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**Idemitsu
Integrated Report
2022**

Management Philosophy

Truly inspired

How often do we consider the countries and communities we touch,
and how much empathy do we have for the people living there?
Are we contemplating what's best for them and then doing our utmost to act in their interests?
Each day, we must reflect on our actions;
we must strive to do better not only for ourselves, but also for others.
When we come together and our efforts are united, we make the impossible possible.

With integrity, solidarity, and determination, we will overcome any challenge we face.

Editorial Policy

In order to deepen stakeholder understanding of the Idemitsu Group's management and corporate activities as a whole, information is provided through the "Idemitsu Integrated Report," "Idemitsu ESG Data book" and on the Company's official "Sustainability Website." We strive to communicate our sustainable value creation in an easy-to-understand manner. To improve the efficiency of access to information for different purposes, we have expanded the content of the Idemitsu Integrated Report and transformed the Idemitsu Sustainability Report, which was previously produced, into the Idemitsu ESG Data book, which focuses on data.

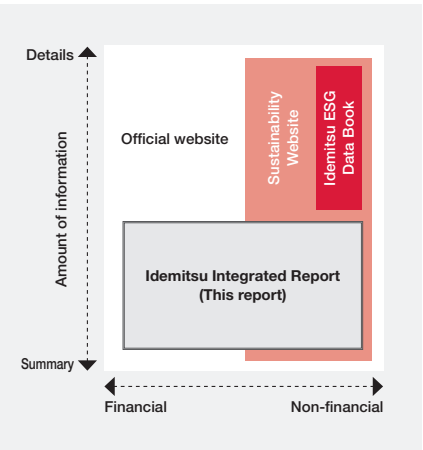
Idemitsu Integrated Report (Booklet version)
This report includes financial and non-financial information, the vision of the Idemitsu Group, and an explanation of our business operations, all of which are aimed at helping people understand our Group, over a medium- to long-term perspective.

Idemitsu ESG Data Book (Website version)
Data on the Idemitsu Group's environmental, social, and governance initiatives and achievements.

Sustainability Website
We disclose information on a wide range of topics from the environmental, social, and governance perspectives. We also provide information on the results of our efforts in a timely manner.
<https://sustainability.idemitsu.com/en>

Official website
Extensive information about the Company's products and services, press releases, etc.

<https://www.idemitsu.com/en/>



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Scope of the reporting

As a general rule, this report covers Idemitsu Kosan Co.,Ltd. and our 259 Group companies as of the end of June 2022. When the scope differs, this fact is noted.

Reporting period

Results for FY2021 (April 1, 2021-March 31, 2022) are included in this report. When the applicable period differs, this fact is noted. Activities since April 2022 are also included.

Reference guidelines

The GRI Sustainability Reporting Standards, ISO 26000, TCFD (Task Force on Climate-related Financial Disclosure), and the IIRC (currently, ISSB) International Integrated Reporting Framework were used as references in the compilation of this report.

Publication information

Japanese version:
Published annually since 2001, and the previous edition was published in October 2021.

English version:
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Contact point for inquiries about Idemitsu
Integrated Report

Idemitsu Kosan Co.,Ltd.

Contact form on the official website:

<https://www.idemitsu.com/en/contact/flow/>



The Origin of Management and Management Philosophy

The Origin of Management



Ningen-Soncho (Respect for human beings)
Written by Sazo Idemitsu

The Origin of Management

These are the words of the founder, Sazo Idemitsu, in his own handwriting. We intend to communicate to the world the importance of “Ningen-Soncho (Respect for human beings) ,” a key tenet of our history for over a century, and unassailable ideals we continue to pass down.

Management Philosophy

Truly inspired

How often do we consider the countries and communities we touch,
and how much empathy do we have for the people living there?
Are we contemplating what’s best for them and then doing our utmost to act in their interests?
Each day, we must reflect on our actions;
we must strive to do better not only for ourselves, but also for others.
When we come together and our efforts are united, we make the impossible possible.
With integrity, solidarity, and determination, we will overcome any challenge we face.

Management Philosophy

The reaffirmation of “People-Centered Management” beliefs and ideals, which we have carefully maintained since our founding. It is the guidance to “keep focused on what matters” and “stay committed to providing value to society” for all Group members.

Vision

This signifies the realization of the Management Philosophy at some point in the future. It is an image of the targets to be achieved through the business, and is also the “Ideal state” for the Company. In many cases, this will be linked to a medium to long-term business plan. It can be said that a Management Philosophy is something which remains unchanged over time, while a Vision is that which should change with the changing times.

Action Mindset

The Idemitsu Group has established the Action Mindset, which is the basis for all employees’ attitudes and actions to be taken. Believing in the limitless possibilities of human beings, we strive to grow by constantly increasing each other’s potential and abide by the following five pillars: “Independence & Autonomy,” “Co-creation,” “Health & safety,” “Integrity,” and “Innovation.” All employees shall strive to deepen their understanding of our Management Philosophy, Vision, and Action Mindset and various policies, take pride in being a member of the Group, be aware of their responsibilities, and conduct fair and transparent corporate activities.

For Idemitsu, our Management Philosophy is a statement of “what is the meaning of our existence?” Our Management Philosophy is also a universal, unshakeable coordinate, like the North Star, and for employees, it is a guide when they are unsure of their judgments, and it represents a vision to which they should aspire at all times.

Our Vision changes with the times and the environment, and represents our initiatives to realize a sustainable society that we must connect to the future.

Our Action Mindset exists to achieve our Management Philosophy, and we believe that we can come closer to our “Management Philosophy” by following our Action Mindset and moving forward toward our Vision.

Vision for 2050
Shaping Change

Vision for 2030
Your Reliable Partner
for a Brighter Future

Independent
&
Autonomy

Co-creation

Growth

Health
&
Safety

Integrity

Innovation

Action Mindset

Message from the President and CEO



“Shaping Change” We Will Continue to Take on the Challenge Toward a Carbon Neutral Society by 2050.

Idemitsu Kosan Co.,Ltd.
Representative Director,
President and Chief
Executive Officer

Shunichi Kito

Formulation of the 2050 Vision “Shaping Change”

We have formulated and released our Medium-term Management Plan which begins from FY2023. We have five business domains: Petroleum, Basic chemicals, Functional materials, Power and renewable energy, and Resources. Of these, a majority of these businesses are related to fossil fuel, including not only petroleum and resources, but also basic chemicals made from oil and gas, and electric power. The assets of these related businesses account for approximately 70% of the Company's total assets.

Among our shareholders, dealers, suppliers, affiliated companies, and employees, there are some individuals who are concerned about the future of our company. We have received many requests asking us to present a vision and a roadmap for where we are headed toward the era of carbon neutrality by 2050, in other words, how and in what time frame we intend to change our fossil fuel-dependent business structure. We have, therefore, formulated this Medium-term Management Plan in order to present our current solutions to these issues in response to these requests.

In formulating this Plan, we started by asking what the value of our existence is and what value we provide to society, followed by a discussion of what our strengths are and which fields will be our main battlegrounds.

This time, we have defined the value provided by our company as “Social Implementation Capability.” To realize a carbon neutral and circular society, it is essential to work with diverse partners. In order to bring together people with different interests and values, a greater good that serves as the North Star is necessary, and we believe this is what our purpose is, which values considering and working for the good of the countries and local communities.

Our Business Environment Prediction for 2050

Energy system
based on CN*
society

Entrenched
circular society

Discontinuous
technological
innovation

Business transformation opportunities for Idemitsu

* Carbon neutrality: hereinafter called “CN”

Based on the above, we have formulated our Vision for 2050.

In May 2021, we formulated our corporate Vision for 2030, “Your Reliable Partner for a Brighter Future.” To achieve carbon neutrality by 2050, discontinuous technological innovation is required. Conversely, energy supply must be continuous. While it is important to protect the future global environment, we must not abandon our responsibility to continuously supply the energy that supports people's daily lives and industrial activities today.

Recently, with the military invasion of Ukraine by Russia and other events, the environment surrounding energy is changing at a pace that has never been seen in the past, and the importance of fossil fuel is being reaffirmed worldwide in the gap between the ideal and the reality. Nevertheless, we cannot afford to regress in our response to climate change issues. We believe that it is the mission of our company to present “a roadmap for both a stable supply of energy and solutions to climate change issues as realistic solutions.”

Vision for 2050 Shaping Change

We will fulfill our

- **Responsibility to support people and their daily lives**
- **Responsibility to protect the global environment now and in the future** through the implementation of:
 - Energy one step ahead
 - Diverse resource conservation / circulation solutions
 - Smart Yorozyuya*

*Smart Yorozyuya: Smart one-stop shop

Striving Toward Carbon Neutrality by 2050. Medium-term Management Plan (FY2023-FY2025), as the First Step Toward This Goal.

Three Business domains for 2050

With an eye on the coming carbon neutral and circular society, we will fulfill our responsibility to support people and their daily lives and to protect the global environment now and in the future through the social implementation in the three business domains: “Energy one step ahead,” “Diverse resource conservation / circulation solutions,” and “Smart Yorozyuya.” We strive to continue to contribute to local communities by effectively utilizing our existing fossil fuel assets as infrastructure to produce and supply the next generation of energy, and to remain a main player in energy and carbon neutral solutions.

Many of those who have concerns about the future of our company may see the arrival of a carbon neutral society by 2050 as a crisis that will threaten the very existence of Idemitsu, which is primarily a fossil fuel-based company.

However, I rather see this as an opportunity for business structure reforms and a chance to take a leap forward. This is because in building an energy system for the era of carbon neutrality, we believe

that the experience in manufacturing and handling high-pressure gases and hazardous materials, as well as the bases and infrastructure that we have developed through our fossil fuel business, are indispensable.

In order to implement future technological innovations such as hydrogen / ammonia-fired power generation and thermal power with CCS* in the power generation domain, synthetic fuel and second-generation biofuel in the transportation domain, and hydrogen reduction methods in steelmaking in the industrial domain, we must have the people to manufacture and supply them. In these domains, we would like to fully demonstrate the true value of our supply chain, including our refineries and complexes, as well as the knowledge and experience that we possess.

* CCS (Carbon Capture and Storage)

Energy one step ahead

Steady supply of diverse, eco-friendly
CN energy

Diverse resource conservation / circulation solutions

CN solutions for industrial activities and
regular consumers

Smart Yorozyuya

Diverse energy and mobility centers
that support regional lifestyles

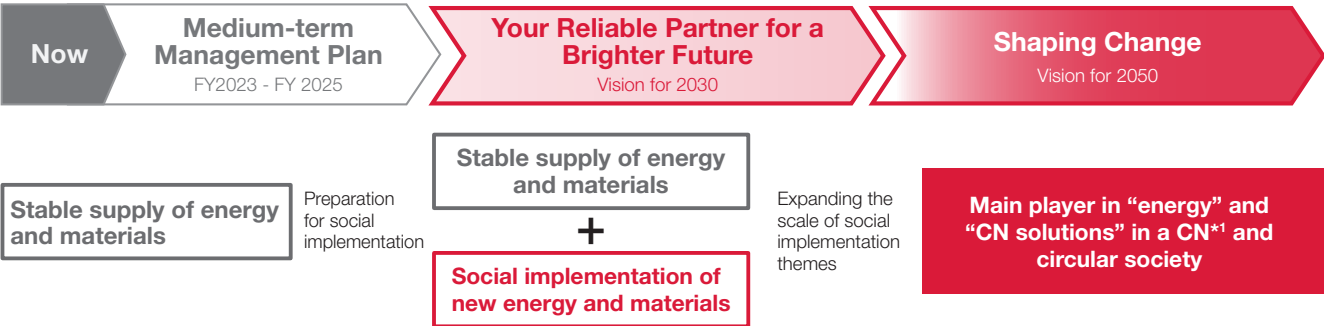
Message from the President and CEO

Portfolio transformation toward 2050

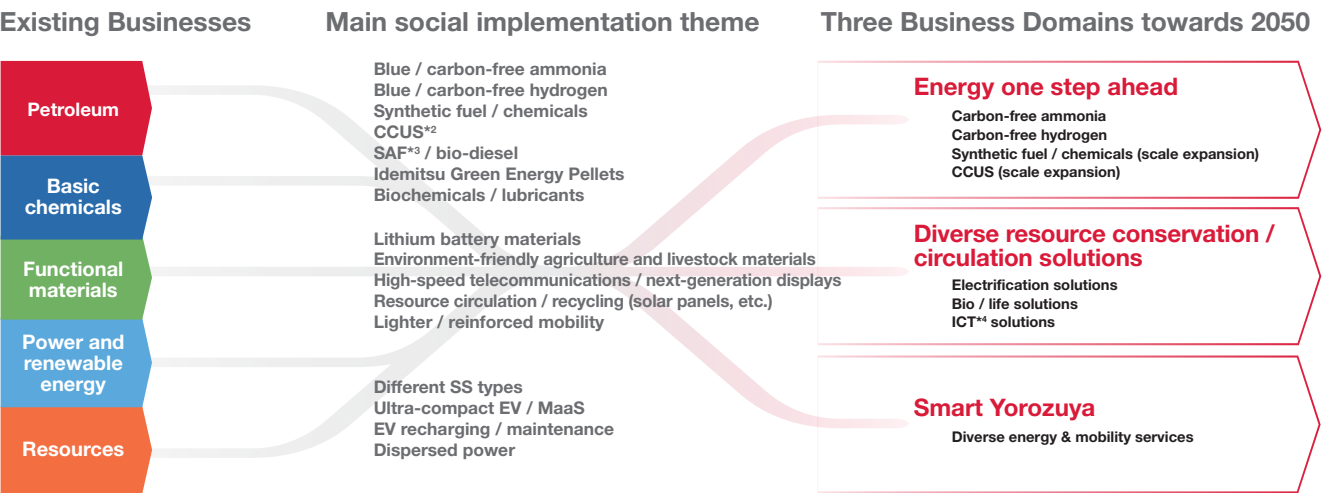
The three business domains established this time present our company's future business model after the current five business segments are organically combined and reorganized.

The "Energy one step ahead" domain includes the petroleum business, which is shifting to hydrogen, ammonia, synthetic fuel, and the resources business, which provides low-carbon solutions such as black pellets; the "Diverse resource conservation / circulation solutions" domain includes the basic chemicals and the functional materials businesses, which are shifting to biochemistry, and the power and renewable energy businesses, which are further engaged in panel recycling; and the "Smart Yorozyua" domain includes service stations in about 6,200 locations where petroleum is sold and the electric power and renewable energy businesses, which are developing distributed energy.

The realization of carbon neutrality and the establishment of a circular economic system form an inseparable part of one another, and therefore, "Energy one step ahead" and "Diverse resource conservation / circulation solutions" cannot be disconnected. It is essential for service stations to become "Smart Yorozyua" in order to maintain a supply base for future transportation fuels and dispersed power. In other words, we can achieve our corporate Vision for 2050, "Shaping Change," only when all three business domains are in alignment. In order to make the above our core business by 2050, we must accumulate knowledge and capabilities in preparation for this, and we believe that we must achieve the social implementation of many of them by 2030, or at the latest, by the early 2030s.



Business Portfolio

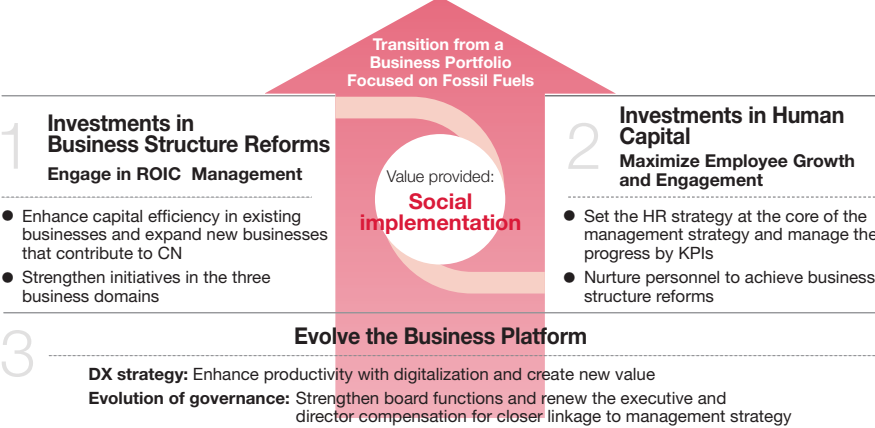


*1 CN (Carbon Neutrality)
*2 CCUS (Carbon dioxide Capture, Utilization and Storage)
*3 SAF (Sustainable Aviation Fuel)
*4 ICT (Information and Communication Technology)

Basic policy for 2030

Our basic policy toward 2030, while continuing the policy of the current Medium-term Management Plan (FY2020-FY2022), is to engage in ROIC management as an investment in business structure reforms, and to combine the maximization of both employee growth and employee engagement as investments in human capital. Together with the evolution of a business platform that supports these, we will continue with the social implementation of various measures and promote a shift away from a fossil fuel-driven business portfolio.

Vision for 2030 "Your Reliable Partner for a Brighter Future"



Investments in business structure reforms

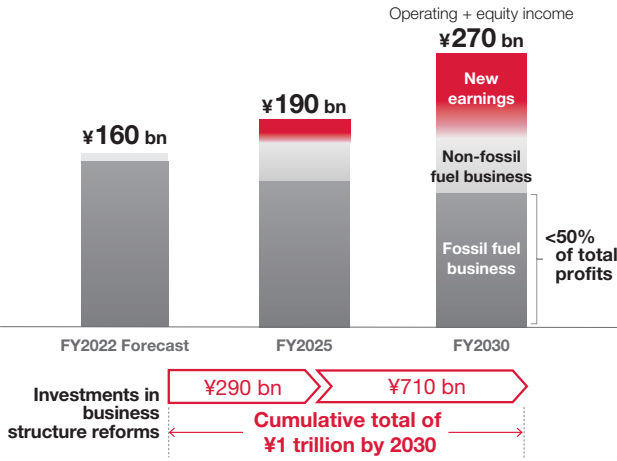
The cash obtained from improving capital efficiency in existing businesses will be appropriated for investment in business structure reforms toward carbon neutrality and generate new earnings to achieve "operating +equity income of 270.0 billion yen" and shift away from a mainly fossil fuel-driven business portfolio. We anticipate that the scale of investment in business structure reforms will total 1 trillion yen by 2030.

Investments in human capital

Along with investments in business structure reforms, we are also making investments in human capital. In investments in human capital, we will further promote investments in human growth with the aim of maximizing employee growth and job engagement. We have a philosophy for management that has remained unchanged over the years. We believe that the irreplaceable management resource is "people," and have always valued the idea of "People-Centered Management" and "people are capital." Since our founding, "Ningen-Soncho (Respect for human beings)" has been our origin of management, and our aim has always been to promote the growth of people through our business, rather than to nurture people as a means to increase profits. Nobody can predict the future, but as long as individuals are nurtured in spite of any environmental changes, those who inherit our company's legacy will be able to open the door for a new era.

Progress in governance

We will strengthen board functions and renew the executive and director compensation system as a foundation for steadily achieving this Medium-term Management Plan (FY2023 - FY2025) in order to advance governance. The Board of Directors will strive for effective management, focusing on discussions that contribute to the enhancement of corporate value, such as management strategy. We will also review the executive and director compensation system to make it more performance-linked by reducing the ratio of fixed compensation, and to make it more focused on improving corporate value over the medium to long term and sharing value with shareholders.



Message from the President and CEO

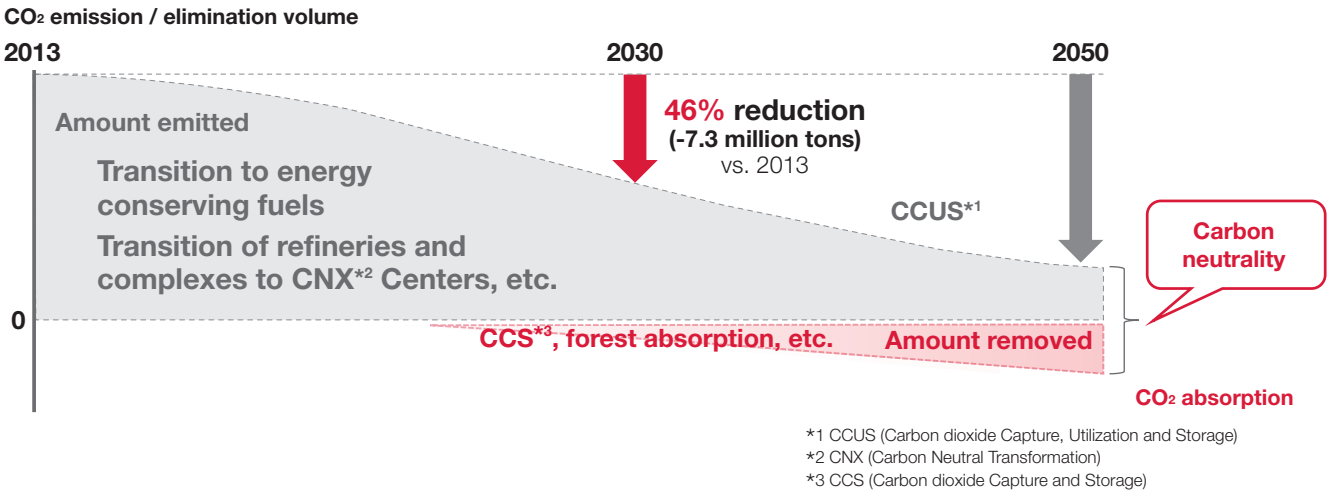


Initiatives toward carbon neutrality

For the medium-term target toward carbon neutrality, we have raised the target from the previous one to a 46 percent reduction of CO₂ emissions in 2030 (compared to the 2013 level). This will be achieved mainly through business portfolio transition and negative emission initiatives.

For Scope 3 (emissions throughout the value chain), we also aim for carbon neutrality by 2050 by providing carbon neutral solutions to businesses and consumers.

Emission reduction target for Idemitsu's operations (Scope1+2) by 2030: **-46% vs. 2013**
(increased from previous target)



Message to Stakeholders

Amid major environmental changes, such as soaring resource prices due to global inflation and the rapid depreciation of the yen, our company's earnings environment has remained relatively firm. However, under the current situation, in terms of shifting our business portfolio toward a future decarbonized society, we are still dependent on the petroleum and resources businesses of our fossil fuel business for revenues.

With no signs of an end in sight to the drastic changes in the world situation and a series of unforeseen events occurring successively, we are determined to continue to fulfill our social mission as an energy company by accumulating concrete results for constant innovation and growth, while keeping our strong resolve.

"Ensuring safety" and "quality assurance" are key issues for us as an energy business, and we will continue to pursue safe and

stable operations and compliance with laws and regulations, with the target of achieving zero accidents.

We will continue working to create new value by overcoming these hardships, which can be seen as a turning point for energy and to bring together the power of people in collaboration with all our global customers, regional communities where we operate, local agencies, logistics and safety affiliates, business partners (including suppliers in Japan and overseas, such as oil-producing countries), and our employees with diverse backgrounds.

Despite the protracted COVID-19 pandemic, we will continue working to exceed your expectations through our transition initiatives toward a carbon neutral and circular society, always with an emphasis on dialog, and we ask for your continued understanding and support of our business.

FY2025 / FY2030 Management Targets

[Financial Targets]

		Current status*1 (2022 forecast)	FY2025	FY2030
Profits (excluding inventory impact)	Operating + equity income	¥160 bn	¥190 bn	¥270 bn
	Net income	—	¥135 bn	—
Capital efficiency	ROE	7.6%	8%	10%
	ROIC	4.1%	5%	7%
Fossil fuels business profit contribution*2		95%	≤70%	≤50%

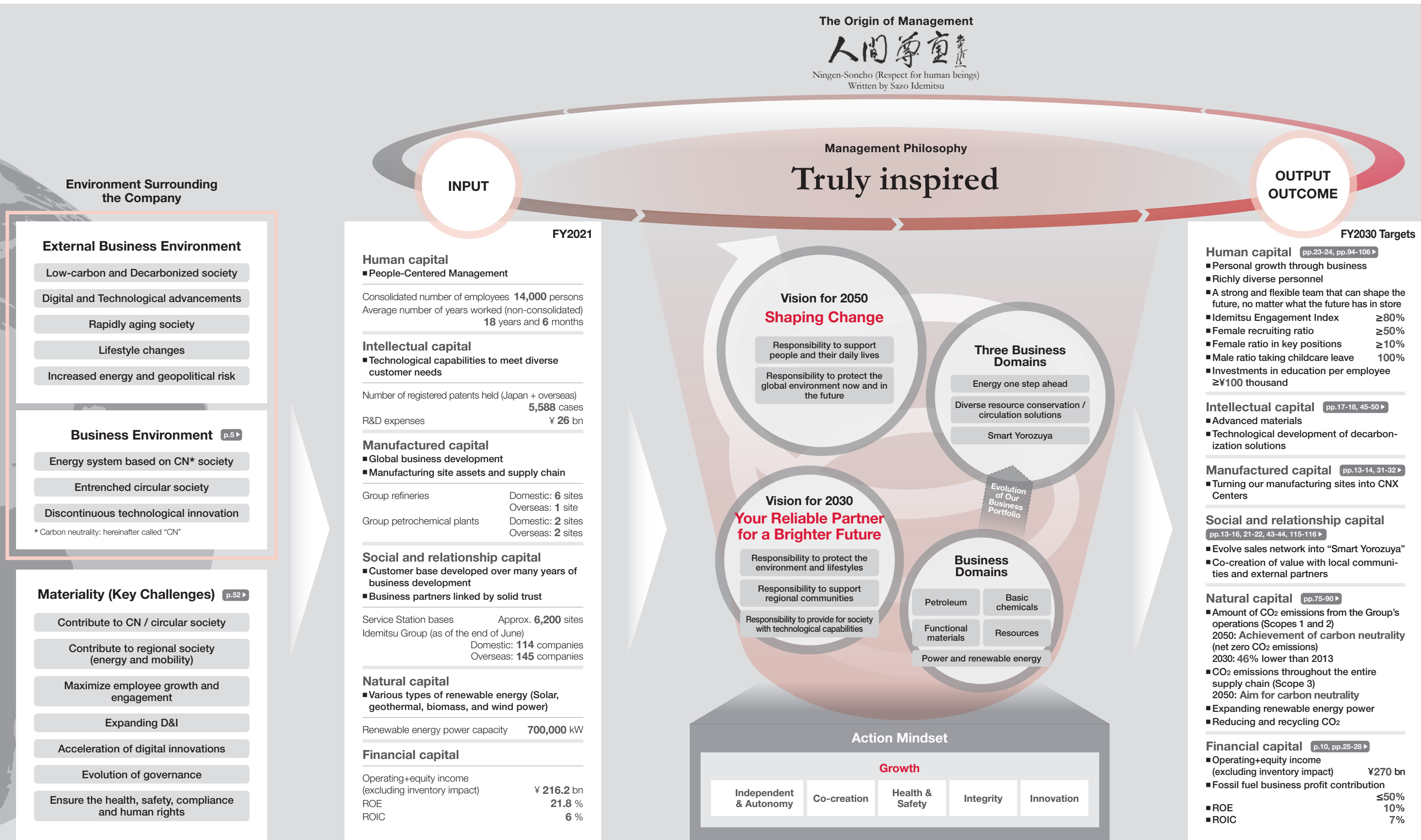
*1 Adjusted for resource prices based on the assumptions used in this Medium-term Management Plan
*2 Fossil fuel business profit contribution = percentage of company-wide profits from the petroleum and resources businesses (operating + equity income) [excluding inventory impact]

[Non-financial Targets]

		Current status (2021 results)	FY2025	FY2030
CO ₂ reduction (Scope1+2) vs. 2013		-10.6%	—	-46%
Human capital investments	Idemitsu Engagement Index*1	67% (FY2022 results)	≥75%	≥80%
	Female recruiting ratio*2	23%	≥50% (As of April 2026)	≥50%
	Female ratio in managerial positions	3%	≥5% (As of July 2026)	≥10%
	Male ratio taking childcare leave	56%	≥80% (As of March 2026)	100%
Investments in training per employee		¥43,000	≥¥100,000 (Top class in Japan)	≥¥100,000 (Top class in Japan)

*1 Idemitsu Engagement Index: Idemitsu's unique indicator to monitor the commitment level of the employee toward the organization
*2 Graduate hires (currently: new graduates, including high school graduate, technical college graduate, and college graduate or higher)

Value Creation Process



Strategies for Business Structure Reforms (Petroleum/Basic Chemicals)



Idemitsu Kosan Co.,Ltd.
Director,
Managing Executive Officer
Masahiko Sawa

Executive Message

The domestic demand for petroleum continues to decline, and oil demand in 2030 is forecast to be about 20% lower than in FY2022. In light of these rapid changes in the environment, we will appropriately review the refining capacity of the entire Group and push forward with strengthening the competitiveness (cost reduction and efficiency improvement) of each refinery and complex. By maintaining the competitive production system of our refineries and complexes, we will continue to provide a stable supply of petroleum products and petrochemicals, which are important energy and materials.

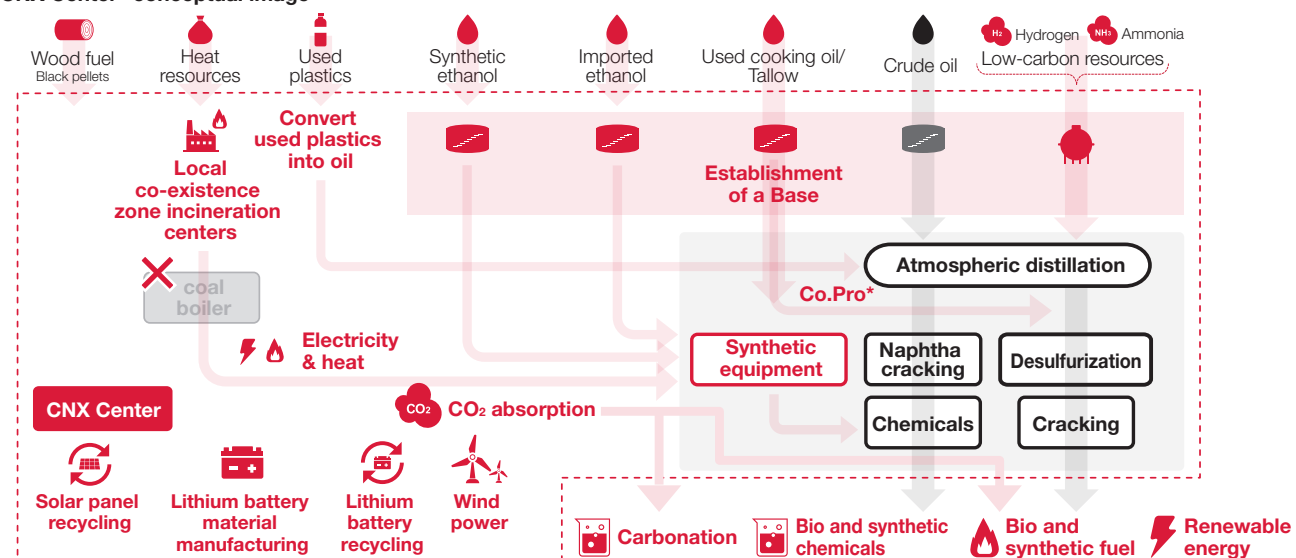
At the same time, we will implement business innovation to transform our refineries and complexes nationwide into “Carbon Neutral Transformation (CNX) Centers” toward carbon neutrality by 2050. From our diverse menu of hydrogen, ammonia, chemical recycling, biomass, synthetic fuel, and carbon dioxide fixation, we will work on carbon neutrality initiatives that make the most of the characteristics and strengths of each region, refinery, and complex. We will implement measures selected from each menu at leading model refineries and complexes, and plan to rapidly promote business

innovation to become “CNX Centers” by horizontally deploying the results at each location.

The refineries and complexes of the Idemitsu Group have a history of working together with local communities over many years, and we are aware that the knowledge, experience, and technical capabilities of the employees and partners who work there are highly valuable assets that can be fully utilized in future “CNX Centers.” We also believe that since much of our existing infrastructure can be utilized, we will be able to quickly promote rapid innovation to become competitive “CNX Centers”.

By leveraging important assets such as our employees, facilities, and partners at each of our refineries and complexes, as well as our connections with local communities, we will steadily and swiftly promote the transformation of our facilities into “CNX Centers” while continuing to provide a stable supply of petroleum products and petrochemicals. By doing this, we will support the mobility, energy, and lifestyles of people in local communities, beginning now and continuing into the future.

“CNX Center” conceptual image



* Co Processing

“CNX Center” Concept

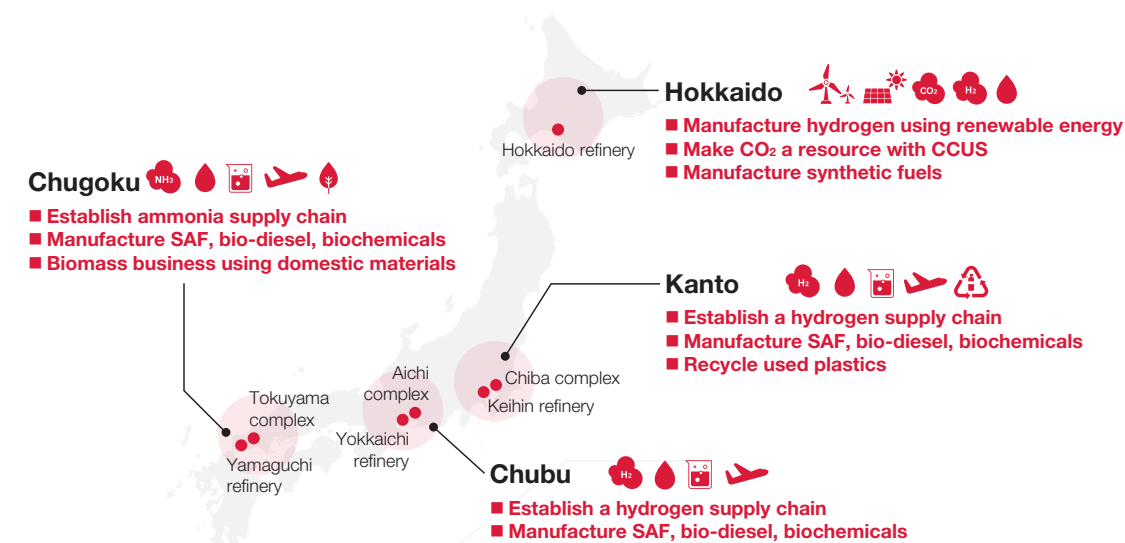
The “CNX Center” concept that we are pursuing is to transform refineries and complexes we have operated for many years as energy production bases into bases for realizing carbon neutrality.

The employees of the Group's refineries and complexes have the requisite know-how to ensure safe operations and, as professionals handling hazardous substances, have worked for many years with local communities. Our refineries and complexes that occupy expansive sites, piers that can accommodate large ships, and utilities (such as groups of storage tanks)—have the potential to become CNX Centers, such as biofuel terminals, hydrogen and ammonia production and storage terminals, and used plastic recycling sites.

Furthermore, we expect to use these facilities as lithium battery material production bases and solar panel recycling bases. The establishment of CNX Centers will be realized in accordance with the characteristics and demands of each complex.

