

# ESG Report 2022 - Fiscal 2021 Results -



**@Hitachi Astemo, Ltd.** 

Astemo

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### Introduction

# ESG Report Editorial Policy and About Hitachi Astemo

# **Editorial Policy**

The Hitachi Astemo ESG Report 2022 presents our stance toward environmental (E), social (S), and governance (G) issues and details the activities we undertook in relation to these in fiscal 2021.

### Scope of this report

Period:	The main period covered is fiscal 2021 (April 1, 2021, to March 31, 2022) Some information on activities in April 2022 and after is also included.	
Companies:	Hitachi Astemo Corporation and consolidated subsidiaries.	
Reporting cycle:	Published yearly as an annual report.	

# **About Hitachi Astemo**

# Company Profile (as of March 31, 2022)

Corporate name	Hitachi Astemo, Ltd.	
Founded	January 2021	
Head office	2520 Takaba, Hitachinaka-shi, Ibaraki-ken, Japan	
Headquarters	Shin-Otemachi Building, 2-1, Otemachi 2-chome, Chiyoda-ku, Tokyo, Japan	
Representative	President & CEO Brice Koch	
Capital	51.5 billion yen	
No. of employees (Consolidated)	Approx. 90,000	

# Consolidated Financial Highlights for Fiscal 2021 Based on International Financial Reporting Standards (IFRS)

Revenue	1,597.7 billion yen	
Adjusted operating income ratio	3.7%	
Adjusted EBITA*1	62.3 billion yen	

Note: Hitachi's consolidated financial statement is prepared based on the International Financial Reporting Standards (IFRS).

<sup>\*1</sup> Adjusted EBITA: Presented as adjusted operating income plus acquisition-related amortization and equity in earnings (losses) of affiliates.

- 1 CEO's Message
- 2 Ambition
- 3 Sustainability Management
- 4 Engagement and Participating in Initiatives

1 CEO's Message

# CEO's Message

We manage our business with full consideration of the environment, society, and corporate governance, and we are growing stronger as a sustainable company

The current era has been called the "Age of VUCA" due to the increasing volatility, uncertainty, complexity, and ambiguity in the world today. Along with the rapid changes in the business environment, VUCA has made any measure of forecast an increasingly difficult task. It was in these challenging times that we established our new company on January 1, 2021, through the integration of Hitachi Automotive Systems, Keihin Corporation, Showa Corporation, and Nisshin Kogyo Corporation. Built with a mission to provide the products and solutions for safe, comfortable, and environmentally sustainable mobility through advanced technologies, we named our new company Hitachi Astemo. The Astemo acronym stands for "Advanced Sustainable Technologies for Mobility."



1 CEO's Message

# CEO's Message

As a global mega-supplier of automotive equipment and motorcycle systems, it is our mission to contribute to the realization of a sustainable and decarbonized society. Hitachi Astemo's strategic business portfolio consists of the powertrain and safety systems business, the chassis business, the motorcycle business, the software business, and the aftermarket business. Together they are creating the "innovative" "green" and "digital" cutting-edge mobility technologies that are driving our growth.

These technologies include our highly efficient powertrain technologies, such as internal combustion and electric engines with improved fuel efficiency, our AD/ADAS (automated driving and advanced driver assist system) technologies, and integrated vehicle control through the coordination of advanced chassis systems. Meanwhile, our in-vehicle software provide the advanced control needed to improve vehicle functionality and performance. Through these efforts, we aim to realize 2 trillion yen in revenue, 9% adjusted EBITA, and 11% ROIC by FY2024.

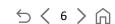
More than just technologies, our management too reflects the ever-changing global landscape impacted by climate change, war, labor or corporate ethic issues, and others as they continue to evolve in frequency, complexity and scale.

In this report, in the Environment section you learn about our management philosophy and policy including resource efficiency and CO<sub>2</sub> reductions.

In the Social section we discuss our focus on innovation to improve safety, comfort and quality of life, as well as our commitment to diversity equity and inclusion, value chain management, our efforts to ensure customer satisfaction and community contribution. In corporate governance, we explain how we will enhance corporate value by ensuring robust compliance, risk management, and information management.

I hope you find this report valuable. We are committed to achieving a sustainable society by providing environmental, social and economic value that sustainably improves our quality of life and makes our world a better place.

President & CEO Brice Koch



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2 Ambition

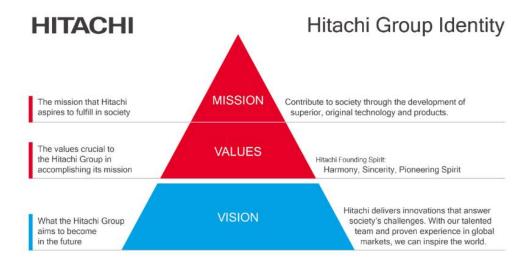
# **Our Ambition**

# **Our ambition**

Hitachi Astemo was born on January 1, 2021, with the goal to unite the minds of all employees and harness their knowledge and strength to succeed in the once-in-a-century wave of major change, growing into a mega-supplier that will grow to its global leadership position.

# **Positioning of our ambition**

For Hitachi Group employees around the world to demonstrate superb teamwork spanning regions and business fields, we have a Group Identity that expresses our core mission, our cherished values, and our vision of what we want to be. Hitachi Astemo's ambition is positioned within the Hitachi Group Identity, setting out what is important to us as a member of Hitachi Group, and highlights the value we provide to all our stakeholders, including customers, business partners, and society.



# **Ambition statement**

We will contribute to a sustainable society and improved quality of life by providing world-leading advanced mobility solutions that satisfy our customers

**Astemo** 

2 Ambition

# Value

# **Toward a better world**

Hitachi Astemo is committed to improving quality of life and creating a sustainable society by providing social, environmental, and economic value to realize a better world. We will continue to move forward with our customers and many other stakeholders to create a better mobility society.

### Our triple bottom line

Hitachi Astemo will continue to develop world-leading technologies focused on achieving our triple bottom line.

### Social contribution

Improve safety, comfort and QoL (Quality of Life) through AD/ADAS systems and advanced chassis.

### **Environmental contribution**

Contribute to improving our environment with highly efficient electrified products and technologies that reduce emissions.

### **Economic contribution**

Achieve sales revenue of 2.0 trillion yen and an adjusted EBITA margin of 9% and ROIC in FY2024.

### The value we deliver to our stakeholders

# We contribute to a safe. sustainable society Efficient, sustainable technology Products with reduced CO<sub>2</sub>

- emissions Improved safety comfort and
- quality of life for everyone

# We provide opportunities to create next-generation technologies

- Opportunities for career growth Diverse and global work environment
- Working together to create the technologies that are redefining the future



# Together with our customers we shape the future of mobility

- Co-creation with customers through continuously evolving solutions
- Benefits of increased scale
- Global leadership
- Expansion of global bases



**Astemo** 

### We continue to increase value and improve ROI for stakeholders

- Social value
- Environmental value
- Economic value

# Sustainability Management based on Sustainable Development Goals

We contribute to the realization of a sustainable society by providing next-generation mobility solutions to solve global social and environmental challenges outlined in the Sustainable Development Goals (SDGs). As a global technology company, we are committed to creating social, environmental, and economic value while contributing to the realization of a sustainable society and environment.

# **Contributing to the SDGs (targets and solutions)**

Our contribution to SDGs	Target	Solutions
3 GOOD HEALTH AND WELL-BEING	<b>3.6</b> By 2020, halve the number of global deaths and injuries from road traffic accidents	ADAS AD
<i>-</i> ₩•	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Improve ICE Electrification
7 AFFORDABLE AND CLEAN ENERGY	<b>7.3</b> By 2030, double the global rate of improvement in energy efficiency	Improve ICE Electrification
- <b>Ø</b> -	By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	Improve ICE Electrification
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	Connected
	By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	Electrification
11 SUSTAINABLE CITIES AND COMMUNITIES	By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	AD Connected
	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	Improve ICE Electrification
13 CLIMATE ACTION	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Electrification

4 Engagement and Participating in Initiatives

# **Stakeholder Engagement**

Hitachi Astemo endeavors to solve social issues in various countries and regions together with a diverse range of stakeholders, including customers, suppliers, central and local governments, academic and research organizations, and others. Moreover, we are promoting initiatives that emphasize direct dialogue between employees and management with the aim of enhancing the value of our human capital.

# Stakeholder engagement and participating in initiatives

Stakeholder	Major challenges	Main contact point	Communication method (results in FY2021)
Customers	Create better products and services, handle complaints, and disclose appropriate product and service information.	QA/Sales	<ul><li>Customer Satisfaction (CS) activities</li><li>Sales activities</li><li>Website</li></ul>
Suppliers	Smooth information sharing to create fair business relationships and better partnerships.	Procurement	● Procurement activities
Employees	Promote appropriate compensation and occupational health and safety, and improve employee engagement.	Internal Communications/HR	<ul> <li>Intranet/company newsletter</li> <li>Training</li> <li>Town hall meetings between management and employees</li> <li>Employee surveys</li> </ul>
Central/local governments & industry bodies	Compliance with Japanese and foreign laws and regulations, strengthen industrial infrastructure, and attract companies.	PR/HR	<ul> <li>Liaison with international agencies, national government bodies, and local governments</li> <li>Manage participation with industry bodies</li> </ul>
Academic/research organizations	Promote technological innovation and participate in projects that collaborate between industry, government, and academia.	R&D	● Open innovation (joint research)
Local community	Fulfill responsibilities as a corporate citizen and participate in the local community.	Business divisions/HR	<ul><li>Contribute to local community through business</li><li>Participate in volunteer activities</li></ul>

# 4 Engagement and Participating in Initiatives

# **International Standardization Activities**

# **Approach to international standardization**

Hitachi Astemo is working toward the resolution of social issues from a global perspective through the creation of new social norms, together with a diverse range of stakeholders, including governments and municipalities throughout the world, academic and research institutions, companies, and users.

Our international standardization activities put into practice Hitachi Group's policy: Global initiatives that contribute to the realization of a sustainable society, being based on explicitly stated standards, formulated on the basis of fair discussions involving members representing specialized fields, with international consensus, and an accurate grasp of social issues facing the world.

Accordingly, we consider international standardization activities to be of importance, along with research and development and intellectual property-related activities. To contribute to resolving social issues on a global scale, Hitachi Astemo actively engages in activities with international standardization organizations, including ISO \* 1 activities, and in particular, cybersecurity, functional safety, software updates, and automated driving, which are handled by ISO/TC22 (automotive-related) and TC204 (ITS-related) as well as Japanese standardization study groups, such as the Society of Automotive Engineers of Japan (JSAE) and JASPAR.\*2

# Structure for promoting international standardization activities

As part of our commitment to international standardization activities, Hitachi Astemo personnel participate as members of many technical committees of organizations (Society of Automotive Engineers of Japan) in international standardization organizations, such as ISO, and have been appointed to key positions, such as committee managers and secretaries. We also participate in the Hitachi Group Standardization Committee to ensure that the entire Hitachi Group works together in international standardization activities.

The Hitachi Astemo International Regulations and Standardization Committee was established to formulate policies for international standardization within Hitachi Astemo, centrally manage and share a variety of standardization information, and promote its deployment to products.

- \*1 ISO: International Organization for Standardization. An international organization composed of member countries and regions.
- \*2 JASPAR: Japan Automotive Software Platform and Architecture. Engineers from car manufacturers, electrical components, semiconductor/electronic components, and software/tools, trading companies, career organizations, universities, and research institutes participate in the project.

### Hitachi Astemo's International Regulatory and Standardization Committee structure



- 1 Environmental Vision and Long-term Goals
- 2 Environmental Governance
- 3 Realizing a Decarbonized Society
- 4 Realization a Resource Efficient Society
- 5 Achieving a Harmonized Society with Nature
- 6 Environmental Data

# **Environmental Policy and Action Plan**

# **Environmental philosophy & policy**

As part of our corporate social responsibility, Hitachi Astemo is working to reduce the environmental impact of our business activities and, through our products and services, promoting environmental management to help reduce society's impact on the environment. To promote environmental management across Hitachi Astemo, we have established a set of guidelines on environment-related matters in the form of an Environmental Policy, and ensure that everyone, from top management to employees, complies with it.

### **Environmental Policy**

"We help build a sustainable society in harmony with nature by taking action to protect the global environment."

### **Environmental vision**

Guided by our ambition statement "We will contribute to a sustainable society and improved quality of life by providing world-leading advanced mobility solutions that satisfy our customers," we strive to protect the global environment with an awareness of how our business operations, products, and services are deeply related to it.

### Environmental action guidelines

### 1. Complying with environmental laws and regulations while preventing pollution

We will:

- comply with laws and regulations related to the environment and develop voluntary standards needed to ensure compliance;
- implement measures designed to meet the needs of local communities and minimize the impact our global manufacturing operations may have on their environment whenever possible;
- fulfill our agreed environmental requirements with customers and other third parties:
- assess the possibility of environmental problems, work to prevent pollution, and take appropriate measures to minimize the impact of any environmental problem that should arise.

# 2. Enhancing environmental management functions and making continual improvements

We will:

- take action aimed at achieving our environmental impact reduction targets utilizing an ISO 14001-compliant environmental management system, environmental regulations, and the capacity to implement environmental initiatives;
- 2. take action aimed at continually improving environmental performance;
- 3. help enhance our management system with the above actions.

