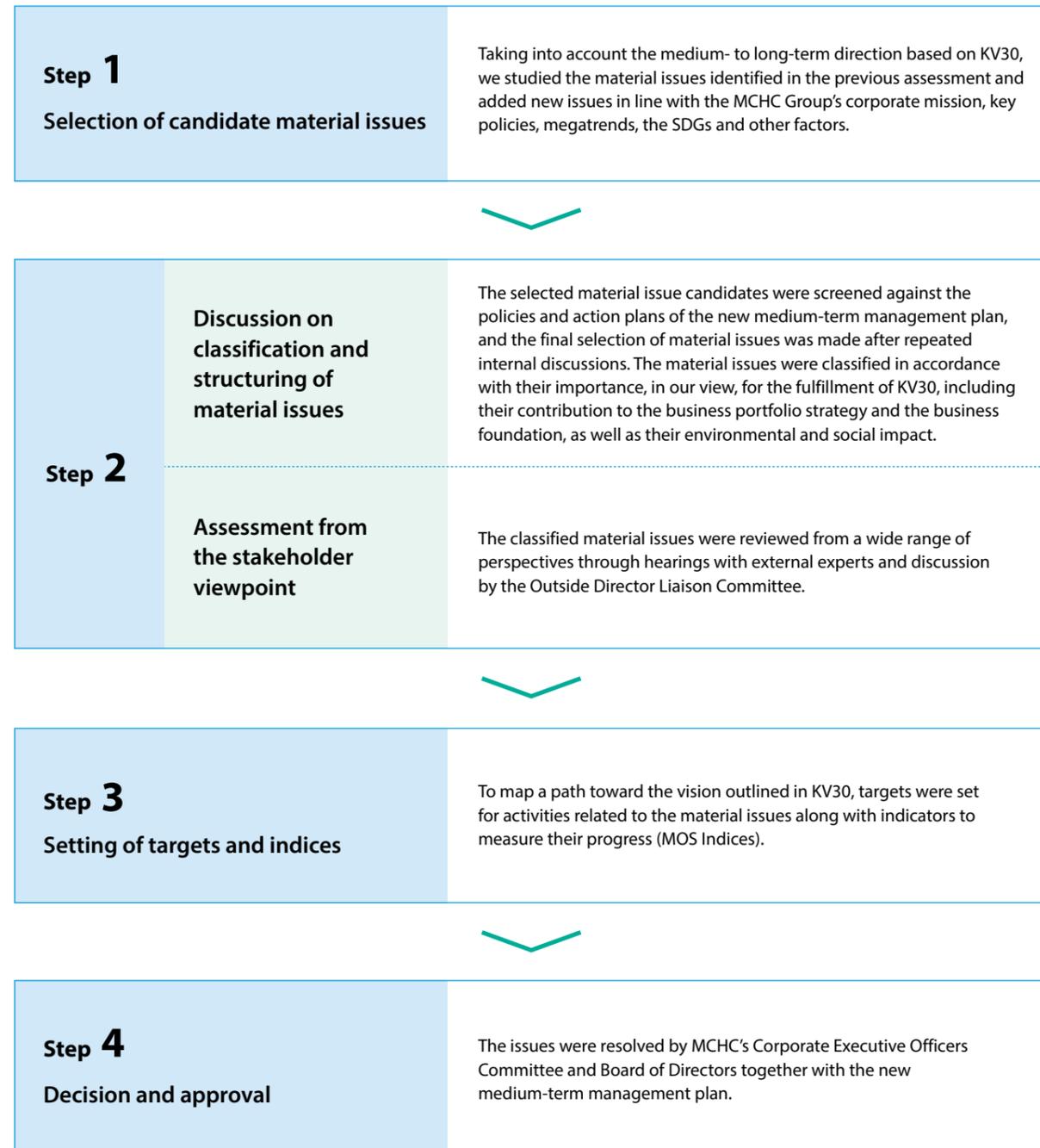


Material Issues Identified in APTSIS 25 and New MOS Indices

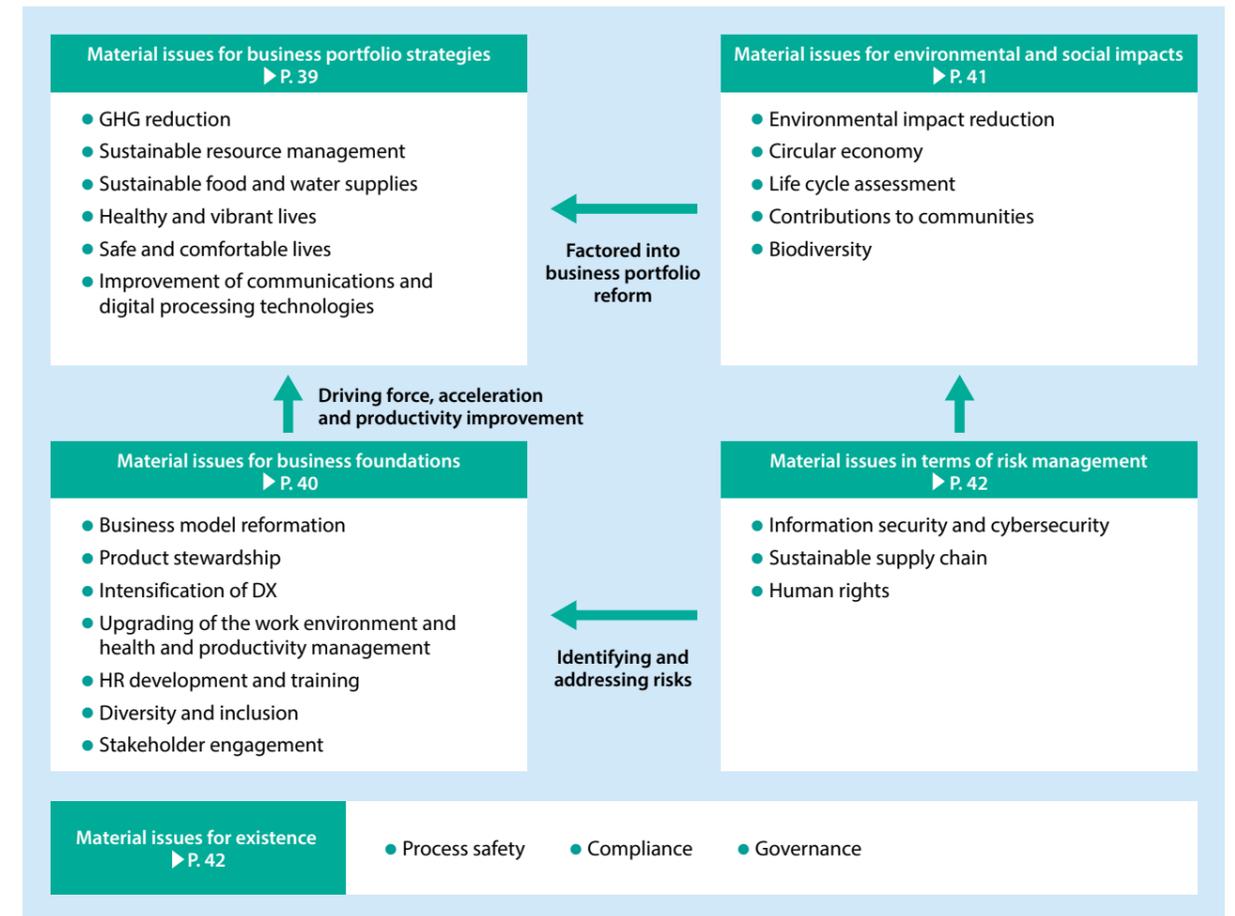
MCHC has identified the material issues to be addressed by the MCHC Group as part of the new medium-term management plan, APTSIS 25, which is based on KAITEKI Vision 30 (KV30), the medium- to long-term basic management strategy. We have set targets for the material issues identified, with indicators (MOS Indices) also set to measure progress.

