supervisory Board Member **Independent Officer**  
**Haruo Kitamura**  
(Date of birth: August 21, 1958)  
1983 Joined Arthur Andersen Konin Kaikeshi Kyodo Jimusho  
(currently KPMG AZSA LLC)  
1987 Registered as a Certified Public Accountant  
2002 Chief, Kitamura Certified Public Accountant Office  
(current position)  
2004 Outside Auditor, ROHM Co., Ltd.  
2005 Outside Director, Sumisho Grainger Co., Ltd.  
(currently MonotaRO Co., Ltd.)  
2006 Supervisory Director, MID REIT, Inc.  
(currently Japan Metropolitan Fund Investment Corporation)

2009 Outside Corporate Auditor, Yamaha Corporation  
2010 Outside Director, Yamaha Corporation  
2015 Part-time Corporate Auditor, ASMO Co., Ltd.  
(currently DENSO CORPORATION)  
2015 Outside Corporate Auditor, LEGAL CORPORATION  
(currently LeTech CORPORATION) (current position)  
2019 Outside Audit & Supervisory Board Member,  
DENSO CORPORATION (current position)

Experience and Specializations (Skill Matrix) of Members of the Board and Audit & Supervisory Board Members

DENSO has defined 11 areas of experience and specialization necessary to realize its Long-term Policy for 2030 and sustain stable corporate management. The areas of specialization that the Company expects each member to demonstrate (up to a maximum of five areas) are as shown below.\*

Note: This does not represent all the areas of experience and specialization of each person.

Name	Corporate manage- ment	Software / Digital	Marketing	Environment / Energy	Governance	Global	Finance / Accounting	Human resources	Technological development	Production / Quality	Sales / Procurement	Meeting participation (◎ = Chair)		
												Board of Directors	Audit & Supervisory Board	Executive Nomination and Remuneration Council
Koji Arima												◎		○
Shinnosuke Hayashi												○		○
Yasushi Matsui												○		
Kenichiro Ito												○		
Akio Toyoda												○		
Shigeki Kushida												○		◎
Yuko Mitsuya												○		○
Joseph P. Schmelzeis, Jr.												○		○
Shingo Kuwamura												○	◎	
Motomi Niwa												○	○	
Yasuko Gotoh												○	○	
Haruo Kitamura												○	○	

\* As of June 2023



# Risk Management



### Basic Stance

To minimize the impact of constantly diversifying risks, DENSO is working to strengthen its risk management structure as a part of internal controls. Specifically, we have divided matters that have the potential to damage our businesses into “risks,” which refer to circumstances where such matters have yet to manifest, and “crises,” which refer to states of emergency where such matters have manifested. Based on these classifications, we are focusing our efforts on implementing preventive measures, which stop risks before they occur, and swift and accurate initial-response and recovery measures, which minimize damage in the event a crisis occurs.

Recently, DENSO has been facing a variety of risks the likes of which it had previously never experienced. Since 2019, we have been dealing with the fallout from the quality-related issue, which has impacted the trust our customers place in us and has shaken our management foundation. Additionally, risks stemming from the external environment, such as the COVID-19 pandemic, tight supply–demand for production materials, and cyberattacks, have had a major impact on our business activities.

In light of these circumstances, we have once again recognized risk management as an important management issue. Going forward, we will pursue dramatic reforms to our risk management structure in order to strengthen our response capabilities.

### Promotion Structure

DENSO has established the Risk Management Meeting, chaired by the chief risk officer (CRO), who is responsible for Groupwide risk management. The Risk Management Meeting is a Groupwide organization that confirms improvements to the Company's risk management structure and framework and discusses and promotes the direction of important risk management activities based on the conditions and trends both inside and outside the Company. We have also appointed risk officers and risk managers responsible for risk management in each business unit and at each regional headquarters and domestic and overseas Group company. In these ways, we are taking steps to strengthen measures to prevent damage to our businesses during normal times and measures to minimize damage during times of emergency.

In addition, we have created the Emergency First Response Manual in order to respond promptly and accurately in the event of a crisis. This manual clarifies such matters as the

criteria for determining the level of urgency for a crisis, reporting standards, reporting routes, and basic policy for internal and external responses. Furthermore, depending on the severity and level of urgency of the situation, we assemble special countermeasure organizations through which the functional departments lead the way with measures to enact an agile response geared toward minimizing damage.

### Ascertaining Risks and Clarifying Response

DENSO makes efforts to actively ascertain the risks it faces and manage these risks from the perspectives of damage mitigation and business continuity. Every year, risk assessment activities are carried out by each functional division, business unit, regional headquarters, and domestic and overseas Group company.

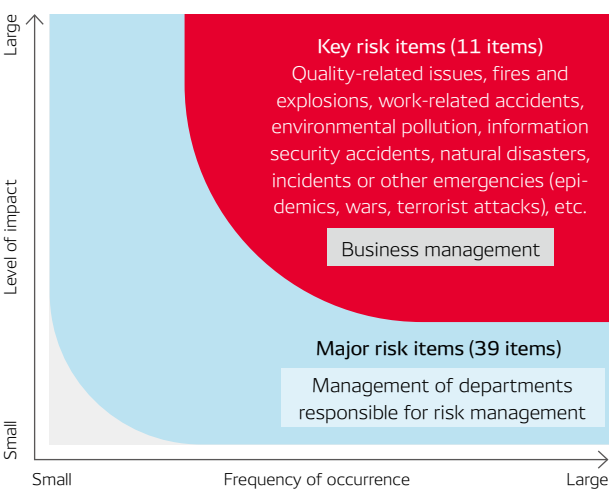
The Company has identified potential risks related to life, the environment, credit, property, and business activities based on the surrounding business environment and established major risk items from the perspectives of frequency of occurrence and level of impact. The Company designates responsible functional departments for each risk item and clarifies the reason for occurrence, preventive measures, initial response, and recovery efforts for these items, thereby working to enhance its risk resiliency.

In particular, DENSO is identifying risks toward which it invests resources to promote countermeasures as “key risk items.” The Company has also established activity plans and targets toward further enhancing its crisis management, and the progress made toward these plans and targets is reported to the Risk Management Meeting. At the same time, DENSO has established quantitative KPIs for Companywide targets pertaining to each risk item, and the status of risk management activities is also confirmed by the Board of Directors. Furthermore, DENSO implements inspections of this risk management process through internal audits and audits performed by external organizations.

Additionally, for fiscal 2024 the Company has determined 39 major risk items and, among these, 11 key risk items. DENSO revises these major risk and key risk items appropriately, giving consideration to the issues currently facing society as well as the frequency of risks occurring at DENSO and the level of impact they have on the Company. Assuming risks could well materialize, DENSO is strengthening its ability to address risks in order to minimize their impact on management by taking thorough measures to protect the systems, personnel, and governance fronts.

Factors	Risk Item
Internal factors (accidents and mistakes)	Environmental pollution, work-related accidents, fires and explosions, quality-related issues, information security-related accidents, personnel- and work-related incidents, traffic accidents, etc.
Internal factors (legal violations)	Violation of the Antimonopoly Act, tax evasion, inappropriate employee dispatch or use of contract work, violation of product laws and regulations, violation of anti-bribery laws, etc.
External factors (natural disasters)	Earthquakes, typhoons, concentrated heavy rains, lightning strikes, etc.
External factors (political and social)	Product liability litigation, fluctuating exchange rates, human rights-related issues, supplier-related issues, incidents or other emergencies (infectious diseases, wars, terrorist attacks, etc.)

Risk Map



### Examples of Response to Key Risks

#### Response to Quality-related risks

##### Realizing Quality That Meets Customer Expectations

In 2019, a quality-related issue occurred that was unprecedented in scale. In response to this, we have been working to rebuild our foundation for quality management to ensure that no such issue occurs again. We have also been making Companywide efforts to enhance our knowledge and awareness and reform our organizational culture to bolster our commitment to quality. As a result of these efforts, both quality defects detected when our products are in the hands of our customers and when our products have launched on the market have been on a downward trend, and we have also been receiving quality-related awards from customers. In fiscal 2024, we have established the basic policy of meeting customer expectations by anticipating changes and adopting an appropriate approach to our work. Guided by this policy, we are accelerating a broad range of efforts to respond to the quality-related issues we are currently facing. These efforts include ensuring the quality of software, which is rapidly being introduced at a greater scale, reducing design and manufacturing processes dependent on people through the introduction of AI and the promotion of automation, striving to realize carbon neutrality and a circular economy with a focus on the future, establishing fundamental quality-related technologies that support advanced driver assistance systems (ADAS), and establishing quality evaluation criteria. Through a bold, aggressive approach and high ethical awareness, we will strive to increase quality to greater levels than ever before and continue to meet the needs of our customers.

