

Idemitsu Sustainability Report 2021

Idemitsu Kosan Co.,Ltd.

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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.

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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 Sustainability Report," and the "Sustainability Website."

Idemitsu Integrated Report (Booklet version)

This report includes financial and non-financial information, the vision of the new integrated company, and an explanation of its business operations, all of which are aimed at helping people understand our group from a medium to long-term perspective.

Idemitsu Sustainability Report (Web version)

This report goes over the non-financial information in the Idemitsu Integrated Report in greater detail to help people understand our environmental, social, and governance initiatives for realizing a sustainable society.

Sustainability Website

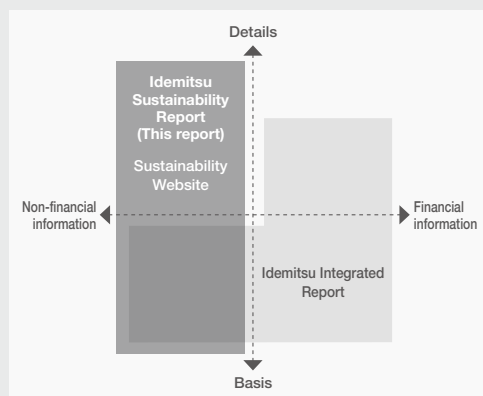
We disclose information on a wide range of topics from the environmental, social, and governance perspectives. We also provide information on the results of our efforts in a timely manner.

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



Scope of the reporting

As a general rule, this report covers Idemitsu Kosan Co.,Ltd. and its 255 group affiliates (major affiliates, general affiliates, subsidiaries, and equity-method affiliates) as of the end of September, 2020. When the scope differs, this fact is noted.



Reporting period

Results for FY2020 (April 1, 2019-March 31, 2020) are included in this report. When the applicable period differs, this fact is noted. Activities since April 2021 are also included.

Reference guidelines

In the compilation of this report, reference has been made to GRI's Sustainability Reporting Guidelines (Standard), ISO 26000, and the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Publication information

Japanese version:

Published annually since 2001, and the previous edition was published in December 2020.

English version:

Published annually since 2003, and the previous edition was published in January 2021.

Performance data with independent practitioner's assurance

To ensure the reliability of the numerical data, we obtained an independent practitioner's assurance of the data indicated with ☒ in the Japanese version of this report by SOCOTEC Certification Japan. The Independent Practitioner's Assurance Report is presented at the end of this report.

* Any plans, projections, or targets contained in this report that are not historical facts are based on decisions and assumptions made by the Company using information currently available. Actual results may differ substantially from forecasts due to various factors. Factors that may affect the results of operations include economic conditions, crude oil prices, petroleum product supply and demand, market conditions, and currency exchange rates but are not limited to these factors.

Contact information for inquiries about Idemitsu Sustainability Report

Idemitsu Kosan Co.,Ltd.

Contact form on the official website: <https://www.idemitsu.com/contact/flow/>





The Origin of Management and Management Philosophy

The Origin of Management

人間尊重

Ningen-Soncho
Written by Sazo Idemitsu

- Ningen-Soncho means having respect for human beings. The Origin of Management are the words of the founder just as he wrote them. We intend to communicate to the world the importance of respecting human beings, a key tenet of our history for over a century, and unassailable ideals we continue to pass down. We have reaffirmed these as our steadfast principles.

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?

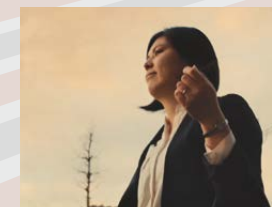
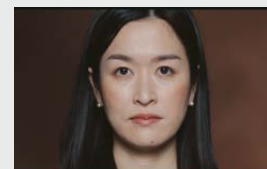
Each day, we must reflect on our actions;

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.

- Idemitsu's Management Philosophy is 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, simple phrases that convey the essence of Idemitsu.

Management Philosophy
Short Film

This video may be taken
down without notice.

<https://movie.idemitsu.com/category/videos/>
企業理念



Initiatives to Instill the Management Philosophy

We are taking the initiatives below to instill in each employee an appreciation of the newly established Management Philosophy and a desire to carry out the Group's mission and role in society through business operations.

- Explain how the management philosophy and its ideals were determined using intranet videos, the Group magazine "idemitsu," and postings on in-house signage.
- Produce a short film about the Management Philosophy for presentations at townhall meetings and create new signage for the Head Office
- Conduct an awareness survey among employees to assess the current level of management philosophy comprehension and adoption
- Set aside time to think about the management philosophy in the training curriculum conducted by the Human Resources Department
- Conduct interviews of directors and general managers (produce videos) and post them on the in-house portal site



Message from the President



First off, I would like to offer my sympathy to those who have suffered an infection of COVID-19 and my condolences for those who passed away. In addition, I would like to express my gratitude to all healthcare workers and everyone who is supporting our private lives in many different ways.

As concern for climate change increases around the world, the business environment surrounding Idemitsu is rapidly and significantly changing. The goal of the Japanese government to achieve carbon neutrality by 2050 is a commitment to the international community by the entire nation. As an energy provider, Idemitsu must help reach this goal. We will take on the difficult challenge of the 7th SDG “ensuring access to affordable, reliable, sustainable and modern energy for all” and develop solutions.

In addition, in Japan, which was the first country in the world to experience a low birth rate and aging population, we support local lives through our refineries, complexes, and around 6,300 service stations located in various areas. We realize this support is the Company's most important mission and are strengthening relevant initiatives.

In May 2021, we revised our Medium-term Management Plan. In order to ensure high resilience to changes in the business environment, Idemitsu, whose main business is fossil fuels, has based its revisions on the belief that it is necessary to rebuild its medium- to long-term strategies and further accelerate its various initiatives and measures.

Idemitsu's new 2030 vision is encapsulated in the phrase “Your Reliable Partner for a Brighter Future.” The Company recognizes its duty is to work tirelessly to ensure a stable supply of energy and materials as well as to help solve social issues. We will continue fulfilling this responsibility through our business activities. We recently formulated a sustainability policy to realize our 2030 vision and maintain a robust corporate structure well into the future. Under the policy, we will continue striving to swiftly and accurately detect and resolve environmental, social, and governance-related issues.

As for the environment, in the revisions of the Medium-term Management Plan, we clarified that we will strive for carbon neutrality (net zero CO₂ emissions) while fulfilling our social responsibility of ensuring a stable energy supply. To achieve our goal, we must develop innovative technologies and promote their widespread adoption. We will continue recycling resources, including CO₂, and utilizing non-petroleum resources, while transforming our petroleum business mainly by turning refineries into carbon neutral transformation centers. As a specific goal, we aim to achieve carbon neutrality in our own operations (Scope 1+2) by 2050 and will work to reduce CO₂ emissions throughout the value chain. At the same time, we will continue striving to reduce the environmental burden of the Group's corporate activities and helping to conserve the natural environment and realize a circular economy.

As for society, we recognize that respect for human rights is fundamental to the conduct of business in all situations and therefore prioritize it in all business-related decisions and actions. In fiscal 2020, we implemented human rights due diligence measures and identified human rights risks within affiliates and subsidiaries in Japan and overseas.

The principles of diversity and inclusion are based on respect for human rights and will continue to inform Idemitsu's promotion of a wide range of initiatives upholding them. For example, we have expanded the active participation of women, provided support for the autonomy of as well as work opportunities for people with disabilities, advocated respect for diversity (such as gender identity, sexual orientation, and values), and opened the Life-Career Support Center, which helps employees independently build careers. Going forward, we will fully leverage our management resources, including the capabilities of our diverse employees, as we continue promoting various initiatives. These initiatives include turning our approximately 6,300 service stations nationwide into smart one-stop shops and other solutions suited to local communities.

Through dialogues with business partners in accordance with our Sustainable Procurement Guidelines formulated in 2020, we will maintain procurement activities based on a strong sense of ethics and work with all our

business partners throughout the supply chain to help realize a sustainable society.

As for governance, we are working to further enhance deliberations at Board of Directors meetings, which are essential to corporate governance. We are also identifying and taking action in areas that need improvement with the aim of enhancing corporate value so that evaluations of the effectiveness of the Board of Directors do not end up just being superficial and formulaic. One-third or more of the Board of Directors comprise independent Outside Directors. When selecting candidates for such positions, we clarify and announce the knowledge, experience, and capabilities needed through a skill and career matrix. From the perspective of diversity, we increased the number of female directors from one to two.

In addition, for the stability of management, we must preemptively recognize and evaluate risks related to maintaining the Company's business activities and work to appropriately respond to risks. For example, in our response to the COVID-19 pandemic, we swiftly established emergency response task forces and have worked to ensure employee health and prevent the spread of infection. Going forward, it will not be easy to predict what kind of crises might emerge. Nevertheless, after identifying material risks to the Company, we will appropriately manage the risks, and you can continue to fully expect a stable supply of the energy and materials needed to keep society running.

Our business environment is in a critical turning point due to a medium-to long-term decline in domestic oil demand and climate change issues that need to be addressed worldwide, which have a significant impact on the sustainability of our business.

At such times, we will return to the “Ningen-Soncho (Respect for Human Beings),” Principles of Management, and provide opportunities for each and every employee to grow by working toward the realization of a “Your Reliable Partner for a Brighter Future” based on the codified corporate philosophy of “Truly inspired.”

Based on our sustainability policy, we will continue to fulfill our social mission as an energy company by becoming a “resilient corporate entity” that can respond flexibly and resiliently to any changes in the environment.

In order for us to continue to fulfill our social mission and create new value in the future, we must collaborate with our stakeholders.

Therefore, I would like to ask for your continued understanding and support.

Idemitsu Kosan Co.,Ltd.
President and Representative Director

Shunichi Kito



Our Path to 2050

We seek to be truly inspired, change our corporate structure, and achieve carbon neutrality by 2050.

Basic strategy towards 2030

Engage in
ROIC managementEvolve the
business platformCreate an open, flat,
and agile corporate culture

2030 vision

Your Reliable Partner
for a Brighter Future

Responsibility to protect the environment and lifestyles:

Responsibility to support regional communities:

Responsibility to provide for society with technological capabilities:

FY2030 Management Targets

FY2030

Operating + equity income

¥250 bn
(excl. inventory impact)

ROIC

7%

CO₂ reduction (Scope1+2)CO₂ - 4 million tNote: Compared with FY2017 and
includes Group refineries

Segment

Petroleum
Basic Chemicals
Functional Materials
Power and Renewable Energy
Resources

FY2020

Management indicators

Operating + equity income

¥92.8 bn
(excl. inventory impact)

ROIC

3%

Portfolio evolution for the future

2050

Advanced materials

Next-generation mobility & community

Energy/material transition

Petroleum,
basic Chemicals → Renewable energy, biomass,
synthetic fuel, hydrogen ammonia,
biochemical recycling/circular

Our Strive for Carbon Neutrality

We aim to achieve carbon neutrality
(net zero CO₂ emission)
from in house operations
(Scope1+2) by 2050

Reduction of CO₂ emissions across
the entire value chain

Foundation
Underpinning
Value Creation

Management Philosophy

Truly inspired

Principles of management

人間尊重

Changes in the External Environment

■ Low-carbon society and decarbonization
■ Structural changes to energy demand

■ Rapidly aging society
■ Technological advancements

■ Changing lifestyles

Business Environment to 2050

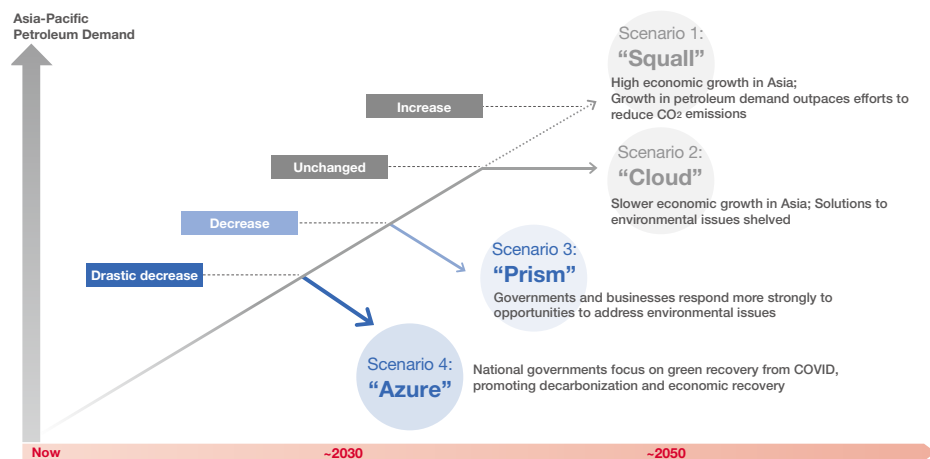
Long-term Business Environment Assumptions toward 2050

Due to the pandemic, Idemitsu's mainstay petroleum business is currently suffering from a decline in demand. Global petroleum demand in 2020 declined a record nine million barrels per day year on year. In addition, resource prices grew increasingly volatile as they were affected by excess financial assets due to global monetary easing aimed at spurring economic recovery.

However, the global decarbonization trend is rapidly advancing. For example, the European Union aims to implement initiatives for a green recovery by simultaneously achieving an economic recovery from the pandemic and a structural shift to green energy. In the United States, too, the new government significantly changed federal policies on climate change measures, rejoined the Paris Agreement, and set a target of reducing CO₂ 50-52% by 2030 compared to 2005. Declaring its intention to achieve carbon neutrality by 2050, Japan raised its reduction target for 2030 from 26% to 46%.

With its mainstay business centered on fossil fuels, Idemitsu revised its Medium-term Management Plan to ensure the Company remains sustainable into the future and demonstrates strong resilience to environmental changes. When formulating the previous 2019 Medium-term Management Plan, we used the "Prism" scenario for our assumptions. However, the "Prism" scenario does not allow for the achievement of the 2°C goal of the Paris Agreement. Given that decarbonization trends are currently gaining significant steam around the world, we are now proceeding with a strong recognition of the possibility of the "Azure" scenario, which does allow for the achievement of said goal. Under the "Azure" scenario, various countries cooperate to take action and begin shifting the structure of their energy systems to contain the global temperature rise to below 2°C. In this scenario, for example, assuming that fossil fuel use within the Asian Pacific region peaks in 2025, Japan's domestic fossil fuel demand compared to 2019 can be expected to decrease 30% by 2030, 60% by 2040, and 80% by 2050.

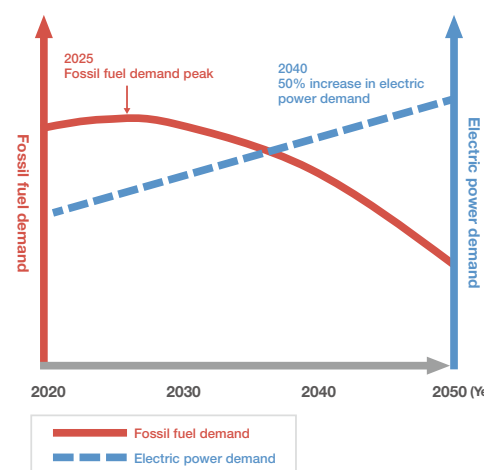
Long-term energy business environment scenarios toward 2050



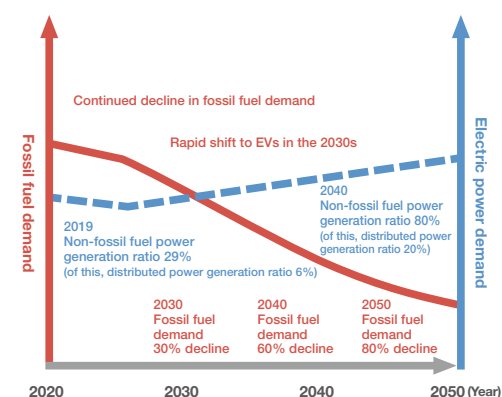
The projected business environment in scenario 4 is unique to Idemitsu. Other organizations' projections that are similar to each scenario are as follows.

- "Squall": International Energy Agency (IEA), Current Policy Scenario
- "Cloud": IEA, Stated Policy Scenario
- "Prism": IEA, lies between the Stated Policy Scenario and Sustainable Development Scenario
- "Azure": IEA, Sustainable Development Scenario

Long-term Energy Demand Forecast (Asia Pacific Region)

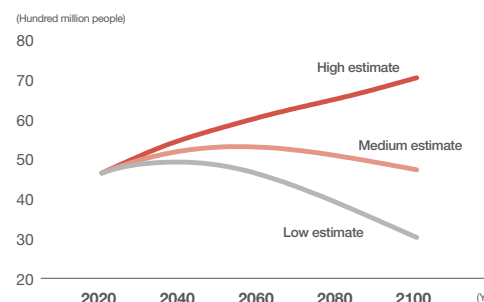


Long-term Energy Demand Forecast (Japan)



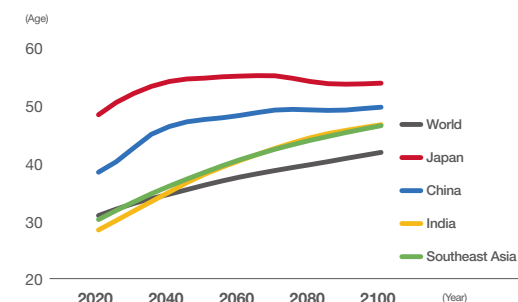
As for long-term business environment assumptions, looking at macro trends such as demographics, there are differences in the prediction models for Asian populations. Over the long term, there will be many variables, including an expected decrease in the global birthrate because of the current state of economic deterioration. However, regarding median age forecasts for various countries, while the timelines differ among countries and regions, rapid aging is expected across the board.

Population Predictions for Asia



Source: United Nations "World Population Prospects"

Predicted Median Age in Various Countries at the Medium Estimate



Even in projections with less clarity than those above, the global trends of decarbonization and aging societies are expected to continue on a steady track.

Idemitsu is therefore focused on steadily promoting initiatives to solve social issues that will become more prominent in the future while increasing its corporate resilience. Specifically, we recognize our responsibility to be ensuring a stable energy supply and helping solve social issues and have thus established being "Your Reliable Partner for a Brighter Future" as our 2030 vision. We will continue promoting a portfolio shift for 2050, including toward the decarbonization of our businesses, regional revitalization, and digital transformation.



Basic strategy towards 2030

Corporate vision for 2030

Looking toward 2050, there are currently many variables, making deciding on one of the scenarios difficult and possibly even dangerous.