Going forward, we will monitor progress each year and proceed steadily with initiatives toward the fulfillment of KV30.

Identification process of material issues



Overview of material issues



Comments from an expert

This is a groundbreaking structure that allows the thought process leading to identification of the material issues to be traced logically.

The material issues identified in APTSIS 25 are distinctive on a number of counts. For instance, the backcasting of KV30's long-term vision from the society of 2050 ensures consistency, and since it is based on existing analyses, past experience is included. The structure's unique approach that categorizes the various issues and indicates their mutual connections deserves special mention. Arranged above the material issues for existence are the material issues for business foundations and the material issues in terms of risk management. Opportunities and risks related to the growth strategy are then identified as required by ESG investors. At the top of the diagram are macrolevel social issues and the material issues for business portfolio strategies, which can be understood as representing the impact that MCHC attempts to generate by means of value creation through businesses in the middle of the diagram.

Choosing this systematic diagram rather than an ordinary matrix should have the benefit of allowing the thought process leading to the identification of the issues to be traced logically. Additionally, by avoiding any ranking of the individual issues, I think it establishes a mold-breaking new format able to adapt to dynamic change.

Keisuke Takegahara
Executive Fellow
Research Institute of Capital Formation
Development Bank of Japan Inc.



Sustainability

Material Issues Identified in APTSIS 25 and New MOS Indices

We will proceed steadily with initiatives toward the fulfillment of KV30 by setting targets for the material issues and establishing MOS Indices to measure progress.

Material issues for business portfolio strategies

Material issues	Our actions
GHG reduction	To contribute to the improvement of energy efficiency by providing thermal management materials and other products that promote lighter mobility and the electrification of society.
Sustainable resource management	To contribute to realizing a recycling-oriented society by providing biodegradable and biologically derived plastics. To optimize the overall social system by promoting chemical and material recycling, and capture and utilization of CO ₂ .
Sustainable food and water supplies	To reduce food losses by providing solutions for long-term food storage and flavor enhancement. To promote R&D to further reduce the environmental impact of food and water supply.
Healthy and vibrant lives	To contribute to preventive medicine through provision of pharmaceuticals including vaccines and to optimize medical treatment for each individual patient through development of Muse cell-based regenerative medicine and precision medicine.
Safe and comfortable lives	To realize high-amenity living and mobility spaces by enabling human-robot symbiosis through lightweight composites, development of artificial joints and limbs, etc.
Improvement of communications and digital processing technologies	To deliver next-generation high-speed telecommunications solutions by developing semiconductor materials with higher processing capacity and other technologies for high-capacity, high-speed telecommunications and digital applications. To provide next-generation display solutions compatible with augmented/virtual reality and hologram technologies.

Switch to a business portfolio centered on growth businesses that contribute to resolving social issues

MOS Indices	FY2022 targets
Percentage of sales revenue from the growth businesses (businesses that contribute to solving social issues)	30%



Solutions to environmental and social issues

- The Group's Material Issues**
- GHG reduction
 - Improvement of communications and digital processing technologies

Contributing to a low-energy society through GaN substrates

In May 2021, MCC and The Japan Steel Works, Ltd. completed construction of a pilot facility for mass production of gallium nitride (GaN) single-crystal substrates at the Muroran site of Japan Steel Works M&E, Inc.

GaN is a material that makes it possible for electronic devices to achieve high efficiency with low electric power consumption. The development of more compact and lightweight equipment and devices should also mean a significant reduction in electric power consumption, leading to lower CO₂ emissions and reduction of environmental impact. A wide range of applications for the material is envisaged, from power devices, high-frequency devices and

other electronic equipment to blue and green laser diodes and other light-emitting devices.