### 3. Promoting global manufacturing throughout the product life-cycle

We will promote global manufacturing aimed at minimizing environmental impact at every stage of the product life-cycle from R&D and design to procurement, production, distribution, sales, use, and disposal.

We will:

- 1. develop and design environmentally friendly products;
- 2. work to conserve energy to stop global warming;
- 3. strictly control chemical substances and reduce emissions;
- promote the conservation and recycling of resources to help build a closed-loop society

### 4. Protecting the ecosystem

We will promote action for protecting the ecosystem based on both our business activity and social contribution activity relevant to the protection of nature rooted in our local community, aiming to achieve a society coexisting with nature.

### 5. Education, training and raising awareness

We promote awareness among all Hitachi Astemo employees as well as those who work us. We provide employees with education and training on protecting the environment while ensuring compliance with environmental laws and regulations.

### 6. Information disclosure

We will share information about our environmental initiatives with stakeholders and maintain communication with them to further mutual understanding and build stronger relationships. Introduction

# **Environmental**

# 1 Environmental Vision and Long-term Goals

# Astemo Environmental Action Results for FY2021 and Environmental Action Targets for FY2022 and Beyond

Category		Item	Goal	FY2021 (Target)	FY2021 (Results)	FY2022 (Target)	FY2024 (Target)
<b>Environmental management</b>							
	Compliance	Regulation compliance	Zero legal violations	0 incidents	2 incidents*1	0 incidents	0 incidents
	Compliance	Reduce complaints	Promote zero complaints	0 incidents	0 incidents	0 incidents	0 incidents
	Develop environmental talent	Promote education of environmental talent	Develop environmental experts, increase legally qualified personnel, etc.	Develop/increase	Develop/increase	Develop/increase	Develop/increase
Decarbonized society							
Long-term target	1			Ex-H*2 ▲ 2.4%	<b>▲</b> 14.0%		
Business sites (factories and offices)		Cut total CO <sub>2</sub>	Percentage of total CO <sub>2</sub> cuts (compared to FY2010)	Ex-K*2 8.0%	8.6%	10.6%	50.0%
offices) FY2030: Achieve carbon	Factories and offices	Cut total CO <sub>2</sub>	recentage of total Co <sub>2</sub> cuts (compared to 1 12010)	Ex-S*2 1.0%	1.0%	10.0%	30.076
neutrality	7			Ex-N*2 1.0%	1.0%		
Via the value chain FY2050: Achieve carbon		Improve transport consumption rate (Japan)	Percentage improvement of transport energy consumption rate (Japan)	<b>▲</b> 41.6%*³	▲11.1%*³	2.5%	1.0%
neutrality FY2030: Reduce CO <sub>2</sub> emissions	Products and services	Contribution to cut CO2	Revenue from electrification business	than double that amou	nt in FY2030 by promoting	business to over 400 billion the uptake of highly efficient ors, inverters, and electric axle	and high-performance
by 50% (compared to FY2010)		Promote ecological design	Ratio (Number of products assessed in the current year/Number of products subject to assessment in the current year)	-	-	-	100%
Resource efficient society							
Long-term target			Landfill waste rate	12.7%	4.5%	7.1%	6.4%
Efficient use of			Improvement rate of waste and valuables generation per basic unit (vs FY2010)	Ex-H*2 22.9%	27.4%		23.6%
water/resources FY2050: Improve by	+	Improve resource use efficiency		Ex-K*2 ≥3.1% vs FY2018	4.8%	17.4%	
50% (compared to				Ex-S*2 ≥0.6% vs FY2018	0.8%		
FY2010 in Hitachi Group)				Ex-N*2 1.0%	1.0%		
	Factories and offices		Improvement rate of water use per basic unit	Ex-H*2 22.7%	35.6%	21.1%	
				Ex-K*2 ≥25.8% vs FY2018	32.3%		23.5%
			(vs FY2010)	Ex-S*2 ≥8.3% vs FY2018	8.8%	2	25.570
				Ex-N*2 1.0%	1.7%	1	
			Identification and effective utilization rate of plastic waste	-	-	73.0%	73.7%
	Circulation-oriented product and business development	Transition to a circular economy	Analyze risks and opportunities, promote roadmap creation			•	
A Society Harmonized with Nature							
Long-term target	Water risks	Respond to water risks	Promotion of response to water risks depending on results of water stress inves	tigation			
Minimize impact on natural capital	Chemical substance	Reduction of chemical substance emissions	Improvement rate of atmospheric chemical substance emission per basic unit (vs FY2010)	4.5%	21.1%	3.1%	8.1%
4		Calculation of impact on natural capital	Consideration of calculation of negative impact (implementation of LCA)				
	Ecosystem conservation	Calculation of impact on natural capital	Consideration of calculation of positive impact (forest preservation activities)				
		Contribution to ecosystem conservation	Promotion of ecosystem preservation activities				

<sup>\*1</sup> At our overseas business sites, there were cases of waste and wastewater violations, which were reported to the relevant administrative agencies and countermeasures have been completed.

<sup>\*2</sup> Figures for FY2021 (target and actual) are the figures of the now defunct companies. The targets for FY2022 and onwards are targets set for Hitachi Astemo. Ex-H: Hitachi Automotive Systems, ex-K: Keihin, ex-S: Showa, ex-N: Nissin Kogyo

<sup>\*3</sup> Target and actual figures are negative due to the reorganization of some Japan business sites.

Social

# 2 Environmental Governance

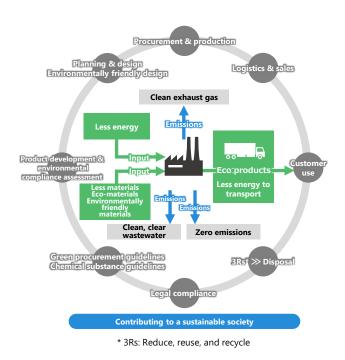
# **Environmental Governance Promotion**

# **Environmental management promotion**

Hitachi Astemo business sites and subsidiaries in Japan and overseas have obtained the international standard ISO 14001 certification, and are promoting environmental activities based on an Astemo groupwide environmental management system. Within Japan, we conduct mutual audits through cooperation between our business sites. Audits at our overseas sites are carried out by internal auditors from our domestic sites, focusing on priority management sites, in order to raise the level of management.

**President & CEO Environmental Strategy** Secretariat (Environmental **Protection Dept.) Environmental** Representative **Business sites** Japan headquarters **Group companies** Chinese Group Asia headquarters Asian Group headquarters

We will contribute to the realization of a sustainable society according to our Ambition and Environmental continually providing Policy advanced, environmentally friendly products and systems that please our customers, and systematically reduce the environmental impact of all the processes involved in making those products. To this end, Hitachi Astemo is implementing effective environmental management.



# **Environmental education for employees**

Based on the belief that improving employee awareness and promoting understanding is necessary to invigorate environmental activities, Hitachi Astemo conducts general education using e-learning for all Hitachi Astemo employees, from junior staff to executives.

The goal is to encourage employees to think about what they can commit to and do, at work and at home, by learning about climate change issues, how the Paris Agreement works, and Hitachi's carbon neutrality goals and initiatives. We also provide environmental and ecominded education as introductory training for new employees, and specialized training for environmental practitioners and internal environmental auditors.

### FY2021 initiatives

In April 2021, Hitachi Astemo conducted environmental and eco-minded education as introductory training for new employees. Additionally, to obtain integrated ISO 14001 certification in Japan, we provided education on internal environmental standards in October, followed by internal auditor education and education on environmental laws and regulations in November.

3 Realization a Decarbonized Society

CO2

# **Realizing a Decarbonized Society**

# **Hitachi Astemo's targets**

As a leading provider of mobility solutions to the automobile and motorcycle industries, we believe our primary mission is to contribute to the realization of a sustainable, decarbonized society. We will increase the provision of products that are helping to reduce our environmental impact, further promote energy conservation, and advance the use of renewable energy.

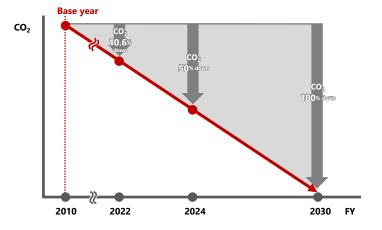
### Targets by 2030

- Carbon neutrality at production sites
- Reduced CO2 emissions through advanced technologies

### **Hitachi Astemo initiatives**

Hitachi Astemo incorporates sustainability into the management and business practices of the entire organization and strives to make improvements through its PDCA\* cycle. By building relationships of trust with our stakeholders through effective communication, we aim to achieve both an environmentally friendly and sustainable society and grow as a global company.

\* PDCA: Plan, Do, Check, Action



### Method of reduction:

- Innovative new technologies
- Use of green power
- Daily energy saving efforts
- Continuation of current activities
- Introducing renewable energy

# **Tackling SBTs**

In July 2021, Hitachi Astemo submitted a commitment letter to the SBT Initiative, an organization that certifies science-based targets, greenhouse gas emission reduction targets that are scientifically consistent with the targets set by the Paris Agreement. We will set targets to help meet the goal of limiting the rise in global temperature to 1.5°C above pre-industrial levels and aim to obtain SBT certification.

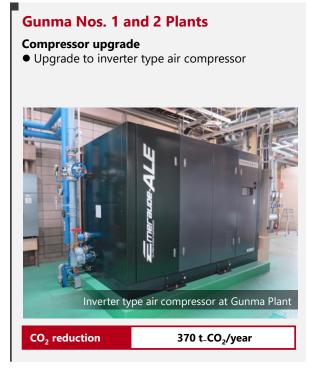
# CO<sub>2</sub> Emission Reductions at Business Sites (Factories and Offices)

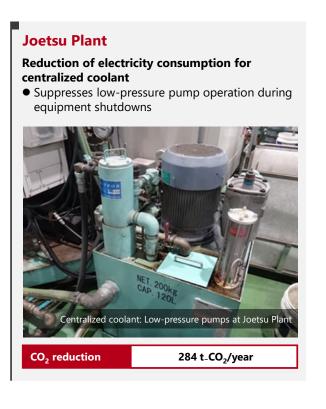
# **Actions and achievements**

Hitachi Astemo aims to achieve carbon neutrality at our business sites (factories and offices) by 2030 in order to realize a decarbonized society. We are implementing a number of initiatives to reduce CO<sub>2</sub> emissions at all our business sites.

### **Examples of initiatives at business sites**

# Tomi Plant Lower holding temperature in aluminum smelting and holding furnace ● Changed aluminum smelting and holding temperatures on non-operating days Aluminum smelting plant at Tomi Plant CO₂ reduction 6 t-CO₂/year





3 Realization a Decarbonized Society

# **Introducing Renewable Energy**

# **Initiatives to introduce renewable energy**

As a step to reduce carbon emissions to achieve carbon neutrality, Hitachi Astemo is moving forward with the introduction of renewable energy. We are striving to reduce  $CO_2$  emissions by purchasing electricity generated from natural energy sources, such as hydroelectric and wind power (also known as green power), by installing solar power generation systems within the company, and using the electricity generated by these systems within the company.

We are continually trying to expand the introduction of renewable energy globally. In FY2021, solar panels were installed at the Hitachi Astemo Hi-Cast Fukushima Plant in Japan. Overseas, solar panels were also installed at plants in China and Indonesia. As a result of these efforts, the overall CO<sub>2</sub> emissions reduction of Hitachi Astemo was approximately 7,500 t-CO<sub>2</sub>/year.





ontents Introduction Management **Environmental** Social Governance

### **Environmental**

3 Realization a Decarbonized Society

# Disclosure of Financial Information Related to Climate Change (Disclosure under TCFD)

# Strategy

The Hitachi Group is responding to climate change by fulfilling our responsibilities as a global company by helping to achieve a decarbonized society. Under the RCP 2.6\*1 and RCP 8.5\*2 scenarios of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), we established long-term environmental targets called Hitachi Environmental Innovation 2050 in fiscal 2016 under our Environmental Vision. Moreover, in order to help limit the global temperature rise to 1.5°C as recommended in the IPCC Global Warming of 1.5°C report, in fiscal 2020 we revised our target to achieve carbon neutrality at Hitachi factories and offices by fiscal 2030. And then in fiscal 2021 we revised our target again to achieve carbon neutrality in our value chain by fiscal 2050. Our aim is to help create a decarbonized society, and we work to achieve the ambitious targets to realize that goal.

- \*1 RCP2.6 scenario: A Representative Concentration Pathway (RCP) scenario under which, at the end of the 21st century, the increase in global temperatures from preindustrial levels is kept below 2°C.
- \*2 RCP8.5 scenario: An RCP scenario that assumes that emissions will continue to rise resulting in an approximately 4°C rise in global temperatures compared to preindustrial levels.

# Identification and assessment of climate-related risks and opportunities

Hitachi Astemo, which operates globally, considers the risks and opportunities of climate change according to the TCFD classifications in order to respond to the impacts of climate change.

### Addressing risks and opportunities based on climate-related scenarios

We considered the environment under the 1.5°C and 4°C scenarios for our businesses, and how we would respond.

- •1.5°C scenario: As projected by the IPCC's RCP 2.6 climate model, the IEA 450 scenario, and for other scenarios, we are anticipating a world where stringent measures and regulations will be implemented to help realize a decarbonized society. Therefore, we investigated risks and opportunities on the premise of carbon neutrality by fiscal 2050.
- 4°C scenario: We focused on there being increased climate-induced natural disasters as a result of lax regulations as projected by the IPCC's RCP8.5 scenario and other scenarios.