While reaffirming the strengths of each refinery and complex, and rebuilding new strengths, we will promote the establishment of CNX Centers at all complexes.

In four areas in Japan, we strive to provide a stable supply of energy and materials, and promote quality assurance initiatives in order to supply appropriate products that meet the demands of our customers.



Hokkaido (Hokkaido Refinery)

The Hokkaido Refinery is the most northern refinery in Japan. In many areas of northern Japan, including Hokkaido, petroleum products such as kerosene for heating and diesel oil for transportation are in great demand. The Hokkaido area is also rich in renewable energy electricity. Hydrogen produced from renewable energy sources is green hydrogen. We will engage in the production of synthetic fuel by utilizing this green hydrogen.

Kanto (Chiba Complex, Keihin Refinery)

The Chiba Complex is situated within the Keiyo Complex and is one of the Idemitsu Group's largest complex, responding to strong demand mainly in the Tokyo metropolitan area. In addition to petroleum and petrochemicals, we also manufacture functional materials. There are power plants and iron mills nearby, and a hydrogen supply chain will be established to meet the demand for hydrogen there. At the same time, leveraging our strength as a manufacturing system that is able to shift between petroleum and petrochemicals, we will work on recycling used plastics and manufacturing Sustainable Aviation Fuel (SAF) and bio-chemicals.

Chubu (Aichi Complex, Yokkaichi Refinery)

The Aichi Complex supplies energy to the Chubu region and surrounding local communities. There are multiple power plants nearby, and a hydrogen supply chain will be established to meet the demand for hydrogen there.

On October 1, 2022, it became the Aichi Complex with two bases in the Kitahama and Minamihamas areas, and is engaged in the integration of petroleum and petrochemicals.

Chugoku (Tokuyama Complex, Yamaguchi Refinery)

The Tokuyama Complex manufactures petrochemicals and supplies feedstock to the Shunan Complex. In August 2022, Idemitsu, Tosoh Corporation, Tokuyama Corporation, and ZEON Corporation launched a joint endeavor that would lay the groundwork for turning the Shunan Complex into an ammonia supply base. The objective was to establish a carbon-free ammonia supply system of more than 1 million tons per year at the Shunan Complex by 2030.

We also participated in the Shunan City Woody Biomass Utilization Promotion Council, and has completed construction and begun operation of a biomass power plant at our Tokuyama Complex, utilizing the site of a former oil refinery, with the aim of providing a low-carbon energy supply.

Strategies for Business Structure Reforms (Petroleum)



Idemitsu Kosan Co.,Ltd.
Senior Executive Officer
Kenichi Morishita

Executive Message

We will promote the transformation of our business portfolio through social implementation of our “three business domains” toward a carbon neutral (CN) society in 2050. Among these, the promotion of Smart Yorozyua and the establishment of energy transitions have become particularly important themes in the existing petroleum business.

We will work together with our dealers, who are important partners of our company, to promote the evolution of the “apollostation” into a “community life support base” toward the social implementation of Smart Yorozyua. Specifically, we will upgrade our points of contact with customers by developing services that meet the requirements of the community through a dual focus on “energy”

and “mobility,” including the supply of biofuels, the expansion of EV recharging, and the rollout of mobility content.

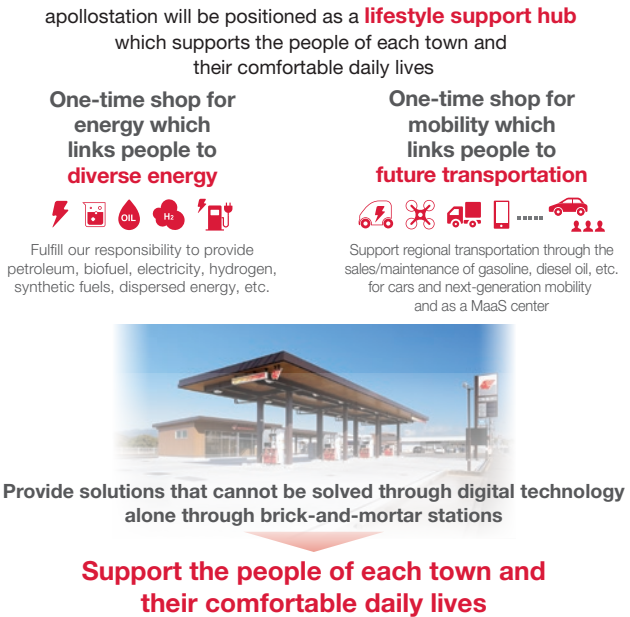
Regarding the provision of SAF, which has already been realized, we will introduce the product, expand the supply from in-house manufacturing and establish a domestic production system.

In the area of internal combustion engine fuel, we have started handling biofuels and will strive to establish a supply chain from future procurement and production to the creation of a supply system. The demand for land transport fuel and marine fuel, in particular, is expected to remain strong in the future, and we will fulfill our responsibility to protect people’s lives and the global environment by achieving energy transition.

“apollostation” and “Smart Yorozyua”

apollostation is a network of approximately 6,200 locations in Japan that sell mainly automotive petroleum and lubricants to customers nationwide. This network with our dealers, who understand well the issues and requirements of local communities and who are responsible for the operation of this energy supply base, is Idemitsu’s greatest asset. apollostation, which forms this network will evolve into a lifestyle support hub that supports the people of each town and their comfortable daily lives. “Energy” and “mobility” are also important foundations for lifestyles in the CN and circular society of 2050.

Together with our dealers, we will support the lifestyles that suit the needs of each town and evolve into a shop that will continue to be supported by customers in the future. “Smart Yorozyua (YOROZU)” is the embodiment of this evolution. YOROZU means “infinite, diverse”. With “energy” and “mobility” as its main focus, apollostation will evolve into a YOROZU (infinite and diverse) shop suited to the needs of each town, and will be reorganized into the concept of a lifestyle support base that supports local lifestyles through “energy” and “mobility.”

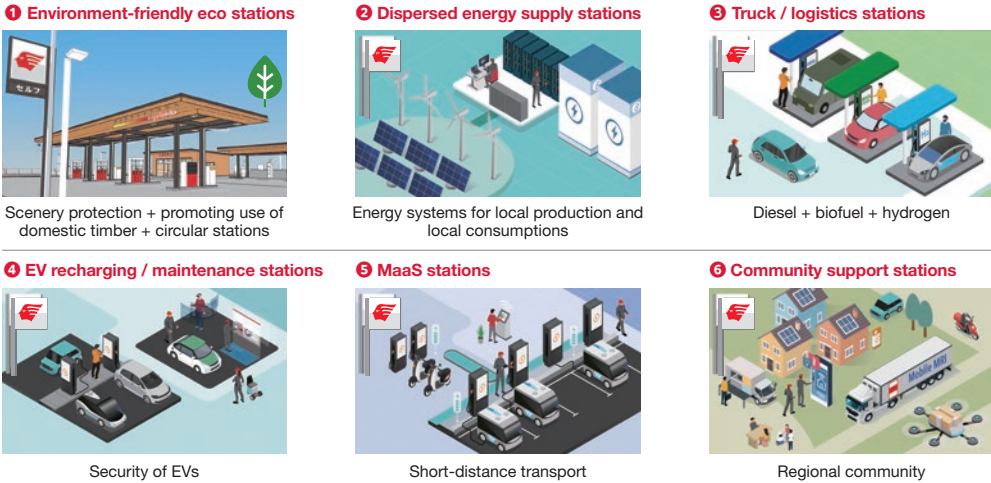


“Energy Yorozyua” will be equipped with environment-friendly eco stations, dispersed energy supply stations, EV recharging and maintenance stations, etc. that contribute to a CN and circular society, and will fulfill its responsibility to supply diverse types of energy such as petroleum, biofuels, electricity, hydrogen, synthetic fuel, and distributed energy that power various types of vehicles such as gasoline-powered vehicles and EVs.

“Mobility Yorozyua” will respond to potential mobility-related needs through the development of diverse mobility lineups, including ultra-compact EVs and drones.

We will also not only develop and provide mobile bodies, but also develop new subscription and car-sharing models and services related to MaaS.

An example of apollostation evolution



Establish Low-Carbon Petroleum

To realize energy transition, we will first steadily utilize the assets we possess (customers, human resources, stores, systems, infrastructure, facilities, etc.) and, together with new investments for next-generation businesses, create a system capable of stably supplying a diverse range of energy to our customers.

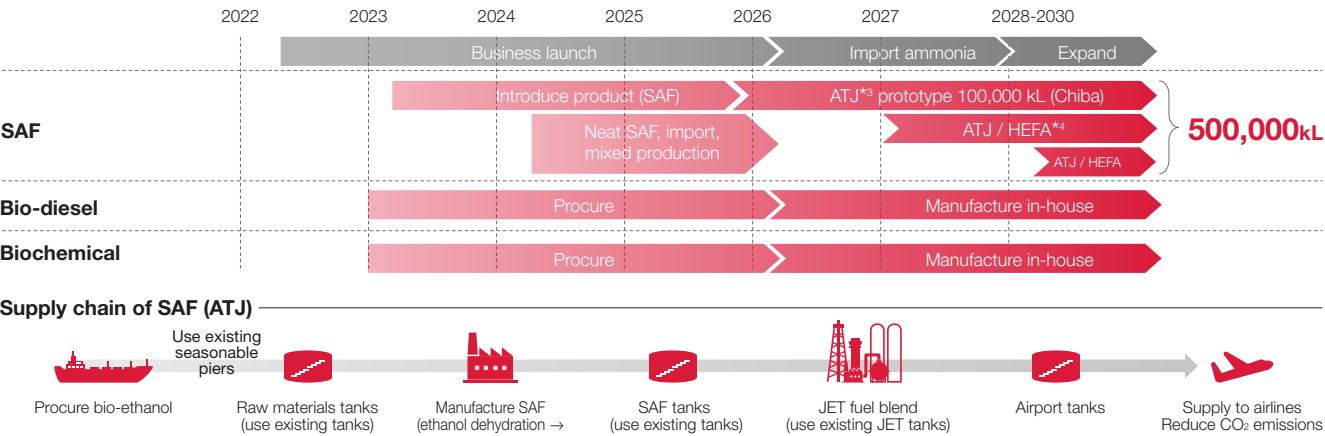
In the field of biomass fuels, we have constructed a SAF production facility (production capacity of 100,000 kL) using state-of-the-art technology within our Chiba Complex. We plan to begin the provision of SAF in 2026, aiming to contribute as a low-carbon solution for the air transport industry. Furthermore, these initiatives have been selected by the New Energy and Indus-

trial Technology Development Organization (NEDO) as one of its Green Innovation Fund Projects*1.

We have set an intermediate goal of establishing a system to produce 500,000 kL of SAF*2 per year in Japan by 2030. Within this structure, we will link raw material procurement with the development of biochemicals and begin supplying bio-diesel, an internal combustion engine oil, to our customers.

*1 NEDO Green Innovation Fund Project's special website
➡ <https://green-innovation.nedo.go.jp/en/>

*2 SAF: Sustainable Aviation Fuel
Jet fuel that is made from sustainable sources with low CO₂ emissions from the production and collection of raw materials to their combustion.



*3 ATJ: Alcohol To Jet
The technology and process for producing SAF from ethanol, certified as ASTM D7566 Annex 5, the international SAF standard.
*4 HEFA: Hydroprocessed Esters and Fatty Acids
SAF production method for hydrogenation processing of used cooking oil, vegetable oil, etc.

Strategies for Business Structure Reforms (Functional Materials)



Idemitsu Kosan Co.,Ltd.
President,
Advanced Materials Company
Hajime Nakamoto

President's Message

The strength of Idemitsu's functional materials business lies in its consistent system of manufacturing and sales, as well as R&D, which extends from petroleum refining. Utilizing the technology and expertise we have accumulated in petrochemical derivatives, engineering plastics, lubricants, and high performance asphalt solutions, we are developing extensive businesses in OLED materials and other areas. However, the business environment surrounding our company is changing more rapidly and drastically than ever before, with the accelerating global trend toward carbon neutrality and electrification, as well as the recent spread of COVID-19.

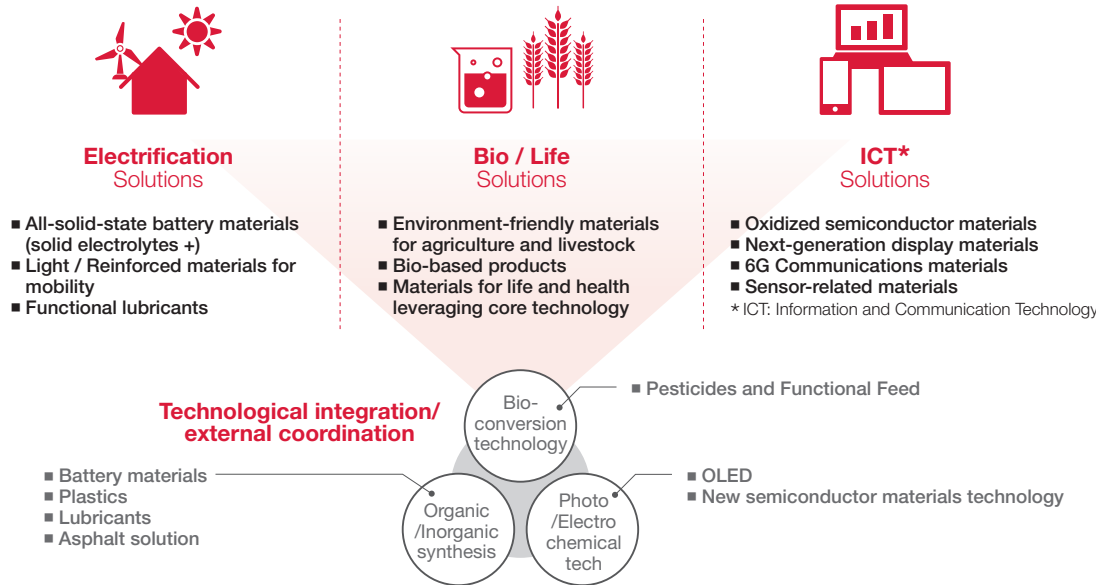
To respond to these changes in the environment and to contribute to a carbon neutral (CN) and circular society, we believe that our challenge is to integrate and deepen the technological capabilities of the functional materials business and transform it into a solutions business that provides social implementation by leveraging technology. To achieve this, we established the Advanced Materials

Company in July 2022, with the belief that it is necessary to shift to strategic planning and management that encompasses the entire business in the advanced materials domain.

With regard to our current businesses, we are strengthening them into a strong structure that can generate steady profits by selecting and concentrating on those businesses and improving their efficiency. In addition, for business portfolio reform, we have established three focus areas: "Electrification," "Bio / Life," and "ICT." In addition to our plan to allocate resources to these focus areas, to combine diverse technologies such as organic / inorganic synthesis, bioconversion, and photo/electro chemical with digital technologies such as MI (Materials Informatics)*, AI / computational science, to collaborate more actively than ever before with external parties. We will also continue to contribute to the realization of a CN and circular society through the development of Idemitsu's manufacturing.

* The use of materials development technology using AI

Three areas of focus for the growth of the functional materials business

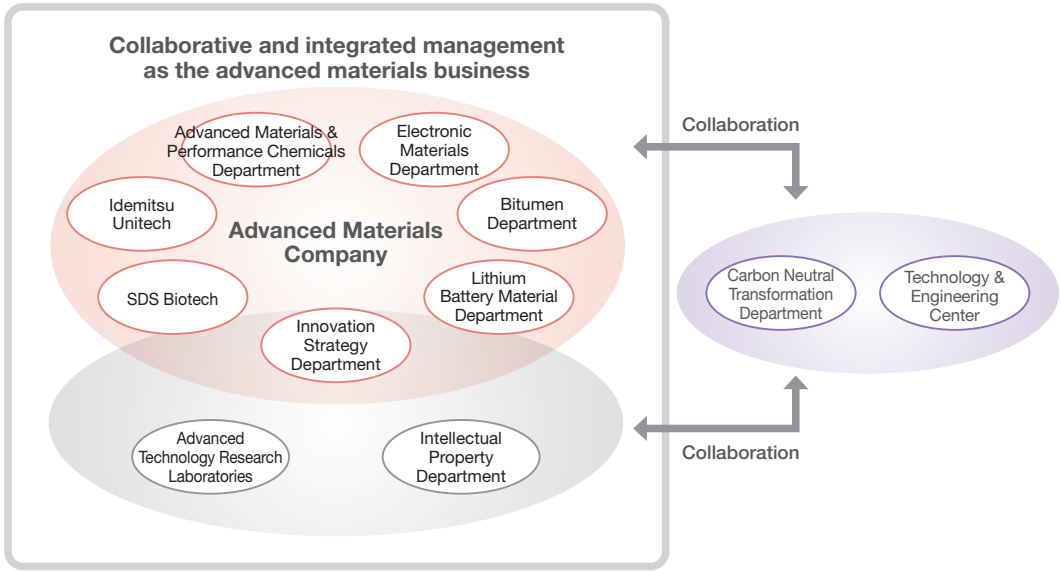


Advanced Materials Company

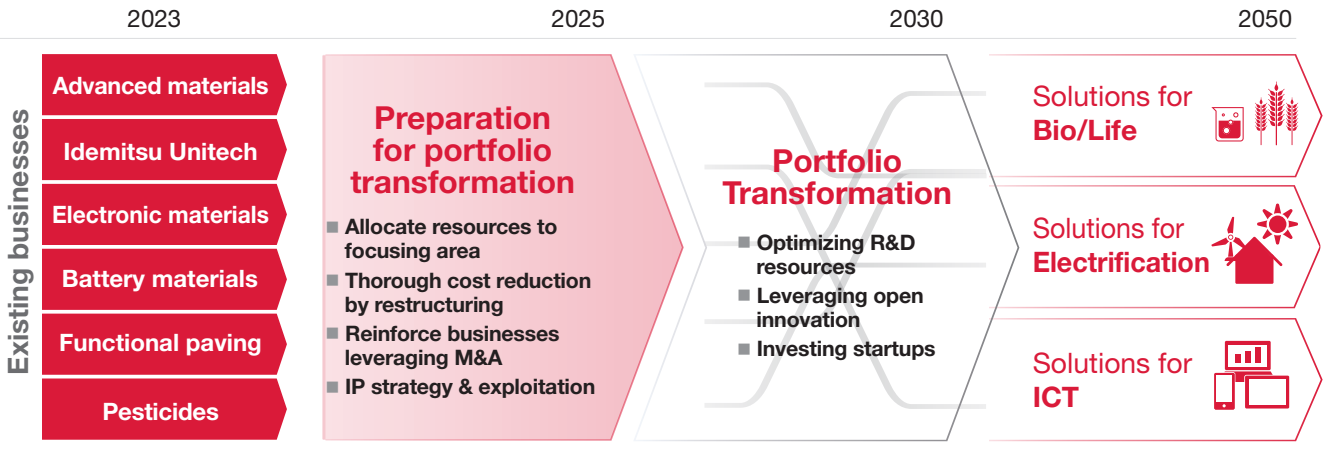
The Advanced Materials Company consists of the Innovation Strategy Department, which has corporate planning functions such as drafting the overall strategy. It also consists of four business divisions, which handle various materials, as well as affiliated companies. These companies include SDS Biotech K.K., which is engaged in the agricultural chemicals / pesticide and functional feed businesses, and Idemitsu Unitech Co., Ltd., which handles molded plastic products.

We have established a collaborative system that enables us to

formulate and implement business strategies and R&D strategies for the entire company, including the Advanced Technology Research Laboratories, which is in charge of corporate research, and the Intellectual Property Department. Also, via the collaboration of the Carbon Neutral Transformation Department, which is responsible for CNX for the entire Group, and the Technology & Engineering Center, which is in charge of process technology, we aim to achieve our Vision for 2030 and 2050 through technology.



Functional materials business portfolio toward 2050



Toward Innovation

We have been engaged in a variety of initiatives to create innovations in the energy and materials domains. In addition to seeking greater integration than ever before in each research and technology domain, we will also increase MI/DX promotion as a company-wide activity to improve the efficiency of R&D. Further-

more, by promoting open innovation, such as by strengthening collaboration with venture capital and start-ups and universities and academia, we will accelerate the creation of new businesses in our three focus areas.

Strategies for Business Structure Reforms (Power and Renewable Energy)



Idemitsu Kosan Co.,Ltd.
Managing Executive Officer
Soichi Kobayashi

Executive Message

As indicated in SDG Goal 7, “ensure access to affordable, reliable, sustainable and modern energy for all,” today energy must not only improve people’s livelihoods, but must also be compatible with the global environment. In order to respond to such demands from society, we will not only develop decarbonized power sources and promote the low-carbonization and carbon neutrality (CN) of existing thermal power sources, but will also engage in controlling through the use of battery storage in order to stabilize green power (renewable energy), which tends to be unstable. We will also propose various distributed power supply packages, including on-site and off-site PPA*1, as well as green power to municipalities and companies aiming for CN/RE100*2. As one specific example, this year we launched the “idemitsu CN Support Service,” a one-stop service that proposes and provides everything from renewable energy sources to EV utilization to realize CN.

Also, with the launch of the FIT (Feed-in Tariff) system and the progress of installing solar panels in all regions, solar power generation is the current majority of renewable energy. On the other hand, it is expected that the disposal of used solar panels will become an emerging issue from around 2030. As a solar panel supplier, the Idemitsu Group will promote the processing of discarded panels and the commercialization of repowering*3 and recycling for sustainable solar power generation. We will also contribute to a circular society as part of our social responsibility.

*1 PPA: Abbreviation for Power Purchase Agreement
*2 CN/RE100: A global corporate renewable energy initiative that aims to provide 100% of the electricity needed for business operations from renewable energy sources.
*3 Repowering: Reinforcing output by replacing deteriorated equipment, adding modules, etc.

Expand Renewable Energy Sources and Develop Distributed Energy

Initiatives to develop our distributed energy businesses

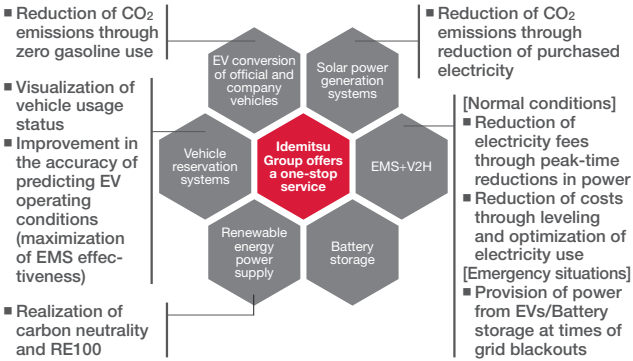
Toward CN in 2050, companies and local governments are rushing to formulate specific strategies and implement measures to decarbonize their operations. In Japan, the forecast is for renewable energy to become the main power source, along with the elimination or shutdown of inefficient thermal power plants. In the meantime, renewable energy, such as solar and wind power, is subject to weather and other conditions that affect the amount of electricity generated, so ensuring the ability to adjust the supply and demand of electricity is an issue.

As a power generation company, we are working hard to ensure a stable supply of electric power by promoting the possession of renewable energy sources and the use of battery storage.

Also, by leveraging our expertise and strengths cultivated over the years in solar power generation systems, EVs, battery storage, and virtual power plants (VPP), we started providing “idemitsu CN Support Service” in August 2022 to support municipalities and companies in converting to electricity CN and introducing EVs. This

service is a one-stop proposal and offering to introduce and provide EV leasing, self-consumption solar power generation systems, V2H (Vehicle to Home: charging and discharging equipment), energy management systems (EMS), and a vehicle reservation system.

Conceptual diagram of “idemitsu CN Support Service”



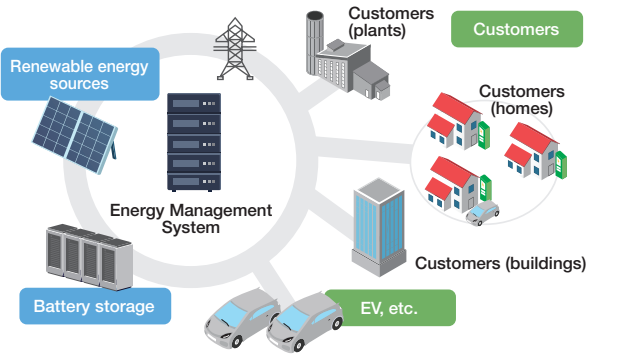
This will contribute to solving issues such as (1) improving the cumbersome process for adopting EVs, (2) securing renewable energy power sources for EVs to achieve zero-carbon driving, (3) selecting and installing ancillary equipment such as V2H, and (4) reducing the risk of higher basic electricity rates resulting from recharging during EV operation.

EVs, which also have value as “moving battery storage,” can be combined with EMS and vehicle reservation systems by using them to improve and optimize energy use, reduce electricity rates, and supply power during power outages (disaster resilience strengthening).

In the future, through the integration of multiple renewable energy power plants, small-scale energy resources such as solar power generation installed in homes and facilities, and battery storage, etc., through EMS, we aim to develop distributed energy

projects that contribute to local production for local consumption of energy and improve the disaster resilience of each town.

Conceptual diagram of the Energy Management System (EMS)



Commercialization of Solar Panel Recycling and Repowering

Business structure reforms at Solar Frontier

The market for self-consumption is expected to continue to expand toward a CN society, and we will promote business structure reforms in our solar business. Specifically, in addition to the installation of power plants and promoting the in-house production and enhancement of EPC*1 functions, we will provide solutions throughout the entire life cycle of solar power generation, including O&M*2, repowering*3, and solar panel recycling.

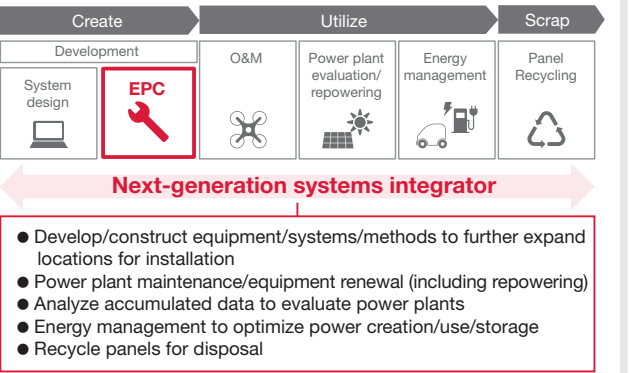
*1 Engineering Procurement Construction
*2 Operation & Maintenance
*3 Repowering: Reinforcing output by replacing deteriorated equipment, adding modules, etc.

Solar panel recycling

Used solar panels are forecast to increase dramatically from the 2030s, and the New Energy and Industrial Technology Development Organization (NEDO) estimates that annual emissions will reach approximately 170,000 to 280,000 tons by around 2035 to 2037, when emissions are expected to peak. For this backdrop, Idemitsu Group’s Solar Frontier K.K. has been continuously pursuing the development of recycling technologies for solar panels since 2010, recognizing the importance of establishing low-cost, environmentally friendly recycling technologies as a means of promoting the healthy expansion of solar power generation.

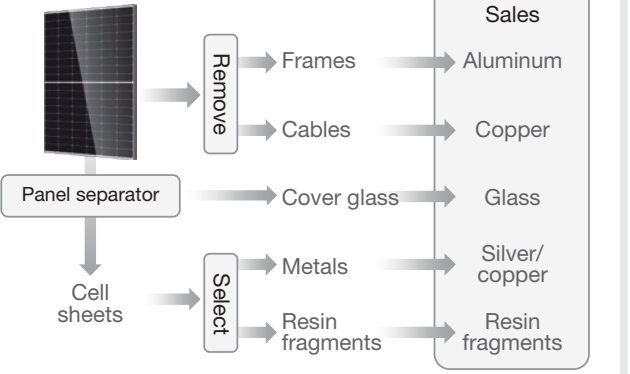
In 2020, a project proposed by Solar Frontier K.K., was adopted by NEDO as a joint-research project to be supported by the programs “Technological Development for Promoting Solar Power Generation and Making It a Major Power Source” and “Technological Development for Achieving Long-Term Stable Energy Source based on Solar Power Generation.” The aim of this project is to demonstrate a technology for the material recycling of waste crystalline silicon and CIS solar modules in a way that generates lower environmental burden.

Specifically, over the four years from FY2020 to FY2023, we will take on the development of a recycling technology for crys-



talline silicon-based solar cells in addition to CIS thin-film solar cells. In the course of this endeavor, we will also aim to contain the cost of separation processing at 3 yen/W or lower, regardless of the type of solar cell. We are also working to develop applications for separated components to achieve a material recycling ratio of 90% or higher. A demonstration plant for processing commercial-size solar panels is being built at Solar Frontier’s Kunitomi Office (Miyazaki Prefecture), with the aim of commercialization in FY2024.

Flow chart of solar panel recycling



Strategies for Business Structure Reforms (Resources)



Idemitsu Kosan Co.,Ltd.
Director, Executive Vice President
Atsuhiko Hirano

Executive Message

Over the years, we have conducted our business with the mission of providing a stable supply of a wide variety of energy to society. The relationships of trust with customers, the end users of energy, that we have cultivated through this business are the greatest “strength” and “value” of the Company. Using these valuable “strengths” and “values” as a platform, we, together with society and customers, will proactively work for the social implementation of new technologies and solutions needed to achieve a carbon neutral society by 2050.

Among these, we intend to place particular emphasis on the point of steadily promoting an energy transition while maximizing the use of existing social infrastructure, etc.

For example, we have built a supply chain from production to supply and sales of alternative biomass fuels and ammonia to

reduce the environmental impact of coal, which is needed for the time being as energy for power generation.

These initiatives are made possible precisely because we are in a position to deeply understand the requirements of end-users of energy, and we are proud that our company’s longstanding high level of technical expertise in this area is the backdrop for this. From the aspect of applying our expertise gained from past business experience in the energy transition, “CO₂ Capture, Utilization, and Storage” (CCUS), which utilizes oil, gas, and coal resource development technologies, as well as rare metal and renewable energy initiatives in Australia, are examples of this. We hope you will look forward to our future endeavors.

Our Approach to Decarbonize Through Leveraging Overseas Networks

Japan is dependent on imports from overseas for a large portion of its energy needs, and we believe that this basic structure will not change as we move toward the realization of a carbon neutral (CN) society. With the switch from fossil to non-fossil energy sources for imports, it is extremely important to ensure a stable supply of these sources. In supply, building relationships of trust with overseas partners is an important factor.

We have overseas subsidiaries, offices, and other facilities in over 20 countries and regions around the world (excluding Japan), primarily in the Pacific Rim, and has built relationships of trust with partners, including governments, in each region through our many years of business. Leveraging the strengths of each of our bases, we are engaged in trading petroleum products, the electric power business, and developing resources on the basis of this foundation. Leveraging this overseas network, we are engaged in building a new value chain of manufacturing, procurement, and sales for the realization of CN.

Resources Development

Since the latter half of the 1960s, we have been fully engaged in oil exploration, and since the latter half of the 1970s, we have been engaged in the development and research of diverse energy sources such as coal and geothermal power as alternative energy sources to petroleum. Our areas of development include Japan, Europe, Southeast Asia, and Australia, various areas both domestically and internationally, each with its own network and expertise. Based on these technologies, networks, and expertise, we will continue to promote initiatives for gas field development, geothermal projects, and CCUS. In Australia, we are leveraging the business foundation we have cultivated through coal mining operations to enter the rare metal mining business and the renewable energy business, and acquiring knowledge in these areas.

Initiatives for Coal Alternative Fuels

Coal is an important energy source from the perspective of resource availability and supply stability, and is widely in demand by many customers as a fuel for boilers and power generation. On the other hand, compared to other energy sources, CO₂ emissions are high, and efforts to reduce emissions are in high demand.

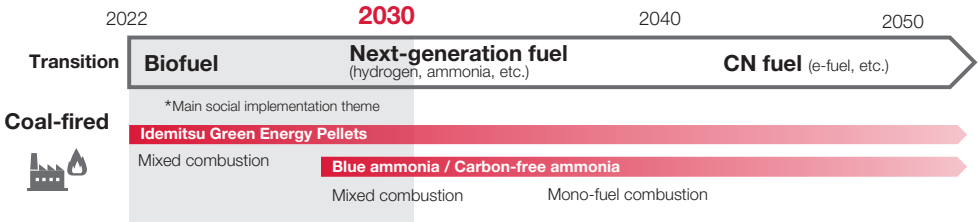
Our coal business started in 1979, and we have built an integrated value chain from raw material procurement, transport, and storage, to sales. We also have the only research laboratory in Japan dedicated to coal in the private sector, and have met the various requests of our coal customers. In recent years, NYK Idemitsu Green Solutions Co., Ltd., a joint venture with the NYK Group, has begun offering ULTY-V plus, a boiler control optimization system using artificial intelligence (AI) that makes a reduction in coal consumption in boilers possible. By additionally installing this system

to an existing control system, DX technology can optimize boiler operation, thereby reducing fuel consumption and the amount of CO₂ emissions at the same time.

To realize a CN society, it is essential to go a step further in reducing coal consumption. In response to such customer requirements, we are engaged in the development of coal alternative fuels and the recycling of CO₂ (carbon recycling).

In the medium term, we will focus on establishing a production and supply system for Idemitsu Green Energy Pellets* and building an ammonia supply chain.

* Idemitsu Green Energy Pellets (Idemitsu’s trade name for black pellets)
Black pellets are pieces of wood that have been crushed, dried, and undergo a roasting and semi-carbonization process. A biomass fuel with superior water resistance and crushability than conventional white pellets, which can be handled in the same way as coal, and can be co-firing with coal.



Establishment of Idemitsu Green Energy Pellets production and supply system

We will launch and expand the provision of Idemitsu Green Energy Pellets, a biomass solid fuel that is an alternative to coal. With the planned completion of a 120,000 tons/year commercial production plant in Vietnam by the end of FY2022, we aim to establish a 3 million tons/year supply system by 2030 by gradually expanding our production bases thereafter.

Production Volume (Plan)



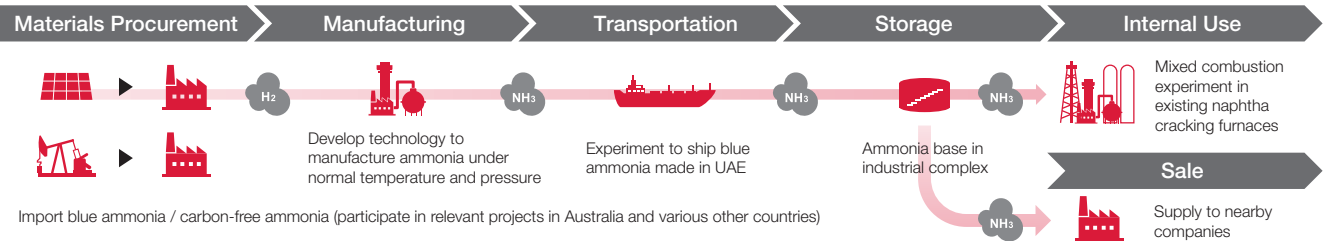
Establish ammonia supply chain

Ammonia, as a coal alternative fuel, is attracting attention as a next-generation energy source because of its “zero CO₂ emissions during combustion.” Because of its importance, we also aim to establish an ammonia supply chain in the late 2020s.