Idemitsu's more than 100 years of achieving growth alongside local communities and fulfilling its social mission of ensuring a stable supply of the energy that is indispensable to daily lives and industries has been based on fossil fuels. Knowing this, we are also fully aware that global climate change and aging societies are social issues that must be solved.

Idemitsu has thus outlined its 2030 vision of being "Your Reliable Partner for a Brighter Future." We will fulfill the following three responsibilities in the business domains of energy/material transition to a carbon neutral/circulatory society, next generation mobility & community for an aging society, and advanced materials to make it possible to overcome such challenges.

We believe it is our responsibility to contribute to social challenges in addition to providing stable energy supply.

Our corporate vision for 2030 is to become Your Reliable Partner for a Brighter Future

and we will fulfill three responsibilities through our business activities:

■ Responsibility to protect the environment and lifestyles:

Energy/material transition to a carbon neutral/circulatory society

■ Responsibility to support regional communities:

Next generation mobility & community for an aging society

■ Responsibility to provide for society with technological capabilities:

Advanced materials to make it possible to overcome such challenges

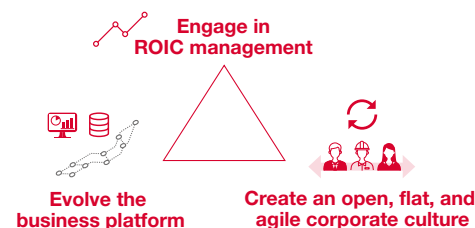
We will fulfill the three responsibilities through our business activities.

Basic strategy towards 2030

Aim to become a resilient company that can adapt flexibly to any environmental change amid extreme uncertainties in the long-term operating environment.

To realize our 2030 vision, we will implement the three basic strategies of engaging in ROIC management, evolving the business platform, and creating an open, flat, and agile corporate culture.

Aim to become a **resilient company** that can adapt flexibly to any environmental change amid extreme uncertainties in the long-term operating environment



By engaging in ROIC Management

- Enhance capital efficiency and create a strong corporate structure to increase risk tolerance
- In addition to managing our portfolio, apply ROIC management methodology to accurately measure performance results of each business domain.
- Use ICP (internal carbon pricing) for investment decisions



ROIC management

To create a strong corporate structure, we use return on invested capital (ROIC) as an indicator and focus on capital efficiency. In addition to managing our portfolio, we appropriately include ROIC as a KPI for each business domain and utilize it as a performance management tool. In addition, we use internal carbon pricing for investment decisions and consider the economic impact of GHG emissions when making investment decisions.

Evolve the business platform

We are proactively promoting a digital transformation (DX). In April 2021, Idemitsu acquired DX Certification from the Ministry of Economy, Trade and Industry (METI) in recognition of having achieved the requisite readiness level for business transformation through digital technology (DX-ready). In addition, in June 2021, the Company was selected for the first time as a Digital Transformation Stock (DX Stock) 2021 by METI and the Tokyo Stock Exchange in recognition of its proactive efforts to transform its operations and create new businesses while making its existing businesses more efficient.

Regarding governance, our smaller board is composed of members suited to resolving current management challenges with an emphasis on engaging in discussions focused on key issues. As for deliberations concerning nominations and compensation, an outside director heads the Nomination and Compensation Committee to ensure greater fairness and transparency. In addition, we are working to increase the sophistication of global governance, including for overseas Group companies.

Create an open, flat, and agile corporate culture

Idemitsu's overarching management principle is "Nin-gen-Soncho (Having respect for human beings)", and its nearly irreplaceable management resources are its "personnel". We are creating a corporate culture where the employees, who have a diverse range of values, can fully tap their many different capabilities and generate chemical reactions through co-creation. To achieve this, we are promoting initiatives to instill the philosophy and vision, reform the organization, and reform workstyles.

General Manager Workshop "Jungle" Creating an Open, Flat, and Agile Corporate

To create an open, flat, and agile corporate culture, we hosted the inaugural workshop "Jungle" in July 2021, gathering together 36 general managers.

The general managers enhanced their mutual engagement, broadened their perspectives by gaining a better understanding of other departments, streamlined and



accelerated operations, and helped each other refine initiatives for each department.

Basic strategy towards 2030



Evolve the business platform

Accelerate DX

- Shift from Digital "for Idemitsu" (operational reforms) to "for Customer" / "for Ecosystem" (provide customer/network value)
- *Achieved DX Certification on 4/1/2021 (DX-Ready)
- 6/7/2021 Acquired Digital Transformation Stock 2021

Enhance corporate governance

- Smaller board with members suited to resolving current management challenges and engaging in active discussions
- Further improve the deliberation process for fair and transparent nominations and compensation, led by external directors
- Enhance group internal control, including local entities located overseas



Basic strategy towards 2030



Create an open, flat, and agile corporate culture

Internal dissemination of the corporate mission and vision

- Engage in internal branding efforts to establish a shared sentiment towards overcoming social challenges
- Establish a linchpin to adapt rapidly and flexibly to environmental changes

Organizational reforms

- Simplify hierarchy to accelerate decision making; enhance productivity by streamlining administrative divisions
- Increase in growth opportunities through proactive delegation
- Enhance quality of management by optimizing breadth of control

Workstyle reforms

- Revamp the working environment to suit various value sets and lifestyles, providing equal opportunities for all
- Promote search for knowledge through reforms of existing operations; shift to high value-added operations
- Improve operational speed and quality by eliminating perfectionism and promote co-creation



Basic strategy towards 2030

Business strategy

Petroleum	<ul style="list-style-type: none"> Turn apollostation into a "Smart Yorozuya (Smart One-Stop Shop)"
Basic Chemicals	<ul style="list-style-type: none"> Review refinery/complex structure and turn it into a "CNX* Center" in the area Reduce fixed costs ahead of decrease in demand Deepen integration of refining and petrochemical production Enabling profit contribution from Nghi Son Refinery
※ CNX: Carbon Neutral Transformation	
Functional Materials	<ul style="list-style-type: none"> Commercialize lithium solid-state electrolytes Accelerate development of advanced materials (e.g. electronic materials, performance chemicals, lubricants, grease, functional paving materials, agri-bio products)
Power and Renewable Energy	<ul style="list-style-type: none"> Expand development of renewable energy sources (solar/wind/biomass) Develop distributed energy business centered around renewable energy Convert Solar Frontier's module sales business into a system integrator business
Resource	<ul style="list-style-type: none"> Oil E&P: Shift to Southeast Asian gas development, CCS initiatives using developed technologies Coal: Reduce mine production, shift to low-carbon solution business (black pellets, ammonia) Expand domestic and overseas geothermal business

The business strategies of each segment for 2030 are as follows.

In the petroleum and basic chemicals segments, we are focused on promoting five initiatives. Making apollostation outlets a smart one-stop shop is an initiative that will lead to next-generation mobility and communities. We are working on an energy and material transition by revising our refinery and complex system in preparation for the anticipated decline in demand, further integrating oil refining and chemical operations, shrinking fixed costs, and promoting carbon-neutral transformation centers for all complexes. In addition, we will continue working to make the Nghi Son Refinery profitable.

In the functional materials segment, we are working to swiftly commercialize lithium solid-state electrolytes and accelerate the development of new advanced materials.

In the power and renewable energy segment, we are striving to expand the development of renewable energy power sources and promote the shift to Solar Frontier's system integrator. We will continue leveraging these efforts to develop a distributed energy business.

In the resources segment, we will continue to shift our oil exploration and production business to the development of gas in Southeast Asia and consider CCS initiatives that utilize the development technologies we have cultivated to date.

Regarding our coal business, we will contribute to energy transition by reducing mine production and shift to a low-carbon solution business such as black pellets and ammonia co-firing, and work to expand the geothermal business both in Japan and overseas.

FY2030 Management Targets

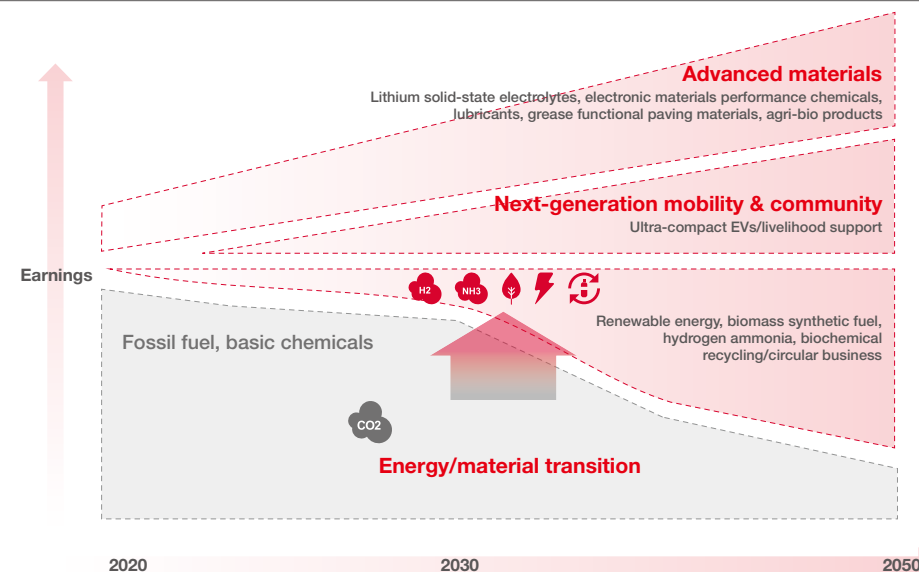
	FY2020		FY2030
Operating + equity income (excl. inventory impact)	¥ 92.8 bn	➡	¥ 250 bn
ROIC	3%	➡	7%
CO₂ reduction (Scope 1+2)	-1.36 million t	➡	-4 million t

*compared to FY2017; includes group refineries

The fiscal 2030 management target is to enhance corporate value by achieving operating + equity income (excluding inventory impact) of ¥250 billion and raising ROIC to 7% through portfolio and performance management.

In addition, with a medium-term target of achieving carbon-neutrality by 2050, we aim to reduce CO₂ four million tons (Scope 1+2) compared with fiscal 2017.

Portfolio transformation for the future

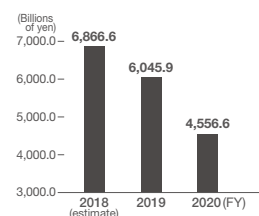


We are implementing basic policies and business strategies aimed at realizing the 2030 vision and our portfolio transformation for 2050. Through an energy and material transition, we will replace the fossil fuel and basic chemicals businesses with circular and next-generation fuel and material businesses. The ultra-compact EV and lifestyle support businesses we are currently operating will lead to the conversion of apollostation outlets into a smart one-stop shop and growth of next-generation mobility and communities. We will continue earnestly promoting the development of new advanced materials.

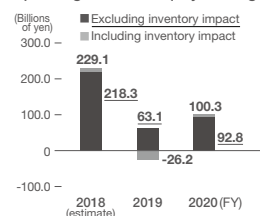


FY2020 Review of Operations

Net sales

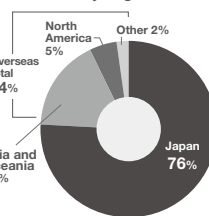


Operating Income + Equity Earnings



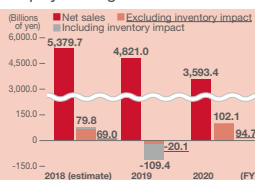
* Inventory impact
For the sake of national energy security, Japan's domestic primary oil distributors are required to hold an approximately 70-day supply (based on normal sales volumes) of crude oil and oil products. As such, the valuation gain or loss on inventory arising from fluctuations in crude oil prices can greatly sway operating results. The Company's operations and performance are therefore presented on the basis of real income and earnings, excluding the impact of inventories.

Net Sales by Region



Group companies **Total 256** Japan **118** Overseas **138**
Europe 12 Japan 118 Middle East and Africa 2 North America 58 Asia and Oceania 64 Latin America 2

Net Sales and Operating Income + Equity Earnings



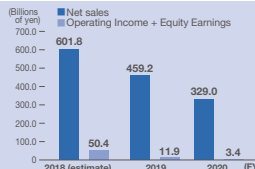
FY2020 Results

Net sale
3,593.4 billion yen
Operating income + Equity earnings
102.1 billion yen
Operating income + Equity earnings (Including inventory impact)
94.7 billion yen

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

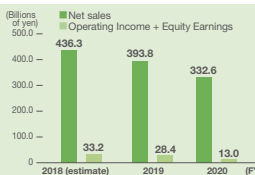
Basic Chemicals Segment



Net sale
329.0 billion yen
Operating income + Equity earnings
3.4 billion yen

- 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

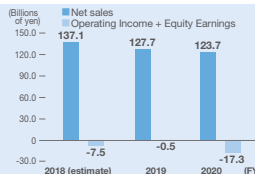
Functional Materials Segment



Net sale
332.6 billion yen
Operating income + Equity earnings
13.0 billion yen

- 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 microbial pesticides, soil amendments, and livestock-related materials
- R&D of all-solid-state lithium-ion battery materials

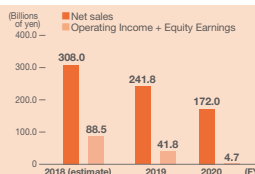
Power and Renewable Energy Segment



Net sale
123.7 billion yen
Operating income + Equity earnings
-17.3 billion yen

- 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
- Sale of solar power systems
- R&D and manufacture of CIS thin-film solar modules

Resources Segment



Net sale
172.0 billion yen
Operating income + Equity earnings
4.7 billion yen

- Exploration, development, and production of oil and gas
- Production and sale of coal
- Operation of geothermal power plants, supply and sale of electric power and steam
- Production and sale of uranium

Idemitsu Group by the Numbers



Consolidated Net Sales
¥4.6 trillion



Consolidated number of employees
14,000 people

Petroleum



Crude oil processing capacity
945,000 barrels/day



Fuel oil sales volume in Japan
34 million kL/year



Number of service stations in Japan
6,300 locations



Crude oil tankers
20 ships



Number of oil depots
35 locations



Overseas petroleum trading volume
23 million kL/year

Note: Calculated after excluding jet fuel and the bond import volume of heavy oil C from domestic fuel oil sales volume.

Basic Chemicals



Ethylene production capacity
1 million tons/year



BTX* production capacity
2.5 million tons/year



Crude oil production volume
24,000 barrels/day



Thermal coal production volume
11 million tons/year

* BTX refers to benzene, toluene, and xylene, which form the basis of chemical products

Functional Materials



Sales volume of engineering plastic
150,000 tons/year



Sales volume of lubricants
1.1 million kL/year



Sales volume of asphalt
380,000 tons/year



Adhesive material production capacity
75,000 tons/year



OLED material production capacity
22 tons/year



Sales volume of agri-bio products
17,000 tons/year

Power and Renewable Energy



Electric power generation capacity
1.44 million kW

Of which, renewable energy is 0.50 million kW
(Renewable energy ratio: 36%)



Electricity sales volume
3,800 million kWh



Overseas bases
67 bases



Overseas employees
3,300 people

As of March 31, 2021
Figures listed are estimates.



Our Initiatives to Counter Fallout from the COVID-19 Pandemic

In addition to preventing the spread of COVID-19, our company is leveraging its overall strengths to maintain a stable supply of petroleum products, energy, and materials that are essential to economic and social activities.

Placing the utmost emphasis on ensuring the safety of customers, employees, business partners, and all other stakeholders, we will take a flexible approach to securing business continuity and contributing to society.

The Idemitsu Group's Initiatives Related to COVID-19

Scope	Details
The entire Idemitsu Group	<p>We established the Emergency Task Force Headquarters in February 2020 and have been continuously operating it as of September 2021.</p> <p>The headquarters engages in comprehensive discussions covering such matters as preventing the spread of infection and maintaining the stability of the product supply as well as all other necessary measures relevant to the Idemitsu Group.</p>
Ensuring the stable supply of products	<p>We have requested dealers, service stations, and the entire Group, including logistics and manufacturing affiliates, to implement the following initiatives to maintain a stable product supply in a way that ensures customer safety and security.</p> <p>Initiatives at service stations</p> <ul style="list-style-type: none"> Confirming the health of service station staff on a daily basis by, for example, monitoring body temperature and encouraging frequent hand washing and hand sanitizer use Enforcing the general rule of wearing a mask while on duty (with the aim of preventing heatstroke among service station staff, they were allowed to take off their masks in the summer on occasions when sufficient distance from customers could be maintained) Regularly disinfecting the nozzles, touch panels, and indoor spaces frequented by customers <p>Initiatives during transportation</p> <ul style="list-style-type: none"> Confirming the health of drivers on a daily basis by, for example, monitoring body temperature and encouraging frequent hand washing and hand sanitizer use Enforcing the general rule of wearing a mask while on duty (with the aim of preventing heatstroke among drivers, they were allowed to take off their masks in the summer on occasions when sufficient distance from others could be maintained); drivers were also instructed to remain conscious of social distancing in the course of loading and unloading fuel oil at service stations. <p>Initiatives at refineries and complexes</p> <ul style="list-style-type: none"> Confirming the health of employees on a daily basis by, for example, monitoring body temperature and encouraging frequent hand washing and hand sanitizer use Enforcing a general rule of wearing a mask while on duty Installing partitions on an as-necessary basis to prevent the spread of virus in offices Encouraging employees to frequently gargle while periodically ventilating operational spaces and disinfecting handrails, door knobs, and other areas used by unspecified individuals Checking the body temperatures of visitors via the use of non-contact thermometers and otherwise confirming their health, with individuals who are suspected of being infected being denied entry into our facilities Thoroughly managing operations with the aim of avoiding the three Cs (closed spaces, crowded places, and close-contact settings), including at affiliate companies (such as promoting remote meetings) Restricting entry to complexes as much as possible, besides the people who work there
Securing employee safety	<p>Encouraging or instructing employees to work from home (since February 2020)</p> <ul style="list-style-type: none"> We allow employees whose duties can be executed remotely to work at home as general rule. We also introduced flexible working hours and removal of core time that had been imposed on employees who already use flexible working hours. Held down the rate of office attendance rate to around 30% for eligible occupations In prefectures subject to emergency declarations and special prevention measures, we thoroughly promoted working from home, except for the absolute minimum number of staff needed for operations. The office attendance rate from late November 2020 onward was below 30%. Established guidelines for online communications and meetings to promote novel working styles Purchased additional computers and other terminals while augmenting network servers Held training sessions and meetings (Board of Directors meetings, executive training, overseas branch manager meetings, etc.) online <p>Initiatives for employees who have to commute to our facilities</p> <ul style="list-style-type: none"> Distributing masks for use while commuting or on duty (FY2020) Ensuring hand sanitizers are always available at office entrances Placing marks on such places as the floors of meeting rooms, dining halls, and other facilities used by a large number of employees to help secure social distancing Certain employees who cannot work from home but are forced to stay home due to the nature of their work duties, are exempt from wage cuts Certain employees who have to shorten their working hours due to compelling family reasons, such as the need to take care of their child at home because of the shutdown of schools or childcare facilities and/or the need to take on nursing care, are exempt from wage cuts Flexibly accommodating requests from employees who wish to extend childcare leave, giving due consideration to the nature of their work duties and/or extraordinary circumstances when childcare facilities request that children not attend Began distributing useful tips on health maintenance via the intranet portal for those working from home Held seminars for line managers aimed at helping them maintain staff health <p>Workplace COVID-19 Vaccinations</p> <ul style="list-style-type: none"> At the Head Office and certain refineries and complexes, workplace vaccinations are being given to those who want it and are eligible (such as affiliate company employees and Group employees, including dispatch employees).
Adjusting our approach in recruiting activities	<p>As for recruitment activities, while being mindful of the status of the spread of COVID-19, we use both in-person and online formats to conduct PR activities and make selections</p> <p>As for internships, in fiscal 2020, we switched from onsite internships to online between August and September 2020 in light of the pandemic, and in fiscal 2021, in consideration of the infection situation, we mainly used online internships between August and September 2021</p>
Contributing to society	<p>Idemitsu Unitech produced 30,000 faceguards using its products and donated them to Himeji City, Hyogo Prefecture and other municipalities (May 2020)</p> <p>Donated 30,000 masks to Tomakomai City, Hokkaido Prefecture (October 2020)</p>



Idemitsu Group's Sustainability

Idemitsu Group Sustainability Policy

In 2021, we formulated the Sustainability Policy to promote sustainability initiatives. The Group will continue working together toward its aim of helping solve material issues facing the global environment and international society, thereby leading to a better future for the next generation.