The newly constructed large-scale facility will undertake pilot studies aimed at the mass production of 4-inch GaN substrates with a target of early fiscal 2022 for market launch. Based on the results of the pilot studies, we will put in place a stable supply system for GaN substrates and will also work on the development of 6-inch substrates compatible with power device applications, where demand is expected to increase. By supplying high-quality GaN substrates, we will contribute to realizing a low-energy society.

Material issues for business foundations

Material issues	Our actions
Business model reformation	To realize business model reform by enhancing solution levels through integration of products and services and intensifying innovation toward optimization of the overall social system.
Product stewardship	To ensure that customers can use products and services without concern, pursue initiatives to ensure the quality and safety of products throughout their lifecycle and minimize adverse effects on the environment.
Intensification of DX	To achieve operational optimization and at the same time create new businesses and services that continuously offer new value to business enterprises, customers and society by utilizing digital technology in every situation, for instance to improve operating procedures from R&D to manufacturing and to respond to the needs of customers and society.
Upgrading of the work environment and health and productivity management	To create a safe and conducive work environment through the twin approaches of ICT-based work style reform and health support.
HR development and training	To promote continuous self-improvement and personal growth for human resources and provide relevant opportunities in order to adapt to unpredictable changes in the environment and accelerating technological innovation.
Diversity and inclusion	To enhance the diversity of human resources in terms of gender, values, nationality, career background, age and other characteristics and to embed this inclusivity and leverage it for the benefit of corporate activity.
Stakeholder engagement	To be a business enterprise trusted by stakeholders by showing respect for and communicating closely with them and working together to not only benefit corporate activity but also realize a better society.

Contribution to and acceleration of growth by strengthening and enhancing the business foundation

MOS Indices	FY2025 targets
Employee engagement	80%*1
Diversity among management	40%
Wellness awareness	85%*1
Lost time injury frequency rate	0.71 (Approx. 40% reduction from peak figure of FY2016–FY2019)
Level of customer satisfaction	80
Evaluation related to the ESG stock index	Maintain and improve score on DJSI, FTSE4Good, etc.

*1 Percentage of favorable responses to set items in the employee awareness survey

Assessment results of corporate value including ESG (As of June 30, 2021)

<p>Dow Jones Sustainability Indices</p>	<p>Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA</p>	<p>MSCI Japan ESG Select Leaders Index*</p> <p>2021 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX</p>	<p>FTSE4Good Index Series</p> <p>FTSE4Good</p>
<p>S&P Global Sustainability Award Bronze Class</p>	<p>Sustainability Award Bronze Class 2021 S&P Global</p>	<p>MSCI Japan Empowering Women Index*</p> <p>2021 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)</p>	<p>FTSE Blossom Japan Index</p> <p>FTSE Blossom Japan</p>

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Sustainability

Material Issues Identified in APTSIS 25 and New MOS Indices

Material issues for environmental and social impacts

Material issues	Our actions
Environmental impact reduction	To reduce the environmental impact of GHG emissions and water consumption as a step toward resolving climate change and water resource issues and creating a recycling-oriented society.
Circular economy	To achieve smart use of resources, materials, and energy and new value creation through innovation and business model reform for an optimal recycling-oriented society.
Life cycle assessment (LCA)	To carry out and disclose appropriate quantitative assessments of the environmental and social impact of products and services, and their contribution to GHG reductions throughout the value chain.
Contributions to communities	Broadly contribute to society through business activities while deepening understanding of various communities and continually responding to their requests and expectations.
Biodiversity	To identify the effect of business activity on biodiversity and minimize any negative impact. To contribute to conserving biodiversity by promoting environmental protection activities and providing relevant products and services.