Although ammonia contributes to the reduction of CO₂, it contains toxic substances and generates NO_x (nitrogen oxides), a cause of air pollution, during combustion, requiring expertise, technology, and facilities for safety management. Its physical properties are similar to those of LPG, a petroleum product, and there are

many areas where petroleum-related facilities can be converted for ammonia use, giving Idemitsu an advantage in terms of the effective use of existing assets. Another strength of our company is that we have already built strong relationships of trust through our business with oil- and gas-producing countries, which are potential sources of ammonia supply.

With a view to establishing a supply chain in the late 2020s, we will procure blue ammonia / carbon-free ammonia and conduct research, development, and demonstration at equipment and facilities at our company’s refineries and business sites.



Message from the COO



Human Capital Strategy for 2050

Idemitsu Kosan Co.,Ltd.
Representative Director
Executive Vice President
and Chief Operating Officer
Susumu Nibuya

Our Company, which has been primarily a fossil fuel producer up to now, will drastically change our business structure in order to contribute to achieving carbon neutrality and a circular society by 2050.

The recently announced Medium-term Management Plan starting from FY2023 is also an “execution plan” that presents specific items to be addressed, as well as a guideline for achieving our corporate Vision for 2050 and the targets for 2030, where we integrated a backcast perspective, in which we work backward from there, and not just a three-year revenue and expenditure plan. Investments in business structure reforms to become the next main player in energy and carbon neutral solutions while breaking away from dependence on fossil fuel, are expected to amount to 1 trillion yen by 2030. As our business structure undergoes major changes, our human capital strategy to realize this change must also be reviewed. Thus, in this Medium-term Management Plan, we have decided to present investments in business structure reforms and investments in human capital as the two wheels of a cart.

1. Bring Out the Full Potential of Each Individual

The objective of our human capital strategy is to create a human capital group that is flexible, resilient, and capable of shaping the future, no matter what the future brings, at a time when the future is uncertain.

To achieve this, the first thing we will work on is the capacity building and reskilling of our employees. This time, we have set the amount of investment in education per year at 100,000 yen/employee (previously 43,000 yen/employee), which is top-class in Japan. Of course, the same amount is not invested in everyone. At the same time, we have no intention of simply increasing the number of conventional trainings.

Training conducted in-house is still effective not only in improving the skills of the participants but also in enabling them to interact with employees who are active in other departments, leading to mutual understanding and broadening their perspectives. However, if the purpose is to promote interaction with other departments, it can be replaced by an in-house secondary employment system or cross-departmental workshops in which a certain percentage of

As a matter of fact, at a meeting of Idemitsu’s Board of Directors, an outside Director asked, “aren’t investments in human capital a means of promoting business structure reforms? I have a sense of incongruity in treating these two things in parallel.” However, as our management objective is “personal growth,” we are strongly committed to this point.

Since our company’s founding, we have advocated “People-Centered Management” and have placed the highest value on the process in which all employees are fully able to demonstrate their abilities and individuality, create chemical reactions, and accomplish something as a team, and through such experiences, grow one or two times in scale. Our overarching management principle is Ningen-Soncho (Respect for human beings). Our founder, through business operations, strongly believed that “if one is strong, one can overcome any hardship,” and left the phrase “people are capital.” At Idemitsu, “personal growth” is our unwavering management objective.

duties are concurrently performed in other departments while the employee remains in the current department and does their job. Going forward, I would like to concentrate on creating contact points with graduate schools and other educational institutions in Japan and overseas, as well as with municipalities and other external parties, or, in other words, the creation of opportunities. Specifically, we will create opportunities for employees who will play a leading role in driving innovation and those who demonstrate a high level of expertise to proactively interact with people outside our company to enhance their horizons and broaden their perspectives. Furthermore, the next-generation management executives selected from this group will experience tough assignments, and at the same time, we will provide them with business coaching and other flanking support. We will also make efforts to enhance the content of “Smart Yorozyua Design Juku” and “CNX Center Juku” and DX literacy enhancement training s, which are conducted to foster the abilities and entrepreneurial mindset necessary for new business development, and to expand the number of participants.

We will also provide training in the skills necessary for business activities, various learning supports, and career planning seminars to those employees who will play a role in supporting stable business activities through solid business practices.

The above is just one example, but it is our intention to make well-balanced investments in education according to the roles, personalities, values, interests, and life stages of each of our employees.

Furthermore, investment in education is a prerequisite for having employees develop their own autonomous career plans. Employees are the ones who decide what kind of future they want to envision, and the Company will support their efforts to achieve their goals. For those employees who are struggling to create a career plan, we will provide career consulting.

2. Expanding D&I

If our business structure changes, the industry to which we belong and our competitors will also change. Up to now, we have been competing mainly with face-to-face opponents in the domestic industry, but now we will begin to compete with faceless opponents that transcend both borders and industries. Most likely, the competition will be faster and fiercer than we could have ever imagined. We cannot compete by simply raising the level of competence of our employees. For new value creation that is not merely an extension of the past, we must combine the strengths of personnel with different backgrounds, knowledge, and experience. For our company, it is essential to attract diverse talent from outside the Company, as well as by strengthening our initiatives for female advancement, male childcare leave, becoming an LGBTQ ally, and expanding the hiring

3. Resonance with the Management Philosophy / Vision

To achieve the social implementation of “Energy one step ahead,” “Diverse resource conservation / circulation solutions,” and “Smart Yorozyua,” it will be necessary to collaborate with diverse partners more than ever before. We must always keep our antennae raised high and search for the best partners from all over the world. In order to move our projects forward, we must unite all the parties involved, who have differing interests and values. No one will follow a company that only thinks about its own profits. Only when the Company’s cause and ambition to think and work for the benefit of the nation and local communities coincide with the vectors of all parties concerned can a co-creation relationship be established toward “social implementation.”

Our Management Philosophy and Vision are the foundation for inclusion while promoting the diversification of our human capital. Our basic premise is that we share the same Management Philosophy and Vision, and are on the same vector as a team, even if personalities and roles are diverse. This Medium-term Management Plan presents a picture and a roadmap for the entire Company toward achieving carbon neutrality by 2050 and achieving a circular society. In this context, each business department, corporate department, and affiliate company thoroughly discusses within the department how to promote structural reforms and what to focus on, and encourages each employee to consider what role they should play in the reforms. Accordingly, in addition to enhancing direct communication between management and employees, we will continue to improve the transparency of management and share management information in a timely manner.

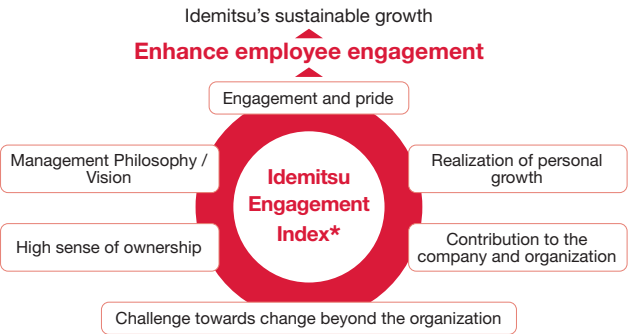


of people with special needs. It is also essential to expand opportunities for local staff working at our overseas group companies and foreign national employees. We have positioned Expanding D&I as one of our most important management issues.

KPI	Current situation	2030 Target
Idemitsu Engagement Index (Employee Engagement)	67% ➡	≥80%
D&I		
Female recruiting ratio	23% ➡	≥50%
Female ratio in managerial positions	3% ➡	≥10%
Male ratio taking childcare leave	56% ➡	100%
Investments in training per employee/year	43,000yen ➡	≥100,000yen (top class in Japan)

In this Medium-term Management Plan, we have publicly disclosed our major KPIs related to our human capital strategy. These KPIs will be reflected in the executive compensation system. We place particular resonance on the Idemitsu Engagement Index, which is comprised of resonance toward our Management Philosophy, support for our company’s strategies and goals, understanding of one’s own role, and a sense of growth. As of 2030, we hope to raise the percentage from 67% under the current situation to a world top-class 80%.

Whether or not we will be a main player in energy and carbon neutral solutions by the year 2050 depends on our action under the this Medium-term Management Plan, and in that sense, the next three years will be a critical juncture that will determine the future of our company. I believe the key to this is our human capital strategy.



* The reliability of the Idemitsu Engagement Index has been statistically proven

Message from the CFO



Idemitsu Kosan Co.,Ltd.
Director,
Executive Vice President
CFO
Noriaki Sakai

1. Performance Forecast for FY2022

In FY2022, although progress was made in easing behavioral restrictions on COVID-19 in countries across the world, the business environment remained uncertain due to Russia's invasion of Ukraine, as well as concerns of an economic slowdown caused by monetary tightening by the U.S. and European financial authorities. Resource prices, such as crude oil and coal, also spiked temporarily in response to the situation in Ukraine and have since been very unstable. Against this backdrop, we expect our net sales for FY2022 to be 9,170 billion yen, a significant increase over the previous year, due to factors such as the rise in crude oil prices. Segment income (operating income + equity in earnings) excluding inventory impact is

also expected to improve significantly to 330 billion yen due to a significant increase in the resources business resulting from soaring coal market prices, and net income attributable to owners of the parent to 240 billion yen, excluding inventory impact.

As for returns to shareholders, based on the policy of the current Medium-term Management Plan, we plan for a “total return ratio of at least 50% of cumulative FY2020-2022 net income excluding inventory impact to our shareholders.” Of this amount, we plan to pay a stable dividend of 120 yen per share, and to repurchase the remaining section of the Company's stock.

■ Status of consolidated statements of income

	(Unit: Billions of yen)			
	FY2021 result	FY2022 forecast	Difference	
Net sales	6,686.8	9,170.0	+2,483.2	+37.1%
Operating + equity income (excluding inventory impact)	449.5 (216.2)	450.0 (330.0)	+0.5 (+113.8)	+0.1% (+52.6%)
Net income (excluding inventory impact)	279.5 (117.7)	325.0 (240.0)	+45.5 (+122.3)	+16.3% (+103.9%)

2. Status of Progress of the Current Medium-term Management Plan (FY2020–2022)

In FY2020, the first year of the current Medium-term Management Plan period, we experienced a challenging business environment due to the effects of the global economic stagnation caused by the COVID-19 pandemic. Under these circumstances, we have conversely initiated various projects to realize carbon neutrality in the future, such as the development of lithium solid electrolytes and the commercialization of Idemitsu Green Energy Pellets, while promoting efficiency and structural reforms of existing businesses, including

a review of supply systems and realizing synergies through business integration.

With regard to business performance, we forecast that our three-year cumulative results will far exceed the plan due to the resumption of economic activities as a result of the easing of behavioral restrictions imposed by COVID-19 and the soaring prices of resources, and we also expect to achieve our financial targets for ROIC, ROE, etc.

■ Status of progress of the current Medium-term Management Plan

	FY2020-2022 Medium-term Management Plan	FY2020-2022 forecast	Difference	(Reference) After revising assumptions*3
Operating + equity Income*1	410.0	639.1	+229.1	–
Net income*1	220.0	387.5	+167.5	–
ROIC*2 (End of FY2022)	4.2%	8.1%	+3.9%	4.1%
ROE (End of FY2022)	8.0%	21.0%	+13.0%	7.6%
Investments	570.0	498.0	-72.0	–

*1 Income figure excludes inventory impact

*2 The definition of ROIC in this Medium-term Management Plan was revised so that the denominator (invested capital) is shareholders' equity, which is directly related to the cost of capital.
(current) total equity + interest-bearing debt ⇒ (After revision) shareholder equity + interest-bearing debt

*3 Resource prices have been adjusted for the assumptions used in this Medium-term Management Plan

3. Medium-term Management Plan (FY2023 - FY2025)

(1) Basic approach to financial strategy

The most important theme of this Medium-term Management Plan is to realize a business portfolio transition toward the realization of a carbon-neutral and circular society by 2050, while providing a stable supply of energy and materials required by society for the time being. During this Medium-term Management Plan period, we will pursue the following financial strategies to support our implementation plan to become a Vision for 2030 “Your Reliable Partner for a Brighter Future”, accordingly, the transition point.

(2) Achievement of management targets and initiatives to improve capital efficiency

Domestic demand for petroleum is expected to decline gradually. In response to this, we aim to realize operating income + equity income of 190 billion yen in FY2025 by reducing costs in indirect departments in existing businesses such as petroleum, expanding earnings in overseas petroleum and lubricants, and promoting structural improvements in the power and renewable energy business. The FY2022 forecast will be 160 billion yen (after adjusting assumptions for resources prices, etc.), resulting in a 30 billion yen increase in

earnings.

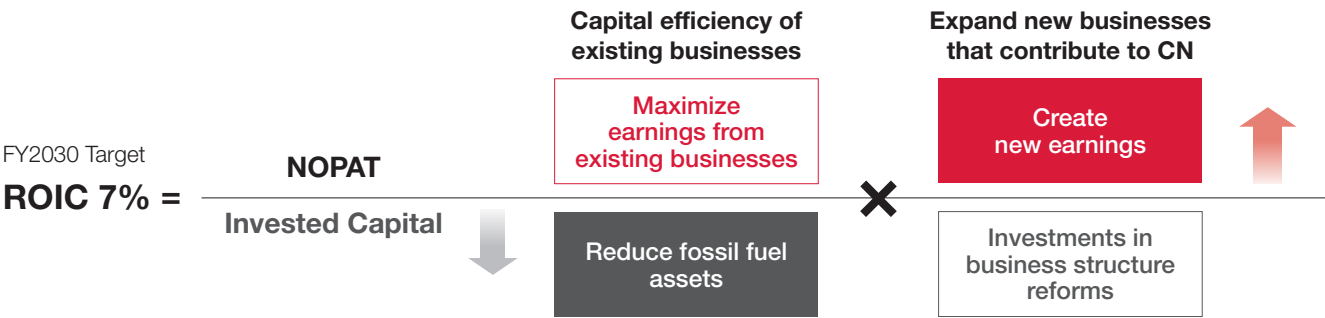
Also, as we move forward with various new initiatives for transforming our business portfolio amid the uncertainty of the future business environment, it will become increasingly more important to strengthen our management structure by strengthening our ability to respond to any changes in the environment. Accordingly, we have adopted ROIC (return on invested capital) as a measure of capital efficiency, and have decided to work on the improvement of our management structure over the long term.

Specifically, in existing businesses, such as the petroleum business, we will seek to maximize earnings while reducing assets by reviewing our supply systems. In new businesses, we aim to expand new earnings by investing in business structure reforms in fields that contribute to carbon neutrality.

Through these efforts, we hope to raise ROIC to the 5% range in 2025 by improving capital efficiency, mainly in existing businesses, and to achieve 7% by 2030.

By pushing to improve ROIC, we will achieve ROE of 8% in 2025 and 10% in 2030.

■ Policy: Transition of the business portfolio through ROIC management



■ FY2025 management targets

Profits (excluding inventory impact)		Capital efficiency		Transition of the business portfolio	
Net income	Operating + equity income	ROE	ROIC	Fossil fuels business profit contribution	
¥135 bn	¥190 bn	8%	5%	≤70%	

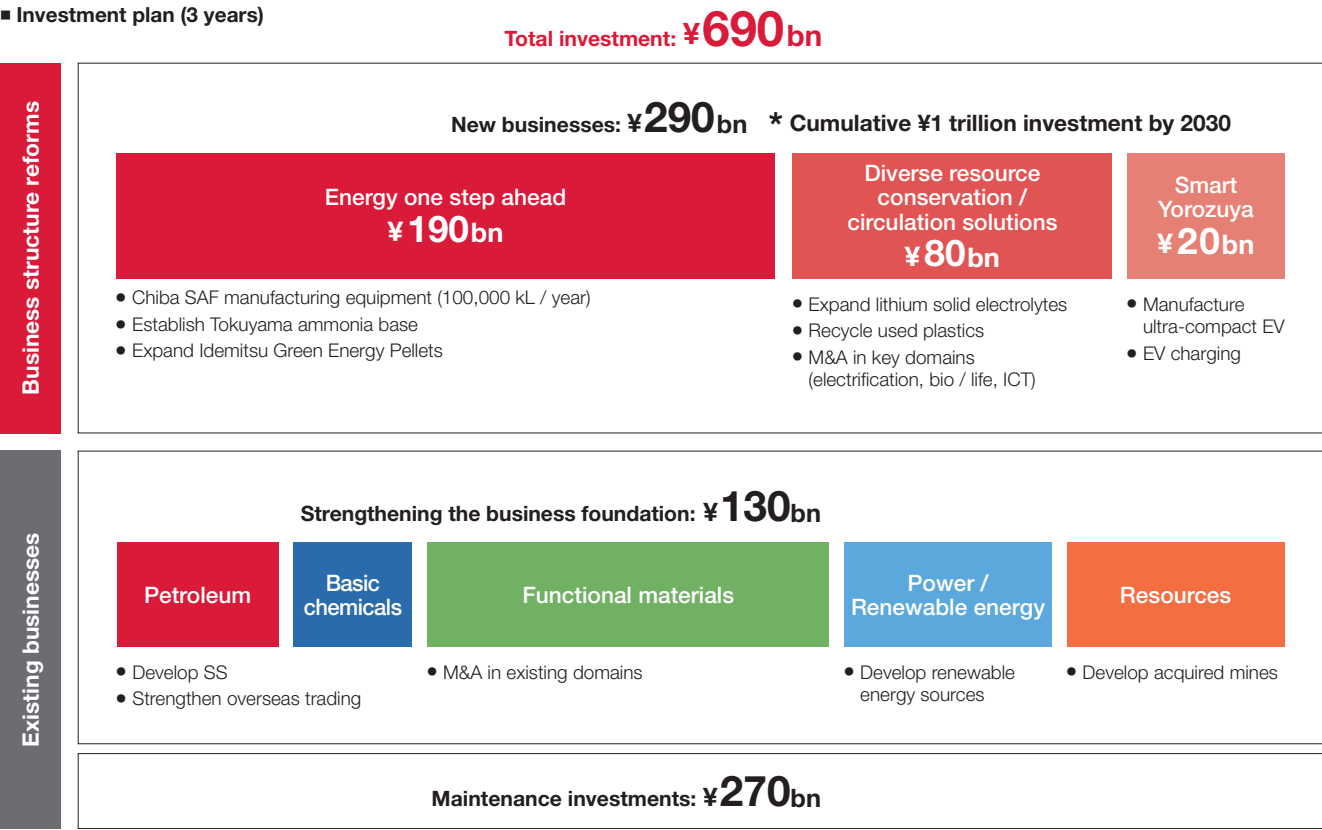
Message from the CFO

(3) Investment plans

In order to steadily promote the transformation of our business portfolio, it is essential that we quickly move forward with initiatives that take into account social implementation from a long-term perspective. To this end, we will invest a cumulative total of 290 billion yen over the next three years to promote the establishment of new businesses. Specifically, these investments will be related to com-

mercialization in the “three business domains,” such as the development of SAF (sustainable aviation fuel) and lithium solid electrolytes for use in next-generation batteries. The total amount of investment, including existing businesses, will amount to 690 billion yen, which will provide a stable supply of existing energy and materials and strengthen revenue generation at the same time.

■ Investment plan (3 years)

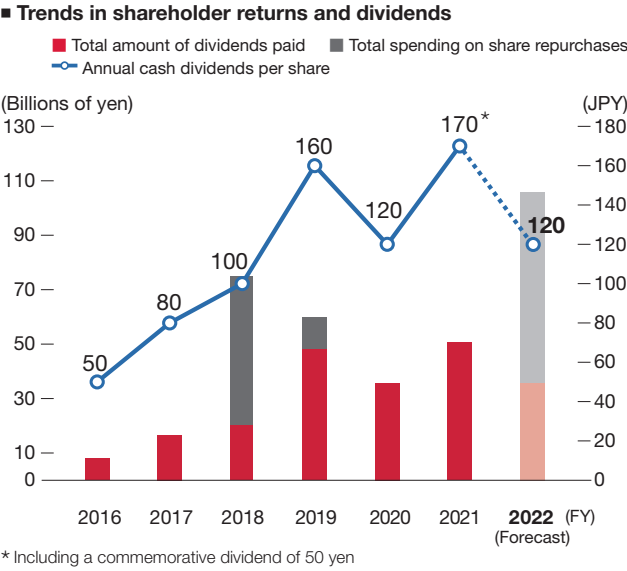


(4) Shareholder returns

In this Medium-term Management Plan, there has been a debate on how to strike a balance between securing funds for strategic investments in the creation of new businesses and shareholder returns. Although strategic investments to create new businesses take time to show their effects, they will lead to an increase in corporate value in the long run by contributing to a society of carbon neutrality.

In the end, based on the level of earnings and cash flow over the next three years, we judged that we can balance the scale of investment for the creation of new investments, and decided to continue the current shareholders returns policy for this Medium-term Management Plan period as well.

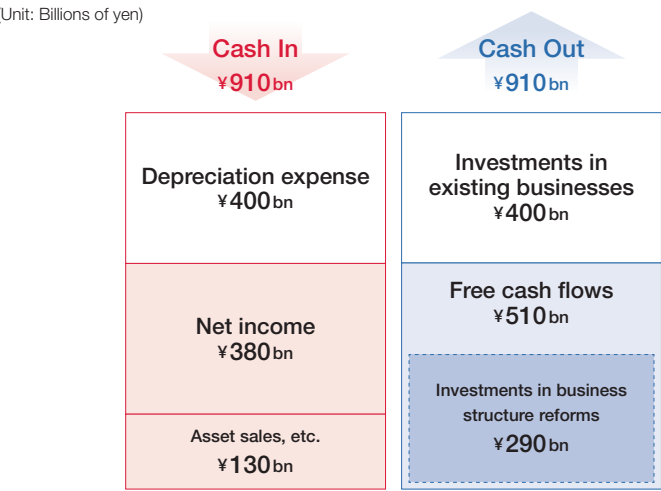
Therefore, we plan to return to our shareholders of at least 50% of cumulative FY2023-2025 net income excluding inventory impact. Assuming that the income and expenditure environment will continue to fluctuate widely, we will continue to pay a stable dividend of 120 yen per share.



(5) Financial strategy

We expect to generate a cumulative cash inflow of 910 billion yen during this Medium-term Management Plan period by pursuing sales of non-business assets, in addition to its operating activities. In terms of allocations, necessary funds for maintaining and renewing existing businesses and for strategic investments will be covered within the scope of depreciation and amortization, while profits and cash flow secured from asset sales and other sources will be used to invest in business structure reforms and shareholders return.

■ Cash flow allocations (3 years)



We also believe that diversification of funding is an issue as we develop our various business strategies.

In July 2022, we procured funds through transition financing and, while we will continue to use conventional financing as a base, we will also work to raise funds appropriate to the investment projects and business model we will pursue in the future.

With a long history of operating privately held company for many years, a number of financial institutions, including major banks, have supported our fund procurement over the years with their understanding of our business operations. We recognize this as a strength of our company. We also believe that as we expand our business in various new domains in the future, cooperation with various financial institutions will become an even greater weapon, even in areas beyond financing transactions.

4. Dialog with Shareholders and Investors

We believe that reflecting the opinions of our shareholders and investors in our management through communication with them is extremely important for improving our corporate value. Last year, as a new initiative, we held a top ESG seminar also attended by outside directors, and we received many comments and had meaningful discussions on our ESG initiatives and policies.

As a Company whose mission is to continue to supply energy,

Amid an uncertain business environment, we would like to pursue further reductions in interest-bearing debt, but since we have sufficient net assets, we will maintain our financial strength under the current situation and maintain the credit rating while keeping the net D/E ratio below 1.0. On the other hand, we will continue our initiatives to improve ROIC and strengthen our management structure. We plan to work on the aforementioned financial strategies as its basic policy for the next three years.

- Cumulative cash inflow of ¥910 billion over 3 years
- The ¥400 billion investment in existing businesses will basically be limited to the amount of depreciation, etc.
- Allocation of free cash flows (net income + asset sales, etc.)
 - Investments in business structure reforms: ¥290 billion
 - Shareholder returns (at least 50% of net income)
 - Maintaining a healthy financial position

■ Credit rating information

Rating agency	Long-term credit rating	Short-term credit rating
Rating and Investment Information, Inc. (R&I)	A (Direction: stable)	a-1
Japan Credit Rating Agency, Ltd. (JCR)	A+ (Forecast: stable)	J-1

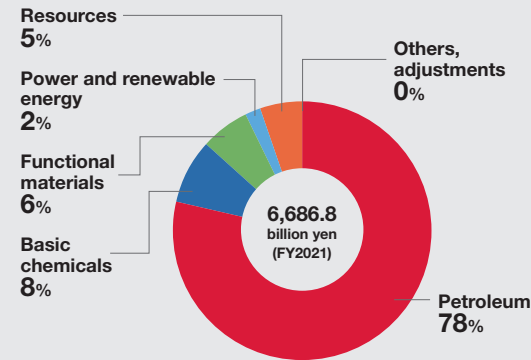
Moreover, we recognize that nurturing and securing accounting and financial personnel is also an important issue. Knowledge and experience in accounting and finance will be needed to drive new businesses forward. We believe that we promote the development of human resources through our business, which also contribute to the acceleration of business development.

we recognize the need to continue to take initiatives to address various ESG-related issues and to enhance the disclosure of non-financial information, including our response to climate change. We will continue to provide proactive opportunities to present and communicate our policies and strategies going forward, including the contents of this Medium-term Management Plan. I would like to thank our shareholders and investors for their continued support.

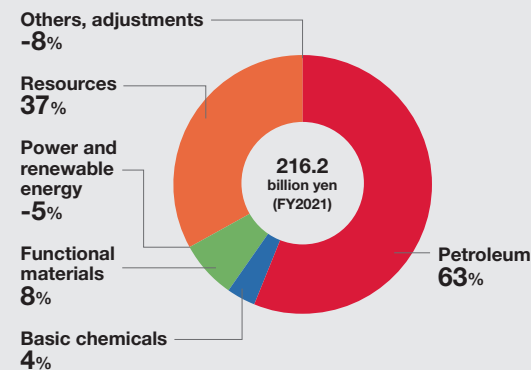
FY2021 Review of Operations

Idemitsu Kosan is developing five businesses in the domains of energy and materials.
We will contribute to the realization of a sustainable society while fulfilling our social mission of providing a stable supply of energy, and will continue to strengthen the competitiveness of existing businesses and transform our business portfolio.

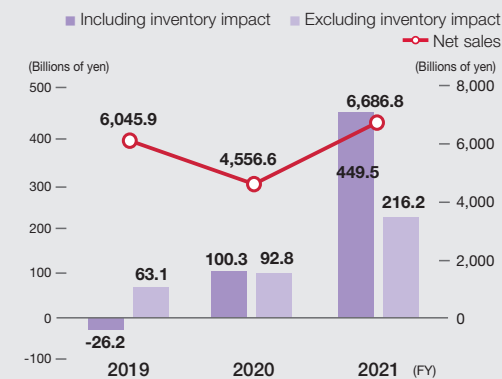
Composition of Net Sales



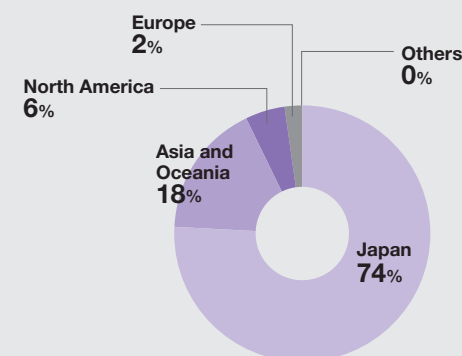
Composition of Operating + Equity Income (excluding inventory impact)



Trends in Net Sales and Operating + Equity Income (consolidated)



Composition of Net Sales by Region

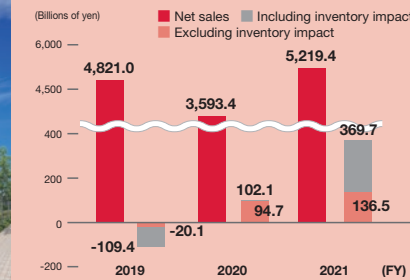


Petroleum Segment

pp.31-32



Trends in net sales and operating + equity income

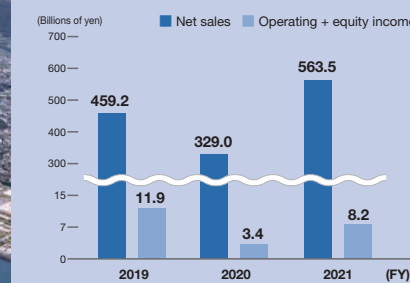


Main businesses

- Procurement of crude oil and refining of petroleum products
- Sale of gasoline, diesel oil, kerosene, and automotive lubricants to service stations
- Sale of industrial kerosene, diesel oil, and heavy oil
- Sale of aviation and marine fuel
- Operation of hydrogen stations

Basic Chemicals Segment

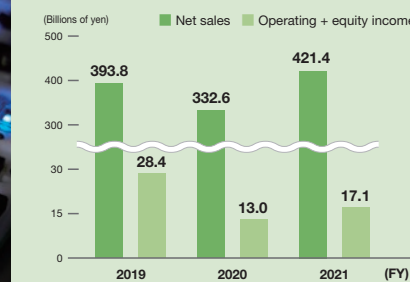
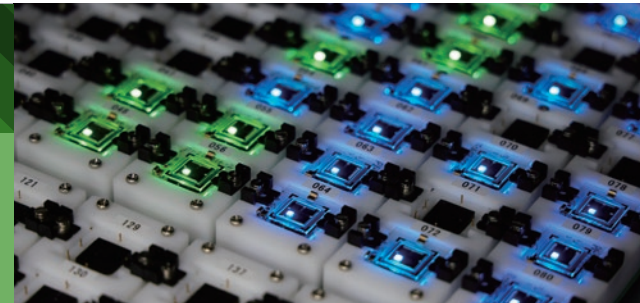
pp.33-34



- Manufacture and sale of ethylene, propylene, butadiene and other synthetic resin materials
- Manufacture and sale of benzene, styrene monomers, mixed xylene, paraxylene, and other chemical products

Functional Materials Segment

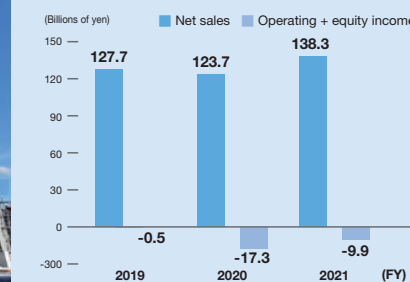
pp.35-38



- R&D, manufacture, and sale of automotive lubricants, industrial lubricants, marine lubricants, and grease
- R&D, manufacture, and sale of engineering plastics, adhesive materials, derivative products, and solvents
- R&D, manufacture, and sale of OLED and other electronic materials
- R&D, manufacture, and sale of high-performance asphalt (bitumen)
- R&D, manufacture, and sale of chemical pesticides, plant-derived pesticides, and functional feeds
- R&D of all-solid lithium-ion battery materials

Power and Renewable Energy Segment

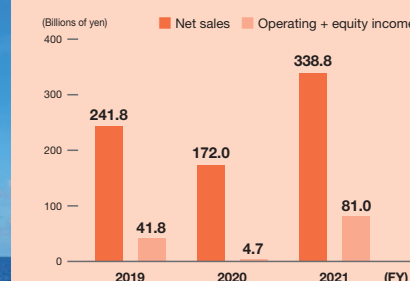
pp.39-40



- Supply, wholesale, and retail of electric power in Japan
- Operation of highly efficient thermal power plants
- Development and operation of renewable energy sources, including solar, wind, and biomass power plants
- Sales of solar power generation systems and provision of CO₂-free solutions

Resources Segment

pp.41-42



- Exploration, development, and production of petroleum and natural gas
- Production, procurement, and sale of coal
- Operation of geothermal power plants, supply and sale of electric power and steam

Petroleum Segment

Strengths

- Group refineries (6 sites) / network of oil terminals positioned in key areas around Japan (34 sites)
- Sales measures at our approximately 6,200 service stations, which boast the second largest market share in Japan
- Cooperative framework with dealers whose businesses are community-based
- Accumulation of experience and technologies cultivated since Idemitsu's founding and the overseas expansion of our value chain

Manufactured Capital (as of March 31, 2022)

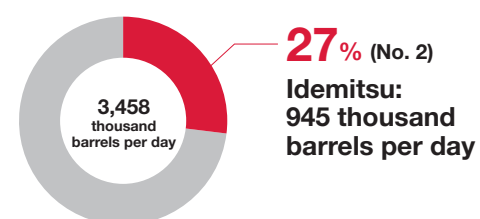
Group refineries

Domestic	Location	Crude oil processing capacity (thousand barrels per day)
Hokkaido Refinery	Tomakomai City, Hokkaido	150
Chiba Complex	Ichihara City, Chiba Prefecture	190
Aichi Complex	Chita City, Aichi Prefecture	160
Yokkaichi Refinery (Showa Yokkaichi Sekiyu Co., Ltd.)	Yokkaichi City, Mie Prefecture	255
Keihin Refinery (TOA Oil Co., Ltd.)	Kawasaki City, Kanagawa Prefecture	70
Yamaguchi Refinery (Seibu Oil Co., Ltd.)	Sanyo-Onoda City, Yamaguchi Prefecture	120
Total		945*

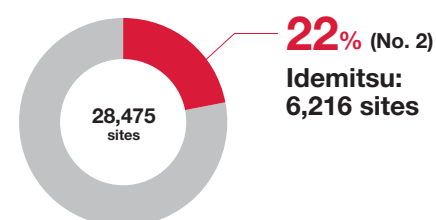
* The total processing capacity when adding the capacity of Fuji Oil Company, Ltd., with which Idemitsu has concluded a petroleum products trading agreement, is 1.09 million barrels per day (bpd).

Overseas	Location	Crude oil processing capacity (thousand barrels per day)
Nghi Son Refinery (Nghi Son Refinery and Petrochemical LLC)	Thanh Hóa, Vietnam	200
Total		200

Domestic share of crude oil processing capacity



Domestic share of number of service stations



Business Environment

While the price of crude oil was on the rise due to the easing of the effects of COVID-19 across the world and cutbacks in investment in resources, the Russian invasion of Ukraine in February 2022 triggered supply concerns and sent the price soaring above \$100/bbl. Subsequently, the price has since been on a downward trend as a result of worries about an economic downturn brought on by the response of oil-producing nations to increasing production and monetary tightening in Europe and the U.S., and has been below the \$100 mark since August.

With regard to domestic demand for petroleum products, all types of petroleum products are on the road to recovery as action restrictions have been eased since the beginning of FY2022. Overseas, due to the

impact of the tight supply-demand balance for petroleum products against the backdrop of the situation in Ukraine, the Asian petroleum product market has been growing compared to the previous year.

In terms of the medium- to long-term business environment, demand for petroleum products is anticipated to increase in the short term in contrast to economic and population growth, particularly in the Asian region, but to fall in the long term as global decarbonization advances. In Japan, because of the government's objective to achieve carbon neutrality by 2050 and the country's dwindling population as a result of a lowering birthrate and an elderly populace, the demand for petroleum products is expected to decline at an accelerated rate.