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.

Environment

- 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 the 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.

Governance

- 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 Structure

To conduct management from the perspective of sustainability, we established the Corporate Sustainability Department to coordinate and manage ESG issues across departments, including climate change and human rights.

Each ESG issue is overseen by a designated department, with its progress reported to the Management Committee by the director in charge of ESG. The Management Committee discusses important policies and measures related to sustainability, reporting the details to the President and, when needed, the Board of Directors.

Under this management structure, we are committed to solving environmental and social issues and strive to achieve sustainable growth.



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.





Idemitsu Group's Sustainability

Priority Topics (Materiality)

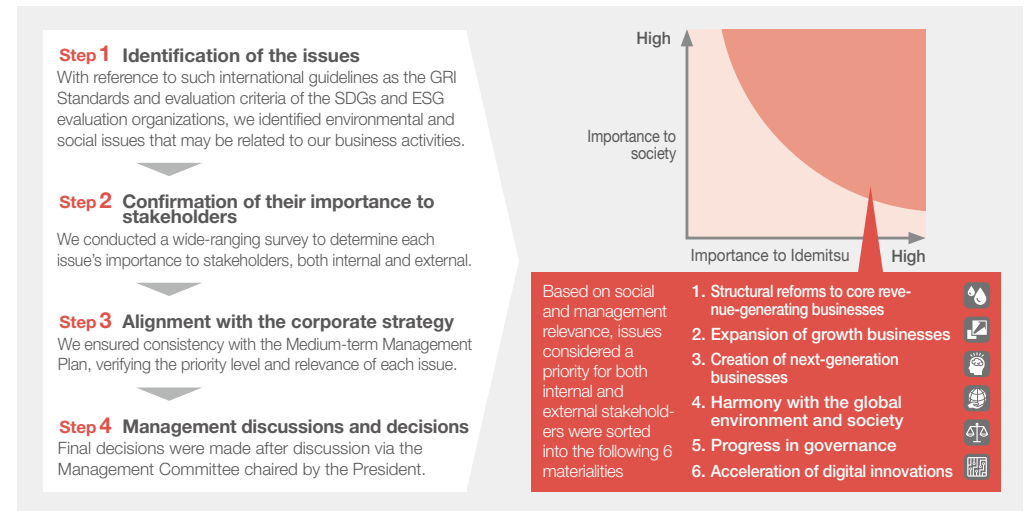
The Group values contributing to society through business. It is our mission to continue supplying the energy underpinning people's lifelines while contributing to the development of society. Recently, the environmental burden of energy use has become a major social issue, and the Group recognizes maintaining harmony with the global environment and society as an important and urgent theme. To this end, the Group identified priority topics (materiality) that it should prioritize during the period of the Medium-term Management Plan. Through concerted effort, the Group will advance toward its aim of achieving the sustainable development of the world's environment and society as well as the Group.

Materiality	Major initiatives	Main relevant SDGs
Structural reforms to core revenue-generating businesses Build a strong supply chain and further strengthen stability and competitiveness through collaboration with partners in the core revenue-generating businesses centered on petroleum products and chemicals.	<ul style="list-style-type: none"> Pursuing profits in the petroleum business (maximizing integration synergies, making refineries more reliable) Enabling Nghi Son Refinery to contribute to profits Utilizing the Pacific Rim supply chain to capture growing demand in Asia Gas development in Southeast Asia 	   
Expansion of growth businesses Expand business scale and scope by strengthening R&D in growth fields such as functional materials and renewable energy, which are becoming increasingly necessary in the world.	<ul style="list-style-type: none"> Expansion of business scale and domains (M&As on a scale of ¥100 billion during the Medium-term Management Plan period) Increasing the share of functional materials business to 30% by 2030 Increasing total power generated from renewable energy overseas to 5GW by 2030 (of which, 4GW is renewable energy) ➡ p.28 Transformation of solar-power business ➡ p.28 Black pellet development (biomass fuel) ➡ p.28 Strengthening the development of functional materials utilizing open innovation ➡ p.32 	   
Creation of next-generation businesses Accelerate technological innovation and innovation beyond organizational frameworks to create new businesses with an eye to the future.	<ul style="list-style-type: none"> Creating new businesses with an eye on social changes, diversifying customer needs, and lessening environmental impact ➡ pp.17,31,32,41 Development of next-generation service station business Distributed energy business Circular business ➡ p.33 	   
Harmony with the global environment and society Promote measures to realize a low-carbon and circular economy in light of climate change risks, and promote diversity and inclusion in partnership with business partners, communities, and employees.	<ul style="list-style-type: none"> Efforts to reduce GHGs (2030: -4 million t-CO₂ compared to 2017) ➡ p.25 Contributing to the areas where we operate business ➡ pp.36-38,75-77 Implementing diversity and inclusion initiatives ➡ pp.48-55 Making work more rewarding for employees ➡ pp.61-66 SDG educational activities ➡ pp.13,14 	   
Progress in governance Strengthen governance functions to maintain the trust of shareholders and all other stakeholders.	<ul style="list-style-type: none"> Enhancing the roles and functions of the Board of Directors ➡ pp.82-87 	
Acceleration of digital innovations Capitalize on evolving digital technologies to transform existing business processes and management in response to the business environment and customer needs.	<ul style="list-style-type: none"> Utilizing digital technologies to create new value ➡ pp.17, 18 	 

Materiality Identification Process

To ensure we are able to continue working with our diverse stakeholders to generate new value as an energy co-creation company, we have identified six materialities, taking into careful consideration our long-term priorities as well as environmental and social issues.

These materialities are closely linked to company-wide and departmental strategies as well as the materialities laid out in the materialities Management Plan.



Correlations between Materiality and the SDGs

When considering the effect on the SDGs of key initiatives that impact materiality, we took into account the fact that each SDG is interconnected. Rather than being confined to one specific goal, the impact of any business activity targeting materiality will, to varying degrees, extend to all the SDGs. That said, we believe we can especially contribute to the achievement of the following three SDGs through our business activities.

Our efforts to achieve these goals may lead to increased environmental burden in the form of higher resource consumption and GHG emissions. Recognizing that our business activities might impose a burden in the following five areas and keep us from achieving the goals, we realize the necessity of making serious efforts to address this.

We are considering measures to minimize or eliminate the negative impact of our operations on these social issues. Specifically, we have set reduction targets for GHG emissions related to the use of petroleum resources and the risk of climate change, and are implementing measures to achieve them. The entire group will also work together to promote the recycling of solar panels and petrochemicals, including plastics.

SDGs where we make a larger difference



SDGs requiring attention due to risks arising from business activities





Idemitsu Group's Sustainability

Our Efforts to Promote Understanding of the SDGs

By raising awareness of social issues among all our employees through SDG-related efforts, we will enhance awareness of the linkage between business activities and social issues and promote the SDGs through internal communication to ensure that the key points of the SDGs are reflected in future corporate strategy and materiality. We will conduct educational activities so that our employees become fully aware that social issues are also their issues and take the initiative in solving them. In fiscal 2020, we promoted an essential understanding of the SDGs by raising awareness of SDG policies, SDG purposes, and the relationship between the SDGs and our own business through workshops and internal information media.

External Assessments Related to Sustainability and ESG

External Assessments

Idemitsu recognizes sustainability and ESG (environmental, social, and governance) initiatives as management's priority topics and promoted ESG disclosures and engagement. As a result, we acquired the following evaluations in fiscal 2020. Going forward, we will continue focusing on sustainability and ESG initiatives and helping enhance corporate value.

CDP

CDP is a nongovernmental organization (NGO) with its headquarters based in the United Kingdom. It operates a global disclosure system to manage environmental impact and spur action on environmental issues. It ranks over 9,500 companies worldwide based on their responses to three types of surveys (climate change, water, and forests). There are eight ranks ranging from A to D-. In the fiscal 2020 survey, Idemitsu acquired an A- in climate change and a B in water.



MSCI

MSCI is a United States company that offers services for investment judgments to global investment institutions. MSCI ranks companies on nine levels from AAA to CCC based on the degree of ESG risks and how appropriately they manage those risks. Idemitsu acquired a rating of AA in the fiscal 2020 survey.



Nikkei SDGs Management Survey

This survey comprehensively evaluates companies and their initiatives for achieving the SDGs from the perspectives of SDG strategies, social value, environmental value, and governance. In the fiscal 2020, Idemitsu acquired a rating of ★4.0.



Nikkei Smart Work Management Survey

With this survey, the Nikkei Group comprehensively evaluates companies from the perspectives of personnel utilization ability, innovation ability, and market development ability regarding Smart Work Management, offered as corporate management to leverage competitive advantages in the new era. Idemitsu acquired a rating of ★3.5 in the fiscal 2020 survey.



SOMPO Sustainability Index

Idemitsu's ESG initiatives were evaluated, and the Company's stock was selected for 10 consecutive years since 2012 in SOMPO Asset Management Co., Ltd.'s SOMPO Sustainability Index.



Kurumin

Idemitsu analyzes issues, considers specific measures, and formulates action plans aimed at supporting employees and enabling them to balance work and life. In 2012 and 2015, we were recognized by the Ministry of Health, Labour and Welfare as a child-care support company and received the Kurumin certification mark.



Certified Health & Productivity Management Organization Recognition Program 2021

We have been selected in the large-scale company category of the Certified Health & Productivity Management Organization Recognition Program 2021, wherein the Ministry of Economy, Trade and Industry (METI) recognizes companies that implement particularly excellent health and productivity management. We received praise for the implementation of our systems and measures, our organizational structure, and more.



DX Certification / DX Stock

Idemitsu acquired DX Certification (from the Minister of the Economy, Trade and Industry) on April 1, 2021. Idemitsu's initiatives are DX-Ready, meaning the Company has been recognized as having achieved the requisite readiness level for business transformation through digital technology. In addition, in June 2021, Idemitsu was first selected as a Digital Transformation (DX) Stock 2021 by METI and the Tokyo Stock Exchange.








Idemitsu Group's Sustainability

Dialogues with Stakeholders

Our Group will continue striving to create new values together with our stakeholders.

We organize the stakeholders based on consideration of the impact we have on them and the impact we receive from them in terms of the environment, society, and economy.

We conduct engagement activities by also considering the interests of each stakeholder and the degree of impact on the future. We will enhance corporate value and contribute to social development through responsible dialogue with a diverse range of stakeholders.

Stakeholder	Initiatives	Details
All	Information disclosure via website	<ul style="list-style-type: none"> ■ We operate an official website to provide our stakeholders with timely corporate disclosure of the latest information on the activities of Idemitsu Group. Contacts are also presented on the website to accommodate various types of inquiries as part of our proactive communication efforts.  Official website
Shareholders and investors	Information disclosure to individual Investors	<ul style="list-style-type: none"> ■ In regions around Japan, we hold corporate briefings while participating in IR events for individual investors, with the Executive Officer in charge of IR, the General Manager of the Finance & Accounting Department and other personnel giving presentations on the business overview, management strategies and operational status. ■ In addition to holding the annual general meetings of shareholders in June, we issue the Idemitsu IR Newsletter (Japanese only) twice a year.  IR Information
	Information disclosure to analysts and institutional investors	<ul style="list-style-type: none"> ■ In addition to quarterly financial results briefings, we also hold individual IR meetings and small meetings with analysts. ■ Top management team members visit institutional investors in Europe, the United States, and Asia to update them on our management strategies and operational status.
Customers (Individuals)	Customer center counters in place ➡ P.16	<ul style="list-style-type: none"> ■ We respond to inquiries that require specialized technological expertise regarding fuel oil, lubricants, and other products while accepting complaints about customer reception at service stations, the quality of gasoline, and the driving manners of our tanker truck drivers. Inquiries and complaints receive proper treatment through the customer center, via collaboration with relevant departments, and are utilized to make necessary improvements. ■ We also promptly cooperate with relevant departments to respond appropriately when receiving concerns or reports regarding Idemitsu's other business activities.  Customer center counters
	PR activities through advertising and publicity	<ul style="list-style-type: none"> ■ We constantly engage in advertising activities to enhance the general public's understanding of the business operations and other initiatives being undertaken by the Idemitsu Group
Corporate Customers	Holding Customer Seminars ➡ P.16	<ul style="list-style-type: none"> ■ We maintain close communication with corporate clients and promote the development of products and solutions suited to their needs. Our branches throughout Japan hold seminars for corporate clients to deliver information on the latest technical trends in the energy-saving and environment-related fields, as well as on regulatory conditions and other topics directly useful to their operations.
Partner companies	Collaboration with Partners ➡ P.72-74	<ul style="list-style-type: none"> ■ We are working to create values through cooperation with our partner companies. We work to realize mutual sustainable development by having common goals, policies, guidelines, etc.
Community	Holding community briefing sessions	<ul style="list-style-type: none"> ■ We hold community briefing sessions at least once a year. In doing so, we invite heads of neighborhood associations and other representatives from communities in the vicinity of our refineries, complexes, and plants. We explain our safety and environment-related efforts and hear the opinions of the attendees.
	Implementation of environmental education ➡ P.38	<ul style="list-style-type: none"> ■ We hold environmental classes focused on global warming, climate change, and other environmental concerns to help elementary school students and other young people from communities near our refineries, complexes, and plants deepen their understanding of these topics.
	Implementation of environmental protection activities ➡ P.20, 38	<ul style="list-style-type: none"> ■ We participate in cleanup activities in the vicinity of refineries, complexes, and plants, as well as local forest and beach conservation activities. In addition to contributing to local communities, these activities facilitate interaction between employees.
Employees	Next Forum ➡ P.62-63	<ul style="list-style-type: none"> ■ In a concerted effort to create an even better company, we hold this forum twice a year to provide a place for employees to engage in face-to-face dialogue with top management and exchange their opinions and proposals with regard to company-wide issues. Forum committee members appointed by each department engage in direct dialogue with top management to deliver real voices regarding issues at the workplace.
	Holding Townhall Meeting, a platform where all employees can directly have a dialogue with top management ➡ P.63	<ul style="list-style-type: none"> ■ We have been conducting Townhall Meeting since FY2020 as a place for our employees to directly engage in dialogue with top management. ■ Top management shares information with all employees regarding various management issues and engage in direct dialogue. ■ In May 2021, it was held online under the theme "Corporate Philosophy and Medium-Term Management Plan".
	Conducting an employee engagement survey ➡ P.62-63	<ul style="list-style-type: none"> ■ We conduct this survey on an annual basis to quantitatively and continuously analyze employee engagement, mutual trust, and a sense of unity. A total of 11,896 employees of Idemitsu and its affiliated companies (response rate: 95.7%) participated in the survey from late July to early August FY2021.



Idemitsu Group's Sustainability

List of Dialogue Results with Stakeholders

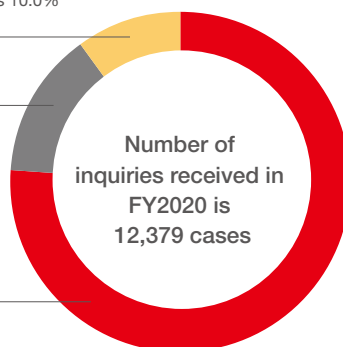
Number of inquiries received by customer center

In fiscal 2020, the Customer Center received 12,379 inquiries. We are working to improve customer satisfaction company-wide by sharing customer feedback received by phone, email, and letters within the Group.

Complaints and comments 10.0%
(1,237 cases)

Awards and Others 13.8%
(1,714 cases)

Inquiries 76.2%
(9,428 cases)



Implementation of Customer Center “Goon Questionnaire”

We conducted a satisfaction survey of customers who contacted the Customer Center between May and June 2021. We received responses from 448 people.

Questionnaire Period From Tuesday, May 11 to Friday, June 4, 2021

Number of people targeted for implementation 448

Customer calls/234 people

Mail/200 people

Website/14 people

Major Customer Seminars Held (Fiscal 2020)

Customer seminars in fiscal 2020 were mainly held online. Participants were accepted regardless of location, resulting in an increase in the number of participants. We will continue to conduct various types of communication, including seminars, for the purpose of providing information and dialogue that is useful for business.