### Our business environment, major risks and opportunities, and strategies under the 1.5°C and 4°C scenarios

Business environment and major risks and opportunities under the 4°C scenario

Non-environmental market

4°C scenario)

factors (neither the 1.5°C nor

- ▶ Business environment: Fuel efficiency laws and regulations will remain lax globally, and internal combustion engine vehicles will remain a major mode of transport. The modal shift will be slow, as conventional automobiles and motorcycles will remain predominant. Typhoons, floods, and other natural disasters caused by climate change will rise sharply.
- ▶ Risks: Natural disasters will exacerbate damage to production facilities and disrupt supply chains leading to delays in deliveries and the procurement of parts. A breakdown in one link of the supply chain will have an increasing impact on overall production.
- ▶ Opportunities: Demand will grow for technologies to enhance the efficiency of internal combustion engines.
- Economic growth, urbanization, population growth, and infrastructure development like road construction will expand the global market for automobiles and motorcycles as a flexible and personal means of transport.
- Global pandemics may temporarily dampen passenger vehicle sales due to restrictions on people's movements, but commercial vehicle sales will tend to rise as the need for the delivery of goods increases.
- Businesses that offer greater safety, security, and comfort, such as those developing autonomous driving and advanced safety devices, will become increasingly important.
- Technological innovations in the connected industries will create new mobility service markets.

### Response to business risks under the 1.5°C scenario

Promote R&D of electrification technology and other alternative technologies to enhance the response to new markets such as electric vehicles.

### Response to business risks under the 4°C scenario

- Promote R&D and product development in existing technologies, including internal combustion engines, to not only improve energy efficiency but also non-environmental issues like safety, security, and comfort.
- Given the increasing frequency of natural disasters, take risk aversion into account when deciding the location and equipment layout of a new plant. Keep an eye on the supply chain in strengthening our ability to respond to business disruption risks in accordance with our BCPs.

Financial information (sales volume of each target sector)

Response to future business

risks (business opportunities)

Partial impact on revenue at 1,597.7 billion yen in FY2021

Note: The above scenario analyses are not future projections but attempts to review our resilience to climate change. How the future unfolds may be quite different from any of these scenarios.

Management Environmental Social

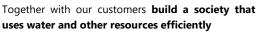
### Environmental

4 Realization of a Resource Efficient Society

# **Building a Society That Uses Resources Efficiently**

# **Resource recycling**

### For a resource efficient society



### Efficiency in use of water/resources 50% improvement FY2050

(compared to FY2010 in Hitachi Group)

Raw materials used in Hitachi Astemo's manufacturing processes are repeatedly recycled again as raw materials for the same product while maintaining their original properties. We are actively working to reduce consumption of new natural resources, reduce emissions of environmentally hazardous substances, and reduce waste.

### Effective use of resources

Regarding the reuse of parts, some alternators and starters recovered by automobile dealers are dismantled, inspected, cleaned, recycled, reassembled, and inspected at the production plant (Sawa Works) before being shipped again as rebuilt products. As for raw materials, scrap metal that had been discarded at our factories are reused as recycled materials (Miyagi region).

### Recycled materials collected at a factory in the Miyagi area







### **Examples of initiatives at business sites**

# Saitama No.1 Plant

Improved the sludge processing ability by increasing the magnetic separator capacity and installing a cyclone filter.

**Waste volume reduction** 

98.0 t/year





### **Akita Plant**

Iron polishing powder generated during the machining process is compressed into briquettes (solidified). The briquettes are sold as a valuable resource. The grinding fluid squeezed out during compression is reused.

Waste volume reduction

41.0 t/year





# **Joetsu Plant**

Waste oil is separated into concentrate and water through filtration equipment and only the concentrate is disposed of.

Waste volume reduction

48.0 t/year



4 Realization a Resource Efficient Society

# **Building a Water Efficient Society**

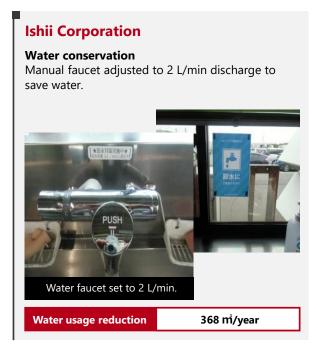
# **Building a water efficient society**

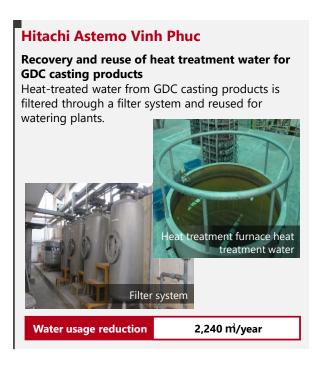
### Control and effective use of water resources

By measuring the volumes of water used and discharged at our plants and offices, we manage the results of our environmental impact, including water usage, and progress toward our reduction targets. We also manage risk in the event of flooding or other incidents that could affect our business.

### **Examples of initiatives at business sites**







5 Achieving a Harmonized Society with Nature

# **Preserving Ecosystems**

# **Preserving ecosystems**

Committed to preserving ecosystems and biodiversity, Hitachi Astemo is implementing a variety of environmentally friendly initiatives, as well as community and social contribution activities.

### A society harmonized with nature





### **Examples of initiatives at business sites**









# Environmental Data (Results for 132 sites included in the FY2021 tally)

# **Regional Data**

Across Hitachi Astemo, we are implementing a variety of environmentally-friendly initiatives at our sites around the world, including biodiversity, community and social contribution activities.

# Japan

CO <sub>2</sub> emissions	352.0 1,000 t-CO <sub>2</sub>
Waste disposed	<b>43.4</b> 1,000 t
Water resource usage	3,591.9 <sub>1,000 m³</sub>

# **Americas**

CO <sub>2</sub> emissions	187.9 <sub>1,000 t-co<sub>2</sub></sub>
Waste disposed	<b>47.4</b> 1,000 t
Water resource usage	812.8 <sub>1,000 m³</sub>

# **Asia**

CO <sub>2</sub> emissions	316.5 1,000 t-CO <sub>2</sub>
Waste disposed	<b>43.0</b> 1,000 t
Water resource usage	2,049.4 1,000 m <sup>3</sup>

# **China**

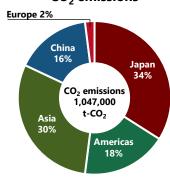
CO <sub>2</sub> emissions	173.7 <sub>1,000 t-co<sub>2</sub></sub>
Waste disposed	22.7 <sub>1,000 t</sub>
Water resource	1.051.5 1.000 m <sup>3</sup>

# **Europe**

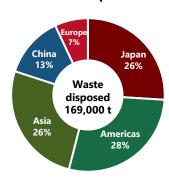
CO <sub>2</sub> emissions	16.8 1,000 t-CO <sub>2</sub>				
Waste disposed	12.1 1,000 t				
Water resource usage	107.1 1,000 m³				

# **Environmental impact ratio by region**

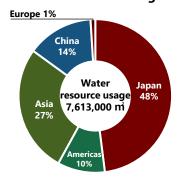
# CO<sub>2</sub> emissions



### **Waste disposed**



### Water resource usage



# Social

- 1 Innovation Management
- 2 Human Capital
- 3 Human Rights
- 4 Value Chain Management
- **5** Community

1 Innovation Management

# **Research & Development**

# Hitachi Astemo's R&D policies and initiatives

Against the backdrop of the momentum to address global climate change and achieve the SDGs, there is a search for a vision of mobility that will play a role in a sustainable society; and to solve this challenge, technological innovations in the area of CASE (Connected, Autonomous, Service & Shared, Electric) are being promoted. Hitachi Astemo is also working on solutions to realize a safe, secure, comfortable, environmentally friendly, and sustainable mobility society, and is promoting technological innovation in the area of CASE.

Hitachi Astemo utilizes Hitachi's connected services and advanced technology (Lumada\*) in the digital field, and will provide social and environmental value through mobility solutions as a member of the Hitachi Group.

As for social value, we are working to improve safety, comfort, and quality of life (QoL) through AD/ADAS systems, advanced chassis technologies, and connected car technologies, and as for environmental value, we are working to solve problems with highly efficient electrified products and technologies that reduce emissions.

Through these initiatives, we will contribute to improving people's quality of life and our customers' corporate value as a "global mobility solution provider that contributes to a sustainable society."

# Improving safety, comfort and QoL (Quality of Life) with the AD/ADAS systems and advanced chassis

# AD/ADAS

recognition, regrated electronic control

- Scalable and competitive components
- Sensor fusion technology



Decrease in traffic accidents

# -<mark>Ö</mark>-LUMADA

Connected car technology

In-vehicle devices, software

# **Astemo**

A technology company that is creating a better world



Advanced chassis ntegrated vehicle behavior control

Integrated chassis control with brakes, steering and suspension

### **Environmental value**

Contributing to a better global environment with highly efficient electrified products and technologies that reduce emissions



Advanced electr powertrain/ system unit

### **Differentiated technologies**

Motors : High torque density Inverters : Unique cooling

structure

• Software : Efficiency optimization

### Characteristics of "e-Axle"

- High efficiency
- Compact
- Cost competitive



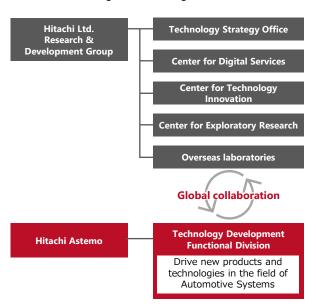
Environmental conservation through the reduction of CO<sub>2</sub> emissions

\* Lumada: A general term for solutions, services, and technologies utilizing Hitachi's advanced digital technology to create value from customer data and accelerate digital innovation.

# Hitachi Astemo's R&D system

The Technology Development Functional Division is responsible for creating new products and technologies, developing products and systems across business divisions, and developing fundamental technologies (analysis, material technologies, etc.) that are shared throughout the entire company.

In addition to collaborating with the company's global technical centers (in the Americas, Europe, China, etc.), the Technology Development Functional Division aims to collaborate with the Center for Digital Services, Center for Technology Innovation, and overseas laboratories of Hitachi's R&D group in the development of advanced technologies. This way we will efficiently and quickly create advanced technologies that meet global needs.



# Social value: Automated Driving - Advanced Driver Assistance (AD/ADAS) systems and advanced chassis technology to improve safety, comfort, and QoL

For more than 20 years, Hitachi Astemo has been developing products for automated driving/advanced driver assistance systems and related vehicle control as part of the Hitachi Group, providing products such as stereo cameras, ADAS Electronic Control Units (ADAS-ECU), Autonomous Driving Electronic Control Units (AD-ECU) and OTA.

The evolution and expansion of automated driving technology requires three technologies: "technology to accurately recognize" areas visible from the vehicle, "technology to anticipate" areas invisible from the vehicle, and "technology to accurately judge and control" from the information obtained. We are promoting the evolution of stereo cameras as an external sensing technology for recognizing the driving environment, fusion functions using multiple sensors, and AI implementation technology. As for technology to anticipate ahead, we are developing technology that reads high-precision maps with a Map Position Unit (MPU) to estimate our own location, technology to predict risks ahead, and technology to obtain map updates and road conditions from the cloud through secure communication via OTA and Central Gateway (CGW). ADAS-ECU and AD-ECU (Lumada projects) are responsible for decision-making and control. We are also developing mobility solutions, including connected services. We are also developing advanced chassis technologies, such as track planning algorithms that minimize rolling motion and other

problems, vehicle control technologies that enable highprecision tracking of the target track, and related by-wire technologies for chassis-related products, which will contribute to improved safety, comfort, and QoL.

# Environmental value: Contributing to a better global environment through highly efficient electrified product technology

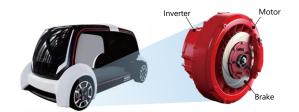
We are developing environmentally friendly technologies to achieve carbon neutrality. In powertrain electrification, we are accelerating the development of high-efficiency and high-power technologies for motors, which are key components, high-power density technologies for inverters in vehicles, and high-efficiency and compact e-Axle (electric axle) technologies that apply these technologies, and are applying them to various products. We are also accelerating our electric and electrification efforts for motorcycles.

From 2022, we will participate in the "Development of Highly Efficient Electrification Systems" under the Green Innovation (GI) Fund together with Hitachi, Ltd. as the project management company, and accelerate the development of motor and inverter technologies that achieve high efficiency, compactness, reduced weight, resource conservation, etc.

In conjunction with the development of smart power management toward carbon neutrality by 2050, which is being promoted by the Hitachi Group, we will develop technologies for energy eco-systems such as electric power energy management and bidirectional on-board chargers (OBC).

# **Examples of development**

Development of the "Direct Electrified Wheel," a compact and lightweight direct drive system, for the realization of EVs with in-wheel motors



EV with the "Direct Electrified Wheel" equipped inside the wheel (mock-up)

Direct drive system "Direct Electrified Wheel"

Hitachi, Ltd. and Hitachi Astemo have developed the "Direct Electrified Wheel," a compact and lightweight direct drive\*1 system that integrates a motor, inverter, and brake inside the wheel, for EVs\*2 that are becoming increasingly popular.