##### Adhering to Quality Compliance

DENSO has been making efforts to prevent the occurrence of a quality-related incident such as improper certification and inspection. In the design stage, rather than leaving the process for acquiring legal certification up to departments responsible for design, we implement independent checks by departments responsible for Companywide verification and outsource certification-related testing to an external third-party certification organization. In this way, we ensure high levels of reliability and transparency in the certification process. In our manufacturing divisions, during the final process for delivering products to customers, we carry out a functional inspection of quality via employees on the production front lines. We also have a department specializing in quality evaluation take samples of products to double-check their quality.

Furthermore, in our original “initial flow management” process, which covers everything from development through to mass

production, personnel responsible for decision-making for each distinct phase of the process ensure that we do not move into the next phase of the process if the decision or assumption made is limited to one particular person. Moreover, in accordance with our Total Quality Management principle, which serves as a universal value system for all DENSO Group employees, we ask that all employees adopt a customer-first approach and participate in bold reforms and continuous improvement activities in our frontline operations. By doing so, we are striving to establish a sound workplace that facilitates good communication.

#### Adhering to Open, Fair, and Transparent Transactions

##### Preventing the Abuse of a Superior Bargaining Position Based on the Antimonopoly Act

In December 2022, the Japan Fair Trade Commission (JFTC) announced that DENSO was a company engaging in behavior that falls under the category of “leaving transaction prices unchanged without explicitly discussing the need of suppliers to reflect increases in labor, raw material, energy, and other costs in their transaction prices at the price negotiation stage,”\* based on the JFTC’s Emergency Survey relating to the Abuse of a Superior Bargaining Position Based on the Antimonopoly Act.

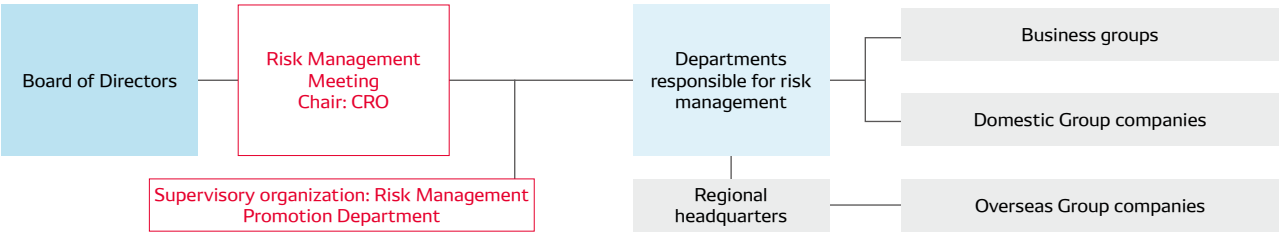
Although we have continued to engage in close communication with our suppliers, we will further enhance this communication going forward so that we can explicitly discuss the need of suppliers to reflect increases in labor, raw material, energy, and other costs in their transaction prices at the price negotiation stage. At the same time, we will rigorously adhere to laws and regulations as we seek to ensure the sustainable development of both the Company and our suppliers based on mutual trust.

\* This announcement does not mean that the Company was in violation of the Antimonopoly Act nor the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors.

##### Promoting Communication with Suppliers

To ensure the mutual growth of DENSO and its suppliers, we create opportunities for dialogue and hold the Supplier Appreciation Meeting and other events, thereby working to facilitate mutual communication. At such events, we receive new technological proposals from suppliers and listen to their concerns and requests, while communicating information on such matters as our procurement policies, carbon neutrality-related efforts, and business trends. By doing

### Risk Management Structure



so, we aim to achieve future growth together with our suppliers.

For DENSO, suppliers are a partner with whom we strive to achieve growth and foster trust through open dialogue and ongoing communication. In addition to spreading knowledge on and rigorously enforcing appropriate transactions both internally and externally, we are working to create environments that make it easy for suppliers to voice their concerns with us and are making efforts to alleviate said concerns.



**Adhering to Laws and Regulations and Implementing Open, Fair, and Transparent Transactions**

At DENSO, our procurement divisions distribute the Code of Conduct for DENSO Group Associates, which clearly indicates the standards of conduct for each and every employee, to all members of the Group in order to entrench the principle of open, fair, and transparent transactions. At the same time, we distribute the Business Etiquette for Buyers, which lays out standards of behavior that should be adhered to within procurement activities, to all employees involved in procurement, thereby working to further increase awareness.

Moreover, we encourage suppliers to utilize our Internal Reporting System. We also ensure strict compliance in a variety of ways, including distributing the DENSO Compliance Declaration, which clarifies items to be observed in conducting business, to suppliers and procurement departments.

Looking ahead, we will seek to strengthen our partnerships with suppliers so that we can procure components, materials, equipment and services that excel in terms of quality, technology, cost, delivery, environmental and safety performance, and compliance. By doing so, we aim to continue to offer products and services that satisfy our customers while also realizing mutual growth with our suppliers. To that end, we will step up our efforts to establish a positive economic cycle that encompasses all stakeholders, from customers to suppliers.

**Response to Information Security**

**Addressing Increasingly Sophisticated Cyberattacks and Preparing for Digitalization**

At DENSO, Group companies in North America and Europe confirmed that they were subject to cyberattacks which gained illicit access to their IT systems in fiscal 2022. Determined to prevent such incidents from ever occurring again, we are sparing no effort to prevent a recurrence by 1) re-training and drilling each and every employee about basic operations in order to change their awareness of cybersecurity; 2) strengthening global systems for detecting threats and monitoring systems by deploying the latest technologies, including AI; and 3) bolstering security and steadily implementing routine inspections of key servers and equipment, making full use of IT technologies such as hacking detection tools.

Along with advances in self-driving cars and IoT, addressing cyber risks in cars and production facilities has become an extremely important issue. To that extent, we are developing technologies that protect in-vehicle products, such as advanced driver support and automated driving systems, from cyberattacks to ensure that people can drive cars safely and with peace of mind. We are also establishing a unique framework for ensuring that such technologies are steadily installed in vehicles. Furthermore, we are reinforcing security measures toward plant networks, production lines, and other facilities.

Additionally, we are advancing digitalization throughout the Company, and this will increase the quality and speed of work by allowing information to be delivered to and utilized by employees the instant they need it. To ensure we do not infringe upon the rights and interests of the information provider, we are working to forecast risks from a broad range of perspectives, including contract conditions and adherence to laws and regulations, formulate relevant rules, and establish a structure to appropriately manage and operate these assets.

**Response to Tight Supply–Demand Conditions for Semiconductors**

**Promoting Initiatives to Ensure a Stable Supply That Underpins Automobile Production**

Semiconductors are used in a broad range of products, and given their importance, the procurement of semiconductors is crucial to the stable production of automobiles. The tight supply–demand situation for semiconductors continues across the globe. In light of this, the automobile industry has been significantly impacted by the stagnation in semiconductor supply. Guided by our mission of delivering outstanding products and services to customers under any circumstances, we are moving forward with various efforts to secure a stable supply of semiconductors.

As part of these efforts, we are working to strengthen trust-based relationships and collaboration with suppliers so that we can build a stable supply foundation. As we formulate medium- to long-term production plans in an environment where market trends are changing significantly, we are actively communicating information to suppliers on such matters as future product and technology trends and production plans. We are also entering into medium- to long-term semiconductor procurement contracts and placing semiconductor orders on an annual basis. In these ways, we are striving to build a foundation for the steady supply of components.

**Collaborating with Our Suppliers to Prevent Supply Risks**

Since fiscal 2022, we have been rolling out fire prevention and inspection activities to prevent fires at the factories of our suppliers. We have also been engaging in information security inspection activities to ensure that a cyberattack does not lead to production disruptions or confidential information leaks. We visit the factories of our suppliers in person to work together with them to improve their fire prevention and information security structures. By doing so, we are promoting risk-prevention activities across the entire supply chain.

