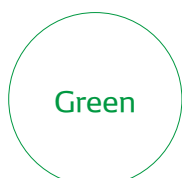


### 3 Strategies for Green and Peace of Mind

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 for green and peace of mind products to accelerate these initiatives, and are taking specific actions in this direction. In fiscal 2024, DENSO DIALOG DAY 2023 was held as a forum to have more in-depth dialogues with stakeholders, with management announcing details about the aims of the new management system to maximize green and peace of mind value, its strategy to enhance corporate value, and strategies to strengthen core technologies and deliver new added value.



#### 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

Major Achievements in Fiscal 2024		Targets
Monozukuri (Manufacturing)	Reduction of 50% in total CO <sub>2</sub> emissions from plants (compared with fiscal 2021)	Realize complete carbon neutrality in our <i>Monozukuri</i> activities (fiscal 2036)
Mobility Products	Invested in Silicon Carbide LLC, a company that produces SiC wafers Electrification-related sales of ¥902.0 billion (133% of the previous fiscal year's level)	Electrification domain revenue: ¥1.2 trillion (fiscal 2026)
Energy Use	Accelerated verification testing of SOEC* <sup>1</sup> and SOFC* <sup>2</sup> to encourage use of hydrogen, with aim of market launch after fiscal 2025	Revenue from commercialization of renewable energy: ¥300.0 billion (fiscal 2036)

\*1 SOEC: Solid oxide electrolysis cell \*2 SOFC: Solid oxide fuel cell



#### 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 through which we aim to become a leading company that provides peace of mind to society.

Major Achievements in Fiscal 2024		Targets
Elimination of Traffic Accident Fatalities	Set targets for launching next-generation advanced safety system products ADAS domain revenue: ¥469.0 billion (120% of the previous fiscal year's level)	ADAS domain revenue: ¥520.0 billion (fiscal 2026)
Creation of Comfortable Spaces	Developed water temperature control system, a world-first technology	Globally spread automotive general-purpose products that create comfortable spaces (fiscal 2026)
Support for Working People	[Hydrogen] Created commercialization policy for new business ventures [Agriculture] Turned Certhon into a subsidiary and accelerated business expansion	Energy / Factory Automation (FA) / Food and Agriculture (AgTech) Three-domain revenue: ¥300.0 billion (fiscal 2031)

Green Strategy

Monozukuri (Manufacturing)

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

We will reduce CO<sub>2</sub> emissions by encouraging the use of 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, by reducing CO<sub>2</sub> emissions from the production process through the use of green hydrogen generated from renewable energy.

Specific Initiatives	Success Stories
<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>	<p><b>Recognition of initiatives to conserve energy and improve plant environments with receipt of energy conservation award for 14th consecutive year</b></p> <p>At plants that require heat countermeasures, DENSO has improved work environments at its plants without making large-scale investments to improve comfort while conserving energy. These initiatives were recognized with an energy conservation award.</p>

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 electric 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 through various kinds of electrically powered mobility.

Specific Initiatives	Success Stories
<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>	<p><b>Investment in U.S. company to ensure reliable long-term procurement of SiC wafers</b></p> <p>DENSO invested in Silicon Carbide LLC, a subsidiary of the U.S.-based Coherent Corp., to ensure a long-term supply of SiC wafers, a key device that helps reduce electricity loss in BEV systems while making them smaller and lighter.</p>

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 an efficient manner, regardless of location or time, and work to popularize them around the world. By doing so, we will help realize an energy-recycling society.

Specific Initiatives	Success Stories
<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></ul>	<p><b>Start of order taking for next-generation models of charging equipment that enable electricity stored in BEVs and PHEVs to be used inside homes</b></p> <p>We have started to accept orders for BEV and PHEV two-way electricity supply systems that are smaller, lighter, and easier to use with connections to home energy management systems (HEMS).</p> <p><b>Entry into hydrogen business with goal of solving energy problems</b></p> <p>In fiscal 2024, we launched verification testing of SOEC, which creates hydrogen from electricity, and SOFC, which generates electricity from hydrogen, at our Nishio and Hirose plants as part of our entry into the hydrogen business, using the heat management and materials technologies accumulated in the automotive business. At DENSO FUKUSHIMA CORPORATION, we are taking actions to use hydrogen produced within its plant in the manufacturing process for products delivered to actual customers.</p>