Medium-term Management Plan (FY2023-2025)

In addition to fulfilling our obligation to guarantee a steady supply of energy essential to our daily lives and economic activities, we will pursue initiatives to increase our competitiveness in anticipation of that the domestic demand for petroleum products declines over the medium- to long-term by reviewing the structure of our refineries and complexes.

By gradually reducing our refining capacity by 300 thousand barrels per day by 2030, we will increase capital efficiency while boosting our commercial competitiveness with regard to the production system for petroleum products. As a specific measure, we have decided to cease refining functions at the Yamaguchi Refinery of Seibu Oil Co., Ltd. (by March 31, 2024). In addition, we initiated a tender offer to transform TOA Oil Co., Ltd., which runs the Keihin Refinery, into a wholly owned subsidiary in order to maximize synergies through integrated group management.

On the sales front, we are promoting the "apollostation" branding of our service stations across the country; as of the end of

September 2022, 56% of them had been implemented. We are also steadily moving toward the unification of service station brands in FY2023. We will encourage the conversion of our refineries and complexes into CNX Centers as part of our initiatives to transform our business portfolio by the year 2050. We will also develop a business model to deliver "Energy one step ahead" such as bio/synthetic fuel and ammonia. (See reference on p.13) In order to promote "diverse energy" and "future mobility" at service stations, including EV charging, EV maintenance, and biofuels, as well as to aim to evolve into a "lifestyle support base" that supports the local population and their affluent lives, we will continue our initiatives toward the social implementation of the "Smart Yorozuya." (Refer to p.15)

Overseas, we will strive to expand sales to overseas customers, particularly in the Asia-Pacific region, where demand for oil is expected to increase in the medium to long term. We will also continue to make initiatives to make the Nghi Son Refinery in Vietnam profitable.

DX Initiatives in the Petroleum Business

With regard to safety activities for refinery and complex equipment, we are promoting DX to further improve efficiency while addressing the aging of plants and the decline in the number of skilled workers. For inspections conducted in high and dangerous locations, maintenance activities for inspecting chimneys in operation were conducted using drones, and we confirmed the effectiveness of the inspection results, and a significant reduction in maintenance periods (approx. 1/5). In order to centralize data collection, input, approval circulation, etc., which had previously been performed between multiple systems, we are also building a system with agile development for maintenance activities. We intend to deploy the system to all offices by the end of FY2022. Through these efforts, we will work to reduce the number of working hours of maintenance personnel.

The official Idemitsu "Drive On" application was launched in November 2021 and was widely praised by customers, gaining 4.3 million members by the end of September. This application relates to the DX of service and sales measures in our service stations.

The application will provide access to already-existing services like "PIT in plus," which enables users to schedule auto maintenance appointments online, and "Rakuraku Anshin Shaken," which facilitates quick and secure vehicle inspections. It will also enable practical strategies like sending notifications and coupons based on users' purchase histories and needs.

In November 2022, we began offering the "Mobile DrivePay" service, which enables payment by smartphone, further enhancing customer convenience. In the future, we plan to offer new services provided on "Smart Yorozuya" as a one-stop service.



"Drive On" app

TOPICS

Making the Nghi Son Refinery Profitable

The Nghi Son Refinery, operated by Company's equity method affiliate, Nghi Son Refinery and Petrochemical LLC (NSRP), plays an important role as an energy supply base for approximately 35% of Vietnam's petroleum demand. An improvement in revenues is forecast for FY2022 compared to the previous year as a result of higher product market prices in Asia due to the situation in Russia and Ukraine.

We will pursue initiatives to contribute to profitability by continuing to ensure stable operations and further improving the utilization ratio through enhancing facility reliability.



TOPICS

Basic Chemicals Segment

Strengths

- Integrated oil refining and petrochemical manufacturing
- Top-level ethylene production capacity in Japan and a supply network serving customers located in petrochemical complexes
- Capacity for rapid implementation of low-carbon and resource-recycling solutions by leveraging our own value chain

Manufactured Capital (as of March 31, 2022)

Mainstay chemicals production capacities*1

Domestic	Chemical product	Production capacity (tons/year)
Olefins	Ethylene	997,000
	Benzene	822,000
	Paraxylene	479,000
Aromatics	Mixed xylene	938,000
	Styrene monomer	550,000
Overseas	Chemical product	Production capacity (tons/year)
Aromatics	Paraxylene*2	245,700
	Benzene*2	87,750
	Styrene monomer	240,000

*1 Including products manufactured at Group refineries

*2 Production capacity in proportion to shareholding ratio

Group petrochemical bases

Domestic	Location
Chiba Complex	Ichihara City, Chiba Prefecture
Tokuyama Complex	Shunan City, Yamaguchi Prefecture
Overseas	Location
Idemitsu SM (Malaysia) Sdn. Bhd. Petrochemicals (Malaysia) Sdn. Bhd. Idemitsu Chemicals (M) Sdn. Bhd.	Johor, Malaysia
Nghi Son Refinery (Nghi Son Refinery and Petrochemical LLC)	Thanh Hóa, Vietnam

Business Environment

Recovery from the COVID-19 pandemic progressed in FY2021, and demand showed a tendency toward improvement over the previous year. However, the oversupply caused by the ongoing construction of new facilities in Asia was not resolved, and the business environment remained challenging. In FY2022, the lockdown caused by the resurgence of COVID-19 infections in China and the surge in crude oil and naphtha market prices as a result of Russia's invasion of Ukraine had a negative impact on our business in both sales and manufacturing. Meanwhile, we saw some aspects of the market for certain aromatic commodities pick up due to the social turmoil in

this way and to production cutbacks by suppliers in response to the deteriorating business environment.

Over the medium to long term, we expect the global demand for basic chemicals will continue to grow due to population growth and an expansion of the middle class, mainly in the Asia region. Against this backdrop, addressing climate change and plastic recycling has become an urgent and important social issue, and in Japan, the Act on Promotion of Resource Circulation for Plastics went into effect in April 2022. Initiatives to achieve carbon neutrality (CN) at an early date require concerted efforts by government and industrial sectors.

Medium-term Management Plan (FY2023-2025)

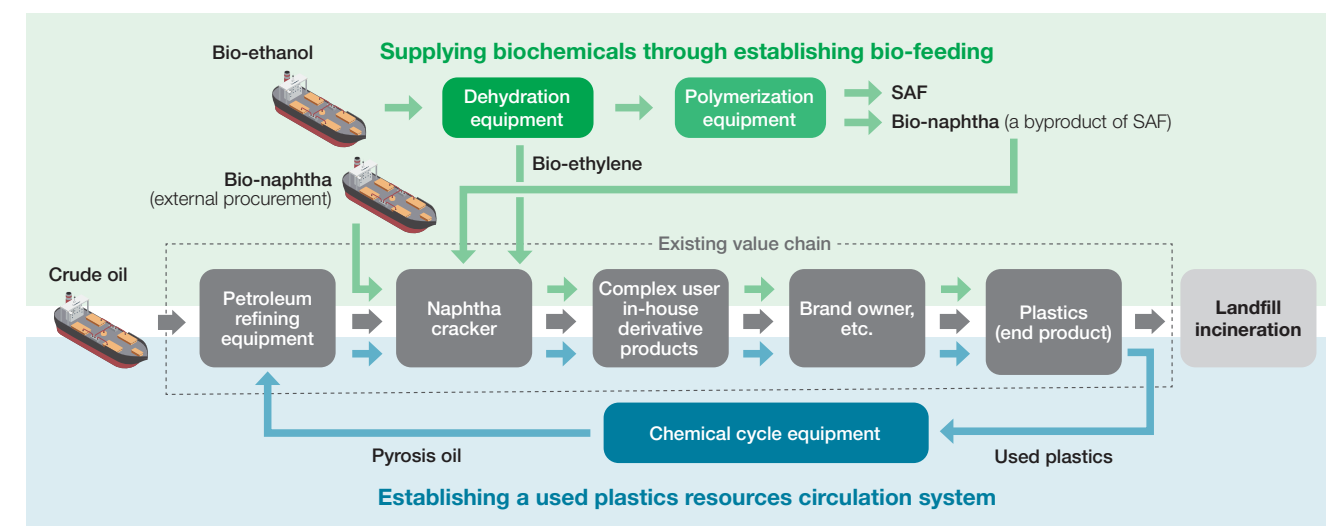
In this Medium-term Management Plan, we will promote implementation while strengthening the competitiveness of existing businesses and utilizing existing assets towards CN in 2050.

To strengthen the competitiveness of existing businesses, we will further promote chemical shift by utilizing surplus gasoline base materials through the Aichi Complex's paraxylene production equipment (production capacity of 400,000 tons/year), which is scheduled to start operation during FY2022. We also plan to improve transportation efficiency by streamlining our off-site facilities. In addition, we are pursuing the advancement of security through DX and other means and initiatives to optimize maintenance work specifications

to both improve facility reliability and enhance cost competitiveness.

Toward CN in 2050, we will promote "the supply of biochemicals through establishing bio-feeding" and "establishing a resources circulation system." In terms of bio-chemicals, we intend to continue to collaborate with the SAF business to produce bio-chemicals using bio-ethanol. For "establishing a resources circulation system," we will promote the used plastics recycling business. Also, in promoting CN of raw materials, we will not only make use of existing facilities at our refineries and complexes, but also promote innovation throughout the entire value chain of chemical products, including group companies Prime Polymer Co., Ltd. and PS Japan Corporation.

Image of initiatives towards CN in 2050



Initiatives to Establish a Biomass Plastic Supply Chain

Through collaboration with the SAF business (refer to p.16), which is scheduled to begin supply in 2026, we plan to achieve in-house production of bio-naphtha and bio-ethylene and expand into downstream derivatives.

In March 2022, we acquired ISCC PLUS certification (International Sustainability and Carbon Certification), a certification system for bio-chemicals, at our Tokuyama Complex, enabling us to supply bio-feeding using the mass balance method. We aim to obtain this certification in 2023 at our Chiba Complex, as well.

Prior to the in-house production, we will launch an initiative to produce bio-SM (styrene monomer) from bio-naphtha procured from Neste Corporation and to produce bio-ABS resin at CHIMEI Corporation in Taiwan. Neste Corporation's bio-naphtha is produced from renewable biomass-derived feedstock, which enables Idemitsu to reduce GHG emissions compared to petroleum-derived naphtha. The production of bio-SM in Japan and the production of bio plastics in Taiwan are both the first cases in Japan.

Initiatives to Establish a Used Plastic Recycling Supply Chain

Together with Environment Energy Co., Ltd., we have been pursuing joint initiatives to develop a technology to convert used plastics into petroleum (chemical recycling). Having reached the prospect of technological development necessary for the construction of a commercial facility, we are now doing the basic design of petroleum chemical recycling equipment (processing capacity of 20,000 tons/year) to begin commercial operation in FY2025.

Also, for the stable procurement of used plastic which is used as the raw material, we have begun reviewing the establishment of a specific procurement system in collaboration with Ichikawa Kankyo Holdings Co., Ltd. and Maeda Sangyo Co., Ltd., major recyclers in the Tokyo metropolitan and Chubu areas.

Through this commercialization, we aim to establish a resource recycling production system (chemical recycling system) for plastics that effectively utilizes our existing facilities, and we will also review the possibility of developing this business at Group refineries and complexes throughout Japan.

Functional Materials Segment

Business Environment

In each business of the functional materials segment, the demand for various products is gradually recovering as economic activities have resumed in various countries in line with the easing of behavioral restrictions associated with the COVID-19 pandemic. Demand growth is anticipated in the medium to long term due to increased

demand in emerging countries as a result of economic development and population growth, as well as new product requirements for a decarbonized society, despite business environment uncertainties such as Russia's recent invasion of Ukraine and global inflation.

Medium-term Management Plan (FY2023 to FY2025)

We position lubricants, performance chemicals, electronic materials, bitumen, pesticides and functional feed, lithium-ion battery materials, and other related products and materials which belong to the functional materials segment with which we can contribute to the realization of a sustainable world. Going forward, to grow revenue in the functional materials business, we will focus on developing new products that fit market needs while accelerating global business development, such as by building new production sites in overseas

markets expected to see demand expansion. During the period of this Medium-term Management Plan, we will also strive to promote ROIC management through business structure reforms and other initiatives to strengthen earning power. Furthermore, in the lithium-ion battery materials business, we have completed the start-up of a pilot plant in Chiba and are continuing to promote efforts to commercialize the business.

Lubricants

- Strengths
- A global manufacturing, sales, and R&D network spanning 28 countries
 - A lubricants product development capabilities that address customers' frontline issues and needs

Initiatives in the Lubricants Business

The lubricants business handles lubricants such as automotive oil and greases hydraulic and gear oil for industrial machinery, and other industrial oils. As for automotive lubricants, the Company's "apollostation oil series" of branded engine oils are sold at service stations nationwide. With advancements in carbon neutral initiatives, further demand is expected for products that conform to the growing demand for EVs, and for products that are environmentally friendly and contribute to energy and resources conservation. In FY2022, We brought to market "idemitsu AshFree," the industry's first phosphorus-free and ash-free diesel engine oil.




Leveraging advanced tribology, we develop OEM (Original

Equipment Manufacturing) products for automakers and other customers doing business around the world via our production and sales bases in Japan and overseas.

As a major initiative during this Medium-term Plan period, we aim to further expand our revenue by strengthening the strategy of the Idemitsu brand through the expansion of the "IBMO Series*" of Idemitsu branded motor oils in overseas markets. In addition, we are determined to achieve greater competitiveness in our business by steadily advancing efforts to reduce manufacturing costs.

* Idemitsu Brand Motor Oil: Idemitsu brand engine oil sold overseas.

Our Products

Product name	Features	
apollostation oil	Automotive engine oil with a lineup spanning from standard to premium and the major viscosity grades. Improved performance from the ZEPRO series in terms of fuel economy and engine protection.	
idemitsu AshFree	The industry's first ZeroAsh diesel engine oil that provides DPF (Diesel Particulate Filter) with super longevity*. An ash-free oil that does not emit ash, a factor in DPF clogging in diesel trucks and buses, and reduces maintenance costs by extending DPF life and reduces labor time and fuel consumption by shortening DPF regeneration time. * Super longevity: a term coined to mean exceeding longevity	
Daphne Oil	An industrial lubricant for industrial machinery such as hydraulic oil and gear oil sold under the "Daphne" brand. Available in a diverse product lineup according to the type of machine tool, application, and required performance.	 A "Daphne brand" product "Daphne Super Hydro Oil"

Advanced Materials & Performance Chemicals

- Strengths
- Materials development capabilities to meet the requirements of the market (Catalyst, synthesis and polymerization technologies, material design for chemicals and composites)
 - Extensively developed overseas manufacturing, development, and sales network

Initiatives in the Advanced Materials & Performance Chemicals Business




The advanced materials & performance chemicals business handles an extensive range of functional products such as polycarbonate resin (product name: Tarflon™), SPS resin (product name: XAREC™), and other engineering plastics featuring high transparency, high durability, and high heat resistance, as well as adhesive materials used for disposable diapers (product name: I-MARV® and plastic zipper tapes (product name: PLALOC™) used for food preservation.

At our overseas bases, we have established a polycarbonate resin joint venture with a Taiwan-based plastics group's FCFC (Formosa Chemicals & Fibre Corporation), a hydrogenated petroleum resin joint venture with FPCC (Formosa Petrochemical Corporation), we are building our second SPS resin plant in Malaysia (scheduled

to come on line in the latter half of FY2022), we have a resin compounding plant in China and a PLALOC plant in Thailand, which are operating stably. Thus, a supply system that is cost-competitive and are engaged in global development and sales has been established.

During the period of this Medium-term Management Plan, we will promote structural reforms and enhance the development of materials for mobility in the field of electrification and the development of functional products that anticipate the requirements for high-speed communications in the field of ICT. As part of the CNX Center Concept, we will also focus on the development of bio-chemicals and other activities to contribute to the realization of a carbon-neutral and circular society.

Our Products

Product name	Features	Applications	
Tarflon™ (PC/polycarbonate resin)	Highest impact resistance among plastics. A high-performance resin with excellent transparency, surface gloss, and flame resistance.	Optical applications, such as smartphones, lenses, and automobile lights, OA, and smartphone housings, etc.	 Daytime running lamps (DRLs)
XAREC™ (SPS/syndiotactic polystyrene resin)	A high-performance resin that is lightweight and offers excellent heat resistance, electrical properties, chemical resistance, and hydrolysis resistance.	Automotive electronic parts and kitchen appliances, such as microwave ovens and rice cookers, etc.	 Automotive parts
I-MARV® (Hydrogenated petroleum resin)	A hydrogenated petroleum resin that is colorless and odorless and offers excellent thermal stability and adhesiveness.	Tackifier for hot-melt adhesives (used in disposable diapers and other hygiene materials), non-woven cloth, polypropylene modifier, etc.	 Disposable diapers and other hygiene products

Electronic Materials

Strengths

- Technical capabilities and patents centered on blue-light emitting materials, a subset of OLED materials of special technical difficulty
- Global supply network for display manufacturers, our major customers

Initiatives in the Electronic Materials Business

In OLED materials, a mainstay product of the electronic materials business, we are working to ensure business scale expansion in line with the growth of the OLED display market. In our research and development, we are working on the development of high-performance materials that enable power saving and a wider color gamut for displays in order to maintain our technological superiority, particularly in blue light-emitting materials. In terms of production systems, we have plants in Japan, as well as in Korea and China, which are near the demand centers, and we supply materials to display manufacturers, who are our customers. In our efforts toward decarbonization, we achieved carbon neutrality at the Chengdu Plant (China) in October 2021.



In other areas, we have been conducting research and development of oxide semiconductors that will contribute to further power savings and higher picture quality in smartphones and televisions. In

June 2022, we succeeded in developing innovative polycrystalline oxide semiconductors “Poly-OS” that can be applied to a variety of displays, in collaboration with Japan Display Inc.

During the period of this Medium-term Management Plan, in addition to promoting measures to differentiate and enhance the competitiveness of our materials, such as the development of innovative technologies for OLED materials, we will review our manufacturing technologies and processes and work to improve productivity. In addition to the above, we will strive for business growth while securing a competitive advantage by utilizing our materials database and MI (Materials Informatics)* and strengthening our relationships with display manufacturers and development partners.

* This refers to the use of AI-based materials development technology

Our Products

Products	Features	Applications	
OLED materials	We hold patents for materials that have an advantage in the area of blue-light emission, an area of particular technical difficulty. Compared with LCDs, OLED displays offer high color reproducibility, can be made thinner, and use less power.	Materials for displays, including those used in smartphones, PCs, tablets, TVs, and auto-mobiles	<div><p>Products that use OLEDs TVs Image provided by LG Electronics</p></div>
Oxide semiconductors	Offering higher mobility than existing oxide semiconductor materials, these products are expected to reduce power consumption and improve image quality in TVs and other displays.	Materials for drive switches on displays, including those used in smartphones, PCs, tablets, TVs, and automobiles	<div><p>Smartphones Image provided by Samsung Electronics</p></div>

Bitumen (High Performance Asphalt)

Strengths

- Diverse product lineup of road paving materials, waterproofing materials, industrial materials, etc., and comprehensive asphalt-related technical capabilities
- Leveraging the Group’s chemical expertise to develop products and technologies to achieve longer-lasting roads

Initiatives in the Bitumen Business

In Japan, we are the only comprehensive asphalt manufacturer supplying asphalt for a wide range of applications, from road paving materials to waterproofing materials for housing and industrial materials. In particular, our high-performance asphalt products include technology for improving workability by reducing the allowable paving temperature and products with improved durability and lifespan. Environment-related needs for these products, including reducing CO2 emissions and road life-cycle costs, are growing.

During the period of this Medium-term Management Plan, we

will strive to make improvements in profit margins to further strengthen our business foundation, as well as DX the entire supply chain to improve the efficiency of the entire industry. In terms of research and development, we will work on the development of products and technologies to further improve the durability and longevity of roads and enhance quality in the field of pavement recycling. We will also promote initiatives to establish an overseas business foundation to use the technology we have developed in Japan to facilitate the building of infrastructure overseas.

Our Products

	Product name	Features
Added-value asphalt for roads	Maybright	Can be used in a wide range of colors with added colorants to harmonize beautifully with the surrounding environment. Made with deterioration-resistant materials.
	Grandphalt ART	Repairing asphalt formulated with rubber and resin. Helps enhance the safety and extend the life of frequently congested roads.

Pesticides and Functional Feed

Strengths

- Proposal capabilities in accordance with the requirements of manufacturing sites, both chemical and biological
- Technology development capabilities that enable new agent development from diverse perspectives

Initiatives in the Pesticides and Functional Feed


This business has engaged in the development, manufacture, and sale of chemical pesticides, plant-derived pesticides, functional feeds, and other products based on R&D, with “food safety and security” and “the increasing demand for food” as keywords. In July 2022, Idemitsu Kosan’s agri-bio business was transferred to SDS Biotech K.K., a wholly owned subsidiary of the Company, with expectations to expand the business further and create synergies, thereby consolidating management resources.

During the period of this Medium-term Management Plan, we will strive to collaborate with our partners to promote the overseas expansion of goods like Benzobicyclon, an active component in rice paddy herbicide, Impression Clear, a biological control agent, mixed feed

containing cashew nut shell liquid (CNSL), and viable bacteria, with a focus on Europe and the U.S. where demand is expected to increase. Looking to the future, we will take on the challenge of developing new agents in the fields of chemical pesticides, plant-derived pesticides, and functional feeds, based on our technological development capabilities, which is one of the strengths of our business.

Additionally, in response to the global trend to combat climate change and the challenge of reducing greenhouse gases from livestock, it has been verified in the laboratory that CNSL is effective in suppressing methane gas contained in cattle burps. Currently, we are conducting trials with our partners to demonstrate this efficacy in live cattle.

Our Products

Products	Product name	Features	
Rice paddy herbicide	Benzobicyclon	A rice paddy herbicide that is safe for rice and shows excellent herbicidal effects and residual efficacy against an extensive range of weeds, including sedges, annual broadleaf weeds, and creeping weeds such as aneilema, Japanese cutgrass, and Leersia sayanuka.	<div><p>RUMINUP® M</p></div>
Animal husbandry materials	RUMINUP® M	An animal husbandry material containing cashew nut shell liquid that has the effect of reducing methane gas in cattle burps. Given to cattle, the product helps maintain the healthy functioning of the rumen (first stomach) without the use of antibiotics.	

Lithium-ion Battery Materials

Strengths

- Our extensive patent portfolio and our integrated manufacturing technology from sulfide raw materials to solid-state electrolytes, which we have cultivated through petroleum refining and established through many years of R&D

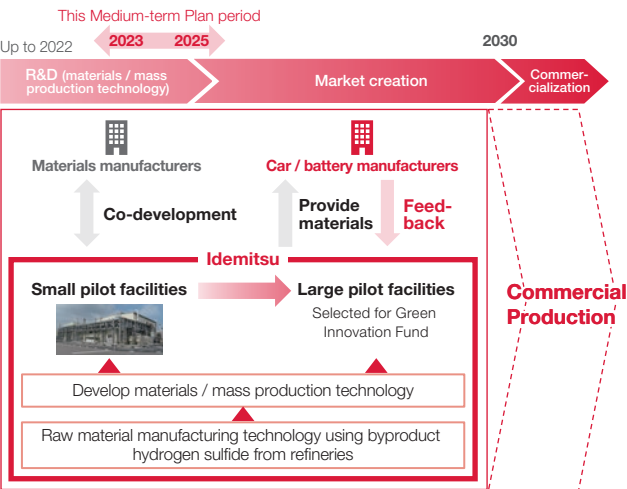
Initiatives in the Lithium-ion Battery Materials Business

All-solid lithium-ion secondary batteries (all-solid lithium battery) are being sought for early commercialization for EVs, etc., and the demand for solid electrolytes, a key material for these batteries, is increasing. By changing from conventional liquids to solid electrolytes, improvements in safety, recharging speed, and cruising range can be expected.

Our key strength lies in our extensive patent portfolio and our integrated manufacturing technology from sulfide raw materials to solid-state electrolytes, which we have cultivated through petroleum refining and established through many years of R&D.

During the period of this Medium-term Management Plan, we are accelerating our efforts in collaboration with car/battery manufacturers and other customers to further improve the performance and cost competitiveness of solid-state electrolytes. In addition to building the first (operation began in November 2021) and second plant (operation begins by the end of 2023) of small pilot facilities in preparation for mass production, we are also making preparations for the construction of large pilot facilities, which was selected for NEDO’s Green Innovation Fund Project, “Next-generation Storage Battery and Motor Development.” Moreover, we are contributing to the realization of a decarbonized society by promoting the early

commercialization of solid-state electrolytes ahead of other global companies, including co-development with materials manufacturers of a new high-performance material that combines cathode materials and solid electrolytes.



Power and Renewable Energy Segment

Strengths

- A track record of developing and possessing competitive thermal power sources and diverse renewable energy sources both domestically and internationally
- Integrated business structure spanning from power generation to retail
- Knowledge and network in the solar power generation business cultivated by Solar Frontier

Power Generation Assets (as of March 31, 2022)

Capacity of the group power generation facility portfolio*1

Type of power generation	Unit: 10,000 kW
Domestic solar power	18.8
Overseas solar power	44.8
Solar power (subtotal)	63.6
Biomass power	5.3
Wind power	2.0
Geothermal power*2	0.5
Renewable energy (subtotal)	71.4
Domestic thermal power generation	83.4
Overseas thermal power generation	27.1
Thermal power generation (subtotal)	110.5
Power generation capacity (total)	181.9

*1 Totals of Idemitsu's owned (or contributed) capacity

*2 Geothermal power generation is a business within the Resources Segment. Additionally, 27,000 kW worth of steam for power generation is supplied to energy companies.



The Luciana solar power plant project: 73,000 kW (capacity based on equity stake)



Rokkashomura Futamata Wind Farm: 20,000 kW (capacity based on equity stake)
Futamata Wind Development Co., Ltd.

Business Environment

Domestic wholesale energy market prices have continued to be high, in part because of increasing resource prices brought on by Russia's invasion of Ukraine in February 2022 and other considerations. These prices first spiked in FY2021 due to the electricity supply-demand crunch. While the current environment continues to be difficult for electric power companies, electric power demand is expected to grow in the medium to long term, thanks to the progress of electrification in Japan and the increase in consumption overseas due to economic development. In terms of supply, the global trend toward decarbonization is projected to drive the expansion of renewable energy both domestically and interna-

tionally, but the competitive environment is expected to remain intense due to the entry of a diverse range of operators.

Domestically, the Sixth Strategic Energy Plan indicates the shift to renewable energy as the main source of power and progress in the innovation of thermal power sources. In the area of solar power generation, in addition to the expansion of the introduction of solar power generation for private consumption, requirements for the repowering of solar power plants whose FIT (Feed-in Tariff) periods have expired and for the recycling of waste panels are forecasted to expand in the early 2030s and beyond.

Medium-term Management Plan (FY2023-2025)

We are leveraging our strength in having a diverse portfolio of power plants, including biomass, wind, solar, and other renewable energy sources, in addition to natural gas-fired power plants with high efficiency and low environmental impact, to develop a wholesale business to energy companies as well as a retail business to industrial and ordinary households.

In FY2021, we engaged in power source development in Japan and overseas, with solar power plants in Japan and North America and Southeast Asia, and a natural gas-fired power plant in North America, each of which began operation. In FY2022, our North American Solar Power Plant and Tokuyama Biomass Power Plant started commercial operation, bringing the Company's own power generation capacity to a total of approximately 1.9 million kW at the end of FY2022. With regard to Solar Frontier K.K., we are proceeding with business structure reforms to improve profitability, including the termination of solar panel production at our Kunitomi Plant in June 2022.

During this Medium-term Management Plan period, we are engaging in initiatives to establish a stable revenue base for domestic

electric power sales by utilizing our own highly competitive power supply sources.

We will also work to expand decarbonized power sources through the development of renewable energy sources and the shift to low-carbon and CN thermal power sources, while making maximum use of our accumulated know-how, assets, and sales network, as well as our expertise in the solar business.

Overseas, we will continue to pursue the development of renewable energy and other power sources.

We aim for business expansion in the areas of the distributed energy business and the supply and demand adjustment business that combines renewable energy power sources which do not have a fixed generation rate with battery storage.

Solar Frontier K.K. is working to become a "next-generation systems integrator" that provides solutions throughout the entire life cycle of solar power generation plants, from development, maintenance, and functional improvement to shutdown and recycling, and also aims to launch a solar panel recycling business in FY2024.

Tokuyama Biomass Power Generation Project Initiatives

The Idemitsu Group is engaged in the biomass power generation business as an initiative to reduce CO₂ emissions through the use of renewable energy and to contribute to local production for local consumption of energy. To date, we have invested in Tosa Green Power K.K. in Kochi Prefecture and Fukui Green Power Co., Ltd. in Fukui Prefecture, and developed the Keihin Biomass Power Plant using the site of a former oil refinery.

In January 2023, the Tokuyama Biomass Power Plant, the Group's fourth site, started commercial operation. The power plant utilizes part of the former site of the Tokuyama Refinery (currently Tokuyama Complex), which closed in 2014, as well as our existing infrastructure.

Approximately 70% of Japan's land area (37.8 million hectares) is forest, and the utilization of thinned wood and other materials left unused there has been a longstanding issue. For the time being, we will use* imported wood pellets and Palm Kernel Shell (PKS)*, but in the medium to long term, by using domesti-

cally produced thinned wood and lumber scraps, we will contribute to sustainable forestation and forestry promotion in consideration of environmental conservation, and recycling of domestic forest resources.

We also participated as a member in the Wood Biomass Use Promotion Council since its establishment in January 2021 by Shunan City in Yamaguchi Prefecture. Taking advantage of the region's wealth of forestry resources and biomass power generation facilities, we will work together with local governments to promote the use of domestic woody biomass materials and contribute to the construction and development of a circular economy through local production for local consumption of energy and promotion of the forestry industry.

* For both wood pellets and PKS, third-party certification has been obtained from the supplier to ensure sustainability and traceability in production and manufacturing processes, and to use materials that are recognized as being friendly to the global environment, biodiversity, and the labor environment.

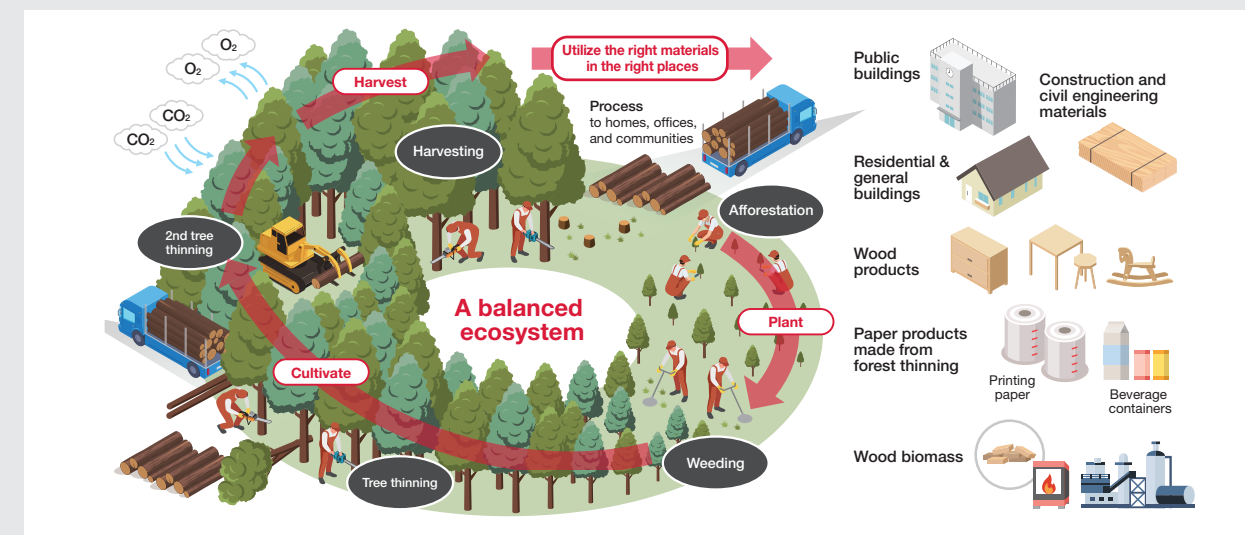


Image of the recycling of forest resources (prepared by Idemitsu based on a chart in the Annual Report on Forest and Forestry in Japan (FY2021), Forestry Agency)

Resources Segment

Strengths

- A wealth of experience in oil and gas field development
- More than 30 years of project experience and relationships of trust with oil-producing countries and partner companies
- Integrated value chain spanning from coal production to sales and relationships of trust with customers
- The accumulated knowledge at Japan's only specialized coal research institute and a wealth of our technologies, such as black pellets, supporting low-carbon solutions

Manufactured Capital

Oil and gas production volume

Name	Location	Production volume (thousand BOE*1/day)
		FY2022 (Forecast)
Vietnam Gas Field	Off the coast of southern Vietnam	16.3
Norway Oil and Gas Field*2	Norwegian North Sea	14.8
Total		31.0

*1 Barrels of oil equivalent

*2 Figures include the impact of the acquisition of equity method affiliate Idemitsu Snorre Oil Development Co.,Ltd. (currently, INPEX Idemitsu Norge AS)

Coal production volume

Name	Location	Production volume (thousand tons)
		FY2022 (Forecast)
Ensham Mine	Australia	2,910
Muswellbrook Mine	Australia	940
Boggabri Mine	Australia	5,320
Total*3		9,170

*3 Production capacity based on the Company's equity stake



Business Environment

In FY2021, while the global spread of COVID-19 did not abate, economic activities resumed across all countries, but energy supply concerns spread following Russia's invasion of Ukraine in February 2022. In Europe and other places, there has been a return to the use of fossil fuel and resource prices, especially for coal, have soared to unprecedented levels. Over this past year, the environment sur-

rounding energy has changed dramatically. As the importance of energy security is being reaffirmed in countries due to rising geopolitical risks, energy demand is projected to increase, especially in Asia. On the other hand, there is a possibility that demand trends and resource prices may be impacted by the global trend toward decarbonization.

Medium-term Management Plan (FY2023 to FY2025)

In the oil exploration and production business, where demand is expected to increase in the future low-carbon society, we will continue to develop gas fields in the Southeast Asian region. Vietnam's gas fields have continued to operate smoothly since the start of commercial production in FY2021, and we expect stable production during the period of this Medium-term Management Plan. We will continue to pursue exploration activities in the surrounding areas to contribute to the stable supply of energy in Vietnam.

Regarding our coal business, we believe that our mission is to provide a stable supply of energy, and we will continue to supply high-quality coal to our customers, primarily in Japan. In parallel, we will accelerate our initiatives toward the shift to the low-carbon solution business that supplies customers with high-efficiency combustion technology for coal boilers and Idemitsu Green Energy Pellets (black pellets). As part of the business portfolio transformation measures in this Medium-term Management Plan, we have set a goal of reducing our fossil fuel assets by 20% by 2030. In the coal business, we pared down the scale of production due to the divestiture of our stake in the Malinau Mine in Indonesia and the termination of the Muswellbrook Mine in FY2022. Furthermore, from

FY2023 onward, we will not increase production through new mine development or large-scale investments but will concentrate production activities on the Boggabri Mine in order to maintain a stable supply and maximize revenues.