As part of our efforts to anticipate the occurrence of risks such as natural disasters, we are working to promote standardization of components, enhance alternative production methods, and secure risk inventories. To ensure our ability to promote backup production across the entire supply chain in the event a risk occurs, we are striving to standardize components throughout the supply chain and secure alternative production methods such as setting up production at multiple plants. In addition to revising design plans to make it easier for suppliers to produce components, we will prepare production lines at numerous plants, working in close collaboration with our suppliers.

In our initiatives toward risk inventories, since the Great East Japan Earthquake, we have been maintaining risk inventories at a certain level for each component to prepare for the risk of an earthquake or other natural disaster. In the event that our suppliers are hit by a natural disaster, we make sure to have a certain risk inventory level on hand until production resumes, thereby putting in place a structure for the continuous supply of components to customers.

With the progression of CASE, DENSO's need for semiconductors continues to rise. In response to this, we will continue to pursue and strengthen efforts to establish a foundation for the stable supply of semiconductors across the supply chain.

**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 at workplace conferences, we utilize the Code of Conduct for raising employees' awareness of compliance, 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**

In 1997, DENSO created the Business Ethics and Compliance Committee chaired by a member of the Board to provide oversight in that area (currently the Risk Management Meeting). We have also installed committee structures, such as the Compliance Committee, and appointed compliance promotion officers, and have positioned such compliance leaders at the regional headquarters of each region of our collective global base. In doing so, we are building global systems that promote compliance, while at the same time promoting the development of organizational structures that take differing regional characteristics into consideration, introducing and operating reporting systems, and pursuing enlightenment activities.

**Specific Initiatives**

**Educational and Enlightenment Activities**

DENSO undertakes various educational and enlightenment activities for employees on an ongoing basis with the aim of enhancing their overall awareness of compliance matters.

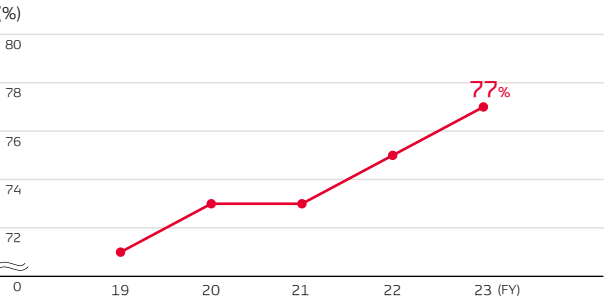
In Japan, we carry out educational and enlightenment activities related to compliance, including position-based training, various compliance training, and the "Business Ethics Month" (every October). We also roll out similar activities for employees in each region of operations, centered on our regional headquarters.

**Inspection and Improvement of Activities**

DENSO 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 senior management when necessary, and steps are taken to prevent a recurrence of the issue. For example, DENSO CORPORATION holds a sustainability survey every year in order to gain an understanding on the extent to which compliance-related measures have taken hold and on potential compliance risks.

**Sustainability Survey (DENSO CORPORATION)**

Question: Do you put into action the Code of Conduct for DENSO Group Associates? (Percentage of employees who answered "Yes")



**Response to Antitrust Laws**

In February 2010, the U.S.-based subsidiary DENSO International America was investigated by the U.S. Department of Justice. Since then, we have established the Antitrust Laws Compliance Committee to further reinforce our efforts to adhere to antitrust laws. Under the guidance and supervision of this committee, which is chaired by the chief compliance officer (CCO), we have endeavored to reinstitute strict compliance with the antitrust laws across the entire DENSO Group. These efforts have included further reinforcing adherence to regulations laid out under antitrust laws, strengthening education about relevant rules, and conducting more precise audits regarding legal compliance.

Moving forward, we will seek to prevent the recurrence of such an incident while working to regain trust by further strengthening our structure for complying with antitrust laws.

**Preventing Corruption**

Corruption is not only a hindrance to legitimate business activities but also a source of concern due to its connection with the funding of antisocial forces such as terrorist and criminal organizations. As a result, many countries around the world are strengthening their regulations against acts of corruption, including the United Kingdom's Bribery Act (UKBA) and the United States' Foreign Corrupt Practices Act (FCPA).



Facts & Figures

Financial Highlights

In accordance with the DENSO Group Sustainability Policy, DENSO is committed to conducting sound and fair business activities with high ethical standards. DENSO rigorously practices compliance with anti-corruption laws and regulations in all regions and countries in which it conducts business activities to ensure that it does not provide benefits or advantages through illegal or improper means such as bribery or illegal political contributions/donations; through threats, extortion, or embezzlement; or by engaging in money laundering, illegal international money transfers, or the funding of antisocial forces. The main examples of these kinds of efforts are as follows.

1. Response to Laws Pertaining to Bribery Prevention

In order to respond promptly to rapid changes in its businesses and in the environment, DENSO has established the Anti-Bribery Compliance Committee, which is chaired by the CCO. The Company is promoting anti-bribery compliance activities under the direction and supervision of the committee, in anticipation of an increase in opportunities to collaborate with public authorities and officials in various countries and regions.

The Company has established the Global Anti-Bribery Policy as its basic policy for preventing bribery. Under this policy, DENSO has introduced internal regulations on a global basis, operates anti-bribery systems, and promotes anti-bribery awareness activities and education for employees.

We also inform suppliers of our Supplier Sustainability Guidelines, which include anti-bribery measures, and encourage them to conduct self-inspections to prevent any and all acts of bribery.

2. Preventing Insider Trading

To ensure fairness and soundness in the securities market and to secure the confidence of shareholders and investors, DENSO has established the Internal Information Committee, which is chaired by the executive vice president, and the Internal Information Review Committee, which manages the practical affairs of the former committee, both dedicated bodies to ensure the prevention of insider trading.

Additionally, in an effort to instill an awareness of insider trading prevention among its employees, the Company has established internal rules and bylaws regarding internal information management, has set standards of conduct for officers and employees regarding trading of the Company's shares and other securities, and clearly prohibits insider trading, as formally stated in its employee conduct guidelines. The Company also implements compliance training on a regular basis.

3. Promoting Proper Accounting and Record Keeping

DENSO has established and maintains Company rules and procedures for the handling of expenses, inventory, and other matters, and ensures that all employees are aware of said rules and procedures by sharing relevant information via the Company intranet and providing accounting compliance education along with other measures. The aim of such measures is to ensure that transactions that could lead to accounting irregularities, such as off-balance-sheet transactions, fictitious transactions or other unsound transactions, or transactions that could be mistaken as such, are not conducted, and that proper accounting procedures are performed in accordance with International Financial Reporting Standards and the laws and accounting standards of each country in which the Company operates.

Moreover, the Company creates and maintains accounting records, such as forms and account ledgers, that, in reasonable detail, accurately and fairly reflect all transactions and dispositions of assets.

Response to Tax Compliance


DENSO believes that paying its fair share of taxes is a part of being socially responsible. The CFO and Member of the Board has been designated as the person in charge of tax governance. The Company has built, maintains, and improves a tax compliance structure, and engages in tax planning while addressing tax-related risks when they materialize.

In addition, DENSO has established the DENSO Group Global Tax Policy. We believe that properly paying taxes in accordance with the rules and regulations in each country is one of the most fundamental and important responsibilities of a corporation. Accordingly, under this policy, we engage in activities to enhance tax compliance on a Groupwide basis, such as providing training for employees, abiding by rules for cross-border transactions, promoting appropriate accounting processes, and creating and maintaining accounting records such as forms and account ledgers.


Fiscal 2023 Taxes by Region


Region	Tax Amount
Japan	55.29
North America	3.11
Europe	3.08
Asia/Oceania	39.35
Other regions	5.99
Total	106.83

Moving forward, we will continue to expand and enhance frameworks for raising employee awareness of compliance. At the same time, we will revamp and improve training programs through Groupwide collaboration with a view toward bolstering the compliance structure of the entire DENSO Group.