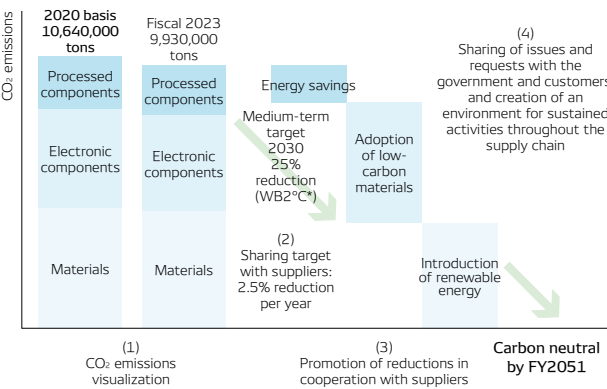
Toward Carbon Neutrality throughout the Value Chain

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 “Efforts to Maximize the Value of ‘Green’ (TCFD)” on [P.70–73](#).

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



Deepening Collaboration between DENSO and Suppliers

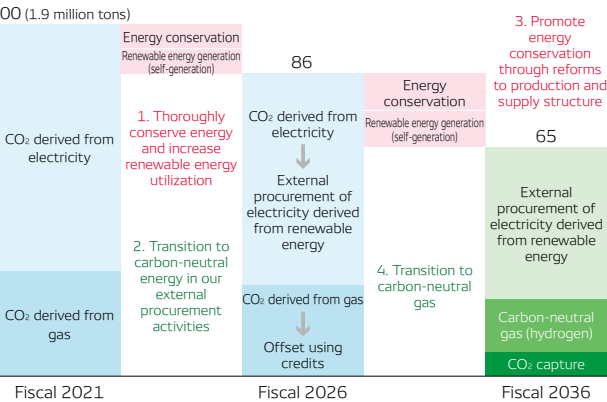
With the aim of realizing carbon neutrality, DENSO is working with its suppliers to visualize CO<sub>2</sub> emissions throughout its supply chain. Having shared specific CO<sub>2</sub> emissions reduction targets with 360 major suppliers, we are promoting various initiatives to attain these targets. For example, DENSO provides examples of how to promote energy conservation and technological assistance, procures renewable energy, and has switched to low-CO<sub>2</sub> materials. While proactively engaging with suppliers, DENSO helps them find solutions to these issues.

\* 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



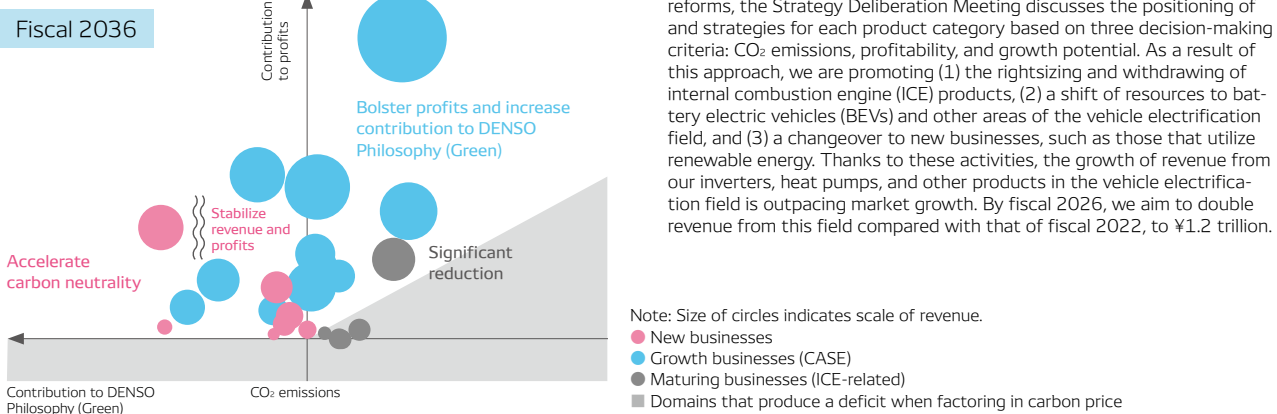
Realizing New *Monozukuri* through Unflagging Efforts and Innovative Technologies

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, Nishio, and Hirose plants, DENSO FUKUSHIMA CORPORATION, and all DENSO plants in Europe by fiscal 2023. Moreover, carbon neutrality was achieved by fiscal 2024 at the Takatana, Daian, Kota, Zenmyo, and Kosai plants.