Idemitsu Green Energy Pellets is constructing a 120,000-ton commercial manufacturing plant in Vietnam, which is scheduled for completion in FY2022. Currently, we have successfully conducted a coal boiler 30% mixed combustion experiment, and we will continue to work toward the start of commercial production.

Leveraging our business foundation of 40 years of coal mining operations in Australia, we also promote entry into the rare metal mining business and acquisition of knowledge, including investment in an enterprise that promotes a vanadium project. Regarding the Muswellbrook Mine, we aim to gradually shift to new businesses such as renewable energy using the mine assets, including the commencement of commercialization feasibility studies of Pumped-storage Hydroelectricity using the former mine site.

As for the geothermal power generation business, in addition to the stable operation of existing power plants, we are promoting new developments in multiple regions in Japan.

Construction of a Geothermal Power Plant in Yuzawa City, Akita Prefecture

TOPICS

As part of the expansion of our geothermal business, we have decided to advance to the construction phase of a geothermal power plant (name: Katatsumuri Yama Power Plant, output: 15,000 kW) in Yuzawa City, Akita Prefecture, in collaboration with INPEX Corporation and Mitsui Oil Exploration Co., Ltd. The power plant will be built on Katatsumuri Yama. Three companies will invest in the project, it will be operated by Oyasu Geothermal Co., Ltd., and is scheduled to begin operations in March 2027.

The results of the blowout test (testing to evaluate production capacity) conducted in 2021 have shown that stable production of geothermal fluid (steam and hot water) equivalent to an output of approximately 15,000 kW is expected to be possible on a long-term basis, and the electricity generated will be

certified under the FIT (Feed-in Tariff) system for renewable energy. Katatsumuri Yama Power Plant will also be designed with environmental and landscape considerations in mind, and the construction and operation of the power plant will contribute to the local community.

Geothermal power generation, in contrast to solar energy and other renewable energies, has become increasingly attractive in recent years as a source of energy that can offer a consistent supply of electricity regardless of weather conditions. We will continue to actively encourage the use and expansion of renewable energy sources and make a positive impact on the development of a low-carbon society and energy security in Japan.

Commercialization Verification of Pumped Storage Hydroelectric Power Generation at the Post-mining Muswellbrook Coal Mine Site

TOPICS

By utilizing our business foundation in Australia, we are examining the potential for using post-mining sites as a base for various renewable energy sources. Together with AGL Energy Ltd., an Australian energy corporation, we have begun feasibility studies for a pumped-storage electricity project using the post-mining Muswellbrook Coal Mine Ltd. site in Australia, which is nearing the end of its lifespan in 2022.

Given Australia's favorable wind, sunlight, and other meteorological conditions, as well as its vast landmass and considerable renewable energy potential, the Australian government is also promoting an energy transition toward decarbonization. In particular, it is anticipated that energy storage via pumped-storage electricity will contribute to the stabilization of the power system and act as a crucial regulator for switching to renewable energy

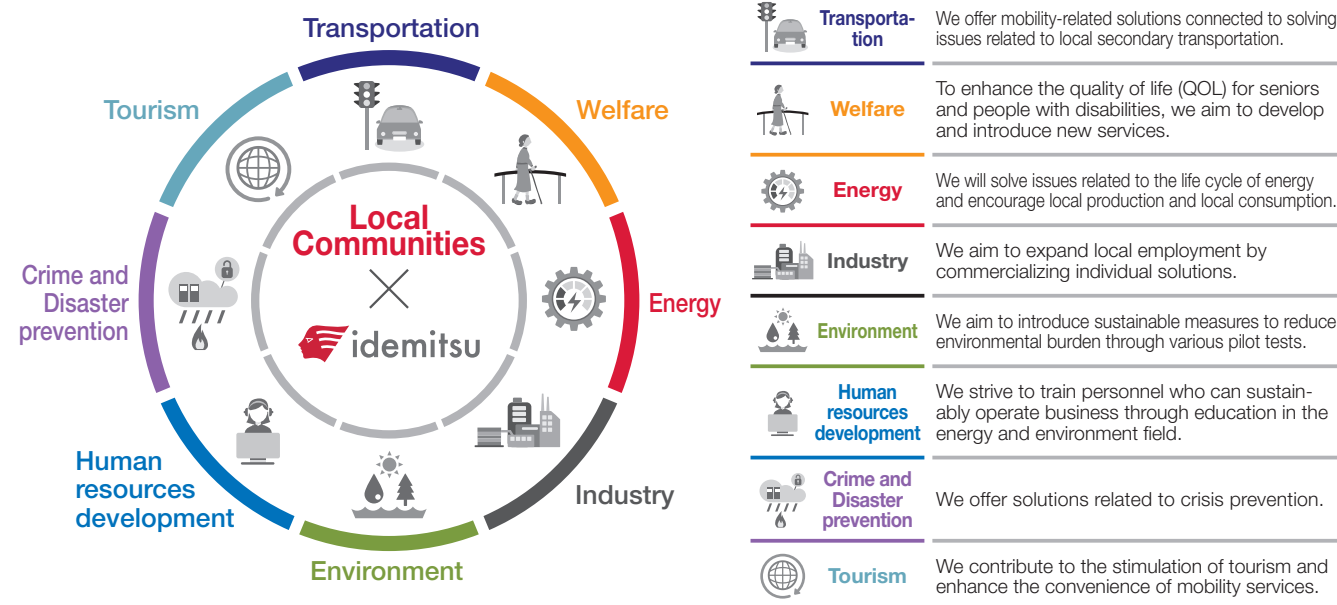
sources. In addition to helping Australian transition to a low-carbon economy, we will continue to proactively develop low-carbon and decarbon businesses.



Initiatives for Regional Development and Solutions to Social Issues

We position solving social issues as an important management issue and is working on co-creation solutions closely attuned to local issues in not just energy but also transportation, welfare,

industry, the environment, human resources development, crime and disaster prevention, and tourism.

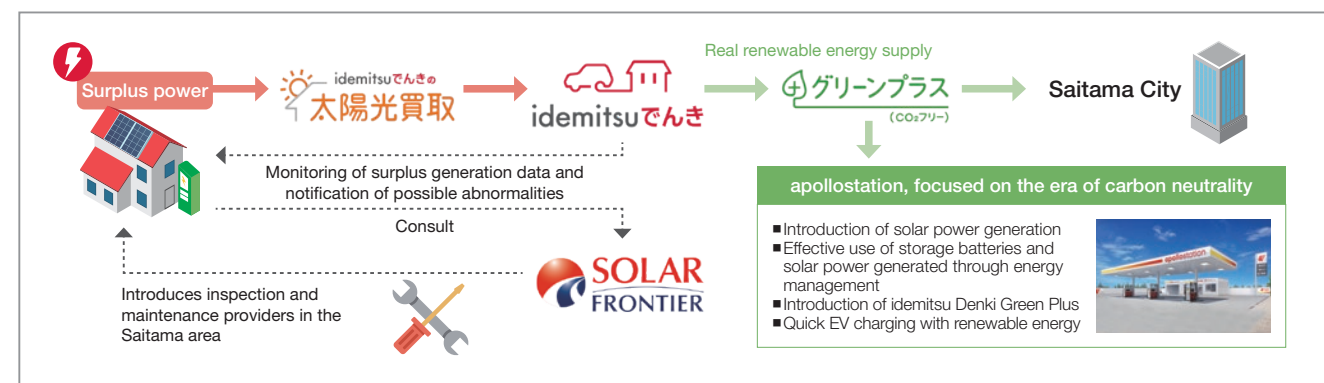


Promoting a Partnership Agreement with Saitama City

Under the “Co-Creation Alliance Agreement to Realize a Zero-Carbon City” concluded with Saitama City, surplus solar power generated by households in the city is supplied to facilities in the city through Idemitsu in a model of local production for local consumption. In this model, we monitor surplus power data and provide a “notification service” that notifies the user of possible problems with the solar power generation equipment, as well as referrals to inspection and maintenance providers, supporting the effective use of previously installed solar power generation equipment.

In an effort to further promote the agreement, a pilot test at an apollostation is planned in the city in preparation for the era of carbon neutrality, where solar power generation, storage batteries, and energy management will be introduced, and a quick EV recharging service will be provided to recharge EVs with renewable energy to achieve true zero-carbon operation of EVs.

Through such initiatives, we aim to realize the “a local recycling co-existence zone” set forth in this agreement.



Development of the Healthcare Business for Seniors

As part of the implementation of “Next generation mobility & community for an aging society,” we have been working on a rehabilitation-type nursing care service that contributes to the maintenance and improvement of the health of local seniors in local

communities. In April 2021, we acquired QLC Produce Corporation. as a subsidiary and have been working to further strengthen our store opening activities and to develop new healthcare services.

Solving Regional Mobility Issues Through the Development of Mobility Services

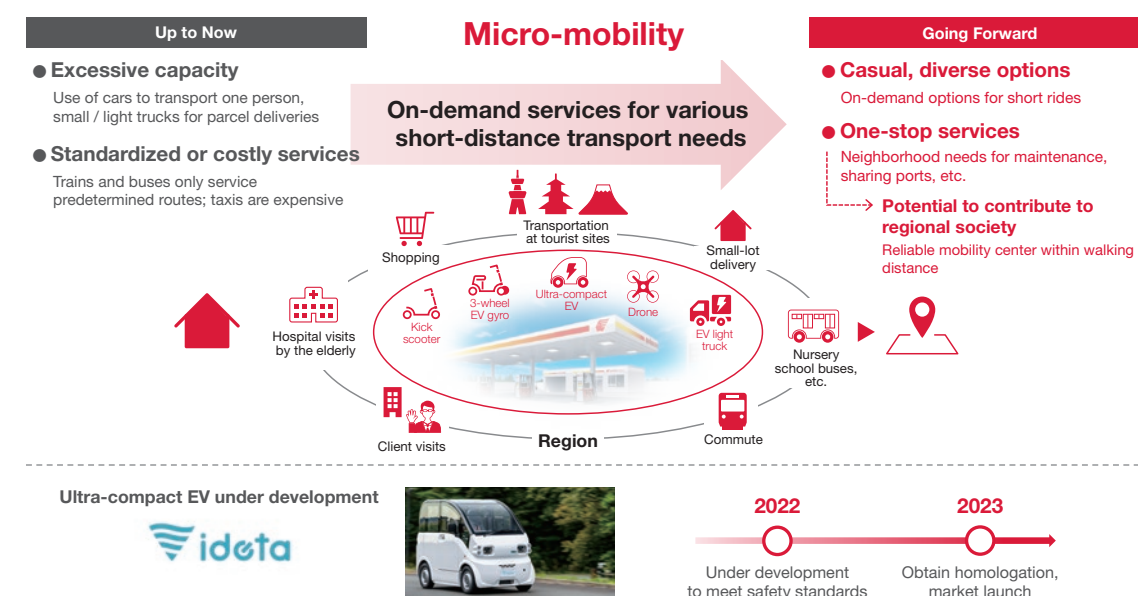
By leveraging our strengths in the mobility domain, which has supported motorization, and the strengths of our bases, which have contributed to local communities through the stable supply of energy, we will continue to work to solve social issues related to mobility.

By further expanding our customer contact base, which we have built up to now, we will respond to potential mobility-related requirements through our service stations network, vehicle maintenance technology, and a variety of mobility lineups, including ultra-compact EVs.



Also, we will not only develop and provide vehicles, but also develop new subscription and car-sharing models, build a digital platform related to MaaS, and develop recycling systems.

Going forward, we will also engage in efforts to develop mobility services, including the development of new services that combine electric power sales at apollostation with various mobility devices, the construction of distributed energy that treats each vehicle as a rechargeable battery, and vehicle and battery reuse and recycling systems.



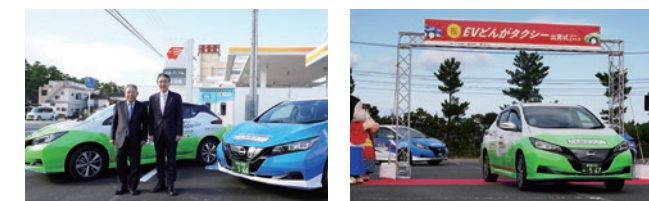
Initiatives at Tanegashima

We launched an initiative involving a “Co-JUNKAN” Platform towards beyond “Zero Carbon” for joint research with industry, academia, and the public in the Tanegashima region of Kagoshima. The initiative was adopted in February 2022 as a full-scale project (in the field of co-creation) of the “Program of Open Innovation Platform for Industry-academia Co-creation (COI-NEXT)” publicly solicited by the Japan Science and Technology Agency (JST).

For the joint verification experiment of “EV-related business at service stations by converting public transportation to EV” in Tanegashima Island, as one of the social implementations of mobility contributing to the realization of CN, an initiative was launched in January 2022 to convert some vehicles of “Donga Taxi,” a demand-type shared-ride taxis covering the entire Nishinoomote City,

Kagoshima Prefecture, to EV operation.

This is a joint verification experiment with Tanegashima Sekiyu K.K. and Nishinoomote City, to verify EV-related businesses over a five-year period. It includes the conversion of public transportation vehicles to EVs and charging of public transportation EV at Tanegashima Sekiyu-operated service stations and other locations.



Future concepts using drones

We have been working toward the development of our drone business, including the establishment of an operational system through a remote inspection pilot test of the mega solar power plant between Miyazaki and Tokyo and the development of domestically produced drones with a partner company, in preparation for the social implementation of drones in accordance with the revised Civil Aeronautics



Act. We will further support the social implementation of drones by promoting drone docking stations at service stations, which enable the provision of various services and maintenance, such as plant inspections, regional disaster prevention, monitoring, and last-mile logistics, utilizing our safety management technology.

Research & Development (R&D)

Initiatives for Materiality (Key Challenges)

We have identified “Contribute to carbon neutrality / circular society” and “Contribute to regional society (energy and mobility)” as our materiality (key challenges). We have crafted strategies that consolidate company-wide technologies and actively draw on external technologies with the aim of quickly achieving the creation of new businesses with an eye toward changes in society, diversifying customer needs,

and decreasing environmental burden. Technological innovation is indispensable to achieving the goals of the Paris Agreement, which is an international framework related to climate change. Our Group will continue generating innovation that will help solve various social issues including climate change, by utilizing the technological capabilities that have been developed over many years of our operations.

Research Field	Name of Laboratory	Japan	Over-seas	Outline of Initiatives
Corporate R&D	Environment & Energy Research Laboratory	●		■ Development of technologies to reduce GHGs and recycle resources (biofuels, bio-chemicals, and CO ₂ recycling) and bio-materials
	Advanced Organic Materials Research Laboratory	●		■ Development of functional materials (organic macromolecule materials)
	Advanced Inorganic Materials Research Laboratory	●		■ Development of functional materials (inorganic materials)
	Analytical Technology Center	●		■ Providing advanced analysis and solutions to a wide range of fields throughout the Group (including computational science)
	Idemitsu Kosan Joint Research Center for Creation of Next-Generation Materials	●		■ Creating next-generation materials, enhancement and expansion of technologies
Production engineering	Technology & Engineering Center	●		■ Technology development in the area of engineering design, construction, operation, quality control & assurance, and asset integrity & reliability of production facilities ■ Technology-driven contributions to new businesses through the development of production processes
Lubricants	Lubricants Research Laboratory	●		■ Research and development of lubricants and tribology (lubrication technology)
	Idemitsu Lubricants America Corporation R&D Center		●	■ Local-based research and development of lubricants
	Idemitsu Lube (China) Co., Ltd. Research & Development Center		●	■ Global development of lubricants products and technologies with the Lubricants Research Laboratory (Japan) as the mother research center
	Idemitsu Lube Asia Pacific Pte. Ltd. R&D Center		●	■ Rapid product development and provision of technical services to meet local needs overseas
	NIPPON GREASE Co., Ltd. Technical Research Laboratory	●		■ Research and development of grease, heat treatment oil, metal processing oil, etc.
Advanced materials & performance chemicals	Performance Materials Laboratories	●		■ R&D and development of applications for engineering plastics, adhesive base materials, liquid rubber, electronic materials, etc. ■ Provision of solutions based on catalyst, synthesis, material design, compounds, and practical assessment technologies
	Idemitsu Unitech Co., Ltd. R&D Center for Plastic Products	●		■ Research and development of molded plastic products
	IDEMITSU FINE COMPOSITES CO., LTD. Composite Materials Research Laboratory	●		■ Research and development of plastic composite materials that meet market requirements
Electronic materials	Electronic Materials Development Center	●		
	Idemitsu Research and Business Development Europe AG		●	■ Research and development of OLED materials
Bitumen	Technology Section	●		■ Basic and applied research on asphalt and its applications ■ Development of high-performance asphalt
Pesticides and Functional Feed	SDS Biotech K.K. Tsukuba Research & Technology Center	●		■ Development of pesticides and feed additives derived from microorganisms and natural products ■ Development of safe and useful products for the protection of plants and livestock and the prevention of diseases
Lithium battery material	Battery Material Development Center	●		■ Development of sulfide-based solid-state electrolyte materials, which are key to all-solid lithium-ion secondary batteries (all-solid lithium batteries), and development of manufacturing processes and mass production technology development
	Technology & Engineering Development Center	●		■ Development of manufacturing technology and design/ construction of mass production facilities for the commercialization of the aforementioned solid-state electrolyte materials
	Technology Planning Office	●		■ Examining and exploring recycling technologies and next-generation battery materials
Solar power generation	Solar Frontier K.K. Kunitomi Office	●		■ Exploring solutions for new business development
		●		■ Research and development for the commercialization of recycling technologies for solar panels, including crystal silicon panels
Coal and the environment	Coal & Environment Research Laboratory	●		■ The only private research specializing in coal ■ Provision of technical services and development of clean use technologies for coal for a low-carbon society, such as biomass fuels that help reduce GHG emissions as well as carbon recycling and highly efficient combustion technologies

■ Petroleum Segment, corporate research ■ Functional Materials Segment ■ Power and Renewable Energy Segment ■ Resources Segment

R&D System

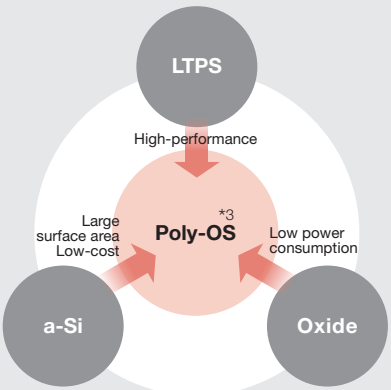
Our R&D system is composed of Advanced Technology Research Laboratories, which are responsible for corporate R&D, and research laboratories in each department. Each of them carries out specialized development. In addition, we established the Research & Development Committee as a company-wide organization to not only examine the direction of research and development, strategies, and issues throughout the organization, but also to deepen cooperation among laboratories and to strengthen technological capabilities.

New Technology and R&D Case Studies

Development of innovative semiconductors, which combine low cost and low power consumption, to meet the demand for low power consumption due to the advancement of high-speed telecommunications and digital technology.

In 2006, we began developing polycrystalline oxide*1 semiconductor material IGO (Indium Gallium Oxide). The IGO that we have developed features high mobility on the same level as that of low-temperature polysilicon (LTPS)*2, which could not be achieved with conventional oxide semiconductors. This process is also well-suited for large lines of the eighth generation and later, and it is expected to contribute to the evolution of display performance, the development of the display industry, and the realization of a low-carbon society through the low power consumption of displays.

*1 Polycrystalline oxide: A thin film in a polycrystalline state composed of metallic elements and oxygen.
*2 Low-temperature polysilicon (LTPS): A polycrystalline silicon formed at low temperature on a glass substrate. Has high electron mobility.



*3 Poly-OS: Polycrystalline oxide semiconductors

■ FY2021 R&D investment record (Millions of yen)

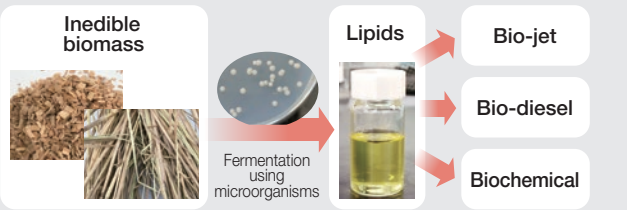
R&D expenses	26,016
Petroleum	785
Functional Materials	12,370
Power and Renewable Energy	1,236
Resources	316
Others	11,308

Development of process for lipid production using microbial from inedible biomass feedstock with high sustainability and availability

Lipids and fats are widely used as raw materials for bio diesel oil, and in recent years they have also shown promise as raw materials for bio-jet fuels and bio plastics. Conversely, competition with uses for food and the destruction of tropical rainforests due to palm plantations are considered to be problematic. The utilization of waste cooking oil, which is considered to have a low environmental impact, is gaining momentum, but there are challenges to its availability.

Hence, we are developing a process to produce lipids and fats from the raw material of lignocellulose*4, the most abundant biomass on earth, using the power of microorganisms. We have discovered several unique microbial strains that produce lipids from sugars with high efficiency, and we are developing technologies to further increase production efficiency. We are aiming to provide fuel and chemical raw materials with less environmental impact through the practical application of microbial lipids production.

*4 Lignocellulose: Main component of plant, mainly composed of polysaccharides and an aromatic polymer.



Promotion of Open Innovation

To strengthen the development and expanding business in the advanced materials field and create CNX Centers at complexes, we are promoting open innovation that has actively utilized external collaborations.

1. We participate in funds operated by venture capital and work with startups in Japan and overseas. In 2019, we made investments in Universal Materials Incubator Co., Ltd., and, in 2020, into a fund managed by Emerald Technology Ventures (headquartered in Switzerland).
2. In 2020, we established the "Idemitsu Kosan Joint Research Center for Creation of Next-Generation Materials" at the Tokyo Institute of Technology to 1) accelerate the shift to highly functional materials, 2) improve the probability of success in R&D, 3) develop new materials, 4) strengthen and expand our core technologies, and 5) promote human resource development.

Promotion of MI / DX

To accelerate activities related to MI (Materials Informatics*), which had been conducted individually by each laboratory, the Innovation Strategy Department is playing a central role in promoting activities to vitalize and raise the level of MI / DX through the activities across the entire Company.

1. We began holding in-house MI symposiums and workshops to share case studies and improve literacy, as well as reskilling through MI technical training.
2. To accelerate the use of data science, which is indispensable for MI / DX, we built and began operating a company-wide cloud environment.

* Utilization of AI-based materials development technology

Launch of the Advanced Materials Project

To strengthen development and expand business in the advanced materials area, it is important to continuously create new themes in addition to the early commercialization of themes under consideration. That is why we launched the 'Advanced Materials Project' as a project activity for theme exploration. We integrated the wisdom of each division of the Advanced Materials Company to create new businesses in the advanced materials field by repeating idea creation, commercialization planning, and verification in a short period of time through thinking that is not confined by existing business domains. Then, through this project, we seek to expand the circle of innovation to the entire Advanced Materials Company by nurturing co-creation innovative human resources.

External Evaluation of Idemitsu Group's Technologies

Our technologies are highly appreciated by the international community. As an example, for six consecutive years since 2017 Idemitsu has been ranked 1st in the world in their industry subgroup* for "Opportunities in Clean Tech," which is one of the items evaluated by MSCI, an ESG evaluation organization. (See the table below.)

We will continue to make the most of our advanced R&D capabilities to contribute to the solution of global issues through collaboration with others.

* Within GICS (Global Industry Classification Standard), Idemitsu belongs to the Oil & Gas Refining and Marketing industry subgroup.

■ MSCI's sector rankings for "Opportunities in Clean Tech"

Ranking	2020	2021	2022
1	Idemitsu	Idemitsu	Idemitsu
2	Company A	Company A	Company A
3	Company B	Company F	Company F
4	Company C	Company G	Company G
5	Company D	Company H	Company H

Awards

One of our employees was recognized and awarded for his contributions in the creation of the 2021 Edition of the "API 579-1/ASME FFS-1 Fitness-For-Service" standard*, jointly published by the American Society of Mechanical Engineers (ASME) and the American Petroleum Institute (API) in the U.S. The paper was also published in Japanese and received the FY2022 Science and Technology Promotion Award from the High Pressure Institute of Japan.

* The API 579-1/ASME FFS-1 Fitness-For-Service standard: Theoretically rational standard for judging and evaluating from the perspective of fracture mechanics, etc., various aged deterioration conditions that occur in petroleum / petrochemical facilities after they are put into service. It is widely and publicly recognized as the technical standard that provides the basis for the safe and stable operation of petroleum and petrochemical facilities, not only in the United States but also in the United Kingdom and other countries.



Intellectual Property Activities

Overview of Our Intellectual Property Activities

The Idemitsu Group's business department, R&D department, and Intellectual Property Department collaborate to apply for and obtain rights to patents, trademarks, and other intellectual property, maintain and utilize them, and strive to improve our Group's business and enhance the value of the brand.

With regard to risks and compliance related to intellectual property, such as respecting the intellectual property rights of other companies and managing confidential information, we design and implement appropriate processes to prevent the occurrence of risks.

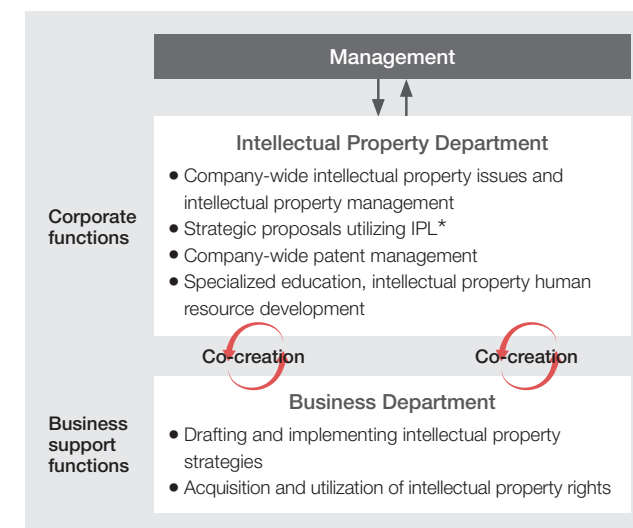
Intellectual Property Activities System

Intellectual property activities are promoted through a system in which the Intellectual Property Department and IP managers assigned to each business department are working.

Up to now, the Intellectual Property Department has adopted a centralized Intellectual Property activity system in which the Intellectual Property Department promoted the intellectual property activities of all Idemitsu Group's business departments. However, in July 2021, we changed to a decentralized intellectual property activity structure with IP managers assigned to each business department for the purpose of accelerating the implementation of intellectual property strategies by the business departments.

The Intellectual Property Department mainly takes on corporate functions and is responsible for addressing intellectual property issues across our Group, proposing intellectual property strategies based on patent data analysis, addressing disputes with other companies, managing intellectual property risks, and training intellectual property human resources.

The IP managers of business departments formulate IP strategies aligned with the strategies and business characteristics of their respective business departments and strive to expand business by swiftly and effectively acquiring and utilizing IP.



* IPL: Intellectual Property Landscape (Intellectual property information analysis)

Results of Intellectual Property Activities

Number of patent publications and registered patents held

To ensure the market dominance of our businesses, the Group continually works to build and utilize our patent portfolio.

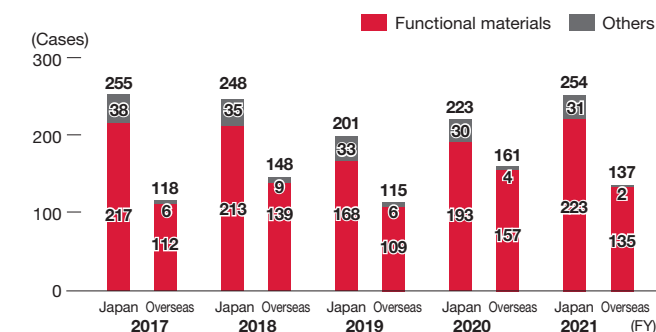
In recent years, we have strengthened our liaison activities (invention discovery activities), focusing on the fields of electronic materials and lithium battery materials, resulting in an increase in domestic patent applications.

When looking at the status of applications by segment, applications in the Functional Materials Segment, which is comprised of technology-driven business divisions, accounted for more than 80% of the total applications in both domestic and foreign (overseas) applications.

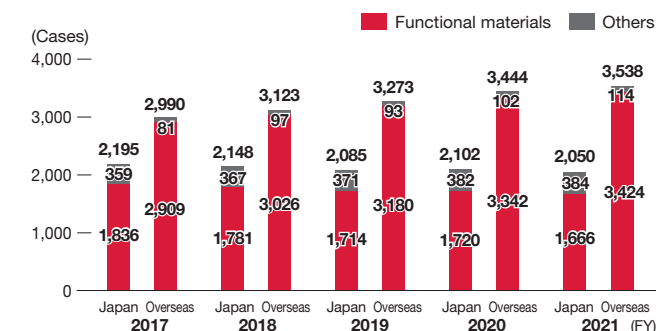
There has been a consistent increase in the number of foreign patents held, which is necessary for overseas expansion on a global scale, in terms of the number of patents held.

Regarding foreign patent acquisition, we actively provide opportunities for direct discussions with attorneys from overseas law firms and make effective use of the wisdom and experience of overseas attorneys. We also work closely with overseas attorneys to explain Company technologies to examiners at overseas patent offices and conduct interviews and negotiations during patent examinations to ensure that patents necessary for the global expansion of our business are obtained.

■ Number of patent applications (published applications)



■ Number of registered patents held



Many of the registered patents held by our company have made extremely significant contributions to Idemitsu's business revenues and have received in-house rewards, while others have been highly praised and awarded from outside our company.

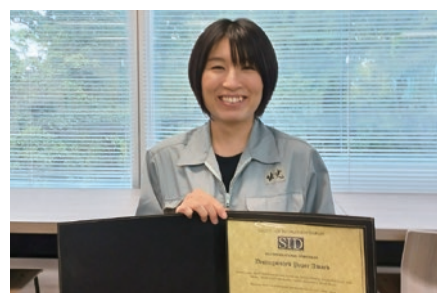
External Recognitions

Display Week 2022: OLED Technology Category: Best Paper (May 9, 2022)

Idemitsu developed a new light producing method for OLEDs using fluorescent blue-light emitting materials and succeeded in achieving the world's highest light emitting rate and longevity. At the symposium "Display Week 2022*" held in San Jose, U.S.A., the paper presenting the achievement was selected as the best paper in the OLED Technology Category.

* The symposium held by the Society for Information Display, the world's largest academic group for displays.

■ Display Week 2022



FY2022 Science and Technology from the Minister of Education, Culture, Sports, Science and Technology Award* (April 8, 2022)

Three Idemitsu employees received the Science and Technology Award (research division) in fiscal 2022 at the Minister of Education, Culture, Sports, Science and Technology Awards. The award achievement was "Development of a highly efficient and long-life blue organic EL light emitting device."

* The purpose of this award is to motivate people involved in science and technology and thereby help raise the standards of these disciplines in Japan by praising the successes of people who have secured remarkable accomplishments in research, development, and the promotion of understanding related to science and technology.

■ The Minister of Education, Culture, Sports, Science and Technology Award



Incentives for Employee Inventions

To motivate employees to invent new things and encourage the creation of inventions that support our businesses, we established the Employee Invention Incentive Program, which provides incentives to inventors whose work significantly contributes to business revenue. In FY2021, in the fields of electronic materials (1 case) and functional resins (1 case), 21 inventors received employee invention incentives for work that has significantly contributed to business revenue.

Promotion of Intellectual Property Activities

Patents applications and acquisitions

From now on, we will continue to apply for patents for inventions that will strengthen our existing business (existing theme inventions), and we will further accelerate the generation of inventions that will become the fundamental technology for new businesses (newly generated theme inventions) that will be the next pillar of our revenues by strengthening our existing business through open innovation at the Advanced Materials Company and the Advanced Materials Project. In this way, we will increase the number of applications in the Functional Business Segment field and increase the percentage of applications for newly generated theme inventions in our applications, which will strengthen our patent portfolio that supports existing and new businesses.

With the aim of further strengthening the patent network of the Functional Materials segment, we have established intellectual property KPIs (Key Performance Indicators) for each business field of the Functional Materials Segment, using the number of patent applications and the value of registered patents held as indicators, and will strengthen our patent application and acquisition activities.

Promotion of IP landscapes

We established the Information Analysis Section in the Intellectual Property Department in July 2022, which is tasked with the functions of generating new themes through the analysis of intellectual property information and providing information that contributes to management decisions.

The Information Analysis Section performs analysis (IP landscape, IPL) that combines patent information with corporate information, industry trends, and other information to evaluate the value of patents held by Idemitsu and other companies and analyze their strengths and weaknesses, focusing on the business fields of the Functional Materials Segment. The results of IPL analysis help the Company develop our business by clarifying the competitive advantages of our business. From now on, we will strengthen the level of IPL activities and expand the business fields covered by IPL.

Promotion of DX

We promote the use of AI in a phased manner to improve the quality and efficiency of information research and patent application business operations.

We have now begun to use AI for research on other companies' technologies by researchers, and are beginning to be able to efficiently conduct high-quality information research. We are considering the use of AI to enable researchers to create the base section of a patent application specification themselves in the future.

Nurturing intellectual property personnel

We consider the development of intellectual property personnel to be one of our most important IP issues and focus on improving the expertise of our IP managers and the IP literacy of our researchers.

As for the nurturing of our IP managers, we took the opportunity of the change to a dispersed IP activity system with IP managers assigned to each business department to review the IP manager training system. We have added training by Japanese and overseas patent offices to the training that has been conducted within the Intellectual Property Department to create a training system that provides the knowledge and skills necessary for each level of employee.

Training by Japanese patent offices covers domestic patent applications and procedures for obtaining patents for IP managers in their first year with our company, using actual patent applications as the subject matter. We encourage the early independence of IP managers through training by Japanese patent offices.

Training at overseas patent offices is a one-year training program in the U.S. and China for mid-career employees who have

been with our company for about 10 years. The training enables managers to acquire extensive and advanced knowledge and procedural skills related to foreign patents. Over the past two years, we had to suspend training at overseas patent offices due to the COVID-19 pandemic, but we plan to resume the program in the next fiscal year.

In the nurturing of researchers, we provide training by job level (new hires, first-year R&D / technical employees, mid-level employees, and executives).

In the past, trainings were conducted as in-person lectures and exercises, but for the past two years, due to the COVID-19 pandemic, they have been conducted online. Trainees have commented that training conducted online has enhanced their understanding of the content of the training since they can watch the lectures as many times as they wish. Going forward, we plan to conduct the training in a hybrid format of in-person and online to enhance the intellectual property literacy of our researchers.

Idemitsu Group's Sustainability

Sustainability Policy

We established our Sustainability Policy in 2021. We lay out clearly initiatives related to sustainability in the aim of bringing the entire Idemitsu Group together to contribute to the resolution of environmental and social issues.

Idemitsu Group Sustainability Policy

As a reliable partner, the Idemitsu Group fulfills the following three responsibilities through its business activities: “Protect the Environment and Lifestyles,” “Support Regional Communities,” and “Provide for Society with Technological Capabilities.”