The newly developed motor transmits the high driving force required for EV driving directly to the wheels, and by making the motor lighter, it achieves a world-class power density\*3 of 2.5 kW/kg, significantly reducing the weight increase in the wheels, which was an issue with the conventional in-wheel type. Furthermore, by integrating the inverter and brake into a miniaturized motor, it is possible to mount it inside the wheel without major changes to existing structures such as suspensions. In addition, the in-wheel EV we have

developed eliminates indirect mechanisms such as drive shafts and utilizes the power of the motor directly for EV driving, thereby reducing energy loss by 30% compared to existing EVs and increasing the cruising distance that can be traveled on a single charge.

- \*1 EV: Electric vehicle.
- \*2 Direct drive: A drive system that directly transmits the driving force of the motor to the wheels.
- \*3 Motor power density: The ratio of motor power to weight. The weight includes a housing for storing the motor and a drive shaft.

# Development of high-precision track planning technology to realize a comfortable autonomous vehicle space

Hitachi Astemo has developed the "Dynamics Planning" algorithm as a high-precision trajectory planning technology for AD-ECUs,\*1 etc., to suppress uncomfortable swaying and acceleration in front/back and left/right directions when driving with automatic driving and advanced driver assistance technologies, while helping to achieve a comfortable traveling space. The newly developed Dynamics Planning is an algorithm for achieving trajectories and speeds that keep the cabin as comfortable as a skilled with automated driving and advanced driver assistance technologies. In Dynamics Planning, the AD-ECU and other devices input the area in front of the vehicle that

can be traveled by using external recognition sensors such as cameras, map information from the MPU,\*2 and, in the future, traffic information from the infrastructure. By making effective use of the width of the drivable area, and by making turns as gentle as possible in a curve, etc., a running track is planned that can suppress changes in acceleration and acceleration applied to the vehicle, and a speed at which the acceleration generated when running along the track is small and gradual.

In an automated vehicle that runs on a target trajectory calculated by Dynamics Planning, it is possible to drive comfortably without uncomfortable swaying and acceleration, as if the vehicle were being driven by a skilled driver.

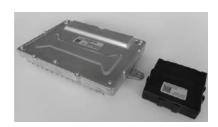
- \*1 AD-ECU: Autonomous driving electronic control unit.
- \*2 MPU: Map Position Unit.
- \*3 "Developed technology to enable high-precision tracking for safe driving toward the practical application of automated driving on public roads," released October 11, 2019.

# **Examples of deliveries**

# AD-ECU and OTA unit adopted in the new Honda Legend capable of updating software OTA

The AD-ECU\* that handles vehicle control software updates and the OTA unit that receives and manages the updated data as an "OTA (Over the Air) software update solutions" developed by Hitachi Astemo were adopted in new Legend released by Honda Motor Company, a car that is equipped with the traffic jam pilot function that enables Level 3 autonomous driving. This is a one-stop solution from the data center (hereafter, OTA center) where the updated software is transmitted to the vehicle-side equipment system, using Hitachi Group's technologies.

\*AD-ECU: Autonomous Driving Electronic Control Unit.



Adopted AD-ECUs and OTA units

# Motors and inverters for EVs adopted in Mazda's first mass-produced electric vehicle, the "Mazda MX-30 EV Model."

Our EV motors and inverters were adopted in Mazda's first mass-produced electric vehicle, the Mazda MX-30 EV model, launched by Mazda Motor Corporation (hereinafter "Mazda") in Japan.

The adopted motor has high output and high efficiency performance based on our proprietary technology, and the inverter features compact size and high output power with double-sided direct water-cooling power module

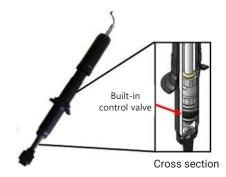


Adopted motor and inverter

# Damping force adjustment absorbers adopted by Toyota for the new Land Cruiser

Damping force adjustment absorbers jointly developed by Hitachi Astemo and Aisin Corporation were adopted by Toyota Motor Corporation for the new Land Cruiser, which made its world premiere in June 2021.

The mechanism normally functions by adjusting damping force for extension and compression, but now is adjusted by a new single mechanism, enabling more appropriate damping force control while achieving both excellent maneuverability and a comfortable ride at an advanced driver level.



Adopted damping force adjustment absorber

# **Examples of deliveries**

# Stereo camera adopted by Suzuki for new "Wagon R Smile"

Hitachi Astemo's stereo camera was adopted for the new "Wagon R Smile" city car released by Suzuki Motor Corporation.

Our stereo camera, which has nighttime pedestrian detection function, supports the functions of numerous advanced driver assistance systems (ADAS). This camera is populated with image-based training data that utilizes Hitachi's proprietary machine learning technology to achieve highly accurate detection functions. As a result, the ability to detect pedestrians at night has been enhanced.



Stereo camera with nighttime pedestrian detection

# Inverters adopted by Geely Auto for the "Leishen Hi-X" hybrid powertrain platform.

Our inverters were adopted by Geely Auto for the hybrid powertrain platform "Leishen Hi-X."

Our adopted inverter is equipped with Hitachi's unique double-sided direct water-cooling power module, which is compact and has high output power.

The "Leishen Hi-X" is planned to be used in 20 models over the next three years, and our inverters have been selected for use in the hybrid powertrains for a wide variety of vehicles in recognition of our track record.



Our adopted inverter

1 Innovation Management

# **Intellectual Property**

# Hitachi Astemo's intellectual property policy

The Intellectual Property Department has established two codes of conduct: "Protect our IP and respect other companies' IP" and "enhance our brand value." Aligned with our Ambition, the Intellectual Property Division has established the following three missions, each of which is based on the policies of the Technology Development Functional Division.

- 1. Ensure freedom of business and design
- Create new value that contributes to society with intellectual property
- 3. Utilize intellectual property for business/development

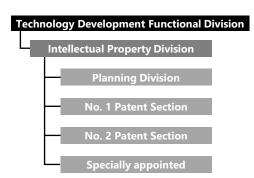
In FY2021, young volunteers from the Intellectual Property Division spent six months in discussions to compile the Hitachi Astemo IP (Intellectual Property) Vision 2030, and established "Advanced IP 2030," a vision of "a group of resilient IP professionals who contribute to business and society. As priority measures, we are working on issuing new media summarizing intellectual property information and expanding educational activities for intellectual property members.

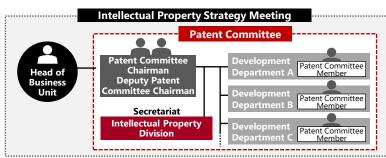
We are benchmarking patent portfolios against other mega-suppliers. Using external patent value evaluation tools, etc., we are working on intellectual property activities with a focus on improving quality while regularly understanding the positions of each company.

# **Promotion system for IP activities**

Hitachi Astemo's intellectual property activities are supported by the Intellectual Property Division, which consists of the Planning Division, which is in charge of IP strategy and trademark and anti-counterfeiting activities as well as management systems and budget management; the No. 1 Patent Section, which is mainly responsible for patent prosecution in the powertrain and safety business; and the No. 2 Patent Section, which is mainly responsible for patent prosecution in the chassis business; plus specially appointed staff. Specially-appointed positions include an MC specially-appointed position in charge of patent prosecution in the motorcycle business, a TDD specially-appointed position in charge of patent prosecution in the Technology Development Functional Division (TDD), a contract specially-appointed position in charge of company-wide development contracts and license negotiations, and a global specially-appointed position in charge of IP in cooperation with the IP divisions of overseas subsidiaries. These positions are in eight locations in Sawa, Atsugi, Gunma, Tochigi, Miyagi, Haga, Saitama and Tomi, where the main design and development departments are located to support the design and development departments in the respective business units.

As a framework for promoting intellectual property activities in each business unit, a Patent Committee member and a Patent Committee chairman are selected from the design department, and Patent Committee meetings are held regularly for each business unit, during which targets for intellectual property activities are set and progress is checked. Furthermore, once a year, the Intellectual Property Strategy Meeting is held with the participation of business unit heads, where the Intellectual Property Division and the Patent Committee of each business unit share IP strategies for their respective business units to invigorate IP activities.







# **Intellectual Property**

## **Award achievements**

Hitachi Astemo is continuously promoting application activities for the National Invention Award and the Regional Invention Award sponsored by the Japan Institute of Invention and Innovation. We will continue to contribute to society by actively acquiring intellectual property rights for superior technology.

### **Examples of awards received in FY2021**

The Invention Award at the "National Invention Award"

Invention of mold sealing structure for high accuracy air flow sensor

[Patent No. 5208099]

# The Encouragement Award at the "Kanto Area Invention Award"

Invention of a square coil forming method for high output and high efficiency motors [Patent No. 6342518]

# **Brand protection**

Protecting the Hitachi Astemo brand is critical to promoting social innovation businesses and expanding global business. Therefore, we are taking firm measures against the manufacture and sale of counterfeit products pretending to be the Hitachi Astemo brand and against unauthorized trademark application registration.

In recent years, manufacturing methods and sales routes for counterfeit products have become more sophisticated and diversified, and we are proceeding with measures such as making efforts to clarify the networks of counterfeiters. We are also cooperating with website operators to take measures against counterfeit products on e-commerce sites.

Furthermore, the Hitachi Astemo brand consists not only of new business brands, but also of a wide range of product brands centered on products for automobiles and motorcycles. Each of our brands is a testament to the technical capabilities and trust we have cultivated over many years, and we have received high praise from our customers, and we will continue to promote intellectual property activities that contribute to the improvement of the value of each brand.

**Business brand** 



### **Product brands**



Social

2 Human Capital

# **Global Human Capital Management**

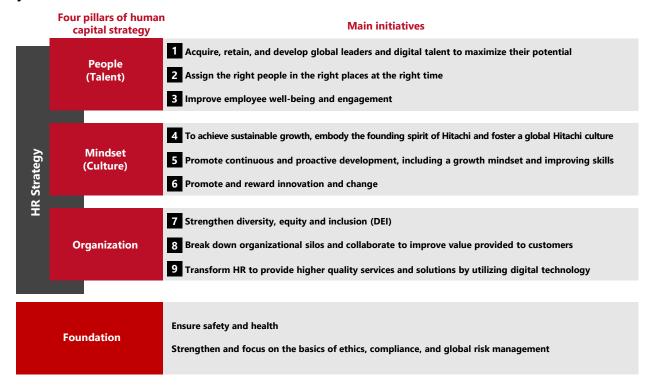
# Approach to global human capital management

Through mergers and acquisitions, and inclusive hiring policies, Hitachi Astemo has been attracting a diverse workforce making it more essential than ever to promote the creation of an inclusive, diverse organization in which talented people can thrive. In order to propose innovative solutions to society and customers for a better mobility society, to achieve global leadership positions, and to grow into a megasupplier, it is important for each and every employee to view social issues as his or her own personal matter and to be a driving force in the midst of change. Hitachi Astemo is committed to developing human capital who can embody these qualities.

# **Global human capital management strategy**

Based on the "2024 Mid-Term Management Plan," Hitachi Astemo's vision is "to become an 'Employer of Choice' in the global marketplace by attracting human capital who are committed to contributing to society," and to be an organization where they can thrive. To achieve this goal, we are promoting various measures under the four pillars of "People," "Mindset," "Organization," and "Foundation".

### Key measures



# 2 Human Capital

# **Global Human Capital Management**

# Initiatives to put the right person in the right place

Hitachi Astemo is building a global common human capital management infrastructure in order to secure, deploy, and develop globally thinking human capital.

# Integrated platform for human resource management

Through this platform, the Hitachi Group leverages the its human capital database for information such as employee skills and career aspirations through a cloud system.

As a result, it is now possible to centrally manage various processes such as global human capital search, information collection, application for team management, performance management, training plans, and career development. Hitachi Astemo was integrated in the system in 2019, and the scope of operations has since gradually being expanded globally.

With implementation of the system for all employees completed by 2022, we aim to improve the utilization rate of manager self-service (MSS) and employee self-service (ESS). We will utilize people analytics through data integration and utilize human capital data that is effective for company management.

### Hitachi Global Grade (HGG)

In order for diverse human capital to advance business, it is necessary to carry out human capital management based on role and job standards. One way to achieve this is the "Hitachi Global Grade." We have introduced a seven-level grading system for all positions in all organizations based on job evaluations in accordance with standards common to the Hitachi Group and across its global network.

# Visualization of human capital and shift to jobbased human resource management

Hitachi Astemo is promoting the recruitment of global human capital in order to strengthen a human capital strategy that secures top class talent and capabilities. To realize this goal, Hitachi Astemo introduced a global Talent Review in FY2020 to consider placement and training based on each employee's aptitude and career aspirations, and launched the system in FY2021. Discussions with labour unions that aim to advance the shift to job-based human capital management in Japan are ongoing.

# **Ensuring fair evaluations and compensation**

Hitachi Astemo believes that in order for diverse human capital of any nationality to play an active role, it is necessary to establish a global system to evaluate and treat them fairly, and we have established a management system based on the Global Compensation Philosophy, a core philosophy common to the Hitachi Group that is based on the principles of "ensuring market competitiveness," "pay for performance," and "maintaining transparency.

In determining compensation, we comply with the laws in each country and region, and we have developed an appropriate and competitive compensation system in light of the labor market of each business in each country and region. Additionally, we evaluate the performance of all employees each year before determining the amount of compensation. Evaluation results are fed back to each employee and used as a source of personal growth.

# 2 Human Capital

# **Global Human Capital Management**

# **Fostering the Hitachi Astemo culture**

Hitachi Astemo believes that improving employee engagement is an investment in business operations, and therefore requires all managers to take the following initiatives:

Helping employees balance work and personal life.