	Methods of holding	Number of times	Participants	Number of Participating Organizations	Number of participants (persons)
17th Apollo Energy Meeting	Online	1	Users in the coal and fuel oil fields	170	600
User Seminars	Online	35	Customers in the fuel oil field	610	1,230
	Set	4		26	
42nd cutting oil workshop	Online	1	Customers in the lubricating oil field	108	170
44th Heat Treatment Study Group	Online	1		134	262
Second Comprehensive Pest Management	Online	1	Consumers in the agricultural sector	—	10
Dairy Productivity Improvement Seminar 2020	Online	1	Customers in the dairy sector	100	150

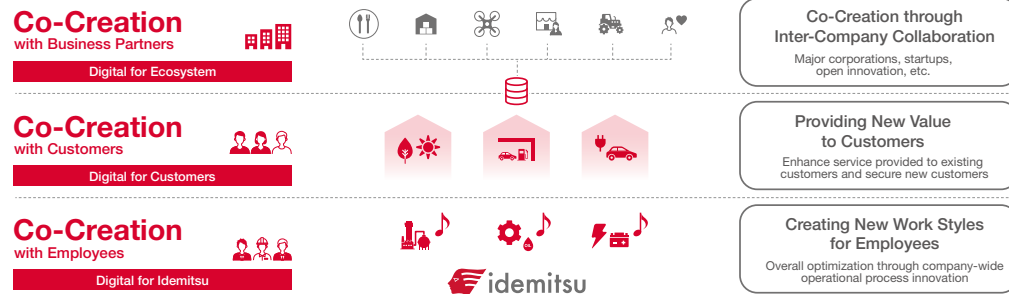


Acceleration of digital innovations

Transforming the Entire Business Processes with Digital Technologies to Create New Customer Value and Improve Employee Experience

The business environment of the energy industry is forecast to undergo major changes going forward. For Idemitsu to continue to grow, proactively applying digital transformation (DX) to all business processes, enhancing operational sophistication, and continuously providing services that meet new needs will be essential. Based on this understanding, we outlined a basic policy of accelerating our business platform for 2030 and are promoting initiatives to accelerate DX.

We established the Digital Transformation Department in January 2020 and began multiple on-site investigations and in-house education programs to foster a corporate culture. We consolidated BPR functions carried out across multiple departments in July 2021, and the Digital & BPR Department will work to create more social and customer value and accelerate the enhancement of employee experience.



DX Stock

Idemitsu was selected as a Digital Transformation Stock in 2021 by the Ministry of Economy, Trade and Industry and Tokyo Stock Exchange.



DX銘柄2021
Digital Transformation

The Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) established Proactive IT Management Stocks in 2015, renaming them DX Stocks 2020 in August 2020. Companies that actively engage in digital transformation are selected for and awarded this title. In 2021, 28 companies were selected.

Idemitsu received recognition for actively working to transform its business format and create new businesses while making its existing businesses more efficient. For example, we established the Digital Innovation Department in January 2020 as an organization specializing in the promotion of DX, transformed the refinery maintenance business process, and created new businesses at our service stations.

As a company selected as a DX Stock, going forward the entire company will continue working together to create new value and transform operations through the increasing utilization of digital technologies.



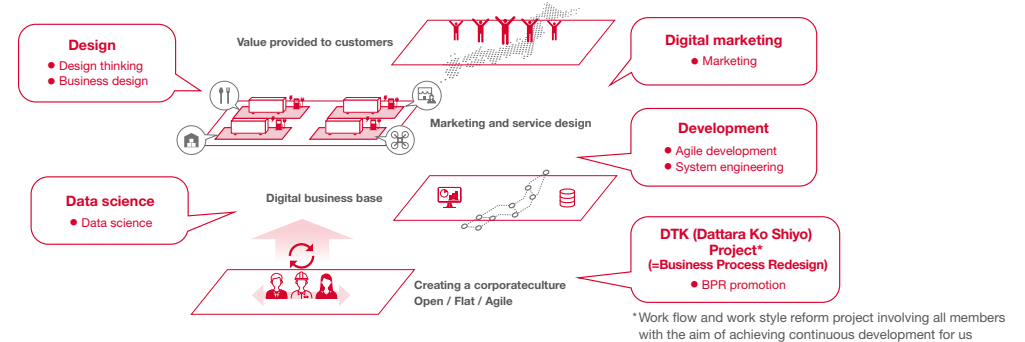
Idemitsu Kosan Co., Ltd.
Executive Officer, CDO & CIO,
General Manager of the
Digital & BPR Department

Yukio Saegusa

Practicing Value 5D

The Digital & BPR Department uses data to connect all internal and external value provision and focuses on creating a digital business base.

We have secured both highly specialized DX personnel for value maximization and a dynamic organizational structure that facilitates the implementation and promotion of DX.

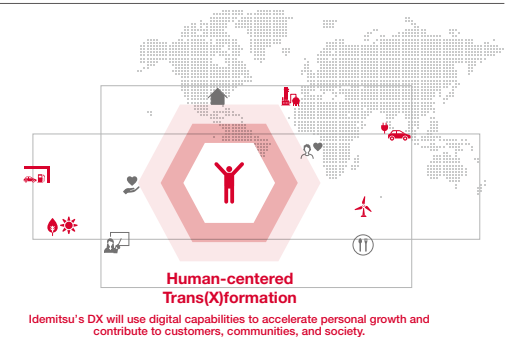


Co-Creation through Inter-Company Collaboration

One aim of digital transformation is to create completely new businesses that contribute to local communities. However, Idemitsu cannot accomplish this by itself. We plan to promote business initiatives through collaboration with companies that have strengths in many different fields, such as healthcare, housing, food, and education. In 2020, we participated in the SmartCityX project for the creation of smart cities through inter-company collaboration.

Co-Creation with Customers (Digital for Customers)

To continue creating new customer value in existing businesses, we need new initiatives that fully leverage the Company's assets. For example, with regard to service stations, it is not enough to simply wait for customers to come to fill their tanks, we need to send out information and transform these facilities into places that offer new experiences. With our apollostation network acting as a one-stop shop for a new era of enriching local residents' lives, we will leverage our accumulated data and realize services tailored to each customer in order to provide optimal services at the best time to meet diverse customer needs, such as solving locally unique issues.





Acceleration of digital innovations

Co-Creation with Employees (Digital for Idemitsu)

To promote the transformation of operating processes across the Company, we launched multiple on-site investigations from April 2020 to help create synergies between divisions and contribute to overall optimization. After confirming the results, we have been making steady progress, including conducting trial runs.

In addition, since the emergency declaration due to the COVID-19 pandemic in April 2020, over 90% of the entire company's employees (excluding the Manufacturing & Technology Department) have been working from home. In terms of DX, we are using more web meetings, going paperless, and utilizing an electronic approval system, and employees have become more aware that workstyles have significantly changed. As of September 2021, departments with occupations that can be done remotely have maintained an in-office attendance rate of less than 30%.

We held online seminars for employees to create and maintain our corporate culture and are promoting activities aimed at transforming the entire company that cover a wide range of content, including the provision of explanations of the necessity of promoting DX to realizing Idemitsu's future vision as well as internal case studies. In addition, we have been holding panel discussions with external experts.

Case Studies Initiatives to enhance the safety and sophistication of refinery maintenance operations using DX

Undertaken as an internal DX project, the transformation of maintenance operations entailed the verification of results while revising the way we conduct operations by adopting an unconventional approach (Agile and Design thinking).

Refineries and relevant departments formed a DX promotion system and implemented continual operational process improvements in 100-day increments. As a result, we were able to see the possibility of reducing maintenance costs and enhancing competitiveness through more efficient operations.

In addition, these initiatives helped create a corporate culture of working as one team to create better products instead of the former with former buyers and sellers.

We have begun considering how to best expand the scope of transformation and are extending the application of knowledge gained from pilot tests to other plants. Going forward, we will continue aiming to promote and maintain operational process improvements and creating synergy across businesses.

Visualizing Frontline Problems



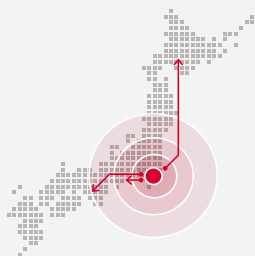
Materialize 100-day sprint



Digital Transformation Office's first investment criteria Experiment Start date: October 1, 2020



Shifting to a swift experience through an unconventional approach (agile, design thinking)



■ As a DX mother plant, the Chiba Complex is further developing DX





Details of Our Environmental Management and Environmental Policy

Approach to the Environment

The Idemitsu Group works to reduce the environmental impact of its business activities through more efficient energy use and other measures in order to contribute to the creation of a sustainable society with harmonious coexistence between the economy and environment. We aim to protect the global environment by conducting appropriate education and awareness raising activities for all employees to enhance their eco-consciousness and actively promoting advanced initiatives to solve such environmental problems as global warming. To achieve this aim, we have established a policy regarding environmental conservation, both global and regional, as an important value to be prioritized in all our business activities.

Environmental Protection Policy

1. Make all-out efforts to prevent leaks or contamination, and contribute to environmental protection.
2. Actively contribute to the prevention of global warming and work to reduce greenhouse gases emitted through our business activities.
3. Effectively use resources in all our business activities.
4. Promote green procurement when purchasing material, construction work, services, etc.
5. Be aware of the importance of biodiversity and actively contribute to its maintenance.
6. Work to develop and popularize technologies and products that create a better environment.
7. Set environmental objectives based on the annual basic policies, and facilitate concerted efforts to achieve those objectives via internal and external collaboration.
8. Continually improve the Environmental Management System to enhance environmental performance.
9. Actively disclose environmental information and promote communication with parties outside the Company to ensure reliability and improve our corporate value.

Executive Message

As for the environment, our stakeholders are highly concerned about global environmental problems, such as climate change, ocean plastic waste, and biodiversity loss. The Group is also promoting various relevant initiatives but recognizes that at present the highest priority is reducing CO₂ emissions while fulfilling its mission of ensuring a stable energy supply.

To achieve this, the Group, which aims to be an advanced ESG management company, revised its Medium-term Management Plan in May 2021, outlining its efforts to achieve carbon neutrality by 2050 and, as a waypoint, establishing a goal of reducing the Scope 1+2 emissions of major Group operations by 4.0 million tons compared with fiscal 2017 by 2030. In addition, along with reducing Scope 1+2 CO₂ emissions, we are working to reduce Scope 3 emissions throughout the entire value chain while accurately assessing the needs of customers.

Meanwhile, we will continue striving to prevent environmental pollution, thoroughly ensure compliance, and reduce the Group's environmental impacts and risks. The Safety & Environmental Protection Headquarters is working to resolve these kinds of environmental issues confronting the Group by conducting environmental audits, collecting and managing environmental data, raising and enhancing environmental awareness among employees, and disclosing information. We disclose information regarding environmental initiatives and activities, which are closely related to human rights, to stakeholders as appropriate.



General Manager of Safety & Environmental Protection Headquarters, Director and Managing Executive Officer

Noriaki Sakai

Environmental Management System

Safety & Environmental Protection Headquarters

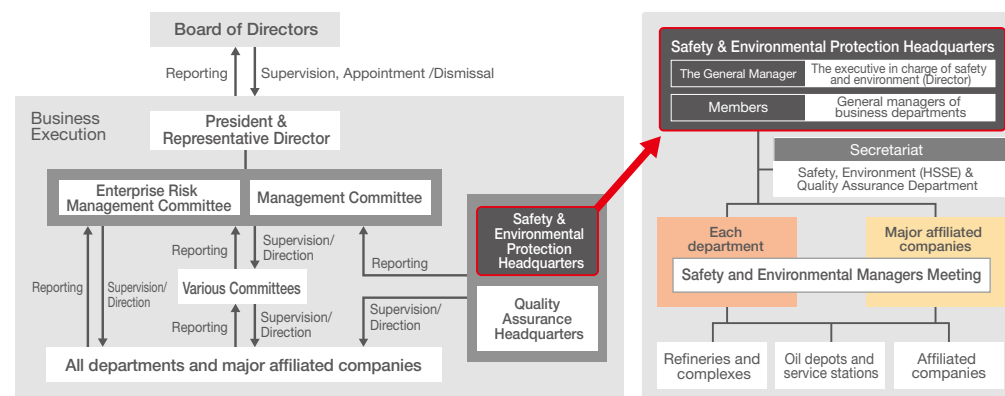
We have traditionally positioned “Safety, Health and the Environment” as key concepts supporting our management foundation, and have established the “Safety & Environmental Protection Headquarters” to promote initiatives to secure employee safety and health as well as to preserve the environment. Members of the headquarters consist of the General Manager and co-head as well as division heads in charge of supervising business sites and others who are appointed by the General Manager, in addition to the secretariat. The executive in charge of safety and environment (Director) is appointed by the President and Representative Director to serve as the General Manager of the Safety & Environmental Protection Headquarters, overseeing the headquarters as the individual bearing the highest responsibility regarding safety, health, and the environment. The Safety, Environment & Quality Assurance Department serves as the secretariat.

The primary role of the headquarters is (1) to determine the medium-term management plan, the annual basic policies, and priority HSE issues, (2) to assess and evaluate performance through audits, (3) to maintain, review, and improve the Environmental Management System (p. 20), and (4) to instruct all departments and major affiliated companies on how to secure the management resources necessary to establish, implement, maintain, and continually improve this Management System. As a general rule, the Safety & Environmental Protection Headquarters Meeting is held once a year in December to decide on such matters as our group's annual basic policies for the next fiscal year.

When establishing and reviewing the medium-term management plan, the annual basic policies, and priority issues regarding HSE, the secretariat creates a draft proposal in a way that reflects on outcomes of HSE activities undertaken in the preceding fiscal year and takes into consideration the social environment surrounding HSE issues. The draft is examined at the Safety and Environmental Managers Meeting attended by managers in charge of safety and the environment from each department and then approved at the Headquarters Meeting. After the draft is ruled on by the General Manager of the headquarters, it is finally reported on to the Management Committee. If the Management Committee has instructions or opinions that should be reflected in the draft, the General Manager of the headquarters once again reviews and approves the final version.

The Board of Directors receives reports from the business executives and provides oversight on environmental issues, including climate change.

■ Positioning of the Safety & Environmental Protection Headquarters in the Corporate Governance System and an Outline of the Safety and Environmental Management System





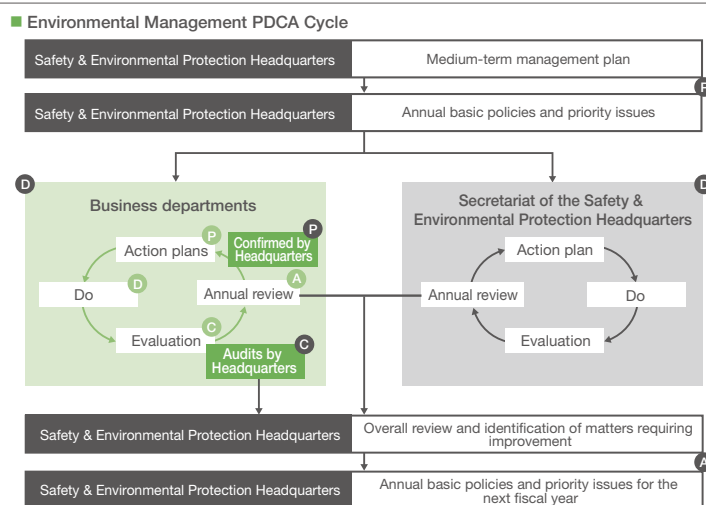
Details of Our Environmental Management and Environmental Policy

Operation of Environmental Management System

Our Environmental Management System is presented in the diagram on the right. It is based on a combination of the group-wide PDCA cycle, utilized by the Safety & Environmental Protection Headquarters, and the individual PDCA cycles utilized by each business department.

The Safety & Environmental Protection Headquarters formulates a medium-term management plan for the entire Company and identifies annual basic policies and priority issues based on that plan. In line with these annual basic policies, each business department develops its own action plan.

Each business department operates a PDCA cycle in which it executes business activities based on its action plan, periodically evaluates and reviews these activities, and identifies matters that must be improved and reflected in the action plan for the next fiscal year. Meanwhile, the secretariat for the Safety & Environmental Protection Headquarters carries out an annual evaluation and review of group-wide operations of the Environmental Management System. Matters requiring improvement are discussed at Headquarters Meetings in conjunction with reviews carried out by each business department to ensure continuous improvement. Furthermore, a total of 34 business departments and affiliate companies within the Group (21 in Japan, 13 overseas) acquired ISO 14001 certification as of June 30, 2021.



Environmental Compliance (Number of Environmental Abnormalities)

In FY2020, Group complexes recorded three serious compliance violations as listed below. We will identify minor compliance violations that are not classified as serious compliance violations and investigate their causes to prevent recurrence in an effort to step up our environmental protection initiatives.

- Disposal of equipment containing chlorofluorocarbons before it had been treated
- Emission leaks from gaps between ducts
- SOX emissions in excess of the regulation amount

Note: Compliance violation refers to one or more of the following cases that exceeded the regulatory standards that are stipulated in environmental laws and regulations (including local regulations and agreements)

A. Events that were determined to require "countermeasures in the accident" based on environment-related laws and regulations

B. Cases in which reports were submitted to government bodies regarding corrections taken after receiving administrative punishment, instruction, or guidance from said bodies

C. Cases resulting in damage to the bodies, lives, property, etc., of neighboring residents, etc., and compensation paid to them.

Environmental Education and Awareness-Raising Activities

We provide environmental education for the entire Group under the leadership of the Safety & Environmental Protection Headquarters. We are also engaged in activities to raise awareness of environmental protection in line with the Environment Month promoted by the Ministry of the Environment. In June 2020, we distributed environmental education materials and conducted environmental quizzes based on the theme of climate change to raise environmental awareness among employees.