Please see the "Sustainability Information" section of our corporate website for more information.  
Compliance:  
<https://www.denso.com/global/en/about-us/sustainability/governance/compliance/>

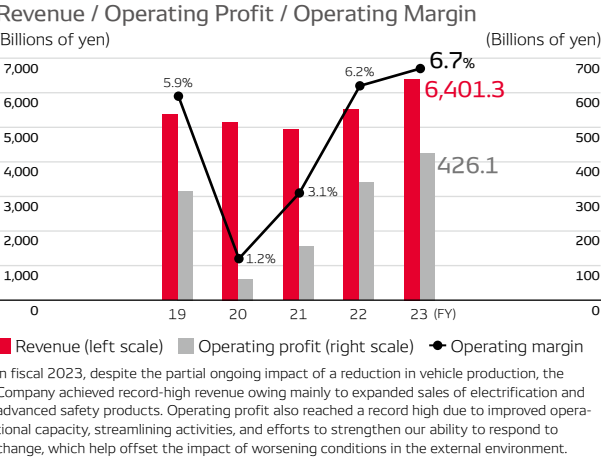




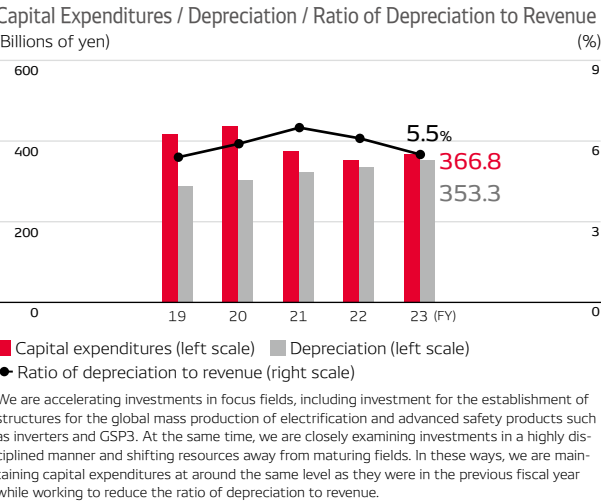
Please see the "Tax Governance" section of our corporate website for information on tax compliance.  
<https://www.denso.com/global/en/about-us/sustainability/governance/tax-policy>



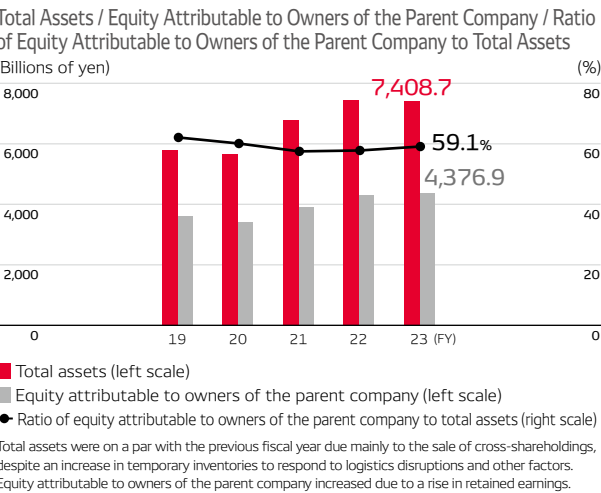
Profitability and Growth Potential



Future Investments



Financial Security and Leverage

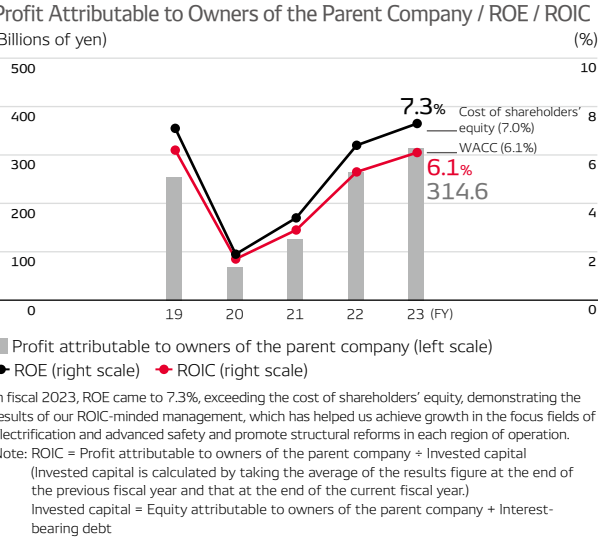




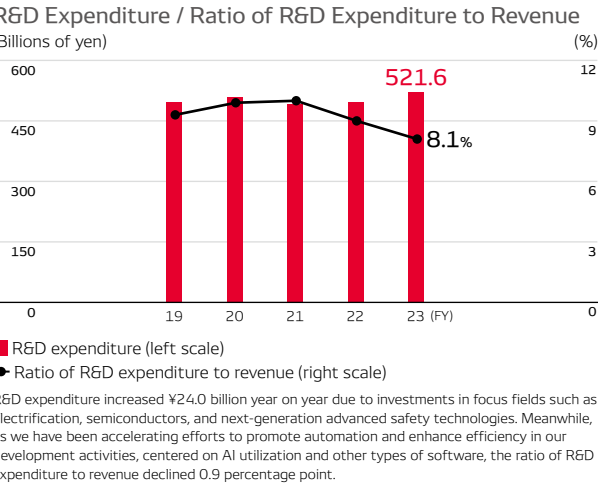
Please see the following URL for more financial information.  
<https://www.denso.com/global/en/-/media/global/about-us/investors/settlement/2023/financial-report2023.pdf>