Add value to business and cost efficiency by improving rewards and rewards and providing benefits based on understanding employee needs.

Managers play an important role in promoting diversity, equity and inclusion, respect for employees, fostering relationships among employees, equal opportunity to speak up, listening kindly, and breaking down barriers when necessary.

Provide employees with a sense of accomplishment, build trust in leadership, and increase engagement through coaching and other manager support, 1-on-1 meetings, performance management, etc.

Empowerment: Delegating authority to get work done

Positive work environment: Flexible work environment, respect, rewards, fairness, inclusion.

Learning and capacity building: Assigning new projects to develop individual training roadmaps that foster independence.

Team support to practice Hitachi's health and safety principle of "safety and health protection takes precedence over everything else." Team members clearly understand the importance of the operating model (OPM) and confirm that OPM is actually taking place.

# Strengthening employee engagement

Hitachi Astemo has established the employee engagement score as one of the KPIs for human capital management in order to promote employee engagement to create a sustainable and strong organization. To improve employee engagement scores, we're focusing on the following three areas:

- 1. Management of supervisors
- 2. Employee engagement
- 3. Diversity, equity and inclusion

### Cycle of engagement surveys



		FY2021		FY2022									
Corresponding items	4th Quarter		1st Quarter			2nd Quarter			3rd Quarter				
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
Action plan formulation by top management													
Implementation of action plans													
Monitoring and follow-up (Check progress with each top management)													
Pulse survey implementation													
Conduct Hitachi Insight Survey in FY2022													
6 Analysis of survey results													

# **Human Resource Development**

# Approach to human resource development

Hitachi has traditionally emphasized the development of human capital, as evidenced by the establishment of the Apprentice Training School, the predecessor of today's Hitachi Industrial Skills Academy, in 1910 when Hitachi was founded. The educational philosophy of the education program, which was established in 1959, emphasizes the spirit of "providing guidance" and "strenuous effort" in the field of learning, and this spirit continues to be carried on today.

In addition to training through work in the workplace, Hitachi Astemo is developing training globally for the purpose of improving individual abilities, skills, and expertise. Going forward, we will continue to support the growth of each and every employee with the aim of developing human capital that contribute to solving social issues.

# **Development of management leadership**

Hitachi Astemo is working to develop medium- to long-term management leaders who will lead change and transformation.

To develop candidates for CEO, CxO, business unit heads, and other senior management positions in the next and subsequent terms, we select several hundred candidates from Hitachi Astemo human capital around the world and conduct OJT (on-the-job training) and Off-JT (off-the-job training and coaching) that incorporate stretch assignments\*1. In addition, for the talent pool of management leadership candidates, we select outstanding young people and send them to the Hitachi Group's "Future 50" program for intensive education by granting tough assignments \*2 and providing opportunities for direct discussions with outside directors.

<sup>\*2</sup> Tough assignment: Assigning highly difficult tasks.

Name of training	Training content
Global Leadership Positions Program for Key Positions (GAP-K)	Selection training to be conducted over a five-month period for the early development of future Hitachi Group management leadership candidates*.
Global Advanced Program for Leadership Development (GAP-L)	Training held twice a year for local leaders who are expected to play an active role in overseas subsidiaries, with the aim of developing high-level leadership, mindset, and skills to achieve Hitachi's global growth*.
Global Group Executive Development Course (Global GEC)	E-learning training for personnel responsible for management of overseas subsidiaries to understand the basics of Hitachi's management and acquire the latest knowledge for promoting social innovation business*.
Hitachi Astemo Selected Global Leadership Program	Selective training over a five-month period for the early development of future Hitachi Astemo management leadership candidates.
Global Leadership Acceleration Program for Managers (GAP-M) Ready to Lead (R2L)	Leadership training for general managers and new managers with the same content worldwide*.

\*Common to the Hitachi Group

<sup>\*1</sup> Stretch assignment: A training method that encourages employee growth by assigning tasks that are more difficult than the person's ability.

2 Human Capital

# **Human Resource Development**

# Fostering a coaching and feedback Culture

Hitachi Astemo is implementing initiatives to take root in a culture of coaching and feedback with the aim of managers leading teams more effectively and achieving organizational goals. In FY2021, we rolled out the coaching and feedback introduction e-learning program globally for managers with subordinates globally, and trained in-house instructors for coaching and feedback training.

# **Development of digital human capital**

In April 2021, Hitachi Astemo began its own DX human capital development efforts in order to promote its business plan. In July, a DX Working Group (30 members from 22 divisions) was formed, and in FY2021, four elearning programs were implemented with the objective of improving the DX mindset of employees, including materials on DX basics and the promotion of the use of business tools. Since programs have been developed regardless of department, there are over 15,000 participants in the DX basic courses globally. Also, about 350 managers participated in the DX lectures held to strengthen the DX mindset of managers.

Currently, there are approximately 1,000 employees working on DX, but in view of the future scale of DX-related businesses, it is anticipated that it will expand to over 3,000 by FY2030.

# **Utilization of Hitachi University**

At Hitachi Astemo, each employee can use Hitachi University, the Hitachi Group's common learning platform, to check his or her past learning progress and consult with his or her manager about the training necessary to achieve goals and future career advancement, and to take the necessary training when necessary. In addition, due to the COVID-19 pandemic, some of the technical training programs that were previously conducted through group training were converted to e-learning, which was also developed using Hitachi University, and the number of participants in FY2021 was approximately 2,000, an increase of 2.3 times compared to FY2019. Company-wide programs other than technical training were converted into elearning and deployed at approximately 50 Hitachi Astemo locations, and approximately 18,000 students were able to attend the course.

Hitachi Astemo will continue to utilize Hitachi University to promote global education development and promote autonomous human capital development starting from the workplace. The Human Capital Management Division checks the status of Hitachi University courses and participant questionnaires, and utilizes the results in considering effective training measures.

# Conducting skills assessments for engineers in Japan

In FY2015, we began a skills assessment program to periodically evaluate the skills of our engineers. This is a system where managers can objectively grasp the skill levels that individual engineers have self-diagnosed, formulate effective education plans for each person, and share and review them with the person during feedback interviews, etc. The strengths and weaknesses of the organization (the company as a whole, each department, etc.) can also be identified and linked to a sustainable human capital development plan for the organization. This diagnosis, which started in the software field, will be expanded to the hardware field (machinery, electrical and electronic, electric motors) in FY2018 and to the manufacturing (production technology) and quality assurance fields in FY2022.

# **Career development support**

As part of the promotion of career development, we regularly hold career interviews for indirect employees with the aim of fostering a sense of autonomous career development and sustainable career development for each and every employee. These interviews allow each individual to think about his or her own mid- to long-term career goals, share them with the manager, and proceed with mutual understanding and agreement on how to work toward those goals.

# **Diversity, Equity & Inclusion (DEI)**

### **DEI** initiatives

Hitachi Astemo is actively improving the environment and making efforts to not only enhance diversity, but also to increase the vitality of the organization by making use of their differences and demonstrating their strengths.

#### **DEI Vision**

Hitachi Astemo creates and leverages an inclusive work environment, one that embraces diversity and encourages employees to respect and inspire each other.

#### **Expanding DEI projects globally**

- We will break out of the shell of our daily decisionmaking and working style to understand unconscious biases and habits we may have had.
- We will value communication and collaborate with colleagues around the world.
- We will create an open environment where selfworth is respected, change is encouraged, and an open environment of mutual recognition and acceptance is maintained.

### Status of DEI achievement in 2021

Hitachi Astemo launched its DEI global initiative in October 2019 and worked to make it more effective in FY2021.

#### **Setting up meeting-free Friday afternoons**

As a measure to promote a healthier meeting culture and to bring creativity to our weekly activities, we are working to not set meetings every Friday afternoon. An employee survey conducted in February 2022, six months after implementation, showed that most employees were positive about the initiative. We plan to continue promoting it in FY2022 and beyond.

#### Development of unconscious bias training toolkit

We have developed the "Unconscious Bias Training Toolkit," a teaching material to properly understand unconscious prejudice and obtain necessary perspectives. It is now available to all managers through Hitachi Astemo's internal portal site.

#### Setting Hitachi Astemo's "Diversity Month" (2021)

May 2021 was designated as "Diversity Month" to raise awareness of diversity throughout Hitachi Astemo.



# **Occupational Health and Safety**

# Basic principles of occupational health and safety

The "Hitachi Astemo Group Health and Safety Policy" will never compromise on health and safety, and it is shared with all subsidiary companies globally. All of Astemo works together to create a safe, secure, and healthy workplace that is free from accidents, while also adopting from Hitachi the beliefs that we can all prevent occupational accidents, and that we are responsible for our own health. We are striving to build a culture where all Hitachi Astemo employees share this belief and act to ensure their own health and safety, while fostering a culture of mutual enlightenment.

# Establishment of a Health and Safety Management System

We are establishing a global health and safety management system, working towards "zero" business accidents, and strengthening employee health management. In collaboration with Hitachi's Safety and Health Management Promotion Division, we aim to ensure "occupational safety" and "occupational health and health," and by building an organization that supports employees' autonomous safety activities, we are improving the healthcare support system for employees—both physically and mentally—to promote health management.

The "General Safety Manager's Meeting" is held every month, attended by the safety and health managers of each department and each company, where members share a clear commitment to "place the highest priority on protecting the safety and health of employees," formulate plans and targets for company-wide safety and health activities, review the status of continuous improvement, check the progress of safety and health activities, education, and training in each department, and set and follow up on group-wide unified KPIs. In the course of these activities, especially important health and safety-related issues are reported to the auditors every month.

In Japan, the Central Safety and Health Committee, in which the labor union participates, meets once a term to discuss and share information on health and safety activities, including analysis of occupational accidents causes, countermeasures, and status of employees on sick leave.

## Hitachi Astemo health and safety policy

We will never compromise on health and safety.

#### [Basic policy]

Based on the enduring philosophy that "safety and health take precedence over everything else," Hitachi Astemo is united in its global efforts to create a safe, comfortable, and healthy workplace where all employees can work with confidence and vigor, with the belief that "safety is uncompromising."

#### [Basic initiatives]

- 1. Compliance with applicable laws, regulations, and self-imposed management standards.
- Prevention of "occupational accidents," "fire accidents," and "traffic accidents" by raising awareness of health and safety (building rule-abiding human capital and workplaces) and taking proactive measures against various risks.
- 3. Maintain and improve health and safety activities through occupational health and safety management systems.
- 4. Maintenance and promotion of "mental and physical" health through organized health management and meticulous attention to detail.
- 5. Minimize damage by developing both normal and contingency response methods for various risks.

## **Occupational Health and Safety**

### Contributing to the SDGs through health and safety

Hitachi Astemo's corporate activities realize a vibrant society and enrich people's lives. In particular, to contribute to achieving SDG 8 (job satisfaction and economic growth), we are promoting the active participation of diverse human capital and the creation of healthy and safe workplaces within the company.

#### Hitachi Astemo's goal of a sustainable safety System

To protect the safety of our employees, we aim to build a management system than spans from risk identification to investing in safety. In the unlikely event of an accident, we not only ascertain the actual number of lost time injuries, but also the accident ratios (TRIFR\*1 and LTIFR\*2) per total number of actual working hours to ascertain the true situation, which is not dependent on the site size.

We aim for sustainable management by adapting to global standards for health and safety through the sharing of risk information among these sites, standardization of processes for greater efficiency, accurate accident counts, and safety investments.



Horizontal deployment of best practices

\*1 TRIFR (Total Recordable Injury Frequency Rate)

\*2 LTIFR (Lost Time Injury Frequency Rate)

lost time injuries x 200,000

Number of casualties over and above 
Number of casualties resulting in lost time injury or more x 200,000

Total actual working hours

Total actual working hours

## **Establishment of a Health and Safety Management System**

### Workplace satisfaction = Happiness / approach from health and safety to improve wellbeing

Health and safety share a common basis, which is satisfaction and happiness/wellbeing in the workplace. Therefore, we are strengthening employee engagement in workplace health and safety by monitoring the workplace with the Wellbeing KPI, which consists of five elements related to health and safety, and linking it to wellbeing improvement measures.



#### Five elements of Wellbeing KPI

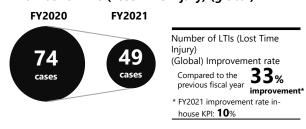


#### Examples of measures to improve wellbeing related to health and safety



Encourage leaders to take the initiative and encourage members to participate autonomously

#### Number of LTIs (Lost Time Injury) (global)



#### Number of near-miss reports (global)



HEALTH

AND

2 Human Capital

# **Occupational Health and Safety**

#### Measures to foster a health and safety mindset

We established workplace inspections and horizontal deployment of countermeasures in all forms, continued to thoroughly implement basic infection control under COVID-19, improved communication methods for telecommuting, conducted risk assessment and global general insepctions of facilities and the environment, and promoted an ongoing response to high-risk work. In addition, we established Health and Safety Week in the beginning of the fiscal year to promote health and safety, held presentations for horizontal deployment of measures and hosted theme-based team discussions across all sites, with awards given for outstanding efforts at a global safety forum held in December.