FY	2019	2020	2021
	Let's Find Out About the Ocean Waste Problem	Let's Find Out About Climate Change	Let's Find Out About Carbon Neutrality
Education	<ul style="list-style-type: none"> ■ Distributed educational materials ■ Conducted environmental quizzes 	<ul style="list-style-type: none"> ■ Distributed educational materials ■ Conducted environmental quizzes 	<ul style="list-style-type: none"> ■ Distributed educational materials ■ Conducted environmental quizzes ■ Included an interview with the General Manager of the Safety & Environmental Protection Department in the Group Newsletter
Activities	Beach cleanup activities	Tokyo Bay environmental survey	Environmental lecture (carbon neutrality)
	Light Down Campaign	—	—
Training	Environmental management capability enhancement training (54 people)	Environmental management capability enhancement training (265 people)	Environmental management capability enhancement training (79 people)*

*As of June 2021

■ 2019 cleanup activities (Odaiba Marine Park)



Safety and Environmental Audits

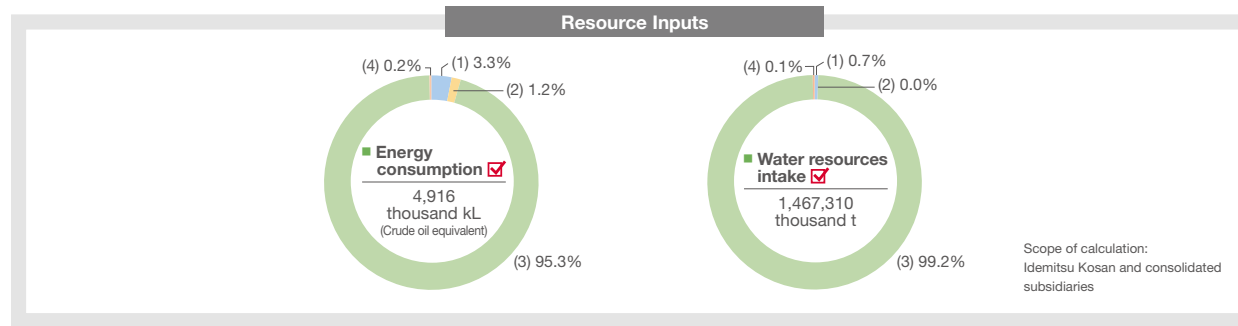
In order to confirm and promote the HSE activities of each business department, the secretariat of the Safety & Environmental Protection Headquarters conducts Safety and Environmental audits at our refineries and complexes on an annual basis. At business sites other than those named above, Safety and Environmental audits are carried out at a frequency decided in consideration of the worksite's safety and environmental risks and safety and environmental management status. Should safety- and/or environment-related issues requiring improvement be discovered by audits, the secretariat will conduct follow-up monitoring on each case and oversee the entire process from the planning of countermeasures to the completion of their implementation. Furthermore, the General Manager of the Safety & Environmental Protection Headquarters conducts Safety- and Environment-related instructions or safety patrols by visiting business sites. In particular, we have made it a rule for the General Manager of the Safety & Environmental Protection Headquarters to visit our refineries and complexes once a year to undertake these activities.

Note: In FY2020, a total of 11 business sites underwent audits. The implementation status of these audits is presented in page 67.



Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations

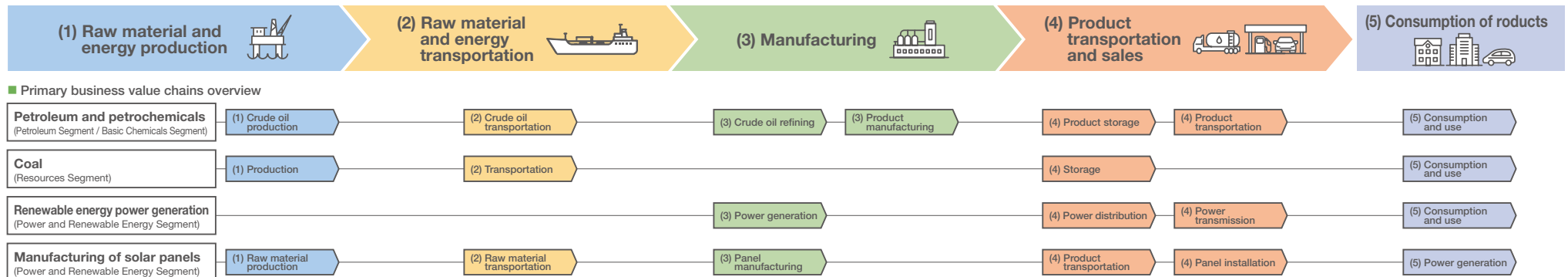
- (1) Raw material and energy production
- (2) Raw material and energy transportation
- (3) Manufacturing
- (4) Product transportation and sales



Input

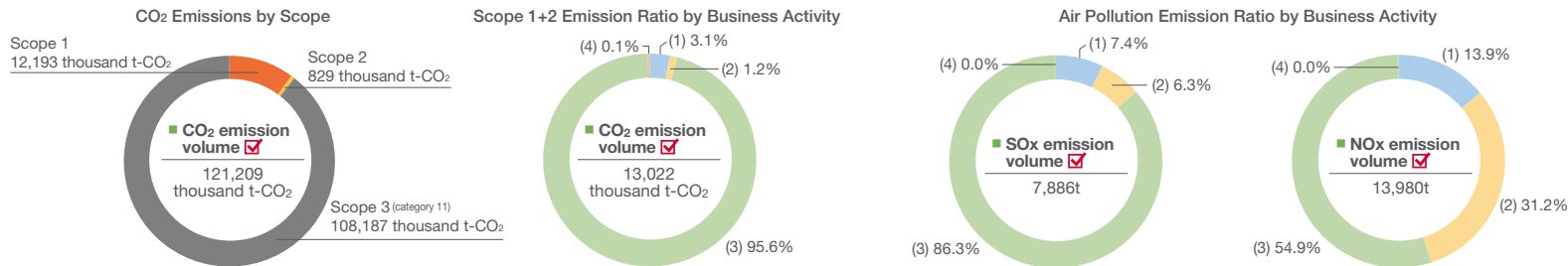
Activities

Types of activity presented below encompass all of the Idemitsu Group's business segments.*
*Petroleum, Basic chemicals, Functional materials, Power and renewable energy, and Resources segments



* In the above donut charts, the numbers (1) through (5) indicate the corresponding portion of the value chain.

Output

Environmental footprints

■ **Final disposal** ✓
38t

Note: Scope of calculation encompasses the following business sites engaged in (3) Manufacturing: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil's Kawasaki Refinery, and Showa Shell's Yokkaichi Refinery.

Scope of calculation: Idemitsu Kosan and consolidated subsidiaries

Note: For information on GHG emissions (CO₂e), please see ESG Data (p. 94).



Our Response to Climate Change

Basic Stance

Recognizing that responding to climate change is one of the most important issues that must be addressed on a global scale, the Idemitsu Group works to tackle this issue through both “mitigation” and “adaptation” by making maximum use of our resources.

Specifically, by examining a range of possible future business environments based on the analysis of multiple scenarios, we identify risks and opportunities and reflect them in our strategies and initiatives.

Our Response to the TCFD Recommendations

Becoming a TCFD Signatory by Declaring Our Support for Its Guidelines

On February 14, 2020, we declared support for recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD) and became a TCFD signatory.



Idemitsu's Approach to the Disclosure of Climate Change-Related Information

We disclose information in accordance with TCFD recommendations. Using our robust information disclosure framework, we will proactively disclose information to stakeholders, accurately identifying risks and opportunities arising from climate change in connection with our business.

Area	TCFD recommendations	Idemitsu's disclosure	Page for disclosure
Governance	1. Describe the Board's oversight of climate-related risks and opportunities	■ Governance system for climate change	▶ pp. 12, 19, 85
	2. Describe management's role in assessing and managing climate-related risks and opportunities	■ Governance system for climate change	▶ p. 19
Strategy	1. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	■ Identification of risks and opportunities ■ Responding to risks and opportunities	▶ p. 23
	2. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	■ Identification of risks and opportunities ■ Responding to risks and opportunities	▶ p. 23
	3. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	■ Scenario Analysis ■ Business portfolio reform	▶ pp. 6, 7, 9
Risk management	1. Describe the organization's processes for identifying and assessing climate-related risks	■ Climate change risk assessment process (Evaluation by each business site and the Safety & Environmental Protection Headquarters)	▶ p. 23
	2. Describe the organization's processes for managing climate-related risks	■ Climate change risk assessment process (Report to the Management Committee and evaluation)	▶ p. 23
	3. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	■ Climate change risk assessment process	▶ p. 23
Metrics and Targets	1. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	■ GHG emission reduction target, absolute amount, and per unit of production	▶ p. 23, 25
	2. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG (greenhouse gas) emissions and the related risks	■ GHG emission reduction target, absolute amount, and per unit of production ■ Identification of risks and opportunities	▶ p. 25
	3. Describe the targets used by the organization to manage climate-related risks and opportunities and disclose performance against targets	■ GHG emission reduction target, absolute amount, and per unit of production ■ GHG emission reduction results	▶ p. 25



Our Response to Climate Change

Risks and opportunities

Based on the assumptions of the long-term business environment for 2050 (p. 7), we examined the risks and opportunities related to climate change, analyzed the financial impact, and organized them as shown in the table below.

Classification	Matters to be evaluated	Term*1			Responses and initiatives
		Short	Medium	Long	
Transition risks	Decline in demand for fossil fuels	●	●	●	Enhancement of our financial standing and shift to low-carbon solutions to secure profitability
	Decline in energy and resource prices due to technological advances		●	●	Strengthening of the competitiveness of the entire supply chain
	Introduction of a carbon tax by the government		●	●	Monitoring of government policy trends and internal study of carbon prices
	Possibility of divestment of and regulations on the coal business		●	●	Scaling back of mine production as well as development and practical deployment of biomass co-firing technologies
	Decline in brand image of companies with high carbon emissions		●	●	Enhancement of engagement with stakeholders
Physical risks	Impact of natural disasters and rising sea levels on operations and damage to coastal sites	●	●	●	Systematic strengthening of equipment security and response to moving the control room
	Impact on truck shipping of abnormal rainfall and impact on marine shipping of more frequent typhoons	●	●	●	Making the supply chain resilient to maintain supply
Opportunities	Dawning of a carbon-neutral society	●	●	●	Turning refineries into CNX*2 centers and development of carbon utilization technologies
	Expanding demand for renewable energy	●	●	●	Development of renewable energy sources in Japan and overseas
	Expanded demand for biomass fuels	●	●	●	Development and practical deployment of black pellets
	Advancement of ammonia combustion technologies and expanded demand	●	●	●	Construction of ammonia supply chain
	Expanded demand for products and materials that help save energy	●	●	●	Development of next-generation materials and commercialization of solid-state electrolytes
	Expanded share of electric vehicles and practical deployment of EVs and electric ships	●	●	●	Participation in the development of ultra-small EVs and lubricants for EVs
	Development of distributed energy resource systems and expanded demand	●	●	●	Development of and entry into VPP (Virtual Power Plant) control services
	Stable supply of energy for local communities	●	●	●	Smart one-stop shop concept and utilization of service station networks

*1 Short term: under 1 year; Medium term: 1–5 years; Long term 5 or more years

*2 CNX: Carbon Neutral Transformation

Idemitsu's Strategies

We recognize that in a society aiming to achieve the Paris Agreement, it is impossible to avoid a decrease in demand for the petroleum business, which is Idemitsu's mainstay business. As for the petroleum business, we will continue supplying energy to meet demand going forward while working to ensure a low-carbon energy supply. However, we will continue enhancing the competitiveness of the petroleum business and working to construct a financial standing that builds up profits moving forward.

On the other hand, the decline in demand for petroleum presents opportunities for renewable energy demand to grow. It is possible for Idemitsu to seize these opportunities as a company with a wide range of renewable energy sources, and the Company will continue working to develop power sources in Japan and overseas and expand profit.

With the advance of the low-carbon society, demand is rising for new energy sources, such as biomass fuel, ammonia, hydrogen, and black pellets as well as for eco-friendly products and materials, such as solid-state electrolytes and grease to meet needs accompanying further expanding EV demand. By developing and selling products that meet society's needs, we will expand the Group's overall profit, and by adapting to a low-carbon society, we will realize a transformation of our business portfolio. (pp. 6–9)

We expect the government will continue considering the introduction of a carbon tax. As a waypoint toward carbon neutrality in 2050, we set a goal of reducing CO₂ emissions by 4.0 million tons by 2030 and will steadily continue on this course. In addition, the Company will not just rein in carbon emissions but also develop technologies to effectively utilize carbon. We will work to help reduce carbon emissions in broader society in addition to the Company by turning CO₂ into carbonate minerals and utilizing carbon recycling technologies.

Internal Carbon Pricing

In recent years, businesses have increasingly been called on to step up their response to climate change. We expect this trend will put our company in a position where we face both risks and opportunities. With this in mind, we are nurturing active internal discussion on how to decarbonize our businesses. To this end, we have established internal carbon pricing of investments related to new projects and carry out investment studies that reference the economic impact of carbon dioxide (CO₂) emissions.

Risk Management

Climate change-related risks are handled by the Safety & Environmental Protection Headquarters and the Corporate Planning Department. These risks are also reported to the Management Committee.

In addition, each department regularly assesses climate-related risks in business activities through self-checks and conducts comprehensive risk management in conjunction with checks through internal audits.

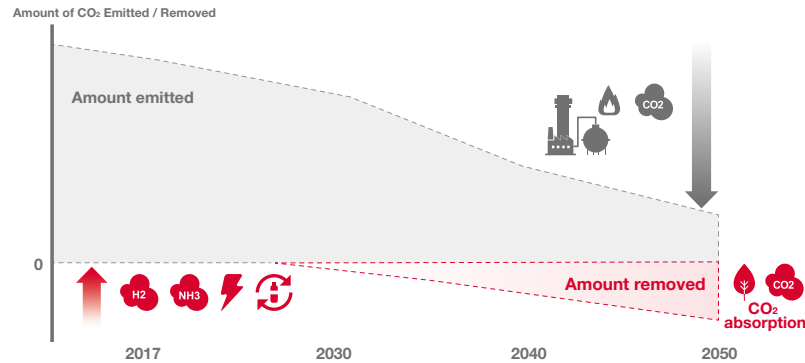


Our Response to Climate Change

Initiatives for Carbon Neutrality

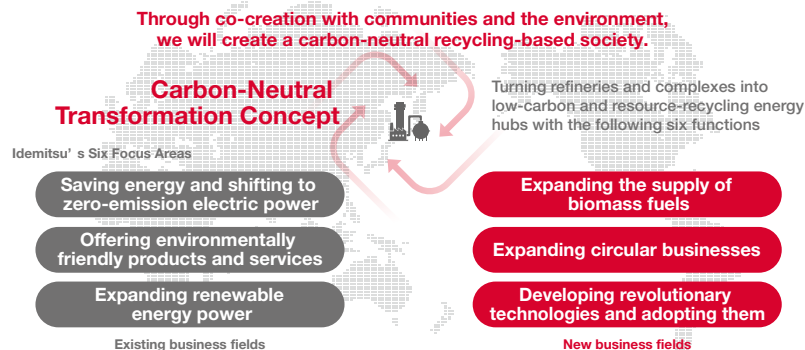
Striving toward Carbon Neutrality

Idemitsu aims to achieve carbon neutrality (net zero CO₂ emissions) for emissions from its own operations (Scope 1+2) by 2050.



Initiatives Aimed at Realizing a Carbon-Neutral Society

Aiming to realize a carbon-neutral society, we supply the energy and materials needed by customers and society from the two perspectives of strengthening and expanding existing business fields and swiftly establishing new business fields. At the same time, we are taking action to realize a carbon-neutral transformation concept through the addition of the following six functions to our refineries and complexes and by positioning them as new bases operating as low-carbon and resource-recycling energy hubs.

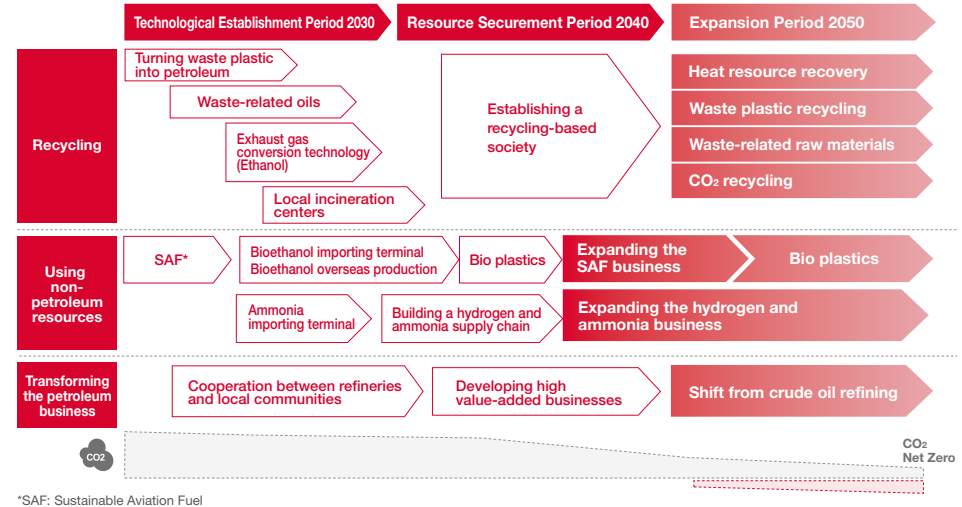


Promotion System

In July 2021, we established the Innovation Strategy & Carbon Neutral Transformation Department to lead our carbon-neutral efforts. The department monitors initiatives and progress toward achieving carbon neutrality in collaboration with the Corporate Planning Department, Safety, Environment & Quality Assurance Department, and Corporate Sustainability Department; holds discussions with management; and reports to the Board of Directors.

Carbon-Neutral Transition Plan

To realize carbon neutrality, Idemitsu has created the following transition plans for recycling, the use of non-petroleum resources, and the transformation of the petroleum business. Regarding these initiatives, we collaborate with communities and other companies to roll out activities while receiving support from experts and national interests at home and overseas.



Setting up Carbon Neutral Transformation Centers at All Complexes

Establishing carbon neutral transformation centers at all complexes is key to achieving our goals. Specifically, we will transform refineries 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.

In addition, our facilities—including refineries, complexes occupying expansive sites, piers that can accommodate large ships, and utilities (such as groups of storage tanks)—have the potential to become carbon neutral transformation centers, such as biofuel terminals, hydrogen and ammonia production and storage terminals, and waste plastic recycling sites.

Furthermore, we expect to use these facilities as lithium battery material production bases and solar panel recycling bases.

By realizing energy and material transition toward 2050, we envision carbon-neutral lifestyles centered on our complexes and are taking action to this end.