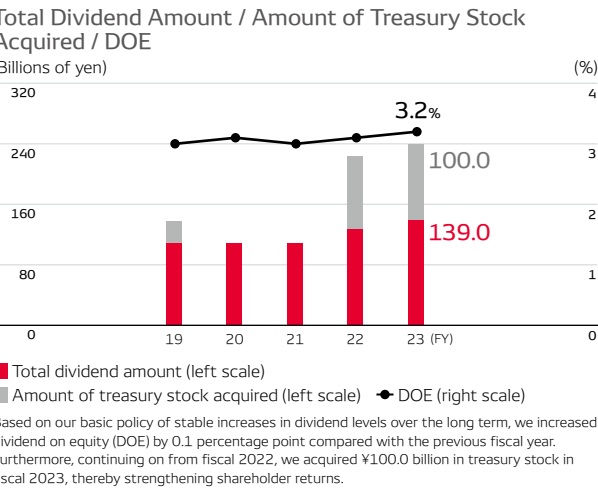
Profitability



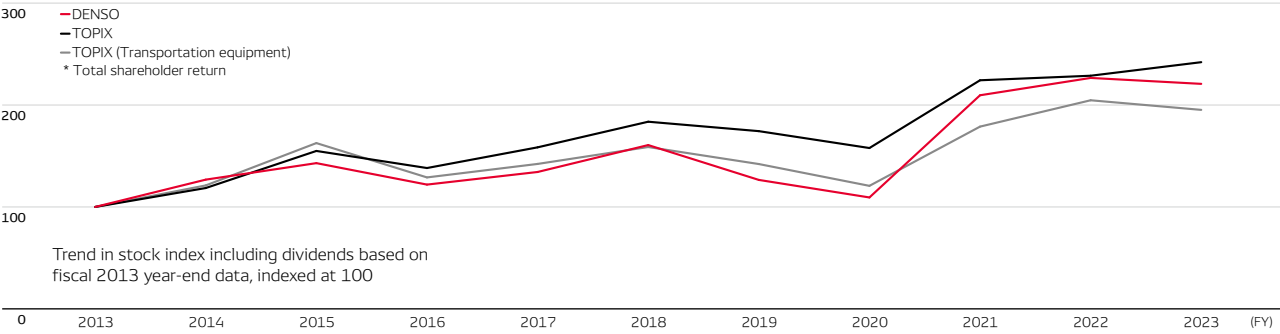
Future Investments



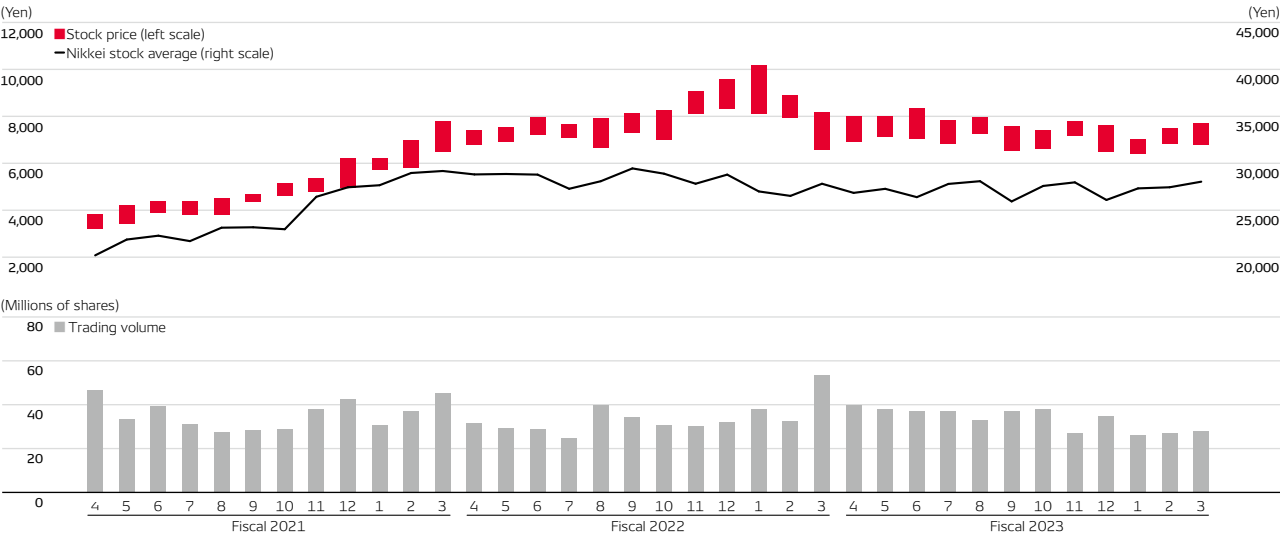
Shareholder Returns



Trend in TSR\*

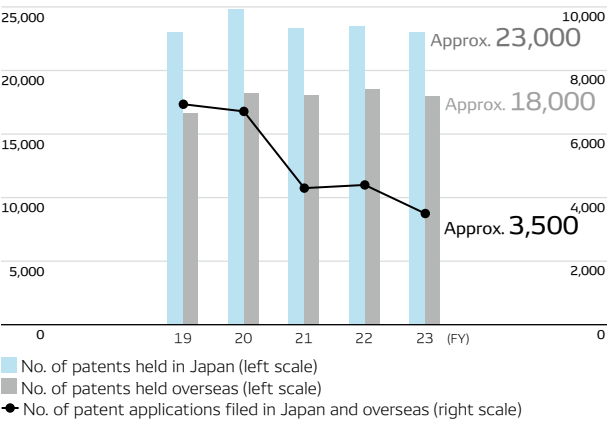


Stock Price Range and Trading Volume (Tokyo Stock Exchange)



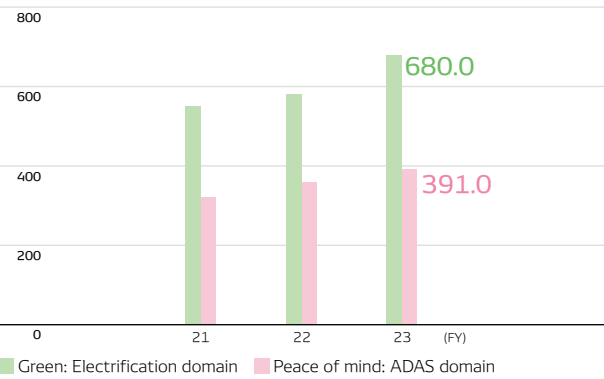
Non-Financial Highlights

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



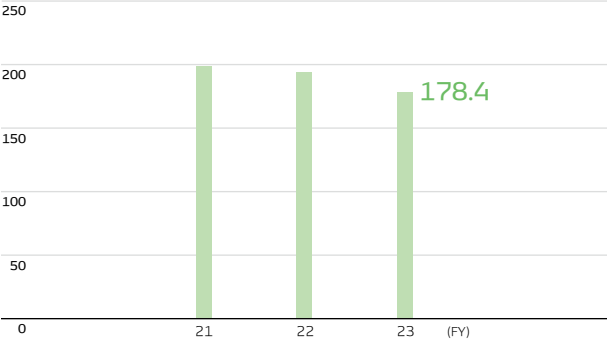
Intellectual properties (IP) provide the source of the Company's competitiveness. To that end, the Company seeks to create, acquire, and effectively utilize IP through proactive research and development activities. The number of new patent registrations in the automotive industry in fiscal 2023 was three in Japan and eight in the United States.  
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 applications and divisional applications. The number of patent applications filed overseas includes continuing and divisional applications.

Promotion of Products Offering Green and Peace of Mind (Revenue)



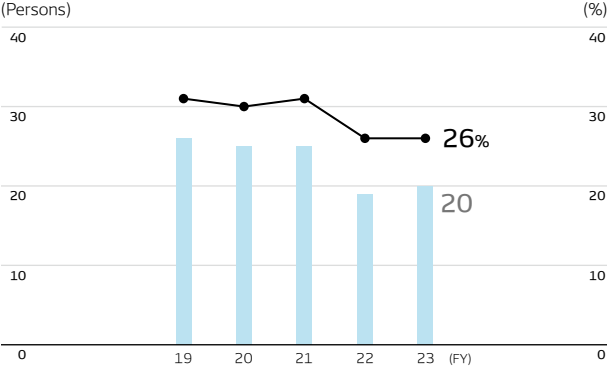
Despite the impact of reduced vehicle production due to semiconductor shortages and the lockdown in China, revenue increased year on year in terms of products in both the green and peace of mind domains due to expanded sales of products for EVs, such as inverters, and an increased installation rate of advanced safety-related products, including Global Safety Package 3. Going forward, the Company will continue to introduce and expand sales of new technologies with the aim of realizing revenue of ¥1 trillion and ¥500 billion in the electrification and ADAS domains, respectively, by fiscal 2026.  
Note: Data collection commenced in fiscal 2021.

CO<sub>2</sub> Emissions (Global, Scope 1 and Scope 2 Emissions)



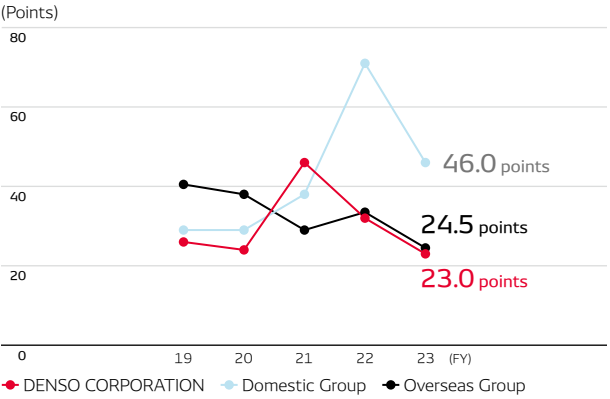
In fiscal 2023, we promoted energy-saving activities, introduced self-powered renewable electricity, and expanded external procurement. In these ways, we have been gradually reducing our CO<sub>2</sub> emissions.  
Notes: 1. DENSO revised its calculation methods for CO<sub>2</sub> emissions in fiscal 2021. Accordingly, this graph shows emissions from fiscal 2021 onward.  
2. Covers the DENSO Group (DENSO CORPORATION + consolidated subsidiaries)  
3. Does not include portions of emissions offset by the use of carbon credits

Number and Ratio of Local Employees Recruited for Leadership Roles at Overseas Bases



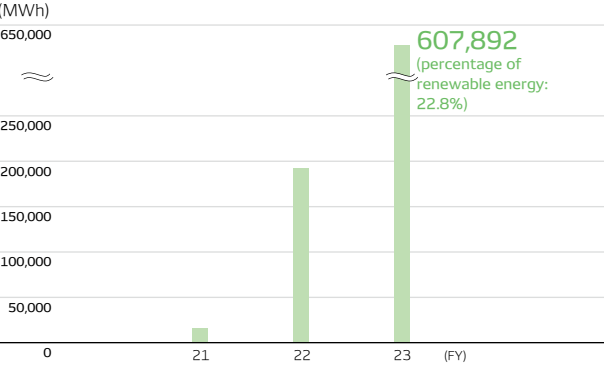
We are undertaking efforts on a global basis to realize an environment and organizational culture that comprises a diverse group of professionals. As part of these efforts, we are working to strengthen our overseas talent through such means as holding global study sessions, assigning overseas employees to important projects, providing ongoing support at meetings concerning human resource development, and establishing an expert talent manager position. Through these initiatives, we aim to increase the ratio of local employees in leadership roles to 50% by fiscal 2031.