## Global Health and Safety Forum Agenda (Held in December 2021)

- Introduction/about the forum
- CEO message
- Best practice report[This year] Reported by EU and CN
- Q&A live session
   [This year's global themes] Safety Observation Routine
- CEO comment
- Closing/handover

## Initiatives to improve employee health

Based on the enduring philosophy that "safety and health take precedence over everything else," Hitachi Astemo believes in "never compromising on safety and health" and is united globally in its commitment to "creating a safe, comfortable, and healthy workplace" where all employees can work with confidence and vigor. The Health and Safety Committee, the Health and Safety Department, and the Occupational Health Department at each site in Japan take the lead in implementing employee health promotion measures, in cooperation with the Hitachi Health Insurance Association, and various internal departments.

#### **FY2021 Initiatives**

- Occupational health services were provided in healthcare rooms where occupational health staff such as occupational physicians, public health nurses, and nurses are stationed.
- 2. Implemented various health-assurance measures to prevent severe ailments following the results of regular health checkups, etc.
- 3. Prevented mental and physical illness through medical interviews and interviews with workers who work long hours.
- 4. Provided health counseling and guidance by occupational health staff to allay employee concerns about their health and encourage exercise habits.
- 5. Implemented a statutory stress check system, and actively promoted mental health problem prevention and revitalization.
- 6. Provided opportunities for improving the quality of occupational health activities and human capital development for occupational health staff through regularly holding meetings, research sessions, and workshops by both occupational health staff and health and safety personnel.

## **Occupational Health and Safety**

## **Mental Health Support**

Hitachi Astemo has established mental health support measures for employees, workplace managers, industrial health staff, and human capital departments, and is working to disseminate basic knowledge about mental health and stress management, while strengthening the employees' ability to deal with stress in each position. We are developing a proactive prevention approach to address the increasing mental burden of diversifying work styles and inhibiting behavior due to the COVID-19 pandemic.

In addition, based on the results of stress check group analysis and the opinions of industrial physicians, we are further promoting proactive measures for those requiring caution (promotion of interviews for those who have undergone stress checks and high stress, alerting them to the importance of taking attendance information into consideration, opening a consultation service for managers, conducting resilience education, and interviewing younger employees individually, etc.).

#### Mental health support measures

- Regular 1-on-1 interviews
- Expansion of remote consultation service for industrial physicians
- Introduction of the EAP\* consultation desk
- Posting of "self-care in telecommuting" and "workplace development in telecommuting" on the intranet
- Stress check group analysis health issue identification

#### \*EAP: Employee Assistance Program

#### **Promotion of Collaborative Health\***

Hitachi Astemo implements its own health promotion measures tailored to the characteristics of each company, and is also working to maintain and promote the health of its employees by making maximum use of the services provided by the Hitachi Health Insurance Association, while working to enable all our companies to obtain certification as a corporation with excellent health management from the Ministry of Economy, Trade and Industry.

#### \*Collaborative health:

Effective and efficient implementation of prevention and health promotion for enrollees (employees and their families) through active cooperation between insurers, such as health insurance societies and employers, with a clear division of roles and a favorable work environment.

### **Promotion of Medical Checkups**

Hitachi Astemo has established a system to subsidize the cost of health checkups by health insurance societies in Japan, especially for employees aged 35 or older, to encourage them to undergo physical examinations that are also statutory health checkups, undergo examinations for certain parts of the body according to their age, and to promote early detection and early treatment of life-style related diseases and cancers. In addition, as a response to metabolic syndrome we are actively promoting measures to prevent serious illnesses to prevent the onset of diabetes, stroke, and myocardial infarction, on top of the specific health guidance mandated for health insurance societies.

# Initiatives to Promote the Health of Employees and their Families

Hitachi Astemo uses "MY HEALTH WEB," a personal health portal site operated by the Hitachi Health Insurance Association, to encourage healthy behavior among employees and their families.

The site provides information such as incentive points and health checkup results to raise health awareness, and offers a variety of support services to monitor one's own health status and engage in healthy behaviors.

## **Freedom of Association and Collective Bargaining**

## **Respect for Basic Employee Rights**

Hitachi Astemo complies with respect for the basic rights of employees as stipulated in the "Hitachi Group Code of Conduct."

In Japan, where the formation of labor unions is permitted, Hitachi Astemo has a collective bargaining agreement between the CEO, who represents the company, and representatives of the labor union, which recognizes that the union has the three labor rights (right to organize, collective bargaining, and collective action).

The Hitachi Astemo labor union membership rate\* is approximately 97.8% (as of March 31, 2022).

# Dialogue between Labor and Management

Labor-management relations at Hitachi Astemo and subsidiaries in Japan are stable, and various discussions are held smoothly.

Hitachi Astemo has established the Central Management Council and Division Management Council, which meet regularly to ensure mutual communication between labor and management, smooth management, business development, and improvement of working conditions for union members.

Overseas group companies also engage in active dialogue based on laws and regulations in each country and region to deepen understanding between labor and management.

# Notification of Business Transfers and Secondments

The collective labor agreement that Hitachi Astemo has concluded with the Hitachi Astemo labor union stipulates that when transferring or seconding an employee for business reasons, the union must be notified immediately after the decision is made, after due consideration of the employee's own circumstances. In particular, it is stipulated that basic matters will be discussed with the union for mass relocation and transfers, etc.

# Labor-Management Cooperation to Improve Health and Safety Standards

The collective labor agreement signed by Hitachi Astemo and the Hitachi Astemo labor union establishes health and safety measures, the establishment of a health and safety committee, education, training, and medical examinations. Labor and management cooperate to improve workplace health and safety standards.

The Health and Safety Committee formulates annual plans for health and safety activities to create a safe and healthy work environment, confirming its progress; examines measures to prevent occupational accidents and their recurrence; and shares the status of health checkups.

<sup>\*</sup> All employees except union members/management staff (management staff are not eligible for union membership).

## Respect for Human Rights throughout the Value Chain

## **Respect for Human Rights of All People**

Hitachi Astemo believes respecting human rights is our responsibility as a global company and is essential to our business activities. We strive in our corporate activities to not to discriminate on the basis of gender, sexual orientation, age, nationality, race, ethnicity, ideology, creed, religion, social status, family origin, disease, disability, or any other factor, or to engage in any conduct that offends individual dignity. We also value engagement with relevant stakeholders to properly understand and respond to human rights impacts.

## **Human Rights Policy**

In May 2013, Hitachi Astemo established the "Hitachi Group Human Rights Policy" as one of the highest standards of internal regulations. This policy expresses respect for human rights as stated in the ILO Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO\*1), which sets forth fundamental rights at work, including the International Bill of Human Rights\*2, the effective recognition of freedom of association and the right to collective bargaining, the prohibition of all forms of forced labor, the effective abolition of child labor, and the elimination of discrimination in employment and occupation. In addition, it clearly stipulates the implementation of human rights due diligence (HRDD)\*3 based on the United Nations Guiding Principles on

Business and Human Rights\*4 and appropriate training for employees, compliance with the laws and regulations of the countries and regions in which the Hitachi Group operates, and the pursuit of methods to respect international human rights principles when there is a conflict between internationally recognized human rights and the laws of the countries and regions in which the Hitachi Group operates.

Regarding children's rights, we strive to eliminate child labor and forced labor in our own operations and in our supply chain, and the Hitachi Group Codes of Conduct stipulate that we give due consideration to human rights, including the rights of children.

- \*1 ILO: International Labour Organization
- \*2 International Bill of Human Rights

Collective name for the Universal Declaration of Human Rights and International Covenants on Human Rights adopted by the United Nations General Assembly.

- \*3 Human rights due diligence (HRDD) Identifying and assessing negative business-related human rights impacts, implementing prevention and mitigation measures, and continuously verifying and disclosing the effectiveness of such measures.
- \*4 "Guiding Principles on Business and Human Rights"

  The principles are contained in the "Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and other Business Enterprises" published by John Ruggies in March 2011 (A/HRC/17/31).

# Human Rights Due Diligence (HRDD) Initiatives

#### **Development of HRDD promotion system**

Social

Hitachi has established the Diversity Steering Committee as a structure to promote HRDD throughout the Hitachi Group and lead Diversity Equity & Inclusion globally.

Hitachi Astemo has also established a system for promoting HRDD internally, and in cooperation with Hitachi's HRDD promotion team, is examining HRDD promotion measures for the Hitachi Astemo companies and suppliers, conducting educational activities, and responding to inquiries.

In addition, in order to implement HRDD rooted in each business of Hitachi Astemo, we have appointed a person responsible for implementing HRDD at each major subsidiary company, and are developing a system to strengthen human rights risk management that takes into account business characteristics and the respective value chains.



## Respect for Human Rights throughout the Value Chain

### **Outreach to Procurement Partners**

As a member of the Hitachi Group, Hitachi Astemo makes it clear that it does not tolerate child labor nor forced labor in its own operations or in its supply chain, in accordance with the Hitachi Group Human Rights Policy. As the globalization of business increases, the likelihood of the risk of forced labor, as well as the importance of preventing forced labor and human trafficking as a company is also explained in an elearning course on human rights for employees.

In order to share these basic stances with our procurement partners, we have distributed the "Hitachi Group Supply Chain CSR Procurement Guidelines" to ensure that they are well understood throughout the supply chain.

In FY2021, we created a survey form on human rights for forced labor and migrant labor, which the Hitachi Group has identified as a common priority risk. In FY2022, we are planning to cooperate with the Procurement Division of the Hitachi Group to evaluate the status of measures within Hitachi Astemo and to conduct surveys of procurement partners.

# Raising Awareness and Education of Human Rights of Executives and Employees

Hitachi Astemo conducts educational activities to raise awareness of human rights through the use of videos, and promotes the goal of having employees take one course each year. In addition, through various training and awareness-raising activities, such as onboarding education for new employees and position-specific training, we communicate the importance of respecting human rights to each employee in his or her work.

### Development of a Global Grievance Mechanism

In 2020, Hitachi Astemo unified its multiple whistleblower systems into the Hitachi Global Compliance Hotline, a common whistleblower system for the Hitachi Group. We use a third-party platform as a consultation service, which is available in dozens of languages and 24 hours a day through our Internet portal and telephone. In line with this change, the consultation and reporting systems (contact points) for harassment and human rights issues in general, which had been in place at Hitachi Astemo and subsidiary company offices, have been integrated into this hotline in principle.

Clarifying a point of contact where your voice can be heard with peace of mind will lead to a reliable understanding and identification of rights infringement events as a company. Through these efforts, Hitachi Astemo is promoting the establishment of a complaint-handling mechanism on a global basis.

# Quality

## **Approach to Quality Assurance Activities**

At Hitachi Astemo, all employees share the philosophy of "quality and reliability first," based on Hitachi's founding spirit of "harmony, sincerity, and a pioneering spirit," the values of "basics and ethics" and "good and bad rather than profit and loss" are thoroughly upheld. Based on Hitachi's "Hitachi Group Codes of Conduct," when providing products and services, we are committed to ensuring quality and safety by meeting customers' needs and specifications, fulfilling relevant laws and standards, and setting voluntary standards as necessary. The basic philosophy of quality assurance is also stated in the Quality Assurance Regulations in our company regulations, and we promote activities to strengthen quality assurance from the perspectives of "organization and management," "technology," and "human capital" in all processes—from product planning and development to design, manufacturing, testing, delivery, and maintenance services. Furthermore, based on the idea that "prevention is the essence of quality assurance," we are strengthening "defect prevention" activities that go beyond "preventing defects from recurring."

Hitachi has a unique approach called "gleaning," a method of developing technology through analyzing failures and thoroughly learning from them. When a serious defect occurs, we thoroughly discuss not only the technical causes of the product, but also the process, organization, and motivating factors that led to the defect, as well as the prevention of recurrence, in order to improve product reliability and customer satisfaction.

## Framework for Quality Assurance and Quality Assurance Activities

To ensure thorough quality governance, Hitachi Astemo has separated the company-wide Quality Assurance Department from the Manufacturing Department to create a system that allows us to act with the safety and security of our customers as our first priority.

#### Compliance with technical laws and regulations

 We are promoting compliance activities and continuous improvement of processes through the Cyber Security and Software Update Regulations Compliance Management System, established by the World Forum for Harmonization of Vehicle Regulations (WP29) in June 2020.

#### Thorough safety design of products and services

- We strive to ensure safety by "reducing risk through design (intrinsic safety design)," "reducing risk through protective measures (safety protection)," and "reducing risk through information in use."
- We conduct risk assessments from a broad perspective in cooperation with related Hitachi Group companies and laboratories.
- During product development, the safety of human life, body, and property is our top priority in design, and safety is verified in all processes—from development to production, sales, and maintenance.

#### Strengthening the global quality assurance system

- We are strengthening our global quality assurance system by globally developing the basic philosophy of quality assurance activities, establishing global quality assurance regulations, reporting defects from overseas subsidiary companies, and, as in Japan, establishing a quality assurance reporting line independent of business divisions while implementing the "gleaning" method.
- \*Activities to develop skills through analyzing and thoroughly learning from failures.

4 Value Chain Management

# Quality

## **Response to Product Defects**

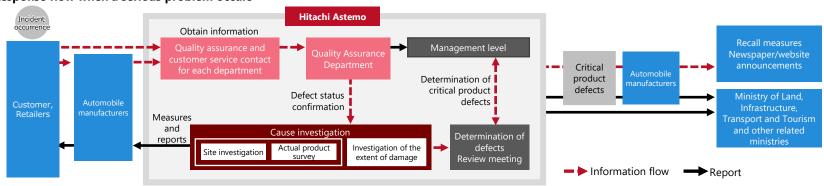
In the event of a product defect, the department in charge of the product will take the lead in promptly responding to the problem. In the event of a serious problem, we report it to the automakers, who are Hitachi Astemo's direct customers, and promptly report the situation to management, so that Hitachi Astemo can work as one to take prompt and appropriate measures.