The Idemitsu Group discloses information appropriately, engages in earnest dialogue and collaboration with stakeholders, and aims to enhance its corporate value while remaining a sustainable company that observes the following priority policies.

Environ-
ment

- While fulfilling the Idemitsu Group's crucial social mission of maintaining the stable supply of energy and materials, we continue striving to realize carbon neutrality, not only within the Idemitsu Group but also throughout society.
- We promote the development of innovative technologies, pursue advance mitigation of environmental risks in our business activities, and contribute to the conservation of the natural environment, as well as the realization of a circular economy.

Society

- The Idemitsu Group places the highest priority on respect for human rights in all its decisions and actions, and strives in its business activities to prevent and ameliorate adverse impacts on human rights.
- By implementing diversity and inclusion measures, we leverage our diverse capabilities to grow as a company and contribute to the realization of inclusive societies.
- Working together with our partners, we contribute to the realization of a sustainable society throughout the supply chain.
- We make maximum use of our resources to co-create solutions that meet the needs of regional communities.

Gover-
nance

- The Idemitsu Group seeks to enhance deliberations by the Board of Directors and continues to improve its effectiveness.
- We comply with international norms concerning the environment, human rights, labor, safety, and anticorruption.
- We conduct fair and honest management, identify material risks, and implement appropriate risk management measures.

Sustainability Promotion System

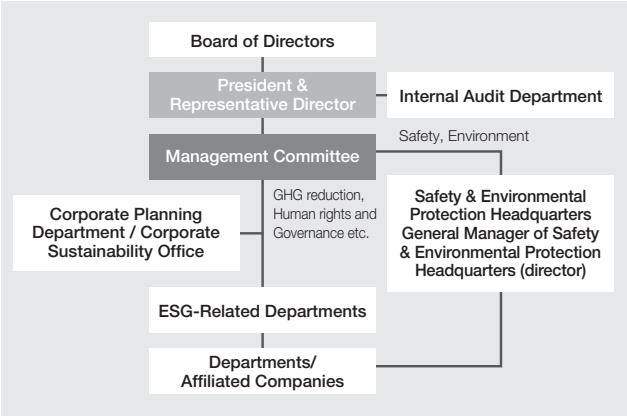
With our core business being energy, we believe that sustainability is the very definition of a management issue.

In addition to core ESG issues such as climate change and human rights, the various issues of each business are also closely tied to sustainability. We have a structure in place for all agenda items to be discussed by the Management Committee.

The President & Representative Director serves as chair of the Management Committee, and the details discussed are reported to the Board of Directors as appropriate.

Furthermore, the Corporate Sustainability Office, which is dedicated to matters pertaining to sustainability, has been established within the Corporate Planning Department. Although each ESG issue is overseen by a designated department, the Corporate Sustainability Office is involved across departments to coordinate and promote sustainability management at Idemitsu.

The Corporate Sustainability Office puts together a summary of progress on sustainability issues and reports to management at least once a year, and the details are submitted by the supervising departments to enable sufficient discussion and monitoring of sustainability by management.



Signing of the United Nations Global Compact and Accompanying Initiatives

In July 2019, we announced our support for the 10 principles of the United Nations Global Compact (UNGC) on human rights, labor, the environment, and anticorruption. In addition, we joined the Global Compact Network Japan (GCNJ).

We support the UNGC's 10 principles, which relate to protecting human rights, eliminating unfair labor practices, protecting the environment, and preventing corruption.

Furthermore, we are working to raise awareness of social issues among all employees and will continue to contribute to the realization of a sustainable society through our business operations as a global energy co-creation company.



Materiality (Key Challenges) of the Idemitsu Group

Materiality (Key Challenges)

Since identifying materiality in 2019, the Idemitsu Group has been engaging in business activities based on recognition of the social issues important to Idemitsu.

Recently, the Vision for 2050 and the Medium-term Management Plan were established, and based on the changes in the external environment, we conducted a review of materiality.

Materiality (Key Challenges)	KPI / Progress management	Major related SDGs
1 Contribute to carbon neutrality / circular society	■ Reduce CO ₂ (Scope 1+2) ■ Contribute to Scope 3 ■ Investments / business strategy ■ ROIC, targeted earnings	11 Sustainable Cities and Communities, 12 Responsible Consumption and Production, 13 Climate Action, 14 Life Below Water
2 Contribute to regional society (energy and mobility)	■ Investments / business strategy ■ Number of customers	7 Affordable and Clean Energy, 9 Industry, Innovation and Infrastructure, 11 Sustainable Cities and Communities
3 Maximize employee growth and engagement	■ Idemitsu Engagement Index ■ Investments in training per employee	5 Gender Equality, 8 Decent Work and Economic Growth
4 Expanding D&I	■ Female recruiting ratio ■ Male ratio taking childcare leave ■ Female ratio in managerial positions	5 Gender Equality, 10 Reduced Inequalities
5 Acceleration of digital innovations	■ DX investments ■ Enhancement of productivity	8 Decent Work and Economic Growth, 9 Industry, Innovation and Infrastructure, 11 Sustainable Cities and Communities
6 Progress in governance	■ Effectiveness of the Board of Directors	16 Peace, Justice and Strong Institutions
7 Ensure the health, safety, compliance and human rights	■ Management health indicators ■ Human rights due diligence ■ Major compliance violations ■ Safety indicators (# accidents, etc.)	10 Reduced Inequalities, 16 Peace, Justice and Strong Institutions

Materiality (Key Challenges) Identification Process

While emphasizing continuity with the materiality identified in 2019, we reviewed materiality using the process below to reflect changes in the internal and external environment as well as to achieve the targets of the Medium-term Management Plan and the Vision.

2019

Step 1 Identification of the issues

With reference to such international guidelines as the GRI Standards and evaluation criteria of the SDGs and ESG evaluation organizations, we identified environmental and social issues that may be related to our business activities.

Step 2 Confirmation of their importance to stakeholders

We conducted a wide-ranging survey to determine each issue's importance to stakeholders, both internal and external.

Step 3 Alignment with the corporate strategy

We ensured consistency with the Medium-term Management Plan, verifying the priority level and relevance of each issue.

Step 4 Management discussions and decisions

Final decisions were made after discussion via the Management Committee chaired by the President.

2022

Review of materiality

- Re-evaluate the importance of sustainability issues from the perspective of double materiality in light of changes in the internal and external environment since 2019
- Carry out weighting of Idemitsu's impact on social and environmental issues and the impact of social and environmental issues on Idemitsu
- Make decisions after deliberation by management, dialog with outside experts, and discussion by the Management Committee

Correlations Between Materiality (Key Challenges) and the SDGs

We seek to contribute to achieving the SDGs as a member of the international community.

We recognize that our activities concern all 17 of the SDGs. At the same time, from among the material issues we recently identified, we have recognized and sorted the SDGs where we can make a larger difference and the SDGs requiring attention due to risks arising from our business activities.

SDGs where we make a larger difference

5 Gender Equality, 7 Affordable and Clean Energy, 8 Decent Work and Economic Growth, 9 Industry, Innovation and Infrastructure, 11 Sustainable Cities and Communities, 13 Climate Action

SDGs requiring attention due to risks arising from business activities

6 Clean Water and Sanitation, 12 Responsible Consumption and Production, 13 Climate Action, 14 Life Below Water, 15 Life on Land

The Idemitsu Group will engage in technological development to promote initiatives to minimize or negate our negative impact on social issues and implement them through our business.

Message from Outside Directors



Outside Director
Yumiko Noda

- Vice Chairs of the Board of Councilors and Chair of Committee on Environment, Japan Business Federation
- Chairman and Representative Director, Veolia
- Outside Director, Benesse Holdings, Inc.



Outside Director
Maki Kado

- Executive Officer, Executive Business Manager, Coca-Cola Bottlers Japan Holdings Inc.
- Executive Officer, Chief Business Management & Sustainability Officer, Coca-Cola Bottlers Japan Inc.
- Representative Director and Vice President, Coca-Cola Customer Marketing Co., Ltd.

Charting a specific course to achieve business portfolio evolution for the future

About a year has passed since I was appointed as an Outside Director. The world has changed dramatically in just that short period of time, including the Russian invasion of Ukraine, skyrocketing resource and energy prices, and transformation of the nature of globalization. On top of the unparalleled challenge for the petroleum industry to achieve a decarbonized society, which has been lying ahead for some time, we are now faced with new operational threats and uncertainties.

With a mission of being “Your Reliable Partner for a Brighter Future,” how will we fulfill our responsibility toward society and people amid these circumstances and bring about a future of carbon neutrality? The answer is anything but simple, but I respect the fact that the executives have provided careful explanations and engaged in serious and open discussions in response to the questions and concerns I have brought up as an Outside Director with an external perspective. As a result, I believe the initiatives that we should work on in terms of our business domains, investments, and more have become more clear. Sound and effective operations of the Board of Directors are the very starting point of governance.

Going forward, it is imperative that we chart and implement specific course to achieve business portfolio and business model evolution for the future. While maintaining high expectations, I will adopt a serious attitude and contribute as an Outside Director so that we can continue to be a company that is needed by society, sincerely engaging with our various stakeholders, including shareholders, customers, local communities, employees, and the global environment.

Moving forward on reliable innovation

As an energy company, we have a major social responsibility to support the daily activities of those in local communities and the industrial activities of Japan through the stable supply of energy. At the same time, considering the impact of fossil fuels on the global environment, we have a responsibility to future generations to transform our business model and promote innovation.

Investors and financial institutions all over the world are becoming ever more averse to the fossil fuel business, so energy companies in Europe and the United States are in a rush to break away from their dependence on fossil fuels.

We, too, are developing new businesses that address the transition of energy and mobility, including advanced materials such as solid-state electrolytes for lithium batteries and sustainable aviation fuel.

As a company that continues to support community life and industry, we must accelerate these efforts and remain a company that is needed even in the new era of the green society.

There will be no shortage of uncertainties or unpredictable elements along the way to a green society. For that reason, I expect us to be sensitive to global developments and policy trends and listen to feedback from shareholders, investors, local communities, industry leaders, and our employees to move forward with them on implementing reliable innovation through dialog.

Painting a new picture with diversity and inclusion

One year has passed since I joined the D&I Promotion Committee launched in 2021 as an advisor.

The committee considers diversity and inclusion to be important pillars of us. What we seek is not to simply promote diversity of personnel but to create an environment in which all employees create value by respecting and recognizing each other's individuality. I believe that will, in turn, lead to enhancement of our superiority and competitiveness.

As such, it is essential to realize both diversity and inclusion rather than just one or the other. They are like a puzzle. Having pieces of various colors and shapes (diversity) is the minimum requirement, while the dynamic action of connecting these pieces together (inclusion) is the only way to complete the picture made by the puzzle. Considering our situation as we work to achieve business portfolio evolution for the future, it would be impossible to paint a new picture without both diversity and inclusion. The Board of Directors is also focused on the activities of the D&I Promotion Committee.

Over this past year, I feel that we have been able to clarify what is needed to achieve both diversity and inclusion and how we need to change. With diversity, we have focused on identifying issues and coming up with solutions with a spotlight on gender. In the coming year, we will move to action and discuss other topics such as disabilities, nationality, and employment types. In regard to inclusion, we were able to establish a guiding light to aim for. The coming year will be when the group-wide targets are incorporated into the actions of individuals.

Our D&I has only just begun. Reaching the destination on this voyage will only be possible with the daily actions of the entire crew. I have high expectations for further progress on both diversity and inclusion.

Affordable and clean energy

The seventh SDG is affordable and clean energy. I believe it will become increasingly important for us to address this challenge while fulfilling our responsibility to provide a stable supply of energy.

As for affordable energy, if we were able to both literally deliver energy to the community and supply energy in a broader sense that includes energy and services that help people thrive, that would be the picture of success.

One example of those efforts is Smart Yorozyu. This is a new business model that utilizes our important infrastructure of service stations across the country as hubs for community-based services. We provide services that were previously unthinkable, including food trucks, medical checkup services, grocery sales, and car sharing systems using ultra-compact electric vehicles, while making use of digital technology.

I am confident that combining our strengths of a sales network rooted in the community, a business scale that covers all of Japan, and a corporate culture that boldly takes on new challenges, we will be able to keep providing a stable supply of energy to the community into the future while fully utilizing the latest technology and the power of data analysis.

In regard to clean energy, we must continue to work on creating a system for providing a stable supply of energy to all of Japan while shifting away from fossil fuels to new energy to address the issue of climate change. The Board of Directors, too, continues to recognize this as a management issue, and I will keep providing suggestions to our executives on how to address it.

Directors and Audit & Supervisory Board Members (As of June 30, 2022)

* Board of Directors and Audit & Supervisory Board meeting attendance figures are for FY2021
* Number of shares the Company held are as of March 31, 2022.

Directors

Representative Director,
President and Chief Executive Officer

Shunichi Kito

■ Number of shares of the Company held: 29,962shares

■ Board of Directors meetings attended: 15／15

April 1980

Joined Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan")

April 2005

Deputy General Manager of Personnel Department, Idemitsu Kosan

July 2008

Deputy General Manager of Accounting Department, Idemitsu Kosan

June 2011

Executive Officer and General Manager of Accounting Department, Idemitsu Kosan

June 2013

Director, Managing Executive Officer and General Manager of Accounting Department, Idemitsu Kosan

June 2014

Managing Director, Idemitsu Kosan

June 2017

Executive Vice President and Director, Idemitsu Kosan

April 2018

Representative Director & Chief Executive Officer, Idemitsu Kosan

April 2019

Representative Director President and Chief Executive Officer, Idemitsu Kosan

June 2022

Representative Director, President and Chief Executive Officer, Idemitsu Kosan (to date)

Director,
Executive Vice President

Atsuhiko Hirano

■ Number of shares of the Company held: 4,089shares

■ Board of Directors meetings attended: 15／15

April 1985

Joined Showa Shell Sekiyu K.K. ("Showa Shell")

Sept. 2002

General Manager, Shizuoka Area, Showa Shell

Sept. 2004

General Manager, Marketing Planning Division, Showa Shell

March 2005

Executive Officer and General Manager, Marketing Planning Division, concurrently serving as General Manager, Retail Sales Division, Showa Shell

March 2006

Director, Showa Shell

March 2009

Corporate Executive Officer, Showa Shell

March 2013

Senior Corporate Executive Officer, Showa Shell

July 2014

Representative Director, President, Solar Frontier K.K.

April 2019

Managing Executive Officer, Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan")

June 2020

Director, Managing Executive Officer, Idemitsu Kosan

June 2022

Director, Executive Vice President, Idemitsu Kosan (to date)

Director,
Managing Executive Officer

Masahiko Sawa

■ Number of shares of the Company held: 5,746shares

■ Board of Directors meetings attended: —／—

April 1990

Joined Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan")

April 2013

Deputy General Manager of Gas Business Department, Idemitsu Kosan

June 2017

General Manager of Technology & Engineering Center, Idemitsu Kosan

April 2019

Executive Officer and General Manager of Hokkaido Refinery, Idemitsu Kosan

June 2021

Senior Executive Officer, Idemitsu Kosan

June 2022

Director, Managing Executive Officer, Idemitsu Kosan (to date)

Director (part-time)

Masakazu Idemitsu

■ Number of shares of the Company held: 3,411,900shares

■ Board of Directors meetings attended: 15／15

April 2010

Councilor, Public Interest Incorporated Foundation Idemitsu Museum of Arts (to date)

Dec. 2015

Councilor, Public Interest Incorporated Foundation Idemitsu Culture and Welfare Foundation

April 2016

Director and Vice President, Nissho Kosan Co., Ltd. ("Nissho Kosan")

April 2019

Representative Director and President, Nissho Kosan (to date)

Oct. 2020

Director, Idemitsu Kosan Co.,Ltd. (to date)

April 2021

Representative Director and President, Showa Kosan K.K. (to date)

April 2021

Representative Director, General Incorporated Association Idemitsu Philosophy Laboratory (to date)

April 2021

Representative Director, General Incorporated Association Idemitsu Kosan Corporate History and Philosophy Laboratory (to date)

Director (part-time)

Kazunari Kubohara

■ Number of shares of the Company held: —

■ Board of Directors meetings attended: 15／15

Dec. 2008

Registered as an attorney, established Kyuhodo Law Firm

April 2010

Committee Member, Tokyo Local Third-Party Committee to Check Pension Records, Ministry of Internal Affairs and Communications

April 2011

Delegate, Dai-ichi Tokyo Bar Association

Sept. 2015

Auditor, General Incorporated Association for Realizing Prescription of Adequate Amount of Anti-Dementia Drugs

June 2016

Outside Statutory Auditor, Class Technology Co., Ltd.

July 2017

Auditor, Medical Corporation Hakuetsukai Miyake Dental Clinic (to date)

March 2018

Delegate, Japan Federation of Bar Associations

April 2018

Vice Chairperson of the Legal Services Obstruction Countermeasures Committee, Dai-ichi Tokyo Bar Association

April 2019

Director, Idemitsu Kosan Co.,Ltd. (to date)

Audit & Supervisory Board Members

Audit & Supervisory Board Member

Tsutomu Yoshioka

■ Number of shares of the Company held: 11,081shares

■ Board of Directors meetings attended: 15／15

■ Audit & Supervisory Board meetings attended: 16／16

April 1984

Joined Shell Sekiyu K.K.

Sep. 2002

General Manager of Hokkaido Branch Office, Showa Shell Sekiyu K.K. ("Showa Shell")

April 2005

Representative Director, President, Shoseki Gas K.K.

July 2008

Representative Director, President, Enessance Holdings Co., Ltd.

March 2011

Executive Officer in charge of Accounting, Finance, and Credit Management, Showa Shell

April 2015

Executive Officer and General Manager of Petroleum Business Division Metropolitan Area Branch, Showa Shell

March 2017

Audit & Supervisory Board Member, Showa Shell

April 2019

Senior Executive Officer, Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan")

June 2021

Audit & Supervisory Board Member, Idemitsu Kosan (to date)

Audit & Supervisory Board Member

Hidefumi Kodama

■ Number of shares of the Company held: 2,411shares

■ Board of Directors meetings attended: —／—

■ Audit & Supervisory Board meetings attended: —／—

April 1987

Joined Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan")

July 2011

Manager of Finance Management Section, Accounting Department, Idemitsu Kosan

July 2013

Manager of Planning & Coordination Office, Exploration & Production Department 1, and Director, Idemitsu Kosan and General Manager of General Affairs Department, Idemitsu Oil & Gas

April 2015

General Manager of Exploration & Production Planning Department, Idemitsu Kosan

July 2017

General Manager of Public Relations & CSR Affairs Office and in charge of brand strategy, Idemitsu Kosan

April 2018

General Manager of Public Relations Department, and in charge of brand strategy, Idemitsu Kosan

April 2019

General Manager of Coal Business Department, Idemitsu Kosan

April 2021

General Manager of Coal and Energy Solution Department, Idemitsu Kosan

June 2022

Audit & Supervisory Board Member, Idemitsu Kosan (to date)

Outside Audit & Supervisory Board Member

Yumiko Ichige

■ Number of shares of the Company held: —

■ Board of Directors meetings attended: —／—

■ Audit & Supervisory Board meetings attended: —／—

Jan. 1970

Joined Tsuji Audit Corporation (renamed as MISUZU Audit Corporation)

May 1973

Registered as Certified Public Accountant (Registration No. 5095)

Feb. 1989

Representative partner of MISUZU Audit Corporation

July 2004

Deputy Chairman, The Japanese Institute of Certified Public Accountants

May 2006

Counsel of MISUZU Audit Corporation

Aug. 2007

Opened Certified Public Accountant Ito Taigi Office (to date)

April 2009

Professor, Graduate School of Accountancy, Waseda University

June 2009

Supervisory Director of The Investment Trusts Association, Japan

Oct. 2010

Supervisory Director of Japan Law Foundation

Jan. 2012

Chairman of the Disciplinary Committee, The Japanese Institute of Certified Public Accountants

June 2012

Outside Audit & Supervisory Board Member, Idemitsu Kosan Co.,Ltd. (to date)

June 2014

Outside Audit & Supervisory Board Member, Mitsubishi Chemical Holdings Corporation

June 2015

Outside Director, Mitsubishi Chemical Holdings Corporation

Sep. 2018

Outside Director, Koa Shoji Holdings Co.,Ltd (to date)

Outside Audit & Supervisory Board Member

Yumiko Ichige

■ Number of shares of the Company held: —

■ Board of Directors meetings attended: —／—

■ Audit & Supervisory Board meetings attended: —／—

Dec. 2007

Partner, Nozomi Sogo Attorneys at Law (to date)

April 2009

Vice Chairman, Daini Tokyo Bar Association

June 2012

Outside Director, NEC Networks & System Integration Corporation

April 2014

Executive Director, Japan Federation of Bar Associations

May 2014

Outside Audit & Supervisory Board member, AEON MALL Co., Ltd.

Dec. 2014

Outside Director, Audit & Supervisory Committee member, SANYO TRADING CO., LTD.

Dec. 2016

Outside Director, Audit & Supervisory Committee member, FOOD & LIFE COMPANIES LTD. (to date)

June 2018

Outside Director, ITOHAM YONEKYU HOLDINGS INC.

June 2018

National Research and Development Agency Council member, Ministry of Land, Infrastructure, Transport and Tourism (to date)

Jan. 2019

Information and Communications Council member, Ministry of Internal Affairs and Communications (to date)

March 2020

Outside Director, ASKUL Corporation (to date)

June 2022

Outside Audit & Supervisory Board Member, Idemitsu Kosan Co.,Ltd. (to date)

Independent Outside Directors



Outside Director

Takeo Kikkawa

■ Number of shares of the Company held: —
■ Board of Directors meetings attended: 15／15

April 1987

Assistant Professor, Aoyama Gakuin University School of Business

Oct. 1993

Assistant Professor, Institute of Social Science, University of Tokyo

April 1996

Professor, Institute of Social Science, University of Tokyo

April 2007

Professor, Hitotsubashi University Graduate School of Commerce and Management

Jan. 2013

President, Business History Society of Japan

June 2013

Outside Director, Mitsubishi Chemical Holdings Corporation

April 2015

Professor, Graduate School of Innovation Studies, Tokyo University of Science (currently, Graduate School of Management, Tokyo University of Science)

June 2017

Director, Idemitsu Kosan Co.,Ltd. (to date)

April 2020

Professor, Graduate School of International Management, International University of Japan

April 2021

Vice President, and Professor, Graduate School of International Management, International University of Japan (to date)

Reason for appointment

Mr. Takeo Kikkawa has long experience and broad-based knowledge as a university professor as well as adequate knowledge about corporate management as an expert in business administration and especially in energy industry theory. Although he has not been involved in corporate management in any manner other than serving as an outside officer, management has judged that he will be able to perform his duties as an Outside Director properly based on the above and that he satisfies the "Requirements for Independence of Outside Officers" of the Company. In addition, if his appointment is approved, he will run the Board of Directors properly as chair and will provide objective and neutral advice regarding decisions on selection of executive candidates and executive compensation as a member of the Nomination and Compensation Advisory Committee.



Outside Director

Mitsunobu Koshiba

■ Number of shares of the Company held: —
■ Board of Directors meetings attended: 15／15

Oct. 1981

Joined Japan Synthetic Rubber Co., Ltd. (currently, JSR Corporation)

June 2002

Officer and General Manager of Electronic Materials Department I, Electronic Materials Division, JSR Corporation ("JSR")

June 2003

Officer, General Manager of Electronic Materials Division, and General Manager of Electronic Materials Department, JSR

June 2004

Director, General Manager of Electronic Materials Division, JSR

June 2005

Senior Officer, General Manager of Electronic Materials Division and Assistant in charge of Fine Chemicals Business, JSR

June 2006

Managing Director, General Manager of Electronic Materials Division, JSR

June 2007

Managing Director, JSR

June 2008

Senior Managing Director, JSR

April 2009

Representative Director and President, JSR

June 2019

Representative Director and Chairman, JSR Director, Idemitsu Kosan Co.,Ltd. (to date)

June 2020

Director and Chairman, JSR

March 2021

Outside Director, A Holdings Corporation (to date)

June 2021

Chairman Emeritus, JSR (to date)

Aug. 2021

Outside Director, TBM Co., Ltd. (to date)

Reason for appointment

Mr. Mitsunobu Koshiba has long been engaged in research and electronic materials business at JSR, served as the General Manager of Electronic Materials Division, and has been serving as the Representative Director and President and Chairman of JSR since 2009. Management has judged that he will be able to perform his duties as an Outside Director properly as he has expertise in technology area as well as long experience and broad-based knowledge as a business manager, and satisfies the "Requirements for Independence of Outside Officers" of the Company. In addition, if his appointment is approved, he will provide objective and neutral advice regarding decisions on the selection of executive candidates and executive compensation as a member of the Nomination and Compensation Advisory Committee.



Outside Director

Yumiko Noda

■ Number of shares of the Company held: —
■ Board of Directors meetings attended: 11／11

April 1982

Joined Tokyo Branch, Bank of America Corporation

March 1996

Deputy General Manager, London Branch, the Long-Term Credit Bank of Japan Ltd. (Head of Structured Finance)

Jan. 2000

Partner, Head of PPP (Public Private Partnership) and Privatization, PwC Financial Advisory Service Co., Ltd. (currently, PwC Advisory LLC) ("PwC")

June 2007

Deputy Mayor, Yokohama City

Jan. 2011

Partner, Head of PPP and Infrastructure Asia Pacific, PwC

Oct. 2017

President and Representative Director, Veolia Japan K.K. ("Veolia")

April 2019

Chairman, Administrative Reform Committee, Japan Association of Corporate

June 2020

Vice Chairs of the Board of Councilors and Chair of Committee on Environment and Safety, Japan Business Federation Chairman and Representative Director, Veolia (to date)

June 2021

Outside Director, Benesse Holdings, Inc. (to date) Director, Idemitsu Kosan Co.,Ltd. (to date)

June 2022

Vice Chairs of the Board of Councilors and Chair of Committee on Environment, Japan Business Federation (to date)

Reason for appointment

Ms. Yumiko Noda worked at financial institutions in Japan and overseas, served as Deputy Mayor of Yokohama City, and worked as a Partner at PwC Advisory. She has served as the Representative Director and President of Veolia Japan K.K. since 2017 and the Representative Director and Chairman of Veolia Japan since 2020. Management has judged that she will be able to perform her duties as an Outside Director properly as she has expertise in finance, global business, and regional revitalization as well as long experience and broad-based knowledge as a business manager, and satisfies the "Requirements for Independence of Outside Officers" of the Company. In addition, if her appointment is approved, she will provide objective and neutral advice regarding decisions on the selection of executive candidates and executive compensation as a member of the Nomination and Compensation Advisory Committee.



Outside Director

Maki Kado

■ Number of shares of the Company held: —
■ Board of Directors meetings attended: 11／11

April 1992

Joined NEC Corporation

April 1996

Joined United Feature Syndicate Inc. Japan Branch

May 2000

Joined Microsoft Product Development Inc. (currently, Microsoft Japan Co., Ltd.)

April 2004

Joined Microsoft Corporation Inc. (US) Headquarters

July 2013

General Manager of Purchasing, salesforce.com Co., Ltd.

April 2014

Business Manager, Coca-Cola East Japan Co., Ltd.

Dec. 2014

Director, Coca-Cola Business Services Company, Limited ("Coca-Cola Business Service")

Jan. 2015

Operating Committee member (Officer), Coca-Cola Cross Enterprise Procurement Group

March 2015

Representative Director and President, Coca-Cola Business Service

Aug. 2015

Representative Director and President, Coca-Cola Business Sourcing Co., Ltd.

June 2016

Budget Committee Chair (Chief Financial Officer), Coca-Cola Cross Enterprise Procurement Group

April 2017

Executive Officer, Head of Procurement, Coca-Cola Bottlers Japan Inc. ("Coca-Cola Bottlers Japan")

Feb. 2019

Executive Officer, Head of Procurement, Coca-Cola Bottlers Japan

June 2019

Executive Officer, Head of Procurement and Head of Executive Business Management, Coca-Cola Bottlers Japan

Nov. 2019

Executive Officer, Head of Business Transformation and Head of Procurement, Coca-Cola Bottlers Japan

Jan. 2020

Executive Officer, Head of Business Transformation, Coca-Cola Bottlers Japan

April 2020

Executive Officer, Executive Business Manager, Coca-Cola Bottlers Japan Holdings Inc. (to date)

June 2021

Director, Idemitsu Kosan Co.,Ltd. (to date)

Jan. 2022

Executive Officer and CTO (Chief Transformation Officer), Coca-Cola Bottlers Japan (to date)

Reason for appointment

Ms. Maki Kado worked in system development and marketing in Japan and overseas and served as the representative director and president of Coca-Cola Business Sourcing Co., Ltd. She has served as an executive officer of Coca-Cola Bottlers Japan Inc. since 2017 and of Coca-Cola Bottlers Japan Holdings Inc. since 2020.

Corporate Governance

Basic Approach to Corporate Governance

Under the revised Medium-term Management Plan announced in May 2021, we set forth “Your Reliable Partner for a Brighter Future” as our Vision for 2030. When establishing this Medium-term Management Plan (FY2023-2025), we determined that it would be necessary to adopt an extended timeline for the realization of carbon-neutral and circular society by 2050 as well as the future of energy and our vision for Idemitsu. Based on this, we established our Vision for 2050. We expressed the steady realization in 2040 and 2050 of the measures promoted as “Your Reliable Partner for a Brighter Future” and their social implementation looking ahead to 2030 as “Shaping Change.”

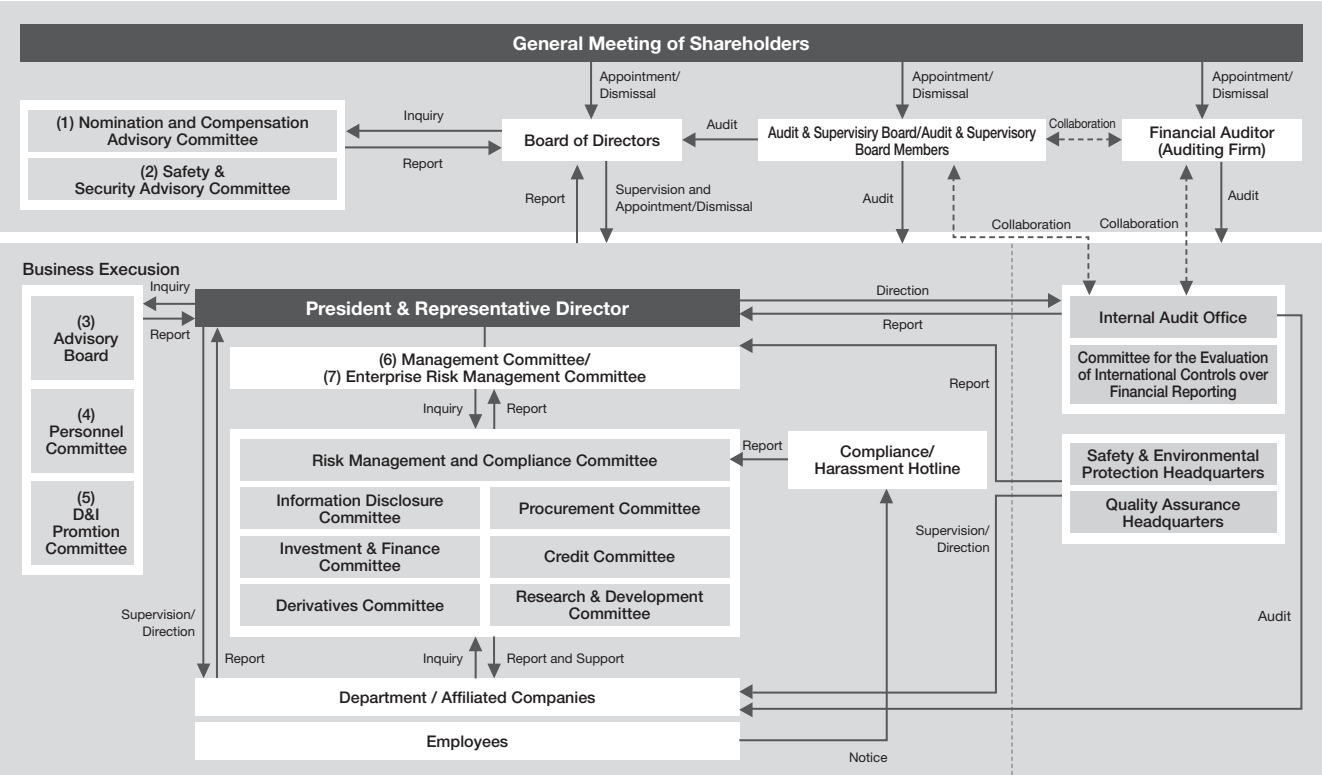
As moves toward global carbon neutrality accelerate, we believe it is very likely that the energy system and social structure will be significantly different in 2050. Within that process, many challenges will arise, including discontinuous technological innovation, and there will be demand for leaders that can deliver new technologies in a form that society can accept.

In response to these social issues and environmental changes, we will fulfill our responsibilities to support people and their daily lives and to protect the global environment now and in the future by promoting social implementation based on the knowledge we have cultivated in the stable supply of energy and the relationships of trust we have built with local communities.

We will place emphasis on building good relationships with all stakeholders, including customers, shareholders, business partners, local communities, and employees by improving management transparency and promoting sound and sustainable growth.

Japan’s Corporate Governance Code is aimed at achieving sustainable corporate growth and increasing medium- to long-term corporate value by maintaining dialog with shareholders. We strive to be both socially respected and highly trusted and believe that we must comply with the code in principle.

Corporate governance structure



In addition, we openly discuss our business status and management circumstances with Independent Outside Directors and Independent Outside Audit & Supervisory Board Members who bring to bear a wide range of knowledge and backgrounds. We sincerely take heed of their views as we endeavor to continue operating in a transparent and fair manner.

Outline of Corporate Governance System

The Board of Directors of Idemitsu shall make important business decisions and supervise the execution of business. As a company with an Audit & Supervisory Board, we shall ensure that the execution of duties by officers and employees is audited by Audit & Supervisory Board Members and the Audit & Supervisory Board, which remain independent of the Board of Directors. The Board of Directors shall, in accordance with laws, regulations, the Articles of Incorporation, and other rules set down by Idemitsu, make decisions on business strategy, business planning, and other key business matters for Idemitsu and supervise the execution of business. In order to increase the objectivity of the Board of Directors, we have made it possible to separate the roles of the chair and the President & Representative Director through the April 2019 revision of a clause in the Articles of Incorporation, which previously stipulated that the President & Representative Director serve as the chair of the Board of Directors, to instead mandate that the chair will be determined by the Board of Directors. As of FY2021, an Outside Director serves as chair of the Board of Directors.

With regard to matters other than those mentioned above, we shall delegate authority for business execution to the President & Representative Director as well as the heads of departments and other business units with a view to facilitating speedier decision making.