Safety Points\*



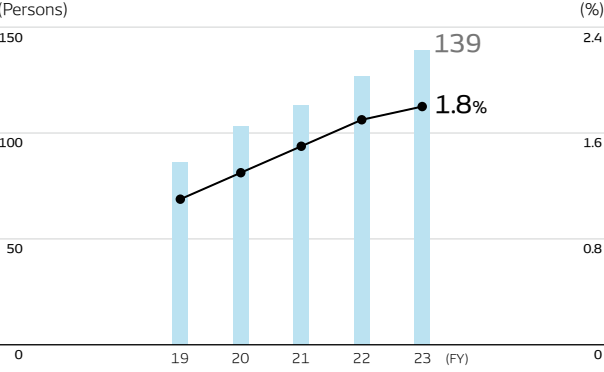
\* Safety mark: Scoring depending on scale and type of accident. The lower the number the better the score  
Score improved year on year as a result of safety activities in which all employees participated. These included safety communication tours by divisional managers, strengthening of measures to prevent accidents that happen when employees try to handle malfunctioning equipment on their own, and inspections to prevent fire and explosions focused on high-risk facilities.  
Note: Scope of calculation for domestic and overseas Group companies was expanded in fiscal 2022.

Amount of Renewable Energy Introduced (Global)



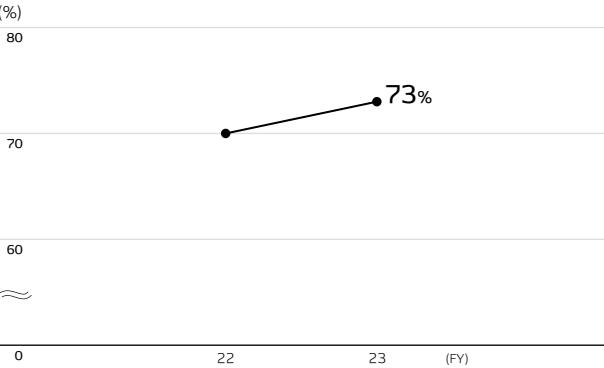
In fiscal 2023, we achieved a 100% transition to renewable energy at four bases in Japan and at all of our bases in Europe, bringing our Groupwide renewable energy introduction rate to 22.8%. Looking ahead, we will systematically increase this rate with a view toward completing the introduction of renewable energy at all locations worldwide in fiscal 2026.

Number and Ratio of Female Employees in Management Positions (Non-Consolidated, Business Fields)



For promoting the active role of female employees, we have established KPIs for each phase of a woman's career, including joining a company, encountering major life events, and being promoted. Recently, we adopted targets to increase the number of women working in not only business and technical fields but production fields as well. Guided by these targets, we have been promoting such efforts as roundtable discussions with female employees who serve as role models for other women and diversity training for the supervisors of female employees.  
Note: Includes employees seconded from DENSO to other companies but not employees who have been seconded from other companies to DENSO

Ratio of Positive Responses in Employee Engagement Survey (Non-Consolidated)



Ratio of employees who responded positively to survey questions regarding topics such as job fulfillment and motivation (engagement toward work) and attachment to the Company and organization (engagement toward the organization)  
In fiscal 2023, we sought to improve employee engagement by revamping our career design dialogues with employees regarding their individual careers. Moving forward, we will carry out a broad range of measures with the aim of improving engagement even further. These include self-reliance support initiatives to boost engagement toward work (career training, consultation office, internal recruiting programs, and external training, etc.) and analysis of employee engagement surveys by workplace and the implementation of workshops in order to enhance engagement toward the organization.  
Note: Assessments started in fiscal 2022.



10-Year Data

			Billions of yen									
			IFRS			IFRS			IFRS			
(FY)			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Financial Data	Revenue	Total	4,095.0	4,309.8	4,524.5	4,527.1	5,108.3	5,362.8	5,153.5	4,936.7	5,515.5	6,401.3
	By Region*1	Japan	1,895.5	1,838.4	1,801.5	1,871.8	2,140.7	2,284.2	2,313.0	2,280.7	2,375.7	2,509.6
		North America	799.4	942.3	1,081.1	1,050.5	1,122.8	1,182.0	1,145.2	999.9	1,143.9	1,486.7
		Europe	470.5	524.8	568.2	550.2	620.2	609.4	548.3	482.3	506.2	624.3
		Asia	855.4	930.8	1,014.7	989.5	1,146.0	1,215.1	1,086.9	1,134.1	1,414.3	1,680.9
		Others	74.1	73.5	59.0	65.1	78.5	72.0	60.0	39.8	75.4	99.8
	By Customer	Car manufacturers	3,639.5	3,830.7	4,048.2	4,061.8	4,521.4	4,762.3	4,558.7	4,347.0	4,875.1	5,681.0
		Toyota Group	1,995.8	2,007.1	2,047.5	2,075.0	2,300.6	2,484.7	2,456.9	2,499.1	2,837.6	3,224.2
		Ratio of revenue from Toyota Group transactions to total revenue	48.7%	46.6%	45.3%	45.8%	45.0%	46.3%	47.7%	50.6%	51.4%	50.4%
		Aftermarket and non-automotive	455.5	479.1	476.3	465.3	586.9	600.5	594.8	589.7	640.4	720.3
	Operating Profit		371.4	331.4	315.7	330.6	412.7	316.2	61.1	155.1	341.2	426.1
	Operating Margin		9.1%	7.7%	7.0%	7.3%	8.1%	5.9%	1.2%	3.1%	6.2%	6.7%
	Profit Attributable to Owners of the Parent Company		277.2	258.4	244.3	257.6	320.6	254.5	68.1	125.1	263.9	314.6
	Return on Equity (ROE)		11.5%	8.4%	7.6%	8.0%	9.3%	7.1%	1.9%	3.4%	6.4%	7.3%
	Capital Expenditures		324.1	354.2	334.1	337.4	347.2	416.8	436.5	374.3	353.9	366.8
	Depreciation		197.2	220.1	236.8	241.1	268.6	287.3	302.1	323.0	335.4	353.3
	Ratio of Depreciation to Revenue		4.8%	5.1%	5.2%	5.3%	5.3%	5.4%	5.9%	6.5%	6.1%	5.5%
	R&D Expenditure		368.7	396.4	399.3	409.2	447.4	497.4	507.8	492.0	497.6	521.6
	Ratio of R&D Expenditure to Revenue		9.0%	9.2%	8.8%	9.0%	8.8%	9.3%	9.9%	10.0%	9.0%	8.1%
	Total Dividend Amount		83.7	87.7	95.3	94.6	101.4	108.9	108.5	108.5	126.5	139.0
	Amount of Treasury Stock Acquired		—	—	27.7	30.0	26.5	28.4	0	0	97.5	100.0
	Earnings per Share (EPS) (yen)		348.05	324.01	307.19	326.32	410.45	326.47	87.89	161.39	342.77	416.01
	DOE		3.4%	3.0%	3.0%	2.9%	2.9%	3.0%	3.1%	3.0%	3.1%	3.2%
	Cash Dividends per Share (yen)		105	110	120	120	130	140	140	140	165	185
	Dividend Payout Ratio		30.2%	34.0%	39.1%	36.8%	31.7%	42.9%	159.3%	86.7%	48.1%	44.5%
	Total Return Ratio		30.2%	34.0%	50.4%	48.4%	39.9%	54.0%	159.3%	86.7%	84.9%	76.0%
	Stock Price (yen)		4,948	5,483	4,524	4,897	5,820	4,317	3,491	7,347	7,860	7,443
Dividend Yield		2.1%	2.0%	2.7%	2.5%	2.2%	3.2%	4.0%	1.9%	2.1%	2.5%	
Price Earnings Ratio (PER) (times)		14.2	16.9	14.7	15.0	14.2	13.2	39.7	45.5	22.9	17.9	
Price Book-Value Ratio (PBR) (times)*2		1.5	1.3	1.4	1.1	1.3	1.1	1.0	1.1	1.5	1.3	
Net Cash Provided by Operating Activities (A)		471.2	383.2	552.9	467.8	558.0	533.5	595.3	437.2	395.6	602.7	
Net Cash Used in Investing Activities (B)		(376.0)	(111.5)	(544.8)	(108.0)	(529.1)	(514.7)	(447.4)	(395.9)	(301.6)	(363.7)	
Free Cash Flow (A+B)		95.2	271.7	8.0	359.7	28.9	18.8	147.9	41.3	94.1	239.0	
Net Cash Provided by (Used in) Financing Activities		(176.0)	(135.7)	(104.7)	(240.5)	(40.3)	(92.2)	(240.9)	238.7	(159.5)	(400.1)	
Cash and Cash Equivalents at End of Year		641.7	792.4	672.5	793.6	783.3	711.6	597.8	897.4	867.8	733.9	
Cash on Hand		1,034.1	944.0	876.7	858.4	918.3	880.8	711.6	911.7	876.1	757.6	
Interest-Bearing Debt		435.7	447.2	476.6	350.3	473.9	550.2	465.4	854.2	991.4	889.3	
Equity Attributable to Owners of the Parent Company		2,799.9	3,327.9	3,123.6	3,312.7	3,598.3	3,595.7	3,397.1	3,891.0	4,299.4	4,376.9	
Total Assets		4,642.1	5,283.3	5,042.9	5,150.8	5,764.4	5,792.4	5,651.8	6,767.7	7,432.3	7,408.7	
Ratio of Equity Attributable to Owners of the Parent Company to Total Assets		60.3%	63.0%	61.9%	64.3%	62.4%	62.1%	60.1%	57.5%	57.8%	59.1%	
Non-Financial Data	Number of Employees		139,842	146,714	151,775	154,493	168,813	171,992	170,932	168,391	167,950	164,572
	Local		74,289	81,060	85,464	86,892	94,209	95,222	93,343	89,124	88,345	85,268
	Non-Consolidated		38,581	38,493	38,489	38,914	39,315	45,304	45,280	46,272	45,152	44,758
	Ratio of Female Employees (Non-Consolidated)		11.6%	11.9%	12.3%	12.7%	13.1%	13.9%	14.2%	14.6%	15.1%	15.5%
	Number of Female Employees in Management Positions (Non-Consolidated, Business Fields)		33	40	46	53	61	86	103	113	127	139
	Ratio of Female Employees in Management Positions (Non-Consolidated, Business Fields)		0.5%	0.6%	0.7%	0.8%	0.9%	1.1%	1.3%	1.5%	1.7%	1.8%
	Number of Local Employees Recruited for Leadership Roles at Overseas Bases		22	24	25	25	26	26	25	25	19	20
	Ratio of Local Employees Recruited for Leadership Roles at Overseas Bases		31%	33%	34%	32%	28%	31%	30%	31%	26%	26%
	CO <sub>2</sub> Emissions (Global / Scope 1 and Scope 2) (10,000 t-CO <sub>2</sub> e)*3		158.2	166.0	159.1	164.5	173.1	190.7	188.4	199.1	193.8	178.4
	Amount of Renewable Energy Introduced (Global) (MWh)		—	—	—	—	—	—	—	16,258	192,167	607,892
Exchange Rate (during FY)	USD (yen)		100	110	120	108	111	111	109	106	112	136
	EUR (yen)		134	139	133	119	130	128	121	124	131	141
	Chinese yuan (yen)		16	18	19	16	17	17	16	16	18	20