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, to accelerate business portfolio reforms, 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 (1) the rightsizing and withdrawing of internal combustion engine (ICE) products, (2) a shift of resources to battery electric vehicles (BEVs) and other areas of the vehicle electrification field, and (3) 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 ¥1.2 trillion.

# Peace of Mind Strategy

## Elimination of Traffic Accident Fatalities

**Aim:** Popularize safety products through efforts focused on “depth” and “width,” thereby realizing free and safe mobility

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	Success Stories
<ul style="list-style-type: none"><li>Respond to various accident scenarios 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 a lineup of products priced for various situations, vehicle types, and needs</li></ul>	<p><b>Launch of collaboration with Koito Manufacturing Co., Ltd. on development of safety improvement systems for nighttime driving</b></p> <p>We have begun to collaborate on the development of systems that improve visual recognition of objects during nighttime driving and other situations using image sensors integrated into vehicle headlamps.</p>

Overview by Product (Mobility Electronics) □ P.88–89

## 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 even more relaxing spaces by evolving the environment within vehicles.

Specific Initiatives	Success Stories
<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>	<p><b>Announcement of Everycool cooler for idling trucks that offers effective cooling while lowering environmental burden</b></p> <p>We have announced a cooling system for idling trucks that balances the efficient use of energy with reductions in environmental burden by cutting fuel consumption, while improving the working conditions of drivers during hot summers.</p> 

## Support for Working People

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

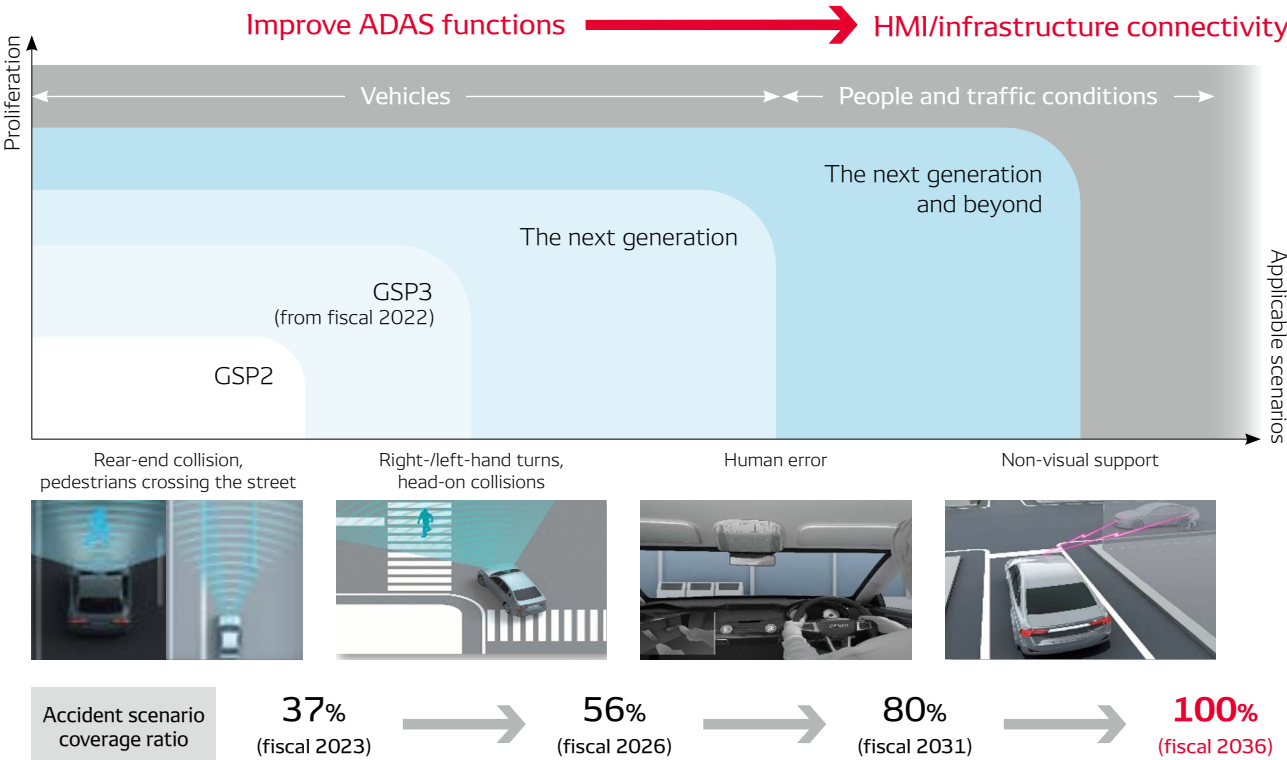
One major social issue is the significant decline in the workforce in most industries. To address this issue, DENSO will draw on the technologies it has cultivated in the mobility domain, such as automation technologies and ICT, to realize a society where all people are supported and can take on new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