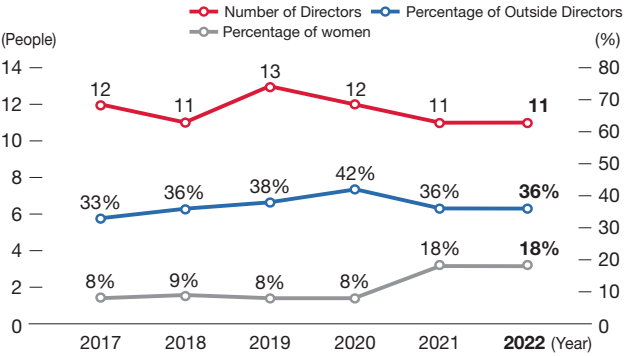
Overview of the Board of Directors

Chairman	Takeo Kikkawa (Outside Director)
Number of Directors	11
Number of Independent Outside Directors (percentage)	4 (36%)
Number of female Directors (percentage)	2 (18%)
Term	1 year
Number of Board of Directors meetings held in FY2021	15

Overview of the Audit & Supervisory Board

Number of Audit & Supervisory Board Members	4
Number of Outside Audit & Supervisory Board Members (percentage)	2 (50%)
Term	4 years
Number of Board of Directors meetings held in FY2021	16

Changes in corporate governance system



Overview of Each Committee

(1) Nomination and Compensation Advisory Committee

To enhance the transparency and objectivity of its nomination and compensation functions, as an advisory body to the Board of Directors, we have in place the Nomination and Compensation Advisory Committee consisting of only Independent Outside Directors. This committee was created in July 2021 by merging the Nomination Advisory Committee and the Compensation Advisory Committee with an eye to facilitating consistent discussions regarding agenda items associated with nomination and compensation.

It issues recommendations on proposals for the General Meeting of Shareholders on the appointment and dismissal of Directors and Audit & Supervisory Board Members, appointment and dismissal of executive officers with titles, and other matters concerning nomination in response to inquiries from the Board of Directors.

It also issues recommendations on the amount of Director compensation, revisions to the compensation system, and other matters related to compensation in response to inquiries from the Board of Directors.

In FY2021, the Nomination and Compensation Advisory Committee met a total of six times. With respect to nominations, the main topics of discussion were the succession plan and the proposed appointment and dismissal of executive officers with titles and

higher- ranking officers. As for compensation, the main topics of discussion were the setting of goals for directors, the amount of compensation, and the proposed revision of the executive compensation system.

Composition of the Nomination and Compensation Advisory Committee

Chairman	Outside Director	Mitsunobu Koshiba
	Outside Director	Takeo Kikkawa
	Outside Director	Yumiko Noda
	Outside Director	Maki Kado

(2) Safety and Security Assurance Advisory Committee (3) Advisory Board

To maintain the transparency and soundness of business management, we have established the “Safety and Security Assurance Advisory Committee” and the “Advisory Board,” both of which serve as advisory bodies to the Board of Directors and the President & Representative Director. With the inclusion of outside experts into their membership, these bodies are designed to ensure the reception of frank opinions on Idemitsu from a third-party perspective and reflect said opinions in management improvements.

The Safety and Security Assurance Advisory Committee was established as an advisory body to the Board of Directors for the purpose of preventing major disasters at refineries and complexes. It is in place as an advisory body for security enhancement issues, technical ones in particular. In addition, recent changes in the business environment have increased the importance of safety and security assurance in business expansion, new businesses, and setting up operations overseas. Therefore, we have set up a working group within the Safety & Environmental Protection Headquarters to select themes appropriate to business development and field outside experts’ recommendations on various themes.

The Advisory Board is designed to act as an advisory body to the President & Representative Director, with members consisting of Outside Directors and other outside experts, and has led to ample opportunity to contribute recommendations on management issues.

(4) Personnel Committee

The Personnel Committee was established as an advisory body to the President & Representative Director, with the aim of facilitating the optimal allocation of human resources, including Executive Officers, to optimal positions. It also aims to ensure fair and impartial evaluation and enhance the transparency of relevant decision-making processes. The members are the President & Representative Director, Vice President, the Officer in charge of personnel, and other officers appointed by the President to discuss and issue recommendations on such matters as the appointment and dismissal of Executive Officers and the selection of members of the Management Committee.

(5) D&I Promotion Committee

This committee identifies issues related to the promotion of D&I and makes recommendations to management, provides regular reports to the Board of Directors, and plans and promotes company-wide initiatives. In addition to Directors and the Executive Officer responsible for HR, members include a diverse range of executives of different genders, various job titles, and other attributes. Outside Director Maki Kado also participates as an advisor.

(6) Management Committee /
(7) Enterprise Risk Management Committee

The Management Committee and the Enterprise Risk Management Committee are charged with deliberating management strategies for the entire Group as well as for each executive department in addition to discussing and reviewing management issues. The Management Committee formulates and discusses strategies related to Group management and is a deliberative body that seeks to ensure smooth and appropriate decision making on important

matters associated with business execution. The Enterprise Risk Management Committee is a body that determines and monitors risk management policies related to Group management.

The Management Committee and the Enterprise Risk Management Committee are both chaired by the President & Representative Director, with their membership primarily comprising individuals specializing in and/or supervising diverse business fields. This ensures that these committees are able to engage in comprehensive and effective discussions when addressing cross-departmental issues and risks. Specialized subcommittees are established under the Management Committee and the Enterprise Risk Management Committee to deliberate on business execution and risk management issues from a more practical and specialized standpoint.

In April 2022, the Risk Management Committee and the Compliance Committee were merged to form the Risk Management and Compliance Committee to further improve the consistency and effectiveness of discussions.

Overview of Board of Directors

In FY2021, we deepened discussions on long-term business environment assumptions and basic policies and management targets for 2030 in response to business changes such as the push toward carbon neutrality. In addition, in response to issues identified in the FY2020 assessment of the Board of Directors' effectiveness, the Board of Directors worked to enhance pre-meeting briefings, establish a proper agenda for discussion, and make the Board of Directors

a discussion-oriented meeting body. The main agenda items were as outlined below.

In FY2022, we engaged in focused discussions at meetings of the Board of Directors and meetings of outside officers on the establishment of this Medium-term Management Plan announced in November 2022.

■ Main agenda items discussed by the Board of Directors

Management and Business Strategies	Governance	IR, General Meeting of Shareholders, and Shareholder Returns
<div>■ Revision of current Medium-term Management Plan (FY2020-2022) based on environmental changes</div> <div>■ Partial change to Articles of Incorporation (including revision of business purpose for business development to achieve Vision for 2030)</div> <div>■ Restructuring of agri-bio business</div> <div>■ Efforts to help Nghi Son Refinery and Petrochemical Limited Liability Company (NSRP) contribute to profit</div> <div>■ Establishment of this Medium-term Management Plan (FY2023-2025)</div> <div>■ Future policy for listed subsidiaries</div> <div>■ Impact of sanctions related to invasion of Ukraine on our business and our response</div>	<div>■ Status of internal control system operations in FY2020 (including initiatives related to enhancing governance at affiliated companies in Japan and overseas)</div> <div>■ Review of basic policy on internal control systems in response to enhancement of first line of defense and reworking of BCP for infectious disease control</div> <div>■ Establishment of Nomination and Compensation Advisory Committee to unify discussions on nomination and compensation</div> <div>■ Audit policy that emphasizes contribution to enhancement of governance and risk response to overseas expansion and expansion of new business fields as set forth in Medium-term Management Plan, and year-end audit report by Audit & Supervisory Board</div> <div>■ Approach to ensuring diversity, including status of women's advancement, and basic policy on sustainability initiatives (response to revisions to Corporate Governance Code)</div> <div>■ Matters to be prioritized for discussion in future to further improve assessments of effectiveness of Board of Directors</div>	<div>■ Shareholder Returns Policy up to final year of Medium-term Management Plan</div> <div>■ Policy for strategic holdings</div> <div>■ Review of Annual General Meeting of Shareholders and future direction</div> <div>■ Selection of Prime Market as new listing category</div> <div>■ Market reaction after earnings announcement</div>

Note: The above is only a partial list of agenda items. The Board of Directors has also deliberated on other matters deemed necessary under laws, regulations, and the Idemitsu Articles of Incorporation and passed resolutions on these matters.

Meetings of outside officers

In order to further enhance discussions at meetings of the Board of Directors, meetings of outside officers attended only by Independent Outside Directors and Independent Outside Audit & Supervisory Board Members are held approximately four times a year to share information and exchange opinions with the President & Representative Director and others on the matters below.

- Medium-term Management Plan and business strategies
- Feedback and requests received by IR Department from institutional investors and individual shareholders
- Information on internal control, including internal audits and whistleblowing reports

Assessment of the Effectiveness of the Board of Directors

In January 2022, we conducted a questionnaire survey of all Directors and Audit & Supervisory Board Members. Based on the results, we evaluated the initiatives carried out in the FY2021 to address the issues identified in the previous fiscal year. After three rounds of discussion at the Board of Directors, the future issues were identified, and the details of the initiatives were confirmed.

The questionnaires were designed to verify conformity with Japan's Corporate Governance Code while incorporating items aimed at qualitative improvement. We received advice from an expert third-party organization to determine the content of these items and analyze the responses.

■ Process for the assessment of the Board of Directors' effectiveness

Issue	Initiative	Assessment result
<div>Sending out questionnaires to all Directors and Audit & Supervisory Board Members</div> <div>Questionnaire items: Board of Directors composition, discussions, and operations, officer training, nomination and compensation, etc.</div>	<div>Discussion by the Board of Directors regarding the results of the analysis of input from respondents and the identification of issues (three times in total)</div> <div>Assessment results:</div> <div>Overall functions of the Board of Directors were confirmed.</div>	<div>Determining issues to be tackled and implementing initiatives aimed at effecting improvement</div>
1. Review of agenda items	We selected the agenda items that should be discussed by the Board of Directors, centered on medium- to long-term management and strategy issues, taking into account the revision of the Medium-term Management Plan announced in May 2021 and prioritized them for discussion.	Based on the usefulness of periodic review of the agenda and prioritized discussions, we again identified agenda items in light of the establishment of this Medium-term Management Plan. We confirmed that medium- to long-term strategic issues and matters related to general management would continue to be prioritized in discussions.
2. Enhancement of opportunities for outside officers to step up their involvement in discussion and acquire necessary information, etc.	We worked to further enhance the provision of information to outside officers, including bringing up growth businesses such as new businesses for the achievement of carbon neutrality and lithium-ion battery materials as topics at meetings of outside officers. For issues in fields that require a high level of expertise, such as economic security, we invited experts to conduct officer training for Inside and Outside Directors, Audit & Supervisory Board Members, and executive officers.	We confirmed that the deliberations of the Board of Directors were further invigorated through the enhancement of information provided to outside officers and other such measures.
3. Invigoration of discussions via improvement in the Board of Directors' mode of operations	When Directors and Audit & Supervisory Board Members are sufficiently briefed on agenda items to be submitted to the Board of Directors, on-the-day explanations of these agenda items will be simplified. In these and other ways, we worked to secure greater time for discussion.	We confirmed a certain level of results with respect to further invigoration of discussions. We determined that there was room for further improvements to the straightforwardness and simplicity of materials and explanations.
4. Enhancement of the content of discussion regarding the nomination of and compensation for Executives	As for nomination, the Nomination and Compensation Advisory Committee deliberated on proposed appointment and dismissal of executive officers with titles and higher ranking officers and succession plans, and as for compensation, it deliberated on such matters as the timeline for executive compensation issues, non-financial targets for representative directors, and targets for directors' areas of responsibility.	We confirmed that the results of deliberation at the Nomination and Compensation Advisory Committee were appropriately reported to the Board of Directors.

■ Future issues and initiatives

1. Establishment of medium- to long-term agenda	We will continue to discuss and share opinions on medium- to long-term strategic issues, including this Medium-term Management Plan and the direction of new businesses for business structure reform to achieve carbon neutrality by 2050.
2. Further enhancement of information provision to contribute to future management decisions	In order to further enhance discussions at the Board of Directors, not only will the executive department provide information contributing to management decisions at meetings of outside officers, but we will also hold discussions on topics based on proposals from outside officers. In addition, we will invite outside experts to provide ongoing training for officers in areas such as economic security, which is rapidly increasing in importance due to various factors that include the growing complexity of international affairs and changes in socioeconomic structures.

Policy for the Nomination of Director and Audit & Supervisory Board Member Candidates by the Board of Directors

Nomination of director candidates

In addition to establishing human resource standards for director candidates, we have created a Skill Matrix as one of the criteria for selection to ensure diversity of the required knowledge, experience, and abilities in the composition of the Board of Directors.

Prior to the election of Director candidates, the President & Representative Director submits a draft to the Nomination and Compensation Advisory Committee with a full assessment of the abilities, knowledge and performance of individual candidates, regardless of whether they are from inside or outside of Idemitsu. The Board of Directors then finalizes its decision on the selection based on recommendations of the Nomination and Compensation Advisory Committee.

In addition, the Nomination and Compensation Advisory Committee deliberates on the dismissal of Directors, including Representative Directors, based on an evaluation of their performance and reports its conclusions to the Board of Directors.

Nomination of candidates for Audit & Supervisory Board Members

We select candidates for Audit & Supervisory Board Member who have appropriate experience and abilities as well as the necessary financial, accounting or legal knowledge. As for candidates for full-time Audit & Supervisory Board Member, we select those who are familiar with Idemitsu's business and the issues we face, and who are able to carry out auditing and supervision in an accurate, fair, and efficient manner. Furthermore, based on the fact that diversity of knowledge, experience, and abilities is also required of the Audit & Supervisory Board, a Skill Matrix is also disclosed for Audit & Supervisory Board Members as of FY2022.

In the selection of candidates for Audit & Supervisory Board Members, the President & Representative Director discusses the matter with all representative directors and, based on the recommendations of the Nomination and Compensation Advisory Committee, submits to the Board of Directors a draft that sufficiently evaluates the abilities, knowledge and performance of each candidate, regardless of whether they are from inside or outside of Idemitsu, after obtaining the consent of the Audit & Supervisory Board.

Succession plan

The Nomination and Compensation Advisory Committee, which is comprised of Independent Outside Directors, has adopted a mechanism for deliberating on the selection and training of next-generation officer candidates based on the long-term plan and reporting to the Board of Directors. Currently, it is working on selection and training of candidates starting with a succession plan for the President & Representative Director.

Independence Requirements for Outside Officers

In order for the Board of Directors to fulfill its supervisory function, we appoint outside officers who have the knowledge and experience to provide useful advice to management, taking into consideration their diverse knowledge and background, from among those who meet our Independence Requirements for Outside Officers. Our basic policy is to have Independent Outside Directors account for at least one-third of all Directors and for Independent Outside Audit & Supervisory Board Members account for at least half of all Audit & Supervisory Board Members.

Skill Matrix

Under our Management Philosophy of being “Truly inspired,” we

have set forth “Your Reliable Partner for a Brighter Future” as our Vision for 2030 in current Medium-term Management Plan.

We aim to become a resilient company that can adapt flexibly to any environmental change to realize our Vision for 2030. Based on the basic policy of our current Medium-term Management Plan, namely to engage in ROIC management, to evolve the business platform, and to create an open, flat, and agile corporate culture, we have selected an appropriate number of Directors and Audit & Supervisory Board Members (hereinafter “officers”) possessing the knowledge, experience, abilities, and expertise to lead our management and diverse backgrounds, according to our corporate size. In addition, to realize our Vision for 2030, the Board of Directors will make decisions on important management matters and exercise a highly effective supervision through deeper discussions from various angles with officers complementing each other's skills.

Based on the above, we have set forth the balance of skills expected of officers and the skills to be provided by the organization as a whole below.

In accordance with the Medium-term Management Plan (FY2023-2025) announced in November 2022, if there is a need to make any corrections to the Skill Matrix, we will disclose it in a timely fashion.

■ Skill Matrix

Knowledge, Experience					Areas in which the Company particularly expects Director and Audit & Supervisory Board Member to contribute														Reason for selection of areas of expected contribution
					Terms in office (years)	Corporate philosophy / business strategy	Governance / legal affairs	Finance / accounting / tax	International business / diversity	Digital innovation/ technology	Environment / society / resource recycling / regional revitalization / energy policies	Human resources development	Marketing / sales / retail marketing	Manufacturing / supply					
Director	Reappointment	Shunichi Kito			9	●	●	●					●	●			We expect him to lead the establishment and implementation of growth strategies for 2030 based on his record of leading business integration as President of Idemitsu and his insight from his experience as Director in charge of Accounting, Human Resources, and the Fuel Business.		
	Reappointment	Susumu Nibuya			2	●	●					●		●			We expect him to lead the execution of strategies based on his management experience as Vice President of Idemitsu, his insight as officer in charge of Sustainability, Mobility and Community Strategy, his expertise from his experience as manager of the Internal Audit Department, and his familiarity with our business and the issues we face.		
	Reappointment	Atsuhiko Hirano			2	●			●	●				●			We expect him to promote business structure reforms based on his experience as president of an operating company, his insight from being an officer in charge of corporate planning, and his extensive international business experience in key positions in the solar and petroleum departments.		
	Reappointment	Noriaki Sakai			1	●	●	●					●				We expect him to promote strengthening of the management foundation for our sustainable development based on his deep knowledge and expertise from past positions in accounting and finance and his insight from his experience in the Human Resources Department and Safety & Environment Department.		
	New appointment	Masahiko Sawa			—	●				●	●				●		We expect him to promote business structure reforms for 2030 as a technical manager based on his insight from drafting medium- to long-term management strategies, experience in the international gas business, and management related to technological trends and R&D, his knowledge related to the environment (CSS) and recycling of resources, and his advanced expertise in manufacturing and supply.		
	Reappointment	Masakazu Idemitsu			3	●	●										We expect him to strengthen our sustainable development and management foundation in accordance with our Management Philosophy based on his deep understanding of The Origin of Management as a member of the founding family and his long-term perspective on governance as a major shareholder.		
	Reappointment	Kazunari Kubohara			3		●	●			●						We expect him to strengthen our management foundation from a multifaceted governance perspective based on his expertise related to corporate law and social problems as an attorney and his familiarity with the real estate business.		
	Reappointment	Takeo Kikkawa	Outside	Independent	5				●	●	●						We expect him to strengthen our management foundation and supervise business structure reforms as an Outside Director based on his sufficient insight related to corporate management as an expert in business administration, particularly energy industry theory.		
	Reappointment	Mitsunobu Koshiba	Outside	Independent	3	●	●		●	●							We expect him to provide supervision for strengthening our management foundation and international business as an Outside Director based on his familiarity with corporate management and governance from his experience as president and chairman of a listed company, his advanced expertise in the area of technology, and his experience launching a new business in Silicon Valley and as an outside officer of a digital technology company in Japan.		
	Reappointment	Yumiko Noda	Outside	Independent	1	●		●	●		●						We expect her to provide supervision for strengthening our management foundation and international business and implementing business structure reforms as an Outside Director based on her management experience and broad-based insight at a global environmental company, her experience with D&I, and her insight related to finance at financial institutions in Japan and overseas.		
Reappointment	Maki Kado	Outside	Independent	1	●			●		●			●			We expect her to provide supervision for strengthening our international business and implementing business structure reforms as an Outside Director based on her extensive experience and broad-based insight in international business, D&I, and retail marketing from her past key positions at global companies.			
Audit & Supervisory Board Member	Reappointment	Tsutomu Yoshioka			1	●	●			●				●			We expect him to provide review in the areas of management foundation and DX to support our strategies based on his experience as president of an operating company, Audit & Supervisory Board member at a listed company, business execution in the Information Systems Department, and as a person responsible in the Sales Department.		
	New appointment	Hidefumi Kodama			—	●		●	●		●						We expect him to provide an international business perspective and review of future business areas based on his knowledge of environmental problems through his experience drafting medium- to long-term management strategies, serving as a person responsible for financial management, and management of international resources and the coal business, as well as his knowledge of company-wide business and brand management in the PR Department.		
	Reappointment	Taigi Ito	Outside	Independent	10		●	●	●								We expect him to provide review from the perspective of our management foundation supporting our strategies and international business as an Outside Audit & Supervisory Board Member based on his extensive experience and familiarity with governance as an outside Audit & Supervisory Board member of a listed company, his familiarity with tax and finance matters at listed companies as a certified public accountant, and his experience auditing global businesses.		
	New appointment	Yumiko Ichige	Outside	Independent	—		●		●	●							We expect her to provide review in the areas of management foundation and DX to support our strategies as Outside Audit & Supervisory Board Member based on her familiarity with governance at a listed company as an attorney and her experience actively promoting women's advancement, her familiarity with the fields of information and intellectual property, and her experience serving as a member of the Patent Office Council and the Information and Communications Council of the Ministry of Internal Affairs and Communications.		

* The cells marked by ● indicate areas in which we particularly expect the relevant Director or Audit & Supervisory Board Member to contribute and do not represent all of his/her knowledge and experience.

Compensation for Executives

Basic policy on executive compensation

Our basic policies regarding compensation for our Directors are to increase corporate performance and corporate value over the medium to long term to realize our Vision for 2030 and to establish a compensation system and decision-making process that is transparent, rational, and fair so that we can fulfill our accountability to customers, society, the environment, shareholders, business partners, employees, and other stakeholders. Based on this policy, our executive compensation system is as follows:

Amount and composition of compensation

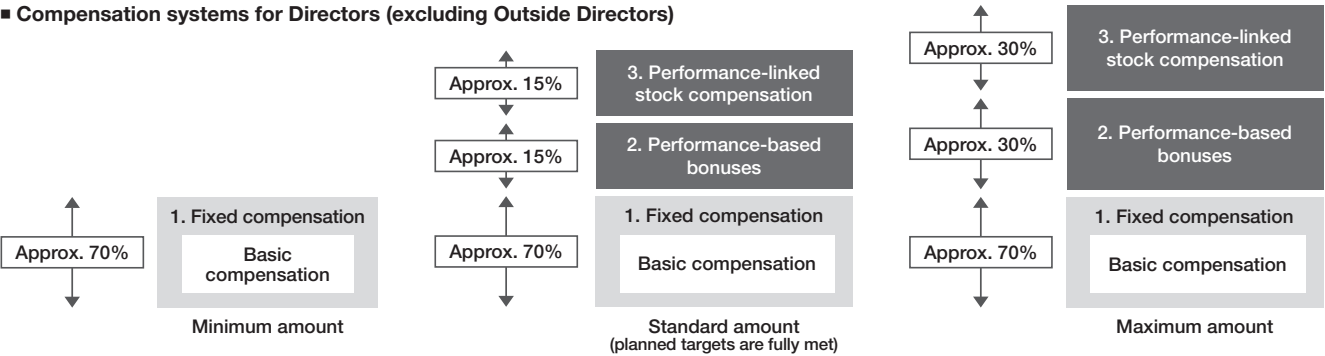
Compensation for Directors consists of 1) fixed compensation, 2) performance-based bonuses, and 3) performance-linked stock compensation. When paid in the standard amount, the above three

components account for around 70%, 15%, and 15%, respectively, of overall compensation. In the course of determining such compensation, we utilize data obtained from an independent consulting firm to assess its appropriateness. The level of compensation is being reviewed as necessary in light of its appropriateness vis-à-vis changes in the business environment and input gleaned via external surveys. In the event of serious misconduct or violations by Directors or other officers, the performance-linked stock compensation may be forfeited (malus) or required to be returned (clawback).

Compensation for Outside Directors consists solely of fixed compensation from the perspective of objectively assessing the appropriateness of business execution and ensuring appropriate supervisory functions.

In addition, no specific limitations are set for the number of Idemitsu shares that can be owned by officers.

■ Compensation systems for Directors (excluding Outside Directors)



1. Fixed compensation	Paid monthly in an amount determined in light of the recipient's duties.		
2. Performance-based bonuses (Short-term incentives)	The amount of these bonuses varies based on the level of achievement vis-à-vis the recipient's duties and Idemitsu's operating results (net income, consolidated operating income, both excluding the inventory impact), with the payment ratio ranging from 0% to 30%. Bonuses for Representative Directors are paid in every June upon the assessment of matters including the level of their achievement vis-à-vis non-financial targets (associated with medium- to long-term company-wide strategic issues, D&I issues, including the promotion of women's advancement, human resources development, improvement of employee engagement, etc.) aimed at improving corporate value over the medium to long term. Bonuses for Directors other than Representative Directors are paid in the same month upon the assessment of such matters as the level of their achievement vis-à-vis their individual targets in areas under their supervision (initiatives to address medium- to long-term issues, human resource development, etc.).		
	Weighting of company performance assessment	Net income 60%	Consolidated operating income 40%
3. Performance-linked stock compensation (Medium- to long-term incentives)	Performance-linked stock compensation is paid to all officers and determined based on the level of achievement vis-à-vis Idemitsu's operating results (net income and consolidated operating income, both excluding the inventory impact), with the payment ratio ranging from 0% to 30%. Stock compensation is granted only after the recipients have stepped down from their positions. The value of stock compensation is thus designed to reflect fluctuations in stock prices during their terms in office.		
	Weighting of company performance assessment	Net income 60%	Consolidated operating income 40%

Total amount of compensation, etc. by executive category

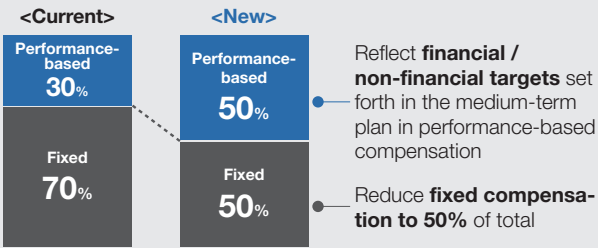
Total amount of compensation and other wages paid to Directors in FY2021, their breakdown by type and the number of recipients is as presented below.

Category	Number of people	Fixed compensation (Millions of yen)	Performance-linked compensation (Millions of yen)		Total compensation (Millions of yen)
			Cash compensation	Stock compensation	
Directors (excluding Outside Directors)	8	326	96	123	546
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	3	62	–	–	62
Outside Directors and Outside Audit & Supervisory Board Members	9	90	7	–	97
Total	20	478	103	123	706

* Figures presented above include compensation paid to four Directors (three of whom were Outside Directors) and one Audit & Supervisory Board Member (not an Outside Audit & Supervisory Board Member) who stepped down from their positions at the closure of the 106th annual General Meeting of Shareholders held on June 23, 2021.

Revision of executive compensation system (assuming approval at General Meeting of shareholders)

We plan to revise the executive compensation system in FY2023, the first year of this Medium-term Management Plan, in order to strengthen the correlation with the management strategy. We are looking into lowering the fixed compensation ratio and reviewing indicators, including non-financials for performance-based bonuses and performance-linked stock compensation.



Management Monitoring System

Along with supervisory functions provided by the Board of Directors as well as audits undertaken by the Audit & Supervisory Board Members and accounting auditors, our management monitoring system is supported by the "Internal Audit Department," which operates independently of all executive departments and is run by dedicated staff directly under the President & Representative Director. This arrangement ensures that the department performs audits in accordance with "Internal Audit Rules" and evaluates internal control based on "Rules on the Evaluation of Internal Controls over Financial Reporting." The scope of internal audits undertaken by the Internal Audit Department encompasses business sites and affiliates at home and abroad. The results of audits are reported to the President & Representative Director, the Audit & Supervisory Board Members, the heads of the executive departments in question, and the Executive Officers in charge. In addition, we report our policies and the results of internal audit and internal control evaluation initiatives to Independent Outside Directors and Independent Outside Audit & Supervisory Board Members at meetings of outside officers. Recommendations regarding matters specified via internal audits as requiring improvement and consideration of improvement are com-

municated to the executive departments concerned, which, in turn, prepare and submit improvement plans to the head of the Internal Audit Department and execute improvements accordingly. Moreover, the Internal Audit Department provides follow-up audits as necessary.

Audits by Audit & Supervisory Board Members

Audit & Supervisory Board Members (four members) attend meetings of the Board of Directors and audit business reports, financial statements, and consolidated financial statements that are submitted to the annual general meeting of shareholders. They also audit the execution of business operations by Directors on a daily basis. Full-time Audit & Supervisory Board Members attend important internal meetings, such as those of the Management Committee, and meet with general managers, overseas managers, and the presidents of subsidiaries. Outside Audit & Supervisory Board Members strive to enhance auditing by visiting key departments. As a general rule, these individuals hold quarterly meetings with the representative director to discuss issues.

Strategic Holdings of Listed Shares

Policy on strategic holdings of listed shares

Our strategic holdings of listed shares, which have been maintained with the objective of securing and expanding medium- to long-term transactions, are currently being reduced via the annual verification of rationale for such shareholdings. This verification involves both quantitative and qualitative assessments. The former focuses on examining the benefits and risks arising from each shareholding and confirming its propriety vis-à-vis capital cost. The latter focuses on examining such factors as improvement in the stability of the investee business. Results of this verification are discussed by the Board of Directors to decide on whether or not to divest certain shareholdings. We also engage in sufficient dialog with business partners whose shares are earmarked for divestment from its shareholding portfolio. Upon securing their understanding, we execute divestment while giving due consideration to its impact on share prices.

As of the end of FY2021, the number of strategic holdings of listed shares decreased by five from the end of FY2020 to 13 stocks.

Criteria for the exercise of voting rights associated with strategic holdings of listed shares

With regard to voting rights associated with strategic holdings of listed shares, our company maintains a policy of casting its vote in a way that leads to sustainable improvement in the corporate value of both our company and the investee. To this end, we have made it a rule to judge whether or not an investee is able to sustainably improve its corporate value based on the assessment of such factors as its management strategies and operating results. Furthermore, depending on the content of a ballot proposal, we may request a detailed explanation on each matter prior to casting a vote. Should a ballot proposal by an investee be deemed to constitute a conflict of interest between Idemitsu and said investee, we exercise our voting rights on an as-necessary basis after consulting with Independent Outside Directors and external specialists.

Compliance

Approach to Compliance

The Idemitsu Group defines compliance as adhering with laws, regulations, internal rules and business contracts, in addition to refraining from the violation of ethical and social norms, regardless of the possibility of an actual legal offense occurring. Based on this definition, every Group employee is expected to live up to high ethical standards and act appropriately and sincerely while maintaining self-discipline.

To this end, the “Compliance Code of Conduct” has been established for all employees working around the world to disseminate the compliance mindset that each employee should have and act in accordance with. The code is designed to provide explicit, simple and easy-to-understand guidance that exemplifies desirable employee behavior in terms of maintaining compliance.

Compliance Code of Conduct

In accordance with the principle of “Integrity” set forth in the Action Mindset, we have established the following items as specific compliance codes of conduct for all employees working around the world for both domestic and overseas companies. Specific standards of conduct related to compliance are compiled in the Compliance Book, which we regularly review for effectiveness and revise accordingly.

- 1. Compliance with Laws, Regulations, and Morals
- 2. Respect for Human Rights
- 3. Safety, Quality, and Environmental Preservation
- 4. Fair and Free Competition
- 5. Anti-Corruption
- 6. Information Disclosure and Information Management

Idemitsu Group Compliance Code of Conduct
➡ <https://sustainability.idemitsu.com/en/themes/201>



Risk Management and Compliance at Idemitsu

Idemitsu Kosan Co.,Ltd.
Senior Executive Officer (As of December 31, 2022)
Seiji Oshima

We would like to once again express our deepest apologies for the inappropriate conduct that took place in product testing at our subsidiary, which was announced in May 2022 and undermined the trust of our customers and stakeholders. A special investigative committee with external experts conducted a separate investigation from our own in regard to this matter to identify the cause and establish preventive measures. We are currently working on thorough implementation of those measures. We are also educating our employees on quality throughout the Group. Moreover, we are focusing on creating a more open and non-hierarchical workplace, and are identifying workplace issues by using questionnaires and the content of reports submitted to hotlines as part of our efforts to create a workplace culture and environment, which is a prerequisite for fostering compliance awareness. Furthermore, we will increase the sense of ownership among employees in regard to compliance

matters by conducting compliance training in response to those issues.

As part of our initiatives to strengthen our risk management, we are improving the effectiveness of our management system with respect to emerging business risks. In addition, we formed a company-wide task force to respond to latent risks keeping discontinuous environmental changes such as economic security, cyber security, and human rights problems in mind. We developed a structure for gathering information, analyzing latent risks, and putting together and implementing measures in a timely manner. Particularly when it comes to economic security, which has a significant impact on energy security, we will coordinate with think tanks to gather the latest information and reflect it in our medium- to long-term growth scenario.

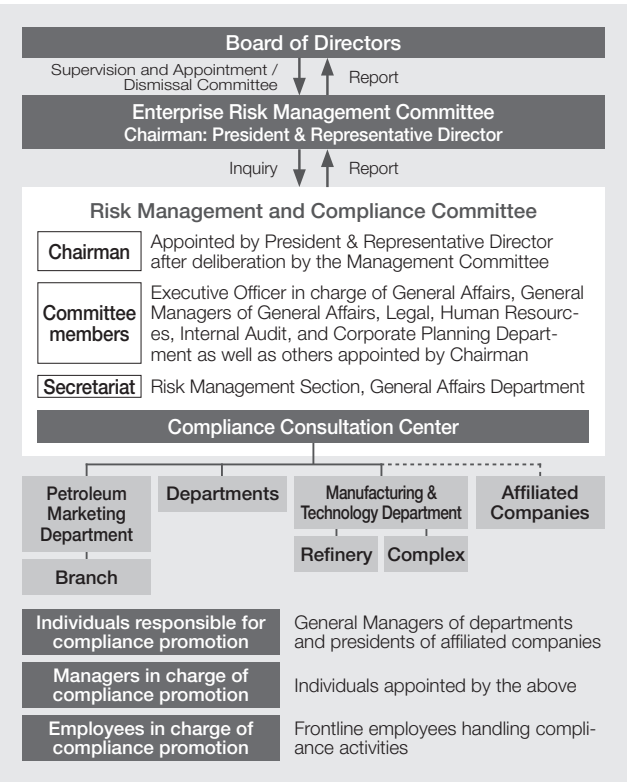
Compliance Promotion System

Our Group has established the “Risk Management and Compliance Committee” under the Enterprise Risk Management Committee for the purpose of deliberating on business execution and risk management issues from a more practical and specialized standpoint and is responding to cases of compliance concern, implementing compliance promotion activity plans, and monitoring the status of compliance activities. Regular committee meetings are held quarterly.

Every May, reports on risk and compliance from the previous fiscal year are provided at the meeting of the Board of Directors where they reflect on the previous fiscal year and, based on that, pass a resolution on the Basic Policy on Internal Control for the current fiscal year. A discussion on internal control was also held at the meeting of outside officers held in March 2021.

The heads of our Group’s divisions and the presidents of its affiliated companies appoint officers in charge of compliance promotion and are responsible for promoting compliance at each division and subsidiary.

■ Compliance promotion system



Response to Compliance-Related Concerns

Reports from divisions and reports to the various hotlines based on the internal “Rules on How to Deal with a Crisis” are regarded as compliance-related concerns, and the Risk Management and Compliance Committee responds by providing support for countermeasures, directing or requesting investigations, and implementing measures to prevent recurrence.