Idemitsu's Vision for Carbon Neutral Transformation Centers





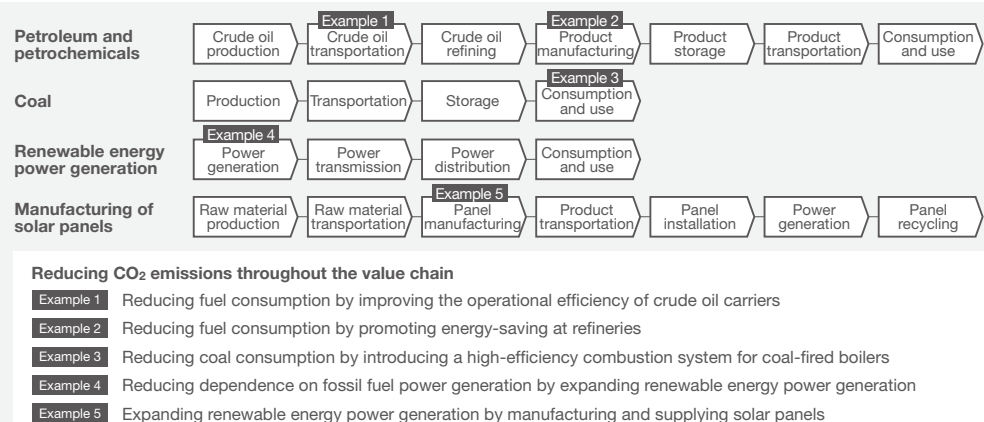
Our Response to Climate Change

Concept of Climate Change “Mitigation”

Looking at the composition of greenhouse gas (GHG) emissions associated with our group's operations, emissions arising from the consumption of our products (Scope 3) far exceed emissions from our refineries, complexes, and plants (Scope 1) and emissions mainly attributable to purchased energy (Scope 2). Scope 3 emissions constitute the overwhelming majority of our emissions. This is why we prioritize reducing GHG emissions across value chains. Accordingly, our reduction efforts not only aim to curb Scope 1 and 2 emissions, but also target Scope 3 emissions. In doing so, we are placing the utmost priority on reducing CO₂ emissions, which account for more than 90% of Japan's GHG emissions.

Value chains related to Idemitsu Group operations are diverse. Therefore, we are better placed to help reduce CO₂ emissions from the value chain in a range of areas. Looking ahead, we will strengthen our efforts in these areas and contribute to a reduction in CO₂ emissions.

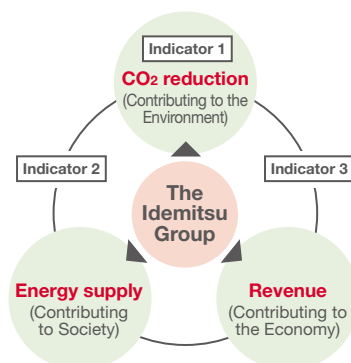
■ Examples of various business value chains and CO₂ reduction contributions



CO₂ Reduction Targets (Scope 1+2) and Monitoring Indicators (for Scope 1, 2, 3)

We recognize that an environmental contribution consisting only of a reduction in our CO₂ emissions is not enough to secure corporate sustainability. Along with these reduction efforts, we need to contribute to society by providing low-carbon energy with a view to transitioning to a low-carbon society in the future. Moreover, we also aim to contribute economically by generating profits and enhancing our resilience as a company even as we shift our business portfolio. We consider all of these endeavors to be matters of equal importance.

Based on this idea, the Group has created a system for evaluating and managing CO₂ reduction initiatives using the following three indicators.



Indicator 1 **Target value:** Contributing to the Environment
Reduction of CO₂ emissions in our own operations (Scope 1+2)

Indicator 2 **Monitoring indicator:** Contributing to Society
Reduction of CO₂ emissions per unit of energy supplied, including Scope 3

Indicator 3 **Monitoring indicator:** Contributing to the Economy
Revenue level per unit of CO₂ emitted, including Scope 3

CO₂ Reduction Target (Scope 1+2)

Indicator 1 CO₂ Reduction Target (Scope 1+2)

Idemitsu aims to achieve carbon neutrality (net zero CO₂ emissions) for emissions from its own operations (Scope 1+2) by 2050. We have expanded the scope of the 4 million ton-CO₂ emission reduction target for 2030 established as a waypoint to encompass the entire Group, including affiliates. Dealing mainly with fossil fuels, Idemitsu recognizes CO₂ reduction as a priority and will continue striving to achieve its targets.

2030 Target: Cut levels by 4 million ton-CO₂ (compared to 2017 levels)

Scope: Idemitsu and its consolidated subsidiaries as well as Group affiliates

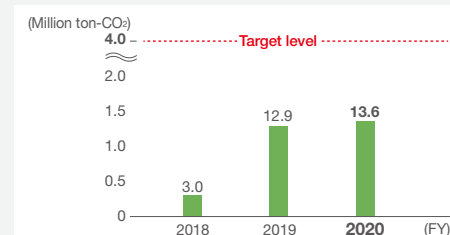
Calculation formula = CO₂ emissions in target year (Scope 1+2) - CO₂ emissions in base year (Scope 1 + 2)

FY2020 Results: down 1.36 million ton-CO₂

(compared to 2017 levels)

In FY2020, energy conservation activities at refineries and complexes helped reduce CO₂ emissions by 300,000 tons, while a slowdown in refinery operations, which reflected lower demand and decreased planned supply, resulted in a reduction of CO₂ emissions totaling 1,060,000 tons.

■ Volume of reduction in CO₂ emissions (Scope 1+2)



Monitoring Indicator (Scopes 1, 2 and 3)

Indicator 2 Low carbon level of supplied energy

(Indicator of the extent to which an energy company can reduce the “CO₂ emissions per unit of energy” supplied to society)

2050 Indicator Level: down 30% (compared to 2017 levels)

Calculation formula = $\frac{\text{CO}_2 \text{ emissions (Scope 1 + 2 + 3)} - \text{CO}_2 \text{ avoided emission}^*}{\text{Amount of energy supplied to society}}$

FY2020 Results: up 0.2% (compared to 2017 levels)

In FY2020, this monitoring indicator was up 0.2% from 2017 levels due to changes in the energy mix.

* CO₂ reduction contribution throughout the entire value chain

(We intend to revise this target from time to time in light of social trends.)

Indicator 3 Degree of carbon exit from corporate earnings

(Indicator of how the “Revenue level per unit of CO₂” emitted by the Company as a whole is being raised)

Calculation formula = $\frac{\text{Revenue}}{\text{CO}_2 \text{ emissions (Scope 1 + 2 + 3)} - \text{CO}_2 \text{ avoided emissions}^*}$

We have not currently established a target for this indicator and use it for internal purposes only.

*CO₂ reduction contribution throughout the entire value chain

Note: In the above formulas, Scope 3 emissions refer to those classified as the “Category 11: Use of Sold Products.”



Our Response to Climate Change

Reducing CO₂ Emissions throughout the Value Chain

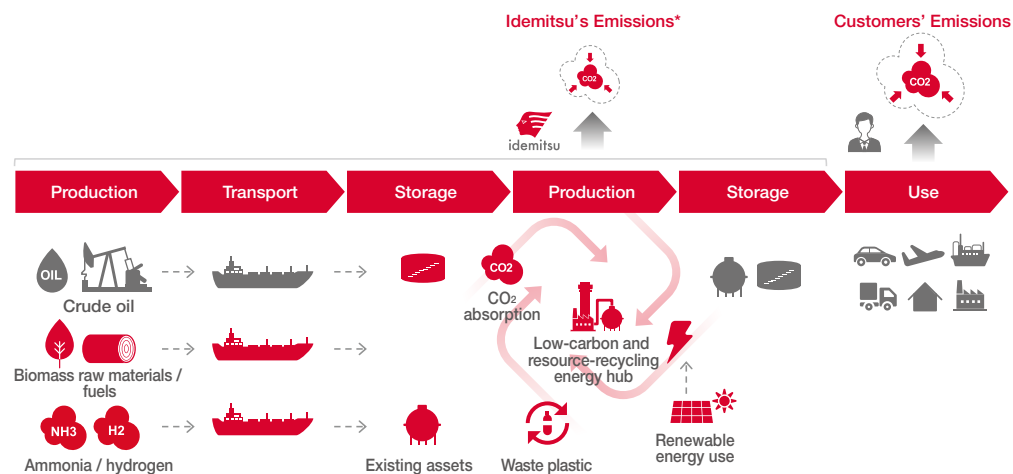
We are committed to reducing CO₂ emissions globally across value chains. We will promote the reduction of CO₂ emissions through our business activities in the following seven areas.

- (1) Reduction of CO₂ emissions throughout the value chain
- (2) Promotion of energy conservation and zero-emission electric power consumption
- (3) Provision of environmentally friendly products and services
- (4) Expansion of renewable energy power generation
- (5) Expansion of biomass fuel supply
- (6) Collaboration with other companies to expand renewable energy
- (7) Development and social implementation of innovative technologies

Reducing CO₂ Emissions throughout the Value Chain

We aim to convert refineries into low-carbon, resource-recycling energy hubs (central bases) by greatly increasing the ratio of biomass and CO₂-free ammonia and hydrogen in the raw material mix.

We are, of course, striving to reduce Scope 1+2 CO₂ emissions from our own operations as well as emissions throughout the value chain (Scope 3). We will continue taking on the challenge of SDG 7 “ensuring access to affordable, reliable, sustainable and modern energy for all.”



*Idemitsu's emissions in the value chain

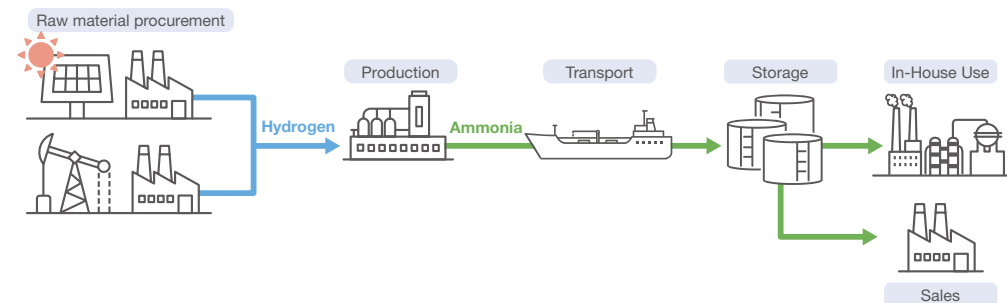
Initiatives to build hydrogen and ammonia supply chain

One specific measure taken by public and private initiatives following the Japanese government's declaration of its intention to realize carbon neutrality by 2050, was the acceleration of efforts to build a hydrogen carrier supply chain encompassing hydrogen and ammonia.

In fiscal 2020, Idemitsu considered alliances with other companies to procure blue and green ammonia from overseas and pursued studies into building a hydrogen and ammonia supply chain. For example, the Tokuyama Complex and Group refineries participated in the Ministry of Land, Infrastructure, Transport and Tourism's Carbon Neutral Support Review Meeting. The Tokuyama Complex suspended crude oil refining facilities in 2014 and has quickly completed the conversion from an oil refining business site producing petrochemical raw materials. In February 2021, the complex began operating highly efficient naphtha crackers that can achieve energy savings of around 30% compared with conventional crackers. At the same time, we are accelerating decarbonization initiatives, for example, we are building a biomass power plant slated to begin operations in 2022. Under these initiatives, we are efficiently achieving our goals by using the infrastructure already in place in the oil refining business.

In addition, Idemitsu is working with IHI Corporation on a study into building an ammonia supply chain at the Tokuyama Complex. We are studying how the complex's existing facilities, such as its storage facilities and petrochemical equipment, can be converted into an ammonia import terminal and are conducting pilot tests of mixed ammonia combustion with output from existing naphtha crackers. Going forward, we will explore the possibility of importing blue and green ammonia from overseas and supplying said ammonia to other neighboring complexes. The two companies will continue contributing to the realization of a carbon-neutral society by leveraging their strengths to quickly realize an advanced ammonia supply chain.

Overview of the Hydrogen and Ammonia Supply Chain



Our Response to Climate Change

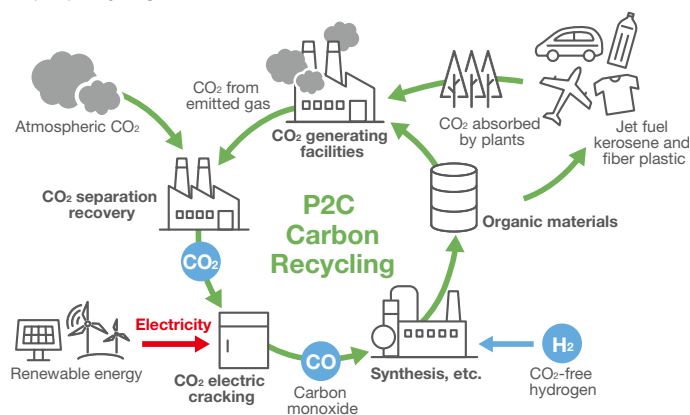
Initiatives to Stimulate Local Communities by Turning CO₂ into a Resource, in Particular, Sustainable Aviation Fuel (SAF)

In cooperation with Toshiba Energy Systems & Solutions Corporation, Toyo Engineering Corporation, Toshiba Corporation, Japan CCS Co., Ltd., and All Nippon Airways Co., Ltd., Idemitsu has been studying a P2C^{*1} carbon-recycling business model for producing sustainable aviation fuel (SAF).^{*2} This initiative was commissioned by the Ministry of the Environment, and, going forward, the six companies will work to realize local carbon recycling leveraging the local infrastructure and markets and will study how best to promote decarbonization and regional revitalization. Specifically, we will leverage the expertise, knowledge, and related plant facilities possessed by each company to study processes ranging from CO₂ separation and absorption to SAF production and consumption. We will reflect the data and insights gained in local carbon-recycling society models and evaluate business feasibility. Through this study and the operation of a pilot business, the six companies will contribute to the commercialization of the SAF supply chain based on carbon recycling and help stimulate local communities. Idemitsu's role is to certify and grade the SAF, operate the SAF mixing equipment, and create basic quality assurance plans.

^{*1} P2C: Power to Chemicals (P2C) is a CCU/carbon-recycling technology. It uses renewable energy and renewable hydrogen to recycle CO₂ into a valuable material with high environmental value. It not only reduces CO₂ emissions, it also greatly contributes to the widespread adoption of renewable energy.

^{*2} SAF: Jet fuel made from sustainable sources with low CO₂ emissions from the production and collection of raw materials to their combustion.

Carbon (CO₂) Recycling Business Model Overview



Promoting Energy Conservation and Zero-Emission Electric Power Consumption

We are working to reduce direct and indirect CO₂ emissions attributable to our refineries, complexes, and plants. Staff at our main manufacturing sites hold monthly meetings to monitor progress in energy conservation activities while sharing best practices in a way that transcends departmental boundaries.

Energy Conservation Using High-Performance Absorbents in Aromatic Compound Production Equipment (Paraxylene Equipment)

At the Chiba Complex, we upgraded the absorbents used in paraxylene equipment to high-performance versions during scheduled maintenance in fiscal 2021. These absorbents selectively absorb and separate high value-added paraxylene from aromatic compound distillation.

By increasing the rate of absorption and separation of paraxylene, the new absorbents help reduce fuel consumption at furnaces, and our aim is to reduce energy consumption by around 3,500 kL COE.

Start of commercial operations of a highly efficient naphtha cracker

We installed a highly efficient naphtha cracker in the Tokuyama Complex and began commercial operations in February 2021. The highly efficient naphtha cracker enhances heating efficiency and ethylene yield by thermally cracking raw material naphtha in a shorter amount of time. As a result, we achieve about a 30% energy conservation effect compared to ethylene production using conventional crackers, contributing to about a 16,000-ton reduction of CO₂ for the year.

Naphtha is a petroleum product also referred to as natural gasoline. Thermally cracking naphtha produces ethylene, propylene, and other basic raw materials for petrochemicals.

At the Tokuyama Complex, we produce around 620,000 tons of ethylene per year that is provided mainly to the Shunan Complex in Shunan City, Yamaguchi Prefecture. The complex's previous two old-style naphtha crackers used to produce ethylene have been replaced with a single new highly efficient naphtha cracker.

■ The highly efficient naphtha cracker at the Tokuyama Complex



Expanded Use of Electric Power Generated by Renewable Energy

At 17 oil depots in Japan, we decided to use CO₂-free electric power (contract electric power 3,732kW) provided by the Group's Idemitsu Green Power K.K. from fiscal 2020.

Initiating development of floating offshore wind power turbines that directly connect to oil and gas production facilities

Group company Idemitsu Snorre Oil Development Co., Ltd. has received permission from the Norwegian government for its development project to install floating offshore wind power turbines at the Snorre Oilfield, in which it owns a stake, through its local subsidiary Idemitsu Petroleum Norge AS. Aiming to start operations at the end of 2022, the company initiated construction of the floating offshore wind power equipment in October 2020 and completed construction of the spars, the sections that sit in the ocean. Plans call for assembling it in the Gulen municipality of western Norway, and then installing it offshore. The world's first project of its kind, this development project is aimed at establishing a large-scale offshore wind farm (the Hywind Tampen floating wind farm) approximately 200 kilometers off the coast of Bergen City, the western part of Norway, and directly feeding its output to oil and gas production facilities. The completed wind farm will consist of 11 turbines, each with a rated power output of 8,000 kW, or a combined total of 88,000 kW.

Looking ahead, our company will proactively incorporate advanced technologies to advocate for the reduction of environmental burden in the course of our resource business.

■ Floating wind turbines feeding renewable energy to an offshore oil field



Idemitsu acts as a co-participant in the project in tandem with Equinor and other partners.



Our Response to Climate Change

Provision of environmentally friendly products and services

We provide products and services designed to help reduce CO₂ emissions. By doing so, we contribute to the CO₂ emissions reduction efforts of not only Idemitsu Group entities but those of the entire supply chain.

Solar panel sales and solving issues related to photovoltaic power generation

Our Group company, Solar Frontier K.K., is working to solve issues related to photovoltaic power generation through sales, operation management, maintenance and inspection, solar panels recycling, and R&D of next-generation solar cells. The issues are as follows.

- Limited installation area
- Long-term stable use of power plants and mass disposal of solar panels
- Stabilization of supply-demand balance of grid power system

Through these efforts, we will contribute to making solar power generation the main power source in Japan.

Sale of ULTY-V plus™ coal boiler control optimization system

We developed the ULTY-V plus™ coal boiler control optimization system in tandem with the NYK Group. Once introduced, this system enables our customers to reduce coal consumption approximately 1%, thus helping them improve economic efficiency and reduce CO₂ emissions. In March 2019, we also established NYK IDEMITSU Green Solutions Co., Ltd., a fifty-fifty joint venture, in tandem with the NYK Group. The new company focuses on solution proposals aimed at marketing the system. In FY2021, Hokuriku Electric Power Company ordered four systems and expects to reduce CO₂ emissions by around 100,000 tons per year after their installation. Going forward, we will continue promoting sales in Japan and overseas.

In addition, we developed the BAIOMIX™ system that calculates the optimal co-firing ratio for biomass fuels in coal boilers and launched sales of the system in August 2021. Installing the BAIOMIX™ system in the ULTY-V-plus system enables the optimal and automatic control of biomass co-firing in coal boilers.