Specific Initiatives	Success Stories
<ul style="list-style-type: none"><li>For 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><li>In the plant logistics field, provide ultra-high-quality comprehensive solutions that cover everything from framework improvement through to the rationalization of entire factories</li><li>In the food and agriculture (AgTech) field, contribute to the stable and secure supply of food by resolving issues throughout the food value chain</li></ul>	<ul style="list-style-type: none"><li><b>Helping to address the shortage of truck drivers and reduce CO<sub>2</sub> emissions</b></li><li><b>Demonstration testing of trunk relay transportation service</b></li></ul> <p>Working together with logistics providers, DENSO has commenced demonstration tests of a trunk relay transportation service as an effective means of helping to reduce environmental load and eliminate overtime hours and labor shortages in the logistics industry.</p>

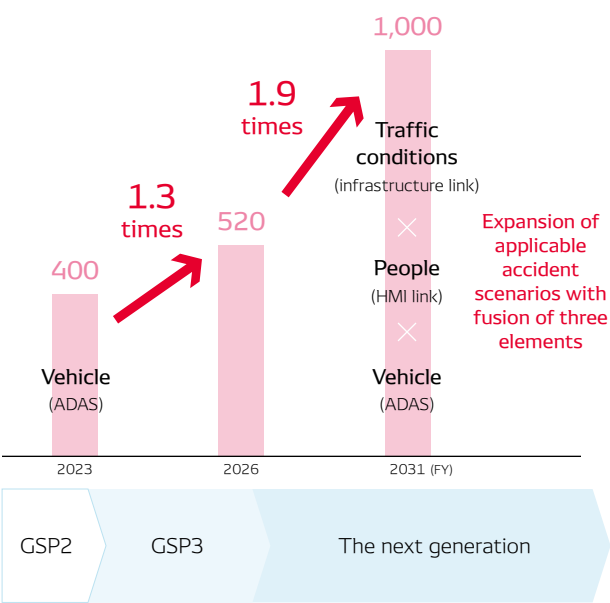
Overview by Product (Factory Automation, Social Solutions, and Food Value Chain) □ P.92–93

## Maximizing “Peace of Mind” Value and Realizing Sustainable Growth

Approach to realizing these goals



Revenue Growth Forecast  
(Billions of yen)



## DENSO's Proprietary Technology for Achieving Zero Traffic Fatalities

Providing “peace of mind” value requires not only improving ADAS functionality but also refining advanced technologies, such as HMI and infrastructure integration. One such advanced technology that uses this systems integration technology is the people-oriented ADAS. This is a driver assistance system that monitors what people are doing by managing coordination between the ADAS domain, which recognizes the vehicle’s surroundings using advanced sensing technologies, and the HMI domain, which monitors the driver’s condition and driving characteristics from inside the vehicle. A system like this is only possible because of DENSO’s experience and strengths in both ADAS and HMI domains.

The core technology enabling this next-generation system is high-performance sensing technology. The imaging radar that leverages this technology provides highly accurate 3D sensing, allowing for the precise measurement of vertical angulation and contours, and general environmental awareness that were previously unattainable. This improves the ability to judge road conditions, predict human behavior, and enhance the system’s coverage of potential accident scenarios. This technology requires expertise in integrating hardware and software, and DENSO’s proprietary patented technology allows for miniaturization and high levels of performance that competitors cannot match.