When we determine that a product requires retroactive countermeasures, Hitachi Astemo consults with the automakers that are its direct customers, as it does when a product defect occurs, and implements measures—such as repair or replacement—and reports the matter to the competent authorities as necessary.

# Implementation of Quality and Reliability Training

Focusing on engineers involved in manufacturing, we offer technical courses by field to improve technologies related to manufacturing, quality assurance, and maintenance, as well as technical courses by level, such as "application" and "basics."

#### Response flow when a serious problem occurs



### **Inappropriate conduct in Hitachi Astemo**

In December 2021, we held a press conference regarding inappropriate conduct in periodic testing, including of brake components manufactured at our Yamanashi Plant (Minami-Alps City, Yamanashi Prefecture) and suspension components manufactured at our Fukushima Plant (Kuwari-machi, Date-gun, Fukushima Prefecture). This press conference was held based on the results of an internal investigation conducted in response to information provided by an employee regarding inappropriate behavior. We deeply apologize for any inconvenience this may have caused to our customers and stakeholders.

To prevent recurrence, in April 2021, Hitachi Astemo established the Governance Office to strengthen risk management as a headquarter function, in addition to a dedicated auditing organization in the Quality Control Division. In December 2021, we established a special investigation committee of outside lawyers to investigate the facts and causes of the occurrence from an independent and objective standpoint, and we are working to enact sweeping measures to prevent reoccurrences. We will continue to further strengthen compliance and do our utmost to restore trust.

Notice concerning inappropriate behavior such as failure to conduct periodic tests on some products

## **Customer Satisfaction**

## **Framework to Apply Customer Feedback to Our Business**

Hitachi Astemo's Sales Department assigns a global account manager to each major customer to utilize the opinions of customers—such as automobile manufacturers—in business management, products, and solutions, and to link this to the improvement of the customer's corporate value. The person serves as the liaison between Hitachi Astemo and its customers around the world, and works with the global account teams in each region of the world and the product sales teams in divisions and business units to strengthen relationships with customers.

In addition, to support the product sales activities of global account managers, divisions and business units, the Sales Department includes a headquarters that plans and drafts global sales policies, guidelines, priorities, etc.; a headquarters that conducts marketing and promotional activities from a technological perspective, based on the global customer strategy of global account managers; and a global program management for the launch of customers' programs, which is organized as a support structure for global sales activities.

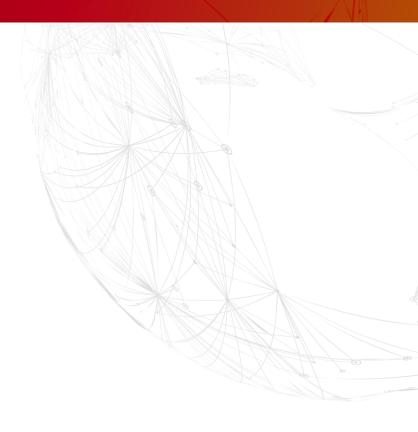
#### **Examples of Activities to Address Customer Needs**

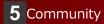
Initiatives	Objective
Actual vehicle demonstration	We verify the direction of advanced technology and respond to customer requests through joint development proposals, etc.
Technical meeting	After reliably grasping trends in the technology industry, we propose advanced technology development that responds to customer needs.

#### **Customer Satisfaction Results**

Each customer's rating for our quality is viewed as a customer evaluation, and our KPI is "80% or more achieved" in terms of overall achievement.

Target year	Actual results
FY2020	80% or more achieved
FY2021	80% or more achieved





## **Social Contribution Activities**

### **About Social Contribution Activities**

Hitachi Astemo aims for sustainable development with all stakeholders, including customers, partners, employees, and local communities. To that end, we will have awareness and take responsibility as a member of society, proceed with actions aimed at achieving harmonious growth, share joy with everyone, and build on this.

#### **Examples of social contribution activities**

#### Regional greening activities

In each region where we have business bases, we are actively deepening exchanges with local communities, and are making initiatives to create abundant greenery in the future—such as ecosystem conservation and greening activities.

#### Connections with local communities

We are conducting fund-raising activities to support cancer treatment centers, support disaster-stricken areas including with donations (from collecting food and clothing to distribution to local governments), and providing sales support for products created at facilities for people with disabilities.

# Support for the development of next-generation engineers

We are striving to nurture the engineers who will lead the future by developing the Kids Engineer Development Project for elementary school students, supplying products and technical training to teams of high school students participating in the Eco Mileage Challenge\*, and supplying products to university student teams participating in student formulary activities.

\*Using a Honda 4-stroke engine, this challenge calls on participants to explore the limitless possibilities of how many kilometers can be traveled with one liter of gasoline, and to compete with original ideas and technology. The cars in the competition drive a specified number of laps (distance) in a specified time, and fuel efficiency is calculated based on fuel consumption.

The event is held by Honda Motor Company, and in addition to high school, vocational school, and university student classes, a junior high school class has been newly established since 2005.

#### **Social contribution-related expenses**

In the promotion of social contribution activities in FY2021, a total of 9,788 people\* were involved in social contribution activities. Related expenditures were approximately 90 million yen\*, about the same level as in FY2020, in part due to the continued spread of COVID-19 affecting many activities.



<sup>\*</sup>Figures are results for the Japan region.

- 1 Corporate Governance
- 2 Compliance
- 3 Risk Management
- 4 Information Management

1 Corporate Governance

## **Corporate Governance**

Hitachi Astemo is a company with a Board of Directors, corporate auditors, and accounting auditors. The two shareholders are Hitachi, Ltd. (hereinafter referred to as "Hitachi") and Honda Motor Co., Ltd. (hereinafter referred to as "Honda Motor"), with Hitachi and Honda Motor currently holding 66.6% and 33.4% of the voting rights, respectively. Basic matters concerning corporate governance and operation, including the Board of Directors, are stipulated in the shareholders' agreement, the Articles of Incorporation, and the rules of the Board of Directors of Hitachi and Honda Motor.

## **Board of Directors Composition**

Currently, the shareholders' agreement stipulates six directors, of which Hitachi may nominate four and Honda Motor may nominate two. One of the directors nominated by Hitachi will be the Chairman of the Board (part-time); one of the directors nominated by Honda Motor will be an executive director, and the other will be a non-executive director. For executive director candidates nominated by Hitachi or Honda Motor, prior to nomination as candidate for directors the representative director shall have prior confidence in the candidates, provided that they satisfy the necessary qualifications to fulfill their duties as executive directors.

Currently, two persons from Hitachi and one person from Honda Motor have been elected as Hitachi Astemo directors. In addition, there shall be two representative directors, and Hitachi may nominate any of them after prior consultation with Honda Motor.

The Board of Directors has established a Nomination and Remuneration Committee as a voluntary advisory body to enhance management oversight functions. The committee deliberates on the selection of directors and executive officers, remuneration, etc. based on the predetermined operating guidelines, and recommends them to the Board of Directors, based on the Board of Directors' decisions.

Currently, the shareholder agreement stipulates that Hitachi Astemo has three auditors, two of whom can be nominated by Hitachi and one by Honda Motor.

Currently, one person from Hitachi has been nominated as an auditor of Hitachi Astemo. The two auditors have many years of experience and considerable knowledge of accounting and finance operations.

Hitachi Astemo has established the Executive Committee (EC), which consists of executive officers, as a body to deliberate and decide important management matters.

The Board of Directors of Hitachi Astemo is the body that decides the most important matters in the management of the company and has the role of supervising their execution.

Hitachi Astemo has retained Ernst & Young ShinNihon LLC as its accounting auditor.

1 Corporate Governance

## **Corporate Governance**

# Operational Status of the Board of Directors

The Board of Directors determines the basic management policy of Hitachi Astemo. It supervises the execution of duties by executive officers and directors to continuously improve the corporate value of Hitachi Astemo and the interests of shareholders. Basic management policies include the medium-term management plan and annual budget, and the Board of Directors focuses on strategic discussions regarding basic management policies, in addition to resolutions stipulated in laws and regulations, the Articles of Incorporation, or the rules of the Board of Directors. In FY2021, the Board of Directors met for seven regular meetings and three extraordinary meetings. There were also two written resolutions. To assist the Board of Directors in its duties, a Board of Directors Office has been established and staff members assigned.

## **Strategic Discussion**

Hitachi Astemo has introduced an executive officer system, in which directors supervise execution. While it is important to communicate the status of execution to the Board of Directors and convey discussions held at the Board of Directors meetings, the prerequisite for this is the need to stimulate discussion at Board of Directors meetings. For this reason, Hitachi Astemo sets strategically important agenda items for discussion at each Board of Directors meeting, with the aim of enhancing the value of Hitachi Astemo. The agenda of this strategic discussion is determined from the following perspectives: 1) How Hitachi Astemo can create and grow corporate value as an independent company, 2) How it can advance technology leadership and innovation as a technology company, and 3) How it can strengthen its global risk management system and practices. In addition to reporting and discussing the business strategies of each business division and business unit, the strategic agenda includes issues and strategies that are important to Hitachi Astemo, such as environmental strategy, risk management, finance, quality, and human resources strategies, and are actively discussed. In FY2021, 15 strategic discussions were held by the Board of Directors, and key points were communicated to management.



## 1 Corporate Governance

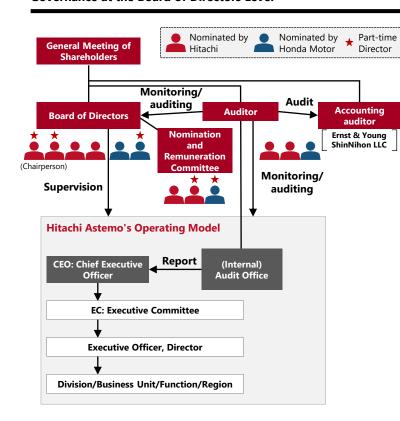
## **Corporate Governance**

## Framework to Ensure the Efficient Execution of Duties by Directors

Hitachi Astemo's Board of Directors decides on the development of frameworks to ensure appropriateness of operations. Among these resolutions, the following resolution was adopted as a "framework to ensure the efficient execution of duties by directors."

- To ensure the efficient execution of duties, directors clearly separate management supervision functions from business execution functions and promote the efficiency of the execution of duties.
- The Executive Committee shall be organized and deliberate on important matters affecting Hitachi Astemo and its subsidiary companies as a whole, in order to make careful decisions based on multifaceted considerations.
- To operate our business systematically and efficiently based on our management policy, we have formulated a medium-term management plan and annual budget, and manage business performance based on these plans.
- We have established an Investment and Financing Strategy Committee to improve asset efficiency by allocating investments appropriately and ensuring the profitability of individual projects.
- Directors receive reports on the results of internal audits conducted by the parent company.

#### Governance at the Board of Directors Level



#### **Board of Directors**

Director

#### ■ Roles and responsibilities:

- Lawful management and operation of the entire company, in accordance with the Companies Act.
- Hitachi Astemo's Board of Directors delegates business operations to executive officers, including the CEO. The main role of the Board of Directors is to supervise the management of the company and the work of the executive officers.
- Examination of major decisions based on the Companies Act, etc. The conditions for approval under the shareholder agreement must be considered.
- Composition agreed in the agreement between the two companies (shareholders' agreement):
- · Comprised of a total of six directors. Four are nominated by Hitachi, and the remaining two are appointed by Honda Motor.

#### **Nomination and Remuneration Committee**

#### ■ Roles and responsibilities:

- · A committee attached to the Board of Directors determines the nomination and compensation of Hitachi Astemo's executive officers.
- Composition agreed in the agreement between the two companies (shareholders' agreement):
- · Comprised of a total of three directors. Two are appointed by Hitachi (one part-time director and one full-time director) and one is appointed by Honda Motor (part-time director).

#### Auditor

#### ■ Roles and responsibilities:

- Elect by resolution of the General Meeting of Shareholders.
- · Monitor and audit the activities of the Board of Directors and management under the Companies Act.
- Structure agreed in the agreement between the two companies (shareholders' agreement):
- · Comprised of a total of three auditors. Two are appointed by Hitachi and one by Honda Motor.

Social

2 Compliance

## **Business Practices in Accordance with International Norms**

#### **Hitachi Astemo Code of Conduct**

Based on the "Hitachi Group Code of Conduct," Hitachi Astemo has established the "Hitachi Astemo Group Code of Conduct" as a common code of conduct for the Hitachi Astemo, and all officers and employees pledge to comply with it.

We also utilize the "Hitachi Group Code of Corporate Ethics and Compliance" established in April 2020 to supplement the "Hitachi Group Code of Conduct" and further clarify our approach to corporate ethics and compliance that should be shared throughout the Hitachi Group.

Every year, Hitachi Astemo conducts compliance education on corporate ethics to all officers and employees around the world. This ensures that the officers and employees with diverse cultural and educational backgrounds are more thorough in their conduct and compliance, based on corporate ethics.

#### **Initiatives in FY2021**

We distributed and disseminated an onboarding kit containing educational content on the "Hitachi Group Code of Conduct" and the "Hitachi Group Corporate Ethics and Compliance Code," so that employees who newly became members of the Hitachi Group following the business integration in January 2021 can quickly understand Hitachi's basic approach to compliance.