To expand biomass co-firing at coal-fired power plants, Idemitsu developed black pellets made of semi-carbonized wood with excellent crushability and heat generation that are nearly equivalent to coal in terms of function. This is one way we are working to reduce CO₂ emissions using existing coal-fired power generation equipment.

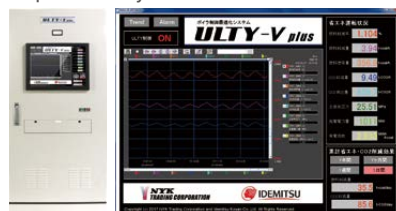
The recently developed BAIOMIX™ system calculates the economic burden as well as the impact on equipment and the power generation rate of biomass co-firing, including that using black pellets, and the artificial intelligence (AI) uses historical co-firing rate data to calculate the optimal co-firing rate.

Furthermore, the system is compatible with various combustion modes, such as that involving co-firing biomass fuel supplied via a specialized line with coal or that involving mixing coal and biomass fuel together for combustion using existing equipment.

■ Image of self-consumption photovoltaic (solar) power generation installation



■ Marketing of ULTY-V plus™ coal boiler control optimization system



Helping to curb coal consumption through optimal operational control

Eco-Friendly Products

We also promote the development of environmentally friendly products in growth business fields, including those listed below.

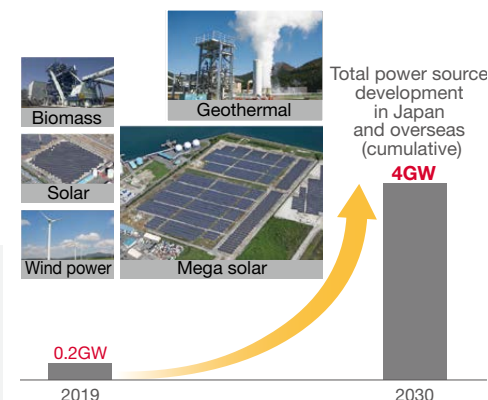
- Products compatible with EVs (high-performance lubricants and grease)
- Development of all-solid-state lithium-ion battery materials
- Next-next-generation high-performance (e.g., ultra-high-efficiency) solar panels
- Advanced greases (the utilization of cellulose nanofiber, a biodegradable and safe material derived from wood pulp for use in food processing machinery)

Expansion of Renewable Energy Power Generation

In line with our aim to promote the supply of energy from sources with lower carbon footprints, we operate a number of renewable energy power plants at home and abroad. Our network of plants encompasses solar, geothermal, biomass, and wind power plants in Niigata, Oita, Kanagawa, and elsewhere in Japan as well as in Vietnam. Going forward, we will significantly expand the use of renewable energy sources in Japan and overseas toward 2030 by leveraging our accumulated operational know-how.

FY2020 Initiatives

- Completed a 210MW solar power plant in California, the United States
- Completed a 50.5MW solar power plant in California, the United States
- Constructed a 100MW solar power plant in Colorado, the United States in fiscal 2021
- Began construction of a biomass power plant at the Tokuyama Complex (operations slated to begin in fiscal 2022)



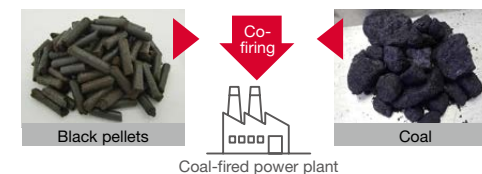
Expansion of Biomass Fuel Supply

Even as we strive to promote renewable energy generation projects, we are engaged in biomass fuel-related operations as part of our efforts to supply energy from sources with lower carbon footprints. Specifically, we are developing black pellets, a biomass fuel that can be co-fired with coal at coal-fired power stations to reduce CO₂ emissions. Black pellets are made by pulverizing, drying, and roasting wood to semi-carbonize it.

Compared with conventional white pellets, black pellets boast superior properties, including water resistance, and are easier to crush. Along with these features, they can be handled in the same way as coal. This makes it possible to reduce coal consumption without modifying existing power generation facilities while increasing the use of renewable energy sources in the form of black pellets.

In fiscal 2021, having conducted a co-firing test with coal at the Tokuyama Complex, we did the same at boilers at the Chiba Complex as well. We are currently preparing to begin commercial production in fiscal 2022. (The product name for our black pellets is Idemitsu Green Energy Pellets.)

We aim to supply 2.0 million tons of Idemitsu Green Energy Pellets in 2030 and plan to continue working to expand production sites, especially in Southeast Asia, including Vietnam, Malaysia, Indonesia, and Thailand.





Our Response to Climate Change

Collaboration with Other Companies to Expand Renewable Energy

Participation in Pilot Test Project for Renewable Energy Aggregation

In June 2021, we launched a renewable energy aggregation pilot test project with Kansai Electric Power Company and Kanden Energy Solution Co., Inc. This project 1) forecasts unstable electric power generation, 2) balances each instability by combining multiple solar and wind power sources, and 3) compensates for persistent instability by using storage batteries.

By amassing data on the renewable energy power plants owned by the three companies, we will be able to verify the accuracy of power generation forecasts by combining various data sets, including weather information. Moreover, in addition to ensuring that power generation plans based on forecasts match actual power output and the timing of said output, we are looking to confirm that we will be able to adjust the output of the storage batteries to meet any variation in the output of renewable energy power facilities.

Through this project, we aim to build a stable and effective electric power system using distributed energy resources (DER), such as storage batteries, and contribute to the wider adoption of renewable energy, thereby contributing to the realization of a carbon-neutral society by 2050.

Pilot Test of EV Charging Services Using Dynamic Pricing

Idemitsu and Solar Frontier are working with Nissan Motors Co., Ltd. on a pilot test project for electric vehicle (EV) charging services using unique dynamic pricing.*1

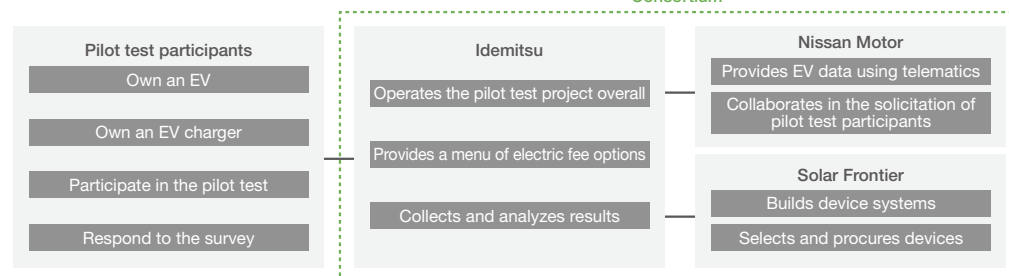
The three companies are undertaking this project with the purpose of reducing and leveling off the electric power burden in the lead up to a future in which EVs and plug-in hybrid vehicles (PHVs) are more widely adopted. We aim to help achieve carbon neutrality and realize a sustainable electric power infrastructure by effectively using renewable energy for EV charging in this project and verifying a mechanism that enables charging outside of times with increased electric power demand.

■ Content of the Pilot Test Project

Using a smartphone app, we notify Nissan Leaf EV owners who are participating in the pilot test of charging incentives (electricity fee discounts) that differ depending on the time of day. This encourages participants to charge their EVs during daylight hours when solar panels (the main renewable energy power source) are operational as well as during such low-power demand hours as late at night. We then analyze participant behavior and survey results to verify the effectiveness and feasibility of such incentives.

*1 Dynamic pricing is a pricing system that varies based on the demand and supply situation

■ Dynamic Pricing Pilot Test Operation Chart



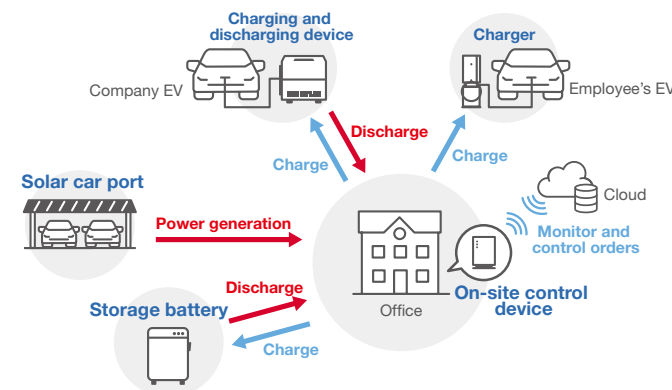
Launching a Pilot Test to Optimize Control of EV and Storage Battery Charging and Discharging

In March 2021, we initiated a pilot test with Nihon Unisys Co., Ltd. aimed at optimizing control of EV and storage battery charging and discharging. With the aim of developing energy management technology that combines solar power units, EVs, and storage batteries, the test is based on forecasts of the power demand from buildings, solar power generation capacity, EV operation status, and wholesale electric power market trends.

The test is being conducted at the Kunitomi Plant (Miyazaki Prefecture) of our affiliate Solar Frontier K.K. We began by drawing up an optimal charging and discharging plan for EV and storage batteries based on forecasts of the power demand from the offices, the power generated by the solar car ports, and the operational status of multiple EVs. By establishing technology that can control multiple factors, including solar power units, EVs, and storage batteries, we will realize a reduction in the cost borne by electric power customers as well as a reduction in the procurement cost for retail electric power providers. For the test, we are utilizing Solar Frontier's owned assets (offices and company EVs) and products (such as storage batteries, EV battery charging and discharging devices, EV battery chargers, and solar car ports).

Through this pilot test, we aim to continue further expanding the use of solar power and other renewable energy as well as stably supplying energy to and reducing the carbon emissions of the distribution department through greater use of EVs and PHEVs going forward.

■ Illustration of optimizing control of EV and storage battery charging and discharging





Our Response to Climate Change

Development and Social Implementation of Innovative Technologies

Technological innovation is indispensable to achieving the goals of the Paris Agreement, which is an international framework related to climate change. With this in mind, we will carry out demonstration testing and otherwise strive to advance such promising technologies as carbon dioxide capture and storage (CCS), carbon dioxide capture and utilization (CCU), and hydrogen energy, which is completely free of CO₂ emissions. Taking a proactive approach, we aim to achieve much-anticipated breakthroughs in these fields and to commercialize solutions that promote the transition to a low-carbon society.

Case Studies Specific Initiatives

■ Participation in “Challenge Zero,” Keidanren initiative

We are a participant in “Challenge Zero,” an initiative sponsored by the Keidanren (Japan Business Federation) in collaboration with the Japanese government, with the aim of contributing to the realization of a decarbonized society, the long-term goal defined by the Paris Agreement—an international framework for climate change countermeasures. To this end, participants in “Challenge Zero” are acting as strong advocates of decarbonization efforts at home and abroad, as well as encouraging other businesses and organizations to take action and tackle the challenge of achieving innovation.

A dedicated website for the Keidanren Challenge Zero initiative ➡ <https://www.challenge-zero.jp/en/member/27>
(Articles describing innovation achieved by Idemitsu are featured.)



■ Cooperation in the CCS demonstration project

We have been cooperating in a CCS demonstration project run by Japan CCS Co., Ltd. The project is being executed in Tomakomai, Hokkaido Prefecture and is commissioned by the Ministry of Economy, Trade and Industry (METI) and New Energy and Industrial Technology Development Organization (NEDO). In this case, CCS refers to a technology that absorbs CO₂ from gaseous power plant emissions before it can be released into the atmosphere, pumping it deep underground to sequester it. Since April 2016, our role in the project has been to supply the gas containing CO₂ from the Hokkaido Refinery for use in the demonstration project. As of November 22, 2019, the project achieved a cumulative total of 300,000 tons of CO₂ sequestration, meeting the initial target. Having ceased sequestration, the project is currently in the monitoring phase to confirm whether there are any leaks or other abnormalities.

■ Participation in the Working Group on the Roadmap for Carbon Recycling Technologies

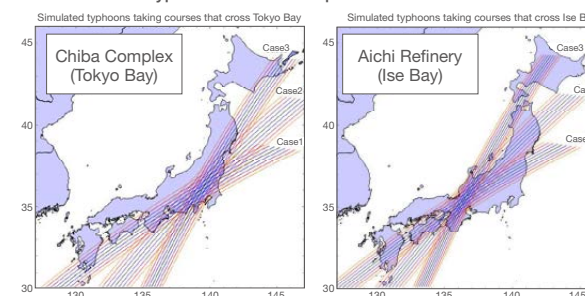
We participated in the Working Group on the Roadmap for Carbon Recycling Technologies established by the METI. The Working Group was established to promote an effective and rapid development of carbon recycling technologies. The roadmap was compiled in June 2019.

Concept on Climate Change Adaptation

With an increasing frequency of ever more severe natural disasters striking Japan, it is extremely important to identify possible disaster risks via the development of diverse scenarios. We assume earthquakes, flooding, high tides and other emergencies so that we can minimize damage to our refineries and complexes and ensure that operations at these facilities can be promptly restored. To strengthen our ability to ensure safety, we will therefore direct capital expenditure to upgrade facilities, while enhancing operational procedures and human resource capabilities, to mitigate damage even in the event of a disaster with unprecedented severity. By doing so, we will continue to fulfill our mission as an energy supplier.

In recent years, a growing number of typhoons have passed through a large part of the Japanese archipelago while remaining at full strength. This phenomenon is believed to be due in part to climate change. As these typhoons often induce high tides, our refineries and complexes located in coastal areas are facing a growing risk of flooding. In response, we have conducted risk analysis associated with the impact of flooding due to high tides based on the simulation of typhoons of the largest-possible scale taking courses that directly cross these facilities' sites. Based on the results of this analysis, we are considering the reinforcement of facility structures via, for example, the installation of flood walls to safeguard seawater pump rooms in addition to the enhancement of disaster response manuals and other procedures designed to provide our staff with guidance on how to mitigate disaster damage.

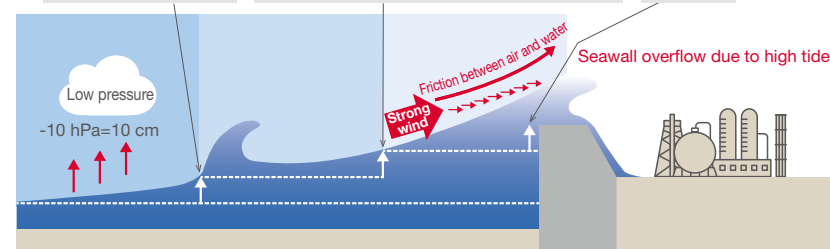
■ The courses of typhoons assumed to provide a basis for the estimation of damage on refineries



■ Illustration of damage from high tides

A surge in water level

= inverse barometer effect + rise in average sea level due to breaking waves + wind surge





The Idemitsu Group's Technologies Underpinning Innovation

Initiatives for Material Issues

Idemitsu has outlined the expansion of growth businesses, creation of next-generation businesses, and harmony with the global environment and society as priority topics. To promote the creation of new business in particular, we established the Next Generation Business Department, which promotes business development that addresses social issues and meets customer needs, in November 2019; the Digital Transformation Department (currently the Digital & BPR Department), which promotes the use of digital technologies, in January 2020; and the Innovation Strategy Planning Department (currently the Innovation Strategy & Carbon Neutral Transformation Department), which promotes technology-driven business development, in April 2020. 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. The Idemitsu Group is using the technological development capabilities it has developed over many years of operations to continue generating innovation that will help solve various social issues, including climate change.

FY2020 R&D Investment Record		(Millions of yen)
R&D expenses		20,468
R&D expenses by Business Segment	Petroleum	1,947
	Basic Chemicals	0
	Functional Materials	12,357
	Power and Renewable Energy	996
	Resources	187
	Others	4,979

R&D Structure

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.

		Petroleum segment and corporate research	Functional materials segment	Power and renewable energy segment	Resources segment
Research field	Name of laboratory	Japan	Overseas	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 advanced functional materials (organic macromolecule materials)	
	Advanced Inorganic Materials Research Laboratory	●		■ Development of advanced 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 Collaborative Research Cluster for Advanced 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 ■ Technology-driven contribution to existing and new businesses	
Lubricants	Lubricants Research Laboratory	●		■ Research and development of lubricants and tribology (lubrication technology)	
	Idemitsu Lubricants America Corporation R&D Center		●	■ Locally 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, metalworking oil, etc.	
Advanced materials & performance chemicals	Performance Materials Laboratories	●		■ Development of advanced materials through high-value-added petrochemical raw materials ■ Research and development of special polycarbonate resins and functional coatings	
	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	●		■ Design, development, and analysis of customer grades of composite materials that meet customer needs	
Electronic materials	Electronic Materials Development Center	●		■ Research and development of OLED materials	
	Idemitsu OLED Materials Europe AG		●		
Bitumen	Technology Section	●		■ Basic and applied research on asphalt and its applications ■ Development of high-performance asphalt	
Agri-bio	Agri-Bio Technology Section	●		■ Development of active ingredients for pesticides and feed additives derived from microorganisms and natural products	
	SDS Biotech K.K. Tsukuba Research & Technology Center	●		■ Development of safe and useful products for the protection of livestock and plants and prevention of diseases	
Lithium-ion battery materials	Battery Material Development Center	●		■ Development of sulfide-based solid electrolyte materials, which are key materials for all-solid-state lithium-ion batteries, and development of manufacturing processes ■ Development of next-generation battery materials	
	Technology & Engineering Development Center	●		■ Aiming to commercialize the aforementioned solid-state electrolyte materials, development of large-scale commercialization processes as well as design and construction of equipment	
Photovoltaic power generation	Advanced Product Development Section	●		■ R&D to develop next-generation products ■ R&D to commercialize recycling solar panels, including crystal silicon panels	
	Solar Frontier K.K. Kunitomi Plant	●			
Coal and the environment	Coal & Environment Research Laboratory	●		■ The only private research institute specializing in coal ■ Provision of technical services and development of clean coal technologies for a low-carbon society, such as biomass fuels to help reduce GHGs, carbon recycling, and high-efficiency combustion technologies	

The Idemitsu Group's Technologies Underpinning Innovation

Promotion of Open Innovation

To accelerate development of advanced materials and create carbon neutral transformation centers at complexes, we are promoting open innovation that actively utilizes external knowledge.