Reduction of negative impact, environmental and social contribution, and appropriate evaluation of impact

MOS Indices	FY2025 targets	
Percentage of sales revenue from products*2 that contribute to the circular economy or mitigate and adapt to climate change	FY2022	—
	12%	
GHG emissions	15% reduction (Compared to FY2013, Japan)	
COD emissions	Maintain current level: Approx. 1,600 tons (FY2019, Japan)	
Progress of LCA activities	100%	
Amount of landfill waste*3	50% reduction (Compared to FY2019, Japan)	

*2 GHG reduction and carbon cycle sectors among growth businesses (businesses that contribute to solving social issues)
*3 Amount of landfill waste regularly generated in the Group's routine production and logistics activity



The Group's Material Issues
● GHG reduction ● Environmental impact reduction

First in the industrial gas sector to use renewable energy certificates, contributing to 160,000 t-CO₂e in yearly emissions reduction

In October 2020, the Spanish and Portuguese group company of Nippon Gases, a European industrial gases business operating company, became the first in the industrial gas sector to use Green Power certificates to convert to 100% renewable energy for the electric power required in the manufacturing process for medical gases, industrial gases and food gases. This measure has resulted in a yearly emissions reduction of 160,000 t-CO₂e. The Company's implementation of the European Union's Green

Deal establishes its position as a business taking an advanced stance on environmental impact reduction. At the same time, the implementation of this project will make a significant and ongoing contribution to carbon footprint* reduction in the Iberian region through both the Company's and its customers' emissions.

* Carbon footprint: A system for converting GHG emissions throughout the lifecycle of products and services, from procurement of raw materials to disposal and recycling, into a CO₂ equivalent, and clearly indicating this value on products and services.

Material issues for existence

Material issues	Our actions
Compliance	To comply with laws, international standards and internal regulations based on high ethical standards and to ensure that corporate activities are consistently fair and equitable and founded on integrity.
Process safety	To prevent security accidents and maintain stable operations based on the recognition that safety is the foundation of our continued corporate existence and that ensuring safety is a corporate social responsibility.
Governance	To achieve greater management agility for enhanced corporate governance by improving the transparency and fairness of operations, strengthening management supervision functions and speeding up decision-making.

Material issues in terms of risk management

Material issues	Our actions
Information security and cybersecurity	To recognize the importance of protecting information assets and our responsibility in corporate activities. To strive to manage information appropriately and raise security awareness in order to guard against leaking of confidential information relating to customers, business partners or our own organization.
Sustainable supply chain	To put in place a sustainable supply chain by deepening business partners' understanding of the MCHC Group's corporate mission and working with them to resolve environmental and social issues.
Human rights	To prevent the occurrence of human rights violations in corporate activity by putting in place a system that respects all individuals and their rights and acts to recognize, prevent and oppose negative impacts on human rights.

Appropriate risk management to avoid threats to continued corporate existence

MOS Indices	FY2025 targets	
Number of serious compliance violations	0	
Number of accidents	Security accidents	16 per year (33% reduction from peak figure of FY2016–FY2019)
	Environmental accidents	0
Participation rate in information security training	95%	



The Group's Material Issues
● Sustainable supply chain ● Human rights

Distribution of a guidebook for business partners on prevention of human rights violations in the supply chain

The MCHC Group has established a Global Policy on Respecting Human Rights, Employment and Labor, which is compliant with international standards such as the Universal Declaration of Human Rights, UN Global Compact and UN Guiding Principles on Business and Human Rights. Based on this policy, we work to ensure respect for the human rights of all people involved in the MCHC Group's business activity.

To prevent human rights violations in the supply chain and fulfill our supply-related responsibilities, we distribute to our business partners a guidebook entitled *Developing Cooperative Business Practices with Suppliers and Business Partners*, which summarizes our standards on matters such as

human rights, employment and labor, the environment and safety. This is designed to deepen their understanding of the MCHC Group's activities as a contribution to creating a sustainable supply chain.

Follow the link below to view the [Global Policy on Respecting Human Rights, Employment and Labor](https://www.mitsubishichem-hd.co.jp/english/sustainability/activities/pdf/globalpolicy.pdf)

Follow the link below to view [Developing Cooperative Business Practices with Suppliers and Business Partners](https://www.mitsubishichem-hd.co.jp/english/sustainability/activities/pdf/guidebook.pdf)