### **Compliance Promotion Framework**

As a member of the Hitachi Group, Hitachi Astemo has established the "Hitachi Group Compliance Program (HGCP)" and promotes compliance based on the "Hitachi Group Code of Conduct" and the "Hitachi Group Code of Corporate Ethics and Compliance Code."

As a system to implement this program, Hitachi Astemo has established the "Compliance Committee," chaired by the President & CEO and vice-chaired by the Chief Compliance Officer (CCO), and comprehensively promotes the compliance activities of Hitachi Astemo centered on this committee.

Each regional headquarters has a regional compliance officer who is responsible for overseeing compliance activities in the region, and through communication with the person in charge, we share basic policies and information on compliance with each region.

In addition, each subsidiary company in the region has a compliance manager who is responsible for overseeing compliance activities at each company and promoting compliance activities through education and information sharing at each company.

Regarding the status of compliance measures, we not only clarify issues in promoting compliance measures through individual dialogue with regional compliance officers and subsidiary companies, but also conduct regular audits in the compliance field for all subsidiary companies to confirm their appropriateness. If, as a result of the audit, any items that require improvement are found, corrective measures are taken promptly.

### **Compliance Reporting Framework**

To prevent and promptly correct illegal or inappropriate acts and improve self-governing capabilities, Hitachi Astemo has introduced the "Hitachi Global Compliance Hotline," a Hitachi Group-wide compliance reporting system that allows users to directly report compliance violations or suspected violations, including the provision of illicit benefits to public officials in Japan and overseas. The system allows anonymous reporting, and is available not only to Hitachi Astemo employees, but also to temporary employees suppliers, distributors, and other business partners. We investigate all reports, confirm the facts, respond to the results of the investigation, and take corrective measures as necessary. In FY2021, the Astemo received 217 reports.

#### **Initiatives in FY2021**

In FY2021, we introduced the "Hitachi Global Compliance Hotline," a reporting system common to the Hitachi Group, to enhance our governance and further ensure compliance for all companies that newly joined the Hitachi Group through business integration. For reports received through this hotline, we strive to promptly investigate, respond, and implement corrective measures in cooperation with relevant departments at each business site, plant, and subsidiary company.

2 Compliance

## **Business Practices in Accordance with International Norms**

# **Prevention of Antisocial Transactions and Money Laundering**

To cut off any relationship with antisocial forces, Hitachi Astemo rejects all unreasonable demands and unfair transactions, and stipulates in the "Hitachi Astemo Group Code of Conduct" that it will never engage in antisocial transactions. In addition to regular screening of new as well as existing business partners for eligibility, Japan has taken measures such as including clauses in transaction agreements to exclude organized crime groups, in case the other party is found to be an antisocial force after the transaction has commenced.

Moreover, we are working with Hitachi and external specialized organizations (such as the National Center for Removal of Criminal Organizations and the police) to eliminate access by antisocial forces.

In FY2020, the Hitachi Group as a whole clarified its stance of not tolerating money laundering. It added money laundering provention provisions to this end to strengthen specific initiatives, in addition to preventing antisocial transactions.

## **Anti-Bribery Policy**

Preventing business-related corruption is a major challenge for companies. As part of the Hitachi Group Compliance Program (HGCP), Hitachi Astemo has established the "Hitachi Group Anti-Bribery and Corruption Rules" and related regulation. They stipulate that directors and employees must comply with Hitachi's internal rules when providing or accepting entertainment or gifts, and when making donations or providing political funds (political contributions), which must not exceed the scope permitted under anti-bribery-related laws and regulations.

In addition, the rules also provide specific limits on the amount and frequency of entertainment and gifts to public officials, as well as prohibit facilitation payments and establish procedures for screening business partners. In addition, we thoroughly comply with the Foreign Corrupt Practices Act (FCPA) in the United States and other anti-bribery laws in each country and region, which have become stricter in recent years.

#### **Anti-Bribery Awareness Campaigns**

Hitachi Astemo has created and deployed teaching materials in multiple languages, which are used by all employees to ensure that everyone is aware of the anti-bribery policy and rules for prevention stipulated in the "Hitachi Group Code of Conduct," the "Hitachi Group Code of Corporate Ethics and Compliance Code," and the "Hitachi Group Compliance Program (HGCP)."

2 Compliance

## **Business Practices in Accordance with International Norms**

### **Competition Law Compliance Policy**

Hitachi Astemo upholds "acting based on laws and correct corporate ethics" and "fair and free competition" as the basis of its business activities. The Hitachi Group Compliance Program (HGCP) strives to comply with the "Hitachi Group Competition Law Compliance Rules" as well as other related rules and regulations.

#### **Initiatives to Prevent Competition Law Violations**

Similar to its anti-bribery initiatives, Hitachi Astemo conducts global activities to raise awareness of competition law compliance through education. It strives to thoroughly comply with relevant rules, business standards, and guidelines, and creates standards for overseas audiences related to contact with competitors globally to disseminate practical precautions.

### **Export Control**

Based on the "Hitachi Group Code of Conduct," Hitachi Astemo's basic policy for export control is to comply with laws and regulations related to imports and exports globally and to conduct appropriate management in accordance with internal regulations to maintain international peace and security. In accordance with this basic policy, Hitachi Astemo has established the "Security Export Control Regulations." It strictly controls all export goods and technologies based on laws and regulations, and after examining the destination countries and regions, customers and uses. In addition, subsidiary companies also support their activities through education and other means to provide guidance on the establishment of rules and systems, ensuring that export control is carried out in accordance with the laws and regulations of the relevant country or region. In addition, we are thoroughly promoting the participation of general education programs on export control currently being implemented within the Hitachi Group.

As a result, we are continuing our efforts to ensure that export control is thoroughly enforced throughout Hitachi Astemo.

## **Violations of Laws and Regulations**

In FY2021, there were no cases of prosecution or sanctions from authorities related to bribery, competition law or export controls. Regarding tax compliance, we comply with the laws and regulations of our bases in each country and region, and have not received any fines or other sanctions for violations of laws and regulations that have a significant impact.

# **Addressing Risks and Opportunities, Business Continuity Initiatives**

## **Risks and Opportunities**

Based on the recognition that it is essential to anticipate future risks and respond quickly in order to survive as a business entity in times of volatility, uncertainty, complexity, and ambiguity (VUCA), Hitachi Astemo is working to strengthen company-wide risk management and strives to increase corporate value.

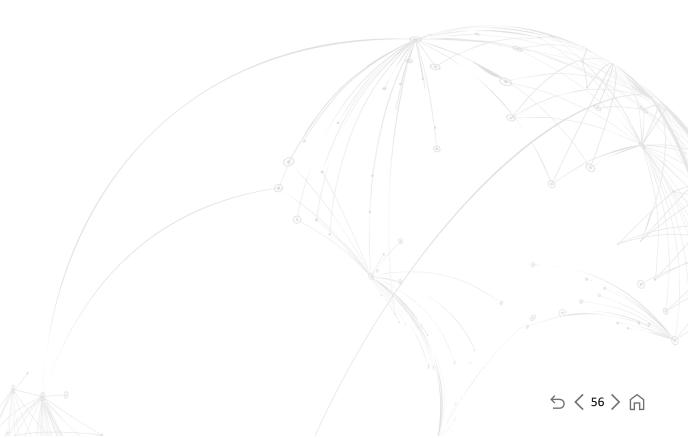
As part of these efforts, we established a new CRMO (Chief Risk Management Officer) in April 2021 to strengthen our risk management system.

The heads of business divisions, business units, functions, and regions are positioned as Risk Management Officers (RMOs) in their respective organizations, and risk assessments are conducted using company-wide methods standardized by each organization, while measures are planned and implemented in consideration of "opportunities." In addition, the Risk Management Committee—chaired by the CRMO and composed of Executive Committee members—deliberates and approves risk management policies, evaluates the results of risk assessments conducted by each organization since FY2022, examines opportunities, and strengthens risk countermeasures from a company-wide perspective.

## **Approach on Business Continuity Plans (BCPs)**

The basic policy of Hitachi Astemo is to take measures to prevent risks that can be assumed in business activities, minimize damage to employees and the company in the event of risks, and to continue business.

In the event of a crisis that has a significant impact and cannot be resolved without company-wide efforts, the CRMO will establish a global crisis response headquarters with the participation of all functions and related business divisions, business units, and regions to respond flexibly.



4 Information Management

# **Information Security**

## **Information Security Policy**

As a member of the Hitachi Group, Hitachi Astemo is committed to information security based on Hitachi's policies. To minimize the risk of information leakage and suspension of operations due to cyberattacks, etc., which may hinder the continuation of the business itself, we have positioned information security governance as one of the important management issues. In addition, as a global company, we recognize cybersecurity risks as one of the management risks. We have established an information security policy that is consistent with the company's management policy, taking cybersecurity risk management into account, so that we can declare the response policy of the entire organization both inside and outside the company.

### **Information Security Policy**

- Formulation and Continuous Improvement of Information Security Management Rules
- 2. Protection and Continuous Management of Information Assets
- 3. Compliance with Laws and Regulations
- 4. Education and Training
- 5. Accident Prevention and Response
- 6. Ensuring the Optimization of Operations in the Corporate Group

# Framework for Promoting Information Security

At Hitachi Astemo, the Chief Information Security Officer (CISO), who is responsible and authorized to implement and operate information security and personal information protection, is responsible for promoting information security for all Hitachi Astemo products, services, and internal facilities. Policies and various measures for information security and personal information protection are decided by the "Information Security Committee," chaired by the CISO. In principle, the head of the site serves as the information security manager at business units and offices, and an information security promotion department is established to manage security at each workplace and educate employees. Group companies have established similar organizations to promote cross-sectional information security in cooperation with each other.

### **Information Security Management**

Hitachi Astemo has established the "Global Information Security Management Regulations" based on ISO/IEC 27001, an international standard. In addition, we are working to comply with the U.S. government standard SP800-171 and strengthen information security management. In addition to deploying these rules globally from the headquarters of Hitachi Astemo and each subsidiary company, we are actively promoting the use of security shared services and support from Hitachi's regional headquarters in the Americas, Europe,

Asia, China, India, and other countries. Hitachi Astemo communicates its policy and various measures regarding information security and personal information protection decided by the "Information Security Committee" to each business site and group company through the Information "Security Promotion Committee," etc., and the information security manager thoroughly implements them in the workplace.

#### **Security Monitoring**

Hitachi Astemo provides 24-hour, 365-day-a-year security monitoring by Hitachi's SOC\*1, and collects and deploys threat intelligence\*2 and incident response by Astemo CSIRT\*3 for early detection and rapid response to global-scale cyberattacks. As cyberattack methods become more sophisticated year by year, evading conventional detections, delaying detection and causing damage, since FY2020 Hitachi Astemo has been working to build a cyber surveillance environment that constantly incorporates the latest technologies to respond to this threat. In addition, we conduct penetration tests\*4 to identify vulnerabilities in the system and take countermeasures.

- \*1 SOC: Security Operation Center
- \*2 Threat intelligence: An initiative to derive knowledge on new threats from multiple pieces of information related to cybersecurity and utilize it for security measures.
- \*3 CSIRT: Computer Security Incident Response Team
- \*4 Penetration test: A method of testing whether a system has security vulnerabilities by attempting to penetrate a system connected to a network such as the Internet using various technologies.

4 Information Management

# **Information Security**

## **Preventing of Information Leaks**

Hitachi Astemo is implementing common IT measures such as device encryption, access control/revocation processing software for electronic documents, identity management and access control by building an authentication infrastructure, and e-mail and website filtering systems as specific measures to prevent information leakage. In response to cyberattacks such as targeted e-mails, we are strengthening various measures such as multi-layered IT defense, along with information sharing efforts through public-private partnerships.

In addition, to prevent information leakage from suppliers when outsourcing operations that handle confidential information, we confirm and examine the status of information security measures of suppliers in advance, based on the information security requirement standards established by Hitachi Astemo. Morever, we provide suppliers with business information inspection tools and security teaching materials in information equipment, and request that personally owned information devices inspect and delete business information.

## **Education on Information Security**

Hitachi Astemo conducts e-learning education on information security and personal information protection for all officers and employees every year. In addition, we provide information security education by preparing a variety of educational programs for each target and purpose, such as classroom training for new employees and newly appointed managers.

In addition, as an education for cyberattacks such as targeted attack e-mails, we send simulated e-mails disguised as actual attack e-mails to employees and conduct "Targeted Attack E-mail Simulated Training" to increase security sensitivity through the experience. Information system administrators are trained to respond to cyberattacks.

Hitachi Astemo's educational content is shared with all group companies, and Hitachi Astemo as a whole is actively engaged in information security and personal information protection education.

# Thorough Information Security Audits and Inspections

Hitachi Astemo's information security is promoted through the PDCA cycle of the information security management system established by Hitachi, and all subsidiary companies and departments conduct audits of information security and personal information protection once a year.

Audits at Hitachi Astemo are conducted independently by the Chief Audit Officer appointed by the President & CEO. The impartiality and independence of audits are ensured by stipulating that auditors may not audit their own departments. The audit results are reported to Hitachi.

For subsidiary companies outside Japan, we conduct global self-checks, and Hitachi Astemo as a whole is engaged in audits and inspections.

# Hitachi Astemo, Ltd.