\*1 The countries and regions included in "by region" have changed as follows. Fiscal 2014–fiscal 2015: Japan, North America, Europe, Australia, and Others; fiscal 2016 onward: Japan, North America, Europe, Asia, and Others

\*2 PBR is calculated using the following methods:

Fiscal 2014: Year-end share price ÷ Net assets per share

Fiscal 2015 onward: Average share price during term ÷ Equity attributable to owners of the parent company per share

\*3 CO<sub>2</sub> emissions from fiscal 2021 onward have been calculated based on the Basic Guidelines on Accounting for Total Greenhouse Gas Emissions.

## Company Overview and Stock Information

(As of March 31, 2023)

### Company Profile

Company Name	DENSO CORPORATION
Established	December 16, 1949
Capital	¥187.5 billion
Head Office	1-1, Showa-cho, Kariya, Aichi 448-8661, Japan
Employees	Consolidated basis: 164,572 Non-consolidated basis: 44,758
Consolidated Subsidiaries	190 (Japan 59, North America 20, Europe 27, Asia 77, Others 7)
Companies Accounted for by the Equity Method	83 (Japan 22, North America 11, Europe 18, Asia 28, Others 4)
Fiscal Year	From April 1 to March 31
Ordinary General Meeting of Shareholders	June
Share Trading Unit	100 shares
Number of Shares Issued	748,855,973 shares (excluding DENSO CORPORATION owning 39,088,978 shares of treasury stock)
Number of Shareholders	86,182 (including DENSO CORPORATION owning treasury stock)
Securities Identification Code	6902
Stock Exchange Listings	Tokyo, Nagoya

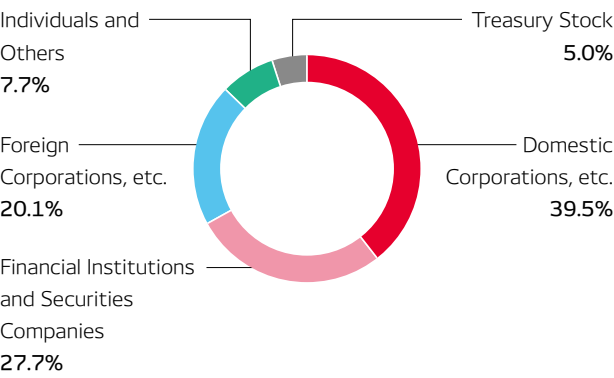
### Principal Shareholders (Top 10 Principal Shareholders)

Name of shareholder	Number of shares held (thousands)	Voting share (%)
Toyota Motor Corporation	180,949	24.16
The Master Trust Bank of Japan, Ltd. (Trust account)	88,112	11.76
Toyota Industries Corporation	69,373	9.26
Custody Bank of Japan, Ltd. (Trust account)	36,387	4.85
TOYOTA FUDOSAN CO., LTD.	33,309	4.44
Nippon Life Insurance Company (Standing proxy: The Master Trust Bank of Japan, Ltd.)	21,664	2.89
DENSO Employees' Shareholding Association	13,011	1.73
aisin CORPORATION	12,544	1.67
SSBTC CLIENT OMNIBUS ACCOUNT (Standing proxy: Tokyo Branch, The Hongkong and Shanghai Banking Corporation Limited)	8,077	1.07
STATE STREET BANK WEST CLIENT – TREATY 505234 (Standing proxy: Settlement & Clearing Services Department, Mizuho Bank, Ltd.)	7,391	0.98

Notes:

- The Company holds treasury stock of 39,089 thousand shares but is excluded from the list of major shareholders above.
- "Voting share" is calculated after excluding 39,089 thousand shares of treasury stock.
- "Investment in the Company" by Toyota Industries Corporation is stated after excluding the Company's 6,798 thousand shares (ratio of voting rights: 0.90%), which are contributed as a trust asset for employees' retirement benefits by Toyota Industries Corporation. (These shares are registered in the name of "Custody Bank of Japan, Ltd. [Trust Account of Toyota Industries Corporation Employees' Retirement Benefits for the Re-trust by Sumitomo Mitsui Trust Bank, Limited]," and Toyota Industries Corporation reserves the right of instruction in exercising the shares' voting rights.)

### Breakdown of Shareholders



### ESG-related External Evaluation

DENSO has received a high external evaluation in terms of its ESG initiatives, including being consistently selected for inclusion in indices in Japan and overseas. In recognition of its IR activities and stance on information disclosure, the Company received the 2022 Award for Excellence in Corporate Disclosure in the Automobiles/Parts/Tires division.

*DENSO Integrated Report 2022* received the Silver Award of the WICI Japan Integrated Report Award 2022, hosted by WICI (World Intellectual Capital/Assets Initiative) Japan, for the second consecutive year. In addition, *DENSO Integrated Report 2022* received the "Excellence Award" at the NIKKEI Integrated Report Award 2022 and was included in the "Most-Improved Reports" category by the Government Pension Investment Fund (GPIF)'s asset managers entrusted with domestic equity investment.



Notes: 1. FTSE Russell (the trading name of International Limited and Frank Company) confirms that DENSO CORPORATION has been independently assessed according to the FTSE4Good criteria and has satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE4Good Index Series is used by a wide variety of market participants to create and assess responsible investment funds and other products.

2. FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that DENSO CORPORATION has been independently assessed according to the FTSE Blossom Japan Sector Relative Index criteria and has satisfied the requirements to become a constituent of this index. Created by the global index provider FTSE Russell, the FTSE Blossom Japan Index Series is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE Blossom Japan Index Series is used by a wide variety of market participants to create and assess responsible investment funds and other products.

3. Evaluations listed are those received as of September 30, 2023.



**Message from the Integrated Report Production Team**

Thank you for reading *DENSO Integrated Report 2023*. We hope that this report has helped you deepen your understanding of the value creation process that DENSO has adopted, centered on maximizing the value of "green" and "peace of mind."

Going forward, to ensure we can create corporate value together with our stakeholders, we will continue to engage in dialogue with all those who make use of this report and promote efforts to foster an internal awareness of corporate value enhancement.

### TCFD Index



DENSO has pledged its support for the Task Force on Climate-related Financial Disclosures (TCFD). For *DENSO Integrated Report 2023*, we referenced the climate-related disclosure items recommended by the TCFD. The table below shows the correspondence between the TCFD recommended disclosure items within this report and the ones on our corporate website. Furthermore, this integrated report includes sections that disclose opportunities and risks based on scenario analysis and summarize DENSO's initiatives in accordance with the TCFD recommendations. Please see pages 90 to 93 for details.

	DENSO Integrated Report 2023	DENSO's Corporate Website
Governance	a) Describe the Board's oversight of climate-related risks and opportunities P91: Efforts to Maximize the Value of "Green">Governance P99: Corporate Governance>Corporate Governance System	Who we are>Sustainability>Sustainability Management>Promotion Structure: <a href="https://www.denso.com/global/en/about-us/sustainability/management/#c">https://www.denso.com/global/en/about-us/sustainability/management/#c</a> Who we are>Sustainability>Commitment to the Environment>EcoVision>Environmental Management (Eco-Management)>Promotion Structure: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/">https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/</a> Who we are>Sustainability>Governance>Corporate Governance>Corporate Governance System and Principal Organizations: <a href="https://www.denso.com/global/en/about-us/sustainability/governance/management/">https://www.denso.com/global/en/about-us/sustainability/governance/management/</a>
	b) Describe management's role in assessing and managing climate-related risks and opportunities P91: Efforts to Maximize the Value of "Green">Governance P99: Corporate Governance>Corporate Governance System	Who we are>Sustainability>Sustainability Management>Promotion Structure: <a href="https://www.denso.com/global/en/about-us/sustainability/management/#c">https://www.denso.com/global/en/about-us/sustainability/management/#c</a> Who we are>Sustainability>Commitment to the Environment>EcoVision>Environmental Management (Eco-Management)>Promotion Structure: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/">https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/</a> Who we are>Sustainability>Governance>Corporate Governance>Corporate Governance System and Principal Organizations: <a href="https://www.denso.com/global/en/about-us/sustainability/governance/management/">https://www.denso.com/global/en/about-us/sustainability/governance/management/</a>
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term P34-35: Awareness of Business Environment P36-37: Materiality P90: Efforts to Maximize the Value of "Green">Scenario Analysis of Business Opportunities and Risks	Who we are>Sustainability>Commitment to the Environment>EcoVision: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/">https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/</a> Who we are>Sustainability>Commitment to the Environment>Environmental Action Plan: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/action-plan/">https://www.denso.com/global/en/about-us/sustainability/environment/action-plan/</a> Who we are>Sustainability>Sustainability Management>Materiality: <a href="https://www.denso.com/global/en/about-us/sustainability/management/#b">https://www.denso.com/global/en/about-us/sustainability/management/#b</a>
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning P32-33: Road Map for Our 2030 Vision P34-35: Awareness of Business Environment P36-37: Materiality P38-41: Recent Forward-Looking Initiatives and Their Achievements, Mid-term Policy for 2025 P42-43, 46-47: Strategies for "Green" and "Peace of Mind" P49: Business Portfolio and Value Creation>Industry-wide De-Emphasis and Discontinuation of Internal Combustion Engine Products P66-73: Financial Capital>Message from the Chief Financial Officer P90-91: Efforts to Maximize the Value of "Green">Scenario Analysis of Business Opportunities and Risks, Impact on Management Strategy, Impact on Financial Planning	Who we are>Sustainability>Commitment to the Environment>EcoVision: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/">https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/</a> Who we are>Sustainability>Commitment to the Environment>Environmental Action Plan: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/action-plan/">https://www.denso.com/global/en/about-us/sustainability/environment/action-plan/</a>
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario P90-91: Efforts to Maximize the Value of "Green">Scenario Analysis of Business Opportunities and Risks, Impact on Management Strategy, Impact on Financial Planning	
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks P36-37: Materiality P91: Efforts to Maximize the Value of "Green">Risk Management P114-115: Risk Management	Who we are>Sustainability>Sustainability Management>Materiality: <a href="https://www.denso.com/global/en/about-us/sustainability/management/#b">https://www.denso.com/global/en/about-us/sustainability/management/#b</a> Who we are>Sustainability>Commitment to the Environment>EcoVision>Environmental Management (Eco-Management) <a href="https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/">https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/</a> Who we are>Sustainability>Governance>Risk Management>Ascertaining Risks and Clarifying Response: <a href="https://www.denso.com/global/en/about-us/sustainability/governance/risk/">https://www.denso.com/global/en/about-us/sustainability/governance/risk/</a>
	b) Describe the organization's processes for managing climate-related risks P36-37: Materiality P91: Efforts to Maximize the Value of "Green">Risk Management P114-115: Risk Management	Who we are>Sustainability>Sustainability Management>Materiality: <a href="https://www.denso.com/global/en/about-us/sustainability/management/#b">https://www.denso.com/global/en/about-us/sustainability/management/#b</a> Who we are>Sustainability>Commitment to the Environment>EcoVision>Environmental Management (Eco-Management) <a href="https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/">https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/eco-management/</a> Who we are>Sustainability>Governance>Risk Management>Ascertaining Risks and Clarifying Response: <a href="https://www.denso.com/global/en/about-us/sustainability/governance/risk/">https://www.denso.com/global/en/about-us/sustainability/governance/risk/</a>
Metrics and Targets	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management P91: Efforts to Maximize the Value of "Green">Risk Management P114-115: Risk Management	Who we are>Sustainability>Governance>Risk Management: <a href="https://www.denso.com/global/en/about-us/sustainability/governance/risk/">https://www.denso.com/global/en/about-us/sustainability/governance/risk/</a>
	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process P36-37: Materiality>Materiality KPIs P39: Mid-term Policy for 2025>Aims>Green P42-43: Strategies for "Green" and "Peace of Mind" P92-93: Efforts to Maximize the Value of "Green">Metrics and Targets	Who we are>Sustainability>Commitment to the Environment>EcoVision: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/">https://www.denso.com/global/en/about-us/sustainability/environment/ecovision/</a>
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks P121: Facts & Figures>Non-Financial Highlights>CO <sub>2</sub> Emissions (Global, Scope 1 and Scope 2 Emissions) P122-123: 10-Year Data>Non-Financial Data>CO <sub>2</sub> Emissions (Global, Scope 1 and Scope 2 Emissions)	Who we are>Sustainability>Commitment to the Environment>Data compilation (Environmental report)>Action 2: <a href="https://www.denso.com/global/en/about-us/sustainability/library/environment-data/#a">https://www.denso.com/global/en/about-us/sustainability/library/environment-data/#a</a>
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets P36-37: Materiality>Materiality KPIs P39: Mid-term Policy for 2025>Aim>Green P42-43: Strategies for "Green" and "Peace of Mind" P92-93: Efforts to Maximize the Value of "Green">Metrics and Targets P122-123: 10-Year Data>Non-Financial Data>CO <sub>2</sub> Emissions (Global, Scope 1 and Scope 2 Emissions)	Who we are>Sustainability>Commitment to the Environment>Environmental Action Plan>Positioning of the Seventh Phase of the Environmental Action Plan: <a href="https://www.denso.com/global/en/about-us/sustainability/environment/action-plan/">https://www.denso.com/global/en/about-us/sustainability/environment/action-plan/</a> Who we are>Sustainability>Commitment to the Environment>Data compilation (Environmental report)>Action 2: <a href="https://www.denso.com/global/en/about-us/sustainability/library/environment-data/#a">https://www.denso.com/global/en/about-us/sustainability/library/environment-data/#a</a>



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