■ Major compliance violations in FY2021: 0

* Violations disclosed as having a serious impact on Group management

Establishment of Hotlines

All the compliance-related reports received by the hotlines from employees in Japan and abroad are relayed to the Risk Management and Compliance Committee. The Risk Management and Compliance Committee, in turn, appoints individuals to investigations as necessary and thereby determines facts pertaining to the reported incidents while ensuring that the identity of anyone who consults with the center is kept secret and that said individuals are not subjected to disadvantageous treatment. In this way, the committee formulates countermeasures, including reprimands of employees responsible for compliance violation. The committee also provides those who file reports with feedback about measures executed in response while striving to prevent recurrences in line with the Company’s promotion system.

Domestic hotlines

We have established internal hotlines primarily for consultations on compliance and harassment. We also have an external hotline operated by a third party, and a qualified industrial counselor is available by phone.

These hotlines have been published on the internal information portal site, with their contacts also featured on posters displayed at each workplace, so everyone will be aware of their existence. In addition to ensuring the confidentiality of the content of consultations, we have also established rules banning disadvantageous treatment of those who report or consult with us.

Overseas hotlines

We have established the Idemitsu Global Hotline (IGHL) to handle reports from overseas business sites. It is for employees at approximately 40 bases located in China, Asia, and Oceania as well as the Middle East, Europe, Russia, and both North and South America, covering most of the Group’s overseas business sites. The IGHIL accommodates consultation in all languages spoken in countries where Idemitsu maintains local subsidiaries.

Domestic/overseas Internal/external	Name of contact	Reception	Eligible individuals	Scope of consultation	Consultation method	Number of reports in FY2021
Domestic/internal	Compliance Consultation Center	General Affairs Department	Officers and employees (including part-time, contract, seconded, and temporary employees) of the Company and affiliated companies as well as those who resigned less than a year ago	Fraud, misconduct, and other compliance issues	In principle, real names are to be used	21
	Harassment Consultation Center	Human Resources Department		Sexual harassment, power harassment, and other forms of harassment	Email or letter	17
Domestic/internal	Workplace Helpline operated by third party	Third party (certified industrial counselor)		Compliance issues, and harassment	Can be anonymous Email or phone	5
Overseas/internal	Idemitsu Global Hotline (IGHL)	General Affairs Department	Employees (including local staff and employees seconded from our company) of the Group’s overseas business sites	Misconduct and harassment as well as violations related to occupational safety, facility safety, the environment and quality assurance	Email	7

* External feedback and consultations are accepted by the Customer Relations Center and handled appropriately in cooperation with the Compliance Consultation Center.

Compliance Promotion Activities

In accordance with the Compliance Code of Conduct, we carry out ongoing education and training to ensure that each and every employee of the Group acts with integrity and fairness based on high ethical standards.

Compliance book

In 2020, we published our Compliance Book, with the aim of offering specific compliance standards, including for preventing corruption and conflicts of interest and prohibiting insider trading. Simultaneously, we prepared narrated video materials designed to enhance viewers' understanding of the Compliance Book. These materials feature slideshows elaborating on specific case studies discussed in the publication. In addition to the Japanese version, we issued English and Chinese editions of the Compliance Book in an effort to ensure that all Group employees at home and abroad are properly educated on compliance topics.



Compliance education

We provide regular e-learning on compliance once a year. In November 2021, 19,410 employees took the course (100% participation rate) as we offered it to employees at our company and 49 affiliated companies in Japan for the purpose of educating them on preventing harassment and copyright infringement. In addition, we implement compliance training specifically designed for new hires and individuals appointed to managerial positions.

“Compliance Room”

We have opened the “Compliance Room,” a new webpage accessible from the internal information portal site. This page features compliance violation case studies and four-frame comic strips, with the aim of providing employees with information on the latest compliance concerns outside of Idemitsu, disseminating other relevant insights to a broad range of Group business units, and raising employees' awareness of compliance.

Other dissemination of information

Since June 2022, we have been raising awareness through posters and distributing them to refineries, complexes, laboratories, and affiliated companies. In addition, at the head office, digital signage is used to disseminate information.



Bribery and Corruption Prevention

Whether it takes place in Japan or overseas, our Compliance Code of Conduct stipulates that all forms of corruption must be prevented. Furthermore, having established basic rules and systems to be observed in the prevention of bribery, we have upgraded them into the “Bribery Prevention Rules” with the aim of preventing violations of the OECD convention and the Foreign Corrupt Practices Act (FCPA) as well as laws and regulations, enforced in countries where we operate, that prohibit unfair competition and bribery. We are currently striving to ensure that these rules are strictly observed. Moreover, we regard anticorruption as a particularly important compliance issue for those working at our overseas sites, and are raising their awareness about the importance of specific preventive measures. We have included articles on such topics as the prohibition of bribery, such as the bribery of public officials and limitations on excessive gifts and entertainment, in our Compliance Book to raise employee awareness.

- Number of Cases of Corruption and Bribery in FY2021: 0
- Number of Employee Disciplinary Actions Related to Corruption and Bribery in FY2021: 0

Prohibition of Bribery (Bribery of Public Officials): Rules of Conduct (excerpt from the Compliance Book)

We will not improperly offer, provide or promise economic benefits, such as money and goods, to public officials or equivalent, regardless of whether they are located in Japan or abroad. We will maintain sound and transparent relationships with politicians and governments. We will take a firm stance against improper financial transactions.

Prevention of Anti-Competitive Practices

We have established the “Antimonopoly Law Compliance Rules,” which stipulate basic matters that must be observed to ensure compliance with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade as well as competition laws enforced in each country in which we operate in addition to other relevant regulations. These rules also define necessary compliance promotion structures. Specifically, the Representative Director and President is responsible for providing overall supervision over activities aimed at ensuring the proper observance of these rules and preventing employees' involvement in prohibited practices. The division heads of the Company and presidents of its subsidiaries are tasked with putting these rules into practice. To this end, they strive to ensure that appropriate self-management measures are implemented in a way that gives due consideration to risks associated with the characteristics of their businesses and organizational structures as well as country-specific circumstances and local antimonopoly laws.

Tax Policy and Tax Compliance

We consider ensuring the transparency of tax payments to be an essential part of the social responsibilities to be fulfilled by good corporate citizens. Due to the globalization of our business, we are likely to face a growing need to handle a more diverse range of increasingly complex tax-related operations. Accordingly, we believe that the coordinated handling of tax compliance is a matter of increasing importance.

We have appointed a Director who serves as CFO, Executive Vice President and Executive Officer to be responsible for tax governance across the Group, and established the Group Tax Rules, the Group Tax Practice Guidelines and other relevant rules that provide specific operational guidelines based on the Group General Tax Policy, outlined below. We pay taxes in a proper and fair manner in conformity with all applicable tax laws enforced in countries where we operate. By enhancing the transparency of our tax payment through appropriate disclosure, we will fulfill our responsibility as a company.

Group General Tax Policy

(1) Tax compliance

In accordance with tax regulations, the Group must appropriately execute its business transactions, file tax returns and make tax payments and must not conduct any act against law (tax evasion).

(2) Tax expense management

The Group should strictly follow legal requirements and avoid tax risks, while the Group must also make its endeavor to optimize its tax effects within the due course of business allowed under the boundary of law.

Promotion system for tax-related operations

The Finance & Accounting Department serves as the primary business unit responsible for tax-related operations. In accordance with the “Group Tax Rules,” this department is charged with furnishing information and advice to each Idemitsu department as well as Group affiliated company handling transactions. The Finance & Accounting Department is also tasked with providing relevant in-house education and responding to tax inspections in addition to planning and implementing necessary countermeasures aimed at ensuring tax compliance and optimizing the management of tax expenses. Moreover, all Idemitsu Group employees are obliged to comply with the aforementioned regulations and handle tax-related operations in an appropriate manner. To this end, whenever requested by the Finance & Accounting Department, Group employees report on said operations and submit relevant documents while asking it to provide prior consultation where necessary.

Relationship with tax authorities

We cooperate with tax authorities in a straight-forward, appropriate manner and prohibit our employees from making any inappropriate responses involving falsification or concealment. We endeavor to explain our group's position and standpoint to the best of our ability in order to ensure the comprehension of tax authorities when they inquire about or point out issues pertaining to our handling of tax-related operations. Moreover, we utilize the advance inquiry procedures offered by tax authorities to ensure the appropriate payment of taxes. By voluntarily disclosing information to tax authorities, we thus strive to prevent the occurrence of and minimize the risk of tax-related incidents.

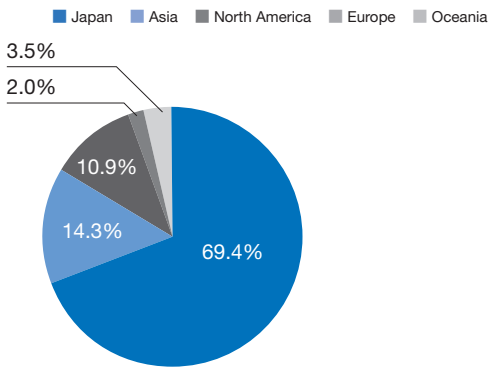
Response to tax compliance violations

Should a tax compliance violation occur, we will take a stringent approach to its correction. We will also ensure that measures to prevent recurrences are implemented in accordance with in-house rules and regulations stipulated by the Idemitsu Group. There were no violations in FY2021.

■ Taxes paid by country and region

Country and region	Amount (Millions of yen)
Japan	27,428
USA	3,830
Singapore	1,630
China	1,557
Australia	1,372
Malaysia	968
Indonesia	860
Germany	360
Canada	287
Russia	255
Mexico	208
Hong Kong	192
Vietnam	110
Thailand	83
India	80
Others	201

■ Percentage of tax payments by region



Risk Management

Approach to Risk Management

The Idemitsu Group strives to stabilize its management by proactively recognizing and evaluating various risks associated with its business activities and taking appropriate measures in accordance with those risks. We classify risks associated with our business activities into two categories: “Operational Risk” and “Business Strategy Risk” and promote countermeasures against them. “Operational Risk” is the risk of an impediment to business execution that causes losses and yields no profit. Risks under this category are typified by accidents, disasters, non-compliance, business errors, product defects, customer complaints, environmental pollution, information leaks, cyberattacks, terrorism, labor problems, economic security, human rights problems, and inadequacies in sustainable procurement. The term “Business Strategy Risk” refers to risks associated with business activities that exclude “Operational Risk” and significantly affect profit or loss. In addition to risks associated with current business strategies such as investments and finance, this category includes risks associated with the future business environment.

Risks associated with the business activities

- Risk arising from changes in international affairs and the economic environment
- Risk arising from changes in the external business environment (market prices of products, procurement conditions, country-specific circumstances and foreign exchange rates)
- Risk associated with climate change and environmental regulations
- Risk associated with business investments
- Risk associated with human rights
- Compliance-related risk
- Risk associated with intellectual properties
- Risk arising from natural disasters and accidents
- Risk associated with the management of personal information
- Risk arising from the outbreak of COVID-19

Operational risk is specified and managed by the Risk Management and Compliance Committee as follows:

Key risks

Company-wide risks with a high impact on business that management should monitor at all times (e.g., key legal compliance, crisis risks, etc.)

Updated as needed based on immediate internal and external circumstances

Material risks

A more detailed and comprehensive list of risks used in risk assessments at each department and affiliated company

Updated annually based on risk events that have actually occurred and risk interviews conducted at major departments (once per year)

In addition, risk surveys are conducted for the medium term to carry out comprehensive reviews

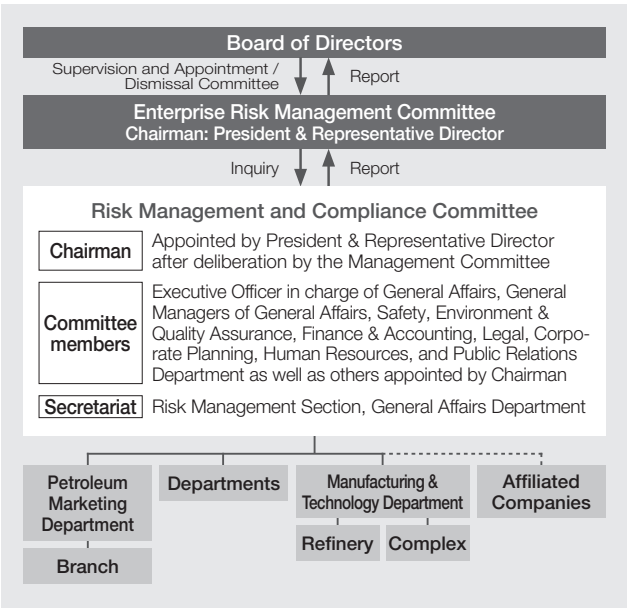
In regard to business strategy risks, we accurately identify risks and opportunities arising from climate change in accordance with TCFD recommendations, monitor the situation, and reflect them in our business strategy.

Risk Management Promotion System

The Enterprise Risk Management Committee, which is supervised by the Board of Directors, is tasked with the determination of risk management policies associated with Group operations and monitoring the status of risk management. With the President serving as the chair, committee members include Executive Officers and heads of relevant departments. In principle, this committee meets once every six months and requests reporting from other committees with regard to major risks categorized under “Operational Risk” or “Business Strategy Risk.” Also, the committee provides the Board of Directors with updates on the status of its activities once a year in principle.

Our group has established the “Risk Management and Compliance Committee” tasked with handling “Operational Risk” under the Enterprise Risk Management Committee and is promoting company-wide risk management by taking necessary measures in a timely and prompt manner. Regular committee meetings are held quarterly. The committee has the role and responsibility of updating the key and material risks of the entire Group, identifying and assessing various signs of risk manifestation and new risks, deliberating on other matters related to Operational Risk in general, supporting measures for risk prevention and managing the progress of such measures, and submitting its conclusions to the Enterprise Risk Management Committee.

Risk management promotion system



Other Risk Management Initiatives

Further enhancement of crisis readiness capabilities

We formulated the “Crisis Response Rules” as the highest rules for crisis response. These rules stipulate our policy on crisis response, crisis level definitions, reporting lines, and methods for establishing emergency task forces, among other matters related to crisis response.

Should an incident occur at any facility run by a Group entity, risk-related information is promptly shared with the department in charge of the site of the occurrence and the Risk Management Section of the General Affairs Department in accordance with these

rules. This risk-related information will also be communicated to the Risk Management and Compliance Committee. Furthermore, corporate and other relevant departments will work to assist or spearhead risk countermeasures undertaken at the incident site to minimize the social impact and potential damage. These departments also act in collaboration with external stakeholders, including fire, police, and other public safety departments as well as municipalities and customers.

Initiatives to upgrade our Business Continuity Plans (BCPs)

We formulated BCPs assuming the occurrence of an earthquake with an epicenter in the Tokyo metropolitan area, a megathrust earthquake involving the Nankai trough, and the outbreak of avian influenza, respectively. Based on said BCPs, we hold annual comprehensive disaster drills and confirm problems related to actual execution and coordination among all business bases in order to strengthen our practical response capabilities. We then reflect relevant feedback in the BCPs. Also, each refinery, complex, and plant carries out periodic disaster prevention drills encompassing their entire site in accordance with applicable crisis response regulations.

COVID-19 initiatives

Based on our BCP assuming the outbreak of avian influenza, in February 2020 we established a task force headed by the President and Representative Director. This task force remains operational as of December 31, 2022. Aiming to ensure the stable supply of petroleum products, energy, and materials, which are essential to

Idemitsu Group initiatives

We implement measures in a flexible manner to ensure business continuity and social contribution while giving maximum consideration to ensuring the safety of our customers, employees, and related parties.

Actions for stable product supply	Actions at service stations	Management and SS staff adherence to infection prevention efforts (staying home if feeling unwell, consulting with medical facilities and health centers as necessary if infection is suspected) Thorough attention to distance in customer service, mask wearing, ventilation of waiting rooms, etc. for visitors
	Action for transport	Crew health management, thorough disinfection, general rule of mask wearing (assuming sufficient distance can be maintained, does not apply when preventing heat stroke) Awareness and consideration of social distance when loading and unloading petroleum
	Actions at refineries and complexes	Employee health management, thorough hand washing, gargling, and disinfection, general rule of mask wearing Partitions for preventing spread of droplets from coughing or sneezing in offices, thorough ventilation, disinfection of common areas Temperature readings when visitors enter the premises (prohibit entry of persons suspected of being infected) and limiting of entry to the minimum necessary for non-personnel Thoroughly management of operations with the aim of avoiding close contact, including with partner companies (e.g., promotion of remote meetings)
	Promotion of diverse and flexible workstyles	Use of a combination of in-person/remote work depending on occupation type and workplace
Actions for Group employees	Actions for employees coming to work	Thorough mask wearing and installation of non-contact thermometers and disinfectant stations at office entrances and other locations Installation of plastic partitions to prevent the spread of droplets from coughing or sneezing, limiting of room capacities, and marking of tables to space out seating in conference rooms, employee cafeterias, and other locations used by multiple people
	COVID-19 vaccination at workplaces	Workplace vaccination at headquarters and designated refineries and complexes for those who wish to receive the vaccine (Group employees, including temporary employees, employees of partner companies, etc.)
	Recruiting activities	Public relations and screening using both in-person and online interviews in consideration of the infection situation
	Internships	Switch from on-site to online internships in light of spread of infection in FY2021 (August to September 2021) Held at each department in hybrid in-person and online format taking into account the infection situation in FY2022 (August to September 2022)
Actions in recruiting activities	Training of new employees and mid-career hires	New employee training in FY2022 held in-person, antigen testing performed before and after training, and thorough infection control measures implemented, including social distancing Changed training for mid-career hires from in-person to self-study via online and audio materials

Moreover, a company-wide task force is formed in a timely and prompt manner under the direction of the chair of the Risk Management and Compliance Committee to investigate, review, and formulate countermeasures for potential risks, including economic security risks, that could significantly impact the business either in the present or the future. The task force reports to the Enterprise Risk Management Committee and the Board of Directors on the progress and results of its work.

In FY2015, we were appointed as a designated public institution by the Cabinet Office and submitted the latest Disaster Prevention Action Plan in December 2019. As a designated public institution, we work to ensure that the tanker trucks we operate in each prefecture have been registered for emergency use.

Cabinet Office Disaster Prevention Page (Japanese only)
▶ https://www.bousai.go.jp/taisaku/keikaku/gyomu_koukyou.html

* Our Disaster Prevention Action Plan is available for perusal.



supporting economic and social activities, we constantly update our relevant policies and measures in light of changes in social conditions. At the same time, we rally the Group’s overall strengths to ensure the safety of employees and implement thoroughgoing countermeasures to prevent the spread of infection.

Implementation of comprehensive disaster drills

Since 2007, we have held annual comprehensive disaster drills aimed at enhancing the effectiveness of our BCPs. In FY2022, the 16th round of the comprehensive disaster drills was held in September 2022. We increased the difficulty level for a two-part confirmation of the response of the headquarters, related branches, and related refineries to an announcement of Nankai Trough Earthquake Extra Information (massive earthquake warning) in the case of so-called “half-impact” of either the east or west side of the Kii Peninsula. We have made our BCP more robust by addressing various cases of major earthquakes likely to occur in the future. As part of this drill, we also confirmed employee safety on a company-wide basis, with approximately 14,000 individuals, including those working at affiliated companies, reporting their safety status in a prompt manner. Looking ahead, we update our BCPs by incorporating issues and takeaways identified in the course of this latest round, with the aim of enhancing our crisis readiness.



Comprehensive disaster drills (September 2022)

Acquiring highest BCM rating from the Development Bank of Japan

In FY2019, we became the first oil refiner and primary oil distributor to receive the highest “Rank A” rating awarded by the Development Bank of Japan (DBJ) under the DBJ BCM Rated Loan Program.



Joint firefighting exercise with Tokyo Fire Department at Tokyo Oil Terminal (June 2022)

Information and Security Management

Approach to information and security management

In line with the Basic Policy on Information Security, the Idemitsu Group is endeavoring to ensure the confidentiality of its information assets as well as the accessibility and security of its information systems and networks. Utilizing information technologies, we are thus striving to maintain and enhance the level of customer services. In addition, we have established Customer Information Management Requirements to appropriately collect and use customer information, keeping it up to date while safeguarding it. The requirements also include the proper disposal of such information.

Furthermore, as part of our education related to Security Requirements for IT System Use, we mandate that every year all IT system users (including permanent and temporary employees as well as subcontractors) undergo information security education via e-learning. In this way, we work to ensure thorough information management by IT system users.

We have established a Control Systems Security Council for the security of control systems. Based on the Control Systems Security Guidelines, we are systematically promoting group-wide security measures and continuously working to improve them while implementing a PDCA cycle at each production base. In addition, we provide control systems e-learning to control systems users and administrators and conduct incident response drills at each production base every year.

Furthermore, each department and production base performs self-inspections on both information and control systems along with regular internal audits of security.

Moreover, to reduce the impact of increasingly sophisticated cyberattacks, we have multiple layers of defense in place by systems, including those to prevent unauthorized entry or removal of important information.

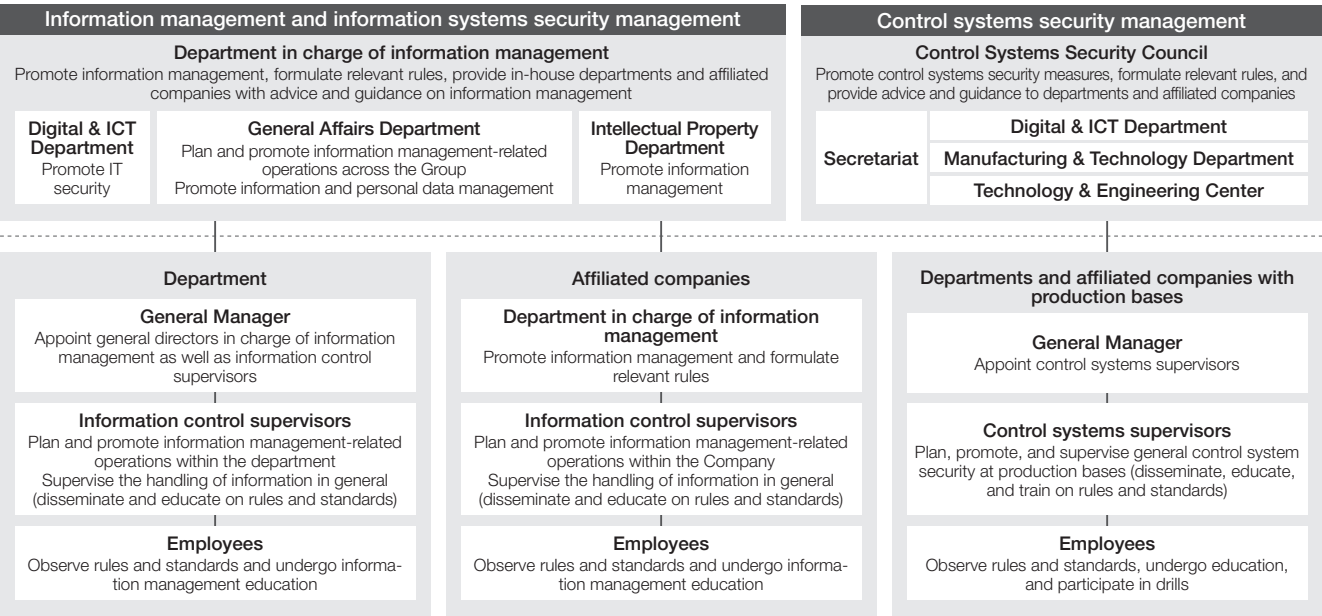
Should information leakage or a serious security incident occur, it will be handled in accordance with the “Crisis Response Rules” and the “Essential Points on Information Management.”

■ Number of serious information security violations in FY2021: 0

Basic Policy on Information Security

- (1) Idemitsu Group shall, by securing confidentiality of information assets as well as availability and maintainability of information systems and networks, strive to maintain and improve customer services through the use of information technology.
- (2) Idemitsu Group shall, by implementing appropriate protective measures, protect information concerning customers from being divulged, falsified, or destroyed.
- (3) Idemitsu Group shall, by securing availability, maintainability, and confidentiality of information systems and networks, strive not to cause trouble to persons concerned such as customers and business partners.
- (4) Idemitsu Group shall, by conducting educational and awareness building activities aimed at its employees and dispatched employees as well as external companies to which its businesses are outsourced, make them aware of the importance of information security and ensure the proper utilization of information and information systems by them.
- (5) Idemitsu Group shall strive to ensure security by conducting an audit on a regular basis to examine and assess the status of compliance, etc. with the security policy.

Information and security management promotion system



Employee education

Human resources development

After defining a Career Development Plan (CDP) for ICT personnel, including security planning, implementation, and operations, we evaluate the skills of each individual in the ICT Department and set goals to systematically develop human resources.

Information security education via e-learning

We provide annual e-learning programs (in Japanese, English and Chinese) to instill information security rules that must be observed by all. Targeting all IT system users at home and abroad, the FY2021 round of these programs was implemented during the January – March 2022 period and completed by a total of 16,473 people, or 100% of targeted individuals.

Control systems e-learning program

In FY2019, we also launched e-learning programs for employees tasked with handling or administering control systems. The 2022 round of this program was implemented during the January – March 2022 period and completed by a total of 5,217 people, or 100% of targeted individuals.

Training on the handling of suspicious e-mails

On a quarterly basis, we implement training focused on handling targeted e-mail attacks, with the aim of mitigating the risk of contracting computer virus infections borne by suspicious e-mails and raising cybersecurity awareness among employees.

In-house newsletters designed to raise employee awareness

We distribute the monthly cybersecurity newsletter via e-mail, calling employees’ attention to relevant cybersecurity-related topics and thereby raising their awareness.

Protection of Personal Information

Approach to protection of personal information

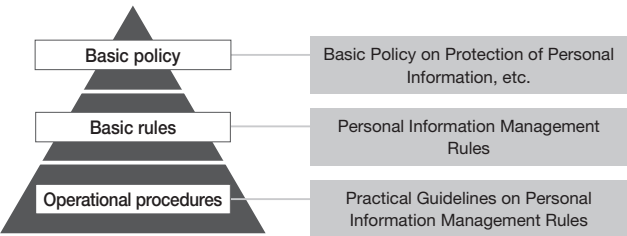
Regarding the handling of personal information, including specific personal information,*1 as well as processed anonymous information*2 (hereinafter collectively referred to as “personal information, etc.”), we have established basic policies as outlined below. In accordance with these policies, we will securely and appropriately manage all the personal information, etc., we are entrusted with.

*1 People’s Individual Number and personal information containing said Individual Number, as defined by the Act on the Use of Numbers to Identify a Specific Individual in Administrative Procedures

*2 Personal information that is processed to ensure that a specific individual’s identity can neither be uncovered nor their personal information restored.

Basic Policy on Protection of Personal Information, etc.

- (1) Compliance with Laws and Regulations
- (2) Matters Concerning Acquisition
- (3) Matters Concerning Use
- (4) Matters Concerning Provision and Disclosure
- (5) Matters Concerning Safety Control Measures
- (6) Matters Concerning Disclosure, etc. of Personal Information, etc.



Personal information protection promotion system

The General Affairs Department serves as the secretariat for the protection of personal information, and information control supervisors are assigned to each department and affiliated company to promote related efforts. Every year, we hold a conference for information control supervisors for education within the Group.

■ Number of serious personal information protection violations in FY2021: 0

DX Strategy

We are working to create new value and improve productivity through digital transformation (DX).

Create New Value

To continue creating new value, we need initiatives that fully leverage our assets. We will use digital technology to tie the knowledge we have gained together with our customers and partners on the front lines of business into social implementation.

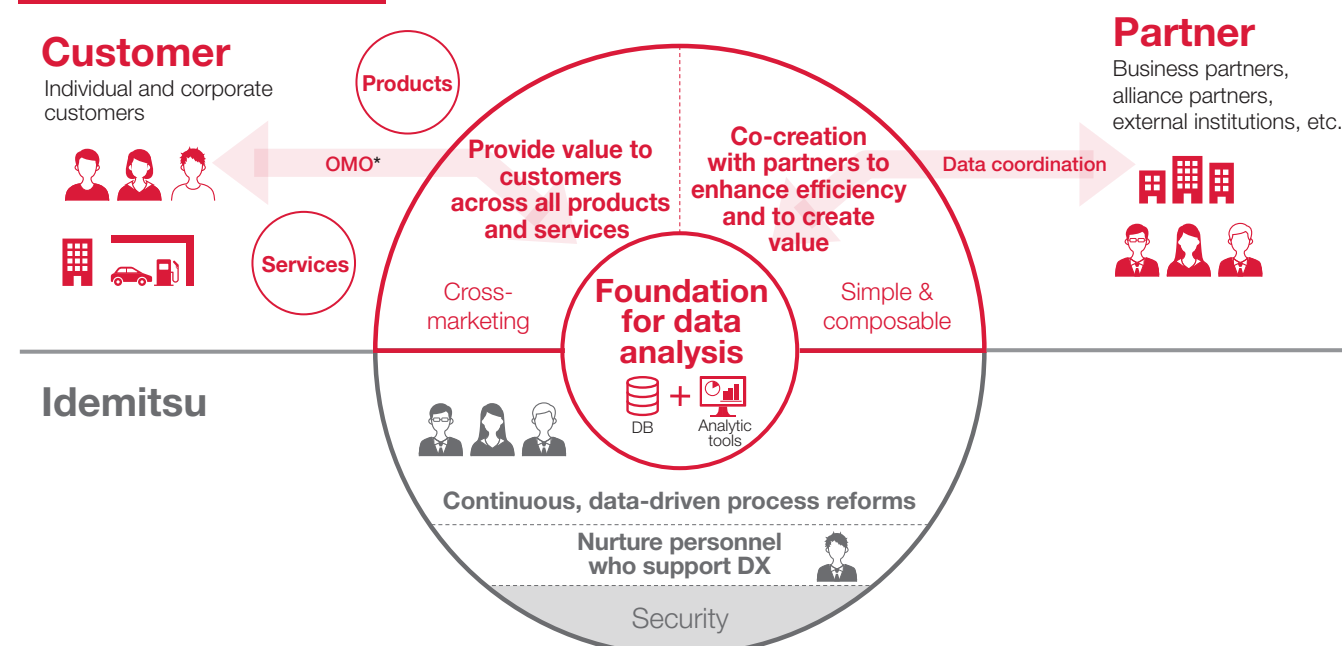
Gathering company-wide data for the purpose of development and social implementation of technology for carbon neutral energy

and resource circulation solutions, we will build a platform for linking and utilizing data that can be analyzed.

We will build an integrated customer portal and marketplace platform that enables cross-marketing for the purpose of creating value for the services offered via Smart Yorozyua. Our aim is to expand our lineup of products and services that support local communities and provide value to our customers.

Create New Value

Promote use of data to accelerate development and social implementation of next-generation energy, resource circulation solutions, and Smart Yorozyua



Enhance productivity by 30%

Simplify/automate business processes to create new value by implementing DX

* Online Merges with Offline

Enhancement of productivity

Continuous, data-driven process reforms

We are working on business process reforms utilizing digital technology to address changes in the business environment at refineries, complexes, and other existing businesses.

Steady progress is being made as we promote several on-site investigations that contribute to the creation of synergy and overall optimization, such as AI-based ship allocation plans and improvement of maintenance operations at refineries.

In addition, we will work on streamlining the resources involved in maintenance and management by ensuring that the backbone system and linked peripheral systems have a simple and composable structure and will enhance our responsiveness to changes in the environment.

Nurturing personnel who support DX

Human skills are important when it comes to promoting DX to achieve a carbon-neutral circular society. We are working on an ongoing training program for DX personnel.

Our ideal DX situation

- No employees feel that they are lacking in IT or DX skills, everyone has a certain level of understanding, and conversations about innovation and relevant solutions take place in a common language
- A certain number of employees are aware of internal and external examples of DX and have experienced DX, acquiring the knowledge necessary for bringing innovation to their own departments

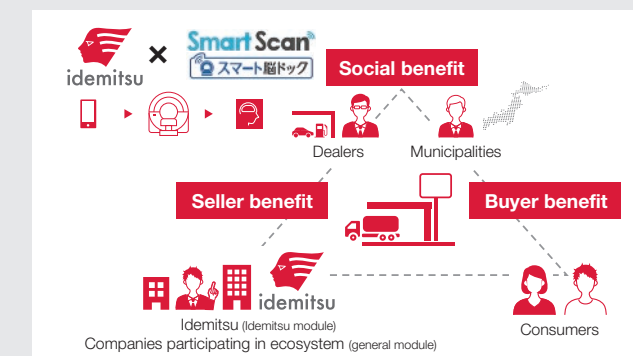
Mobile Brain MRI Scan

Service stations with locations nationwide are emphasized as essential hubs for daily life, especially in areas where depopulation is occurring. We are able to work on solving issues through collaboration with dealers who provide services that are rooted in their local communities, partner companies with expertise in development of services, and municipalities.

One of our initiatives to support people's health in local communities utilizing DX is our brain checkup service offered using mobile MRI vehicles. To date, a total of around 2,900 people have received brain checkups in Mie, Shizuoka, Yamaguchi, Hiroshima, and Kanagawa, which have been conducted jointly with SmartScan Inc. with whom we formed a capital and business alliance in February 2022. Early detection and treatment are important when it comes to brain diseases, which develop suddenly due to various factors. This is an area where the importance of preventive medicine has come to the fore in recent years. Regular brain checkups are effective for preventing brain diseases, but they require the patient to visit a medical institution equipped with an advanced MRI scanner. Our mobile Brain MRI Scan is a vehicle equipped with an MRI scanner and was developed out of a desire to contribute to the health and safety of people in areas where there are no clinics with MRI scanners nearby.

Create new value

- Demonstration of mobile Brain MRI Scan as a Smart Yorozyua concept
- Confirmation that the business is one that supports the health of customers and creates a relationship with dealers, municipalities, and companies participating in the ecosystem where everyone benefits
- Planning to look into building a healthcare infrastructure for customer value creation using mobile Brain MRI Scan as the starting point, commercializing mobile Brain MRI Scan, and expanding peripheral services



DX Supporting Business Transformation for Achieving a Carbon Neutral and Circular Society by 2050

Idemitsu Kosan Co.,Ltd.
Executive Officer
Chief Digital Officer, Chief Information Officer
Yukio Saegusa

an education program and pour effort into the training of DX personnel to become a group of human resources capable of fully leveraging digital technology in order to further accelerate structure reform of our business.

We will also promote value creation through co-creation with outside partners. Rather than relying solely on self-sufficiency, we will increase our corporate value more efficiently through cooperation and initiatives with partners possessing new technologies and business models.

As we promote these initiatives, we will work on simplifying and digitalizing our business processes to improve productivity by 30%. This is a very challenging goal, but we will channel the extra energy from greater efficiency into the creation of new value as we work on creating an open, flat, and agile corporate culture.

We are promoting transformation of our business portfolio, seeking to become a main player in energy and carbon neutral solutions in the three business domains of "Energy one step ahead," "Diverse resource conservation / circulation solutions," and "Smart Yorozyua." It is DX that supports the realization of this goal and accelerates initiatives. Business strategy and DX are truly one and the same.

Going forward, it is likely that transactions with customers and services provided to them will become increasingly digitalized. We will innovate the entire business process in order to contribute to solving social issues based on the premise of a digital society and to respond to increasingly diverse and complex customer needs in a timely manner.

It is people that consider how to respond to the needs of society and customers and implement that response. We will put together