- The mission of the Innovation Strategy & Carbon Neutral Transformation Department is to accelerate the development of advanced materials and create carbon neutral transformation centers at refineries and complexes. The department is in charge of open innovation in technological fields, accelerates and promotes external cooperation, and consolidates the Group's technologies across departments.
- We participate in funds operated by venture capital and work to discover technological seeds owned by venture startups in Japan and overseas. In November 2020, we invested in the open innovation fund operated by the Swiss clean technology-related venture capital Emerald Technology Ventures (head office: Zurich, Switzerland).
- We are working to create next-generation materials and train personnel at the Idemitsu Kosan Collaborative Research Cluster for Advanced Materials, which was opened at the Tokyo Institute of Technology in April 2020.

External Evaluation of Idemitsu Group's Technologies

Our technologies are highly appreciated by the international community. As an example, for four consecutive years since 2017 Idemitsu and Showa Shell have 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), the Idemitsu Group belongs to the Oil & Gas Refining and Marketing industry subgroup.

MSCI's sector rankings for "Opportunities in Clean Tech"				
Ranking	2017	2018	2019	2020
1	Idemitsu Kosan	Idemitsu Kosan	Idemitsu Kosan	Idemitsu Kosan
2	Company A	Company A	Company A	Company A
3	Showa Shell	Showa Shell	Company D	Company B
4	Company C	Company D	Company B	Company C
5	Company D	Company B	Company E	Company D

Case StudiesSpecific initiatives

■Developing innovative technologies to promote the shift to solar power as a primary energy source

Under the New Energy and Industrial Technology Development Organization (NEDO) programs "Technological Development for Promoting Solar Power Generation and Making It a Major Power Source" and "Technological Development for Creating New Markets for Solar Power Generation," we are promoting the development of new technologies to expand the places where solar panels can be installed. In particular, in the development of new technologies to install solar cells in regular electric vehicles, Idemitsu is working with multiple other organizations to develop solar cell modules for installation in vehicles to increase efficiency and reduce costs. Among the solar cell modules being developed, Idemitsu is focusing on CIS bottom cell technologies.

In addition, these projects' respective themes will be pursued via the application of CIS solar cells (solar cells made using a compound of copper, indium and selenium) from Solar Frontier K.K., an affiliate company of Idemitsu.

■Developing new lubricant technologies to extend the life of wind turbines

In September 2020, Idemitsu's proposal of a business focused on "optimal lubricant designs based on analysis and testing using multiscale tribology to extend the life of wind turbines" was selected as a support business for the NEDO programs "Technological Research and Development for Wind Power," "Technological Research for Making Wind Power Much More Practical," and "Research and Development for Enhancing Turbine Operation and Maintenance Technologies."

Specifically, over the three years up to fiscal 2022, in an effort to extend the life of machinery by enhancing the performance of lubricants (abrasion resistance, long-term stability), we are working to develop new technologies for lengthening the average replacement interval for lubricants used in the bearings and gears of wind turbines from the current five years by triple to 15 years. This business aims to help lower the cost of power generation by developing technologies that enhance the amount of power generated by wind turbines while reducing operational and maintenance costs and downtime with the goal of expanding Japan's offshore wind power capacity.

As for new technological developments, under the program "Research and Development for Enhancing Turbine Operation and Maintenance Technologies," Idemitsu is collaborating with the University of Hyogo and Okayama University to create and test optimal molecular structures for lubricants that help eliminate the need for the maintenance of offshore turbine bearings and gears. Idemitsu develops new technologies based on the basic optimization technology and evaluation methods it has cultivated in the development of lubricants. On the University of Hyogo's super computers, we are using theoretical evidence based on data to run large-scale pilot test calculations applying simulation and material informatics technologies to predict the optimal molecular structures of basic materials and composition of lubricants. Among our basic material candidates are multiple new materials (nanotribology material additives) that help reduce friction and abrasion developed at the University of Hyogo and Okayama University. As a technology-focused global lubricant manufacturer, the Company will further promote the development of new technologies originating in Japan to expand the adoption of offshore wind power.

■Utilization of collagen and mucin derived from jellyfish

Although the jellyfish displayed at aquariums are popular among onlookers due to their beautiful and mysterious outward appearance, their swarms sometimes negatively impact commercial fishing and other business activities undertaken in coastal areas. Moreover, disposing of jellyfish caught in nets results in significant costs. Because of this, there is a growing call to find ways to use jellyfish as a resource. Jellyfish Research Laboratories, Inc., an affiliate, has invented a technology to utilize useful ingredients extracted from jellyfish. Collagen derived from jellyfish has been confirmed to be effective in promoting the regeneration of the epidermis, which is considered to be difficult to regenerate, and is expected to be used in the fields of regenerative medicine and beauty treatment. Mucin derived from jellyfish is also expected to have potential as a treatment for knee osteoarthritis.

Jellyfish Research Laboratories proposes to use jellyfish-derived ingredients in cosmetics and the healthcare fields and aims to conduct trials to label jellyfish collagen as a functional food to reduce joint pain. By recasting jellyfish as an effective material, we aim to contribute to a circular economy, blaze a new trail in the life science field, and help people around the world enhance their quality of life. Furthermore, the initiatives discussed above were covered by Circular Yokohama, an online media outlet focused on drawing public attention to local businesses engaged in innovative endeavors aimed at realizing a circular economy. The Jellyfish Research Laboratories are also registered as a Kanagawa SDGs Partner because its SDG initiatives are in alignment.



* Circular Yokohama: A platform that introduces initiatives for circular economy realization in Yokohama City.

Working Towards a Circular Economy

The Circular Economy Concept

The Group believes that realizing the goal of a recycling-oriented society entails reforming the conventions of mass production, mass consumption, and mass disposal in order to form a society with a reduced reliance on natural resources and that places the lowest possible burden on the environment. We are implementing a variety of initiatives to ensure that renewable resources are recycled within the limits of their renewable capacity. We are working to ensure that non-renewable resources are consumed in the most effective way possible, and that their use is curbed and shifted to other renewable resources over the long term.

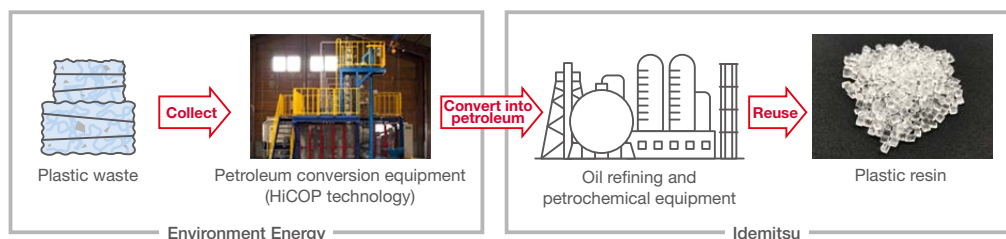
Concrete Initiative Examples

The Group is conducting a comprehensive study into the realization of a sustainable circular business based on the maximum possible use of renewable and reuse of other resources based on technology our departments now possess and incorporating them into the business supply chain.

Specifically, we are working on plastic recycling and solar panel recycling. From a long-term perspective that treats CO₂ as a resource, we are also working on carbon recycling.

Plastic Recycling

Idemitsu and Environment Energy Co., Ltd. agreed to consider conducting a pilot test of a waste plastic recycling project at the Company's Chiba Complex. In this test, we aim to utilize the waste plastic decomposition technology of Environment Energy and the oil refining and petrochemical equipment of the Chiba Complex in order to recycle mixed plastics, which are difficult to process using conventional technologies.



Idemitsu does everything from crude oil refining to plastic manufacturing. Leveraging this strength, we will continue actively working to contribute to a low-carbon society by recycling waste plastic into petroleum.

We are also aware of the need to tackle the problem of marine plastic waste by rallying every company in the supply chain. We have joined two industry associations and started sharing and exploring information. We are also working to raise awareness of the problem of marine plastics within the Company.

■ Japan Initiative for Marine Environment (JaIME)

Established by five Japanese chemical-related associations (Japan Chemical Industry Association, The Japan Plastics Industry Federation, Plastic Waste Management Institute, Japan Petrochemical Industry Association, and Vinyl Environmental Council).

■ Clean Ocean Material Alliance (CLOMA)

Consisting of 361 business corporations and organizations from plastic supply chains (as of August 27, 2020)

Supporting Gunpla through Chemical Recycling

The Bandai Namco Group uses chemical recycling to support the plastic Gundam model kits called Gunpla that it sells. These kits have used polystyrene sourced from our affiliate PS Japan (PSJ) since their launch. Gunpla kits are major hit products with cumulative sales exceeding 700 million units and celebrated their 40th anniversary in 2020.

PSJ is a participant in the Gunpla Recycle Project launched by the Bandai Namco Group in 2021 through chemical recycling. The Project aims to produce the world's first plastic model products created by chemically recycling by collecting the Gunpla frame parts called runners.

Chemical recycling technologies thermally crack used polystyrene. Applying cutting-edge technologies that revert polystyrene into raw material styrene monomers, PSJ will continue repeatedly conducting pilot tests to establish these technologies going forward.

Solar Panel Recycling

In August 2020, a project proposed by Solar Frontier K.K., was adopted by the New Energy and Industrial Technology Development Organization (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 cell modules in a way that generates lower environmental burden.

The volume of solar cell modules that must be disposed of is expected to grow radically from the 2030s onward. According to NEDO, the estimated annual volume of disposed modules will peak at some point in the 2035–2037 period, reaching somewhere between 170,000 and 280,000 tons. Anticipating these circumstances, Solar Frontier has recognized the importance of establishing a technology that enables a low-cost and eco-friendly process for recycling solar cells as part of efforts to popularize solar power generation without increasing environmental impact. Therefore, since 2010 the company has been engaged in the ongoing development of technology for recycling CIS thin-film solar cells.

In FY2019, Solar Frontier took on the development of element technology supporting the material recycling of laminated glass-type solar cells through a joint-research project with NEDO. Building on low-cost decomposition technology established by prior R&D and technological demonstration activities, the project confirmed the ratio of material recycling can potentially be increased to approximately 90%.

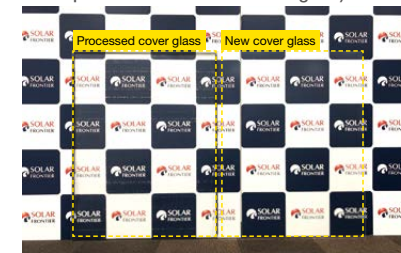
Through engagement in the latest joint-research project in fiscal 2019, we aim to further advance this technology with the aim of reducing recycling costs and enhancing the eco-friendliness of the process involved.

Specifically, over the four years from FY2020 to FY2023, we will take on the development of a recycling technology for crystalline silicon-based solar cells in addition to the development of similar technology for 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 for both types of cells. Moreover, we will develop applications for separated materials in line with our target of achieving a material recycling ratio of 90% or more. To this end, we intend to build a continuously operating demonstration plant for processing commercial-size solar cell modules at Solar Frontier's Kunitomi Plant (Kunitomi-cho, Miyazaki Prefecture). We will thereby strive to demonstrate the targeted recycling technology by the end of the project period.

■ CIS thin-film solar cell modules processed by a panel separator



■ Comparison of cover glass processed by a panel separator and the cover glass of a new solar panel (Transparency of processed cover glass is comparable to that of new cover glass)





Working Towards a Circular Economy

Carbon Recycling

Treating CO₂ as a resource, we promote carbon recycling by producing various carbon compounds from CO₂ and reusing them for such applications as producing chemicals, fuel, and minerals. We are a member of the Synthetic Fuel Research Committee organized by the Japanese government. By participating in the Carbon Recycling Fund Institute, which helps spur carbon recycling innovations through research support and marketing activities related to carbon recycling on a private basis, we are engaged in R&D on carbonate production and other technologies aimed at enabling the reuse of CO₂ as a resource.

Carbonate Production

In tandem with Ube Industries, Ltd., JGC Corporation, JGC Japan Corporation and several universities, our company co-founded "CCSU (Carbon dioxide Capture and Storage with Utilization) Study Group" in 2019. This study group aims to promote an industry-academia collaboration to develop new technologies that convert CO₂ emitted from thermal power plants and factories into resources by utilizing industrial waste with high calcium content. With the Japanese government promoting the development of technologies for CO₂ recovery and other measures to combat global warming, we are working on technological development aimed at establishing methods for utilizing industrial waste containing high levels of calcium and other substances that react with CO₂ to produce carbonates.

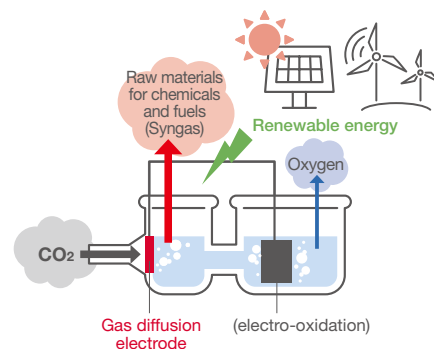
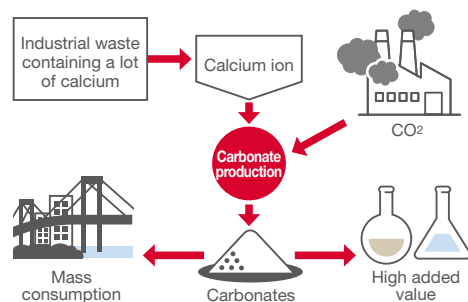
In July 2020, a project deriving from the study group was adopted by NEDO as a commissioned R&D project spanning five years from FY2020 through FY2024. Focused on the R&D of an accelerated carbonate production process employing calcium contained in industrial waste, including waste concrete, this project will take on the development of technologies for extracting raw material calcium from such waste and reacting it with CO₂ contained in exhaust gas from industrial facilities in order to fix the carbon with the aim of commercializing and popularizing this process. Looking to assess the CO₂ reduction effect of the accelerated carbonate production technology, we will test and evaluate it with the aim of improving the efficiency of calcium extraction and carbonate production as we strive to optimize the entire process and establish the technology.

Through our involvement in this commissioned project, we will play our part in industry-academia-government collaboration to develop new carbon fixation technologies that utilize CO₂ emitted from power generation and manufacturing facilities. We will also step up our initiatives in fields ranging from raw material procurement to application development to achieve the social implementation of these technologies.

Our Unique Technologies for Reusing CO₂ as Resources

We have succeeded in the direct synthesis of methane and other hydrocarbons from water and CO₂ using a gas diffusion electrode loaded with our original catalysts. Most competing processes for synthesis begin by dissolving CO₂ in water to generate a reaction. Our unique process avoids this step by employing a gas diffusion electrode to stimulate a direct reaction with CO₂ gas. We are currently striving to improve the properties of our electrode catalysts, such as their reaction performance, cost-effectiveness, and durability, as we work to develop a process capable of treating greater volumes of CO₂.

Looking ahead, we will promote research into this technology with the goal of establishing a highly efficient process that is powered by renewable energy and produces chemicals and fuels from CO₂ by 2030. In these ways, we will promote the reuse of CO₂ and contribute to a sustainable society.



Initiatives to Reduce Industrial Waste Disposal

Concept of Waste Reduction

The Idemitsu Group works to curb environmental impact by reducing the volume of industrial waste generation and by promoting the reuse of raw materials and the utilization of recycled raw materials from the perspective of the effective use of resources.

Among the major types of waste generated by our businesses are waste catalysts from refinery processes, sludge from tank cleaning, and sludge from wastewater treatment facilities. We constantly strive to reduce the volume of waste and render it harmless through such intermediate treatments as incineration, dehydration, and dissolution, and we promote the reuse of treated waste such as using it as raw material for cement. By doing so, we are maintaining our "zero emissions" status, that is, keeping the ratio of waste we dispose of by landfill at 1% or less.

Reduction Targets

Currently, Japan's petroleum and chemical industries are pursuing their respective voluntary reduction targets* for the final disposal volume of industrial waste in line with Nippon Keidanren's Voluntary Action Plan for Establishing a Sound Material-Cycle Society. Based on these targets, our company has defined its own target for waste, namely, keeping the ratio disposed of by landfill at 1% or less of the overall volume of waste emitted from our refineries and petrochemical plants.

* The petroleum industry (Petroleum Association of Japan): Industry-specific goal: Maintain "zero emission" status by keeping the ratio of waste disposed of by landfill at 1% or less from FY2021 onward

The chemical industry (Japan Chemical Industry Association): FY2025 goal for the volume of waste disposed of by landfill: 170,000 tons or less

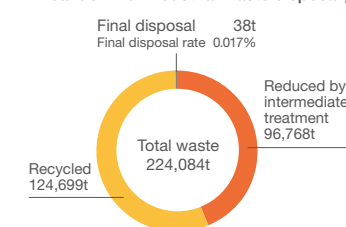
Industry-specific goal: ■Reduce the volume of waste disposed by landfill to 170,000 tons or under by FY2025

■Maintain a recycling rate of 65% or higher by FY2025

Voluntary Action Plan for Establishing a Sound Material-Cycle Society ► https://www.keidanren.or.jp/en/policy/2021/029_overview.pdf

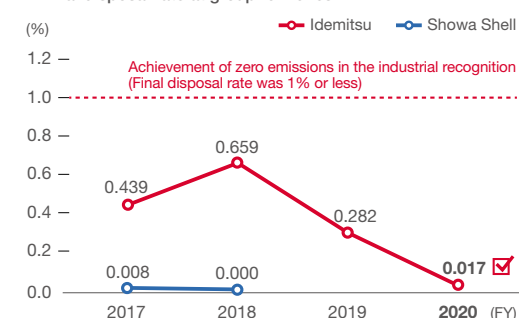


Breakdown of industrial waste disposal



*Scope of calculation: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil Co., Ltd. and Showa Yokkaichi Sekiyu Co., Ltd.

Final disposal rate at group refineries



*Scope of FY2020 calculation: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil Co., Ltd. and Showa Yokkaichi Sekiyu Co., Ltd.



Conservation of Water Resources

Concept of Utilization of Water Resources

The Idemitsu Group has in place an overarching risk management structure to address risks arising from changes in the business environment, natural disaster risks, risks attributable to operational accidents, climate change-related risks, and environmental regulatory risks. Water-related risks, which fall within these risk categories, are thus managed under the aforementioned structure.

Specifically, in line with the Environmental Protection Policy, voluntary targets regarding wastewater treatment have been set and incorporated into the Group's Environmental Management System operations from the perspective of preventing pollution, effectively utilizing resources, and preserving biodiversity. These targets are even more severe than standards stipulated by national and local governments.

With particular focus on the effective utilization of water resources, we work to assess our status of water use on a global basis. In reference to the "Aqueduct" data published by the World Resources Institute (WRI), we have also confirmed whether our business sites operate in regions with water stress.

Although our six domestic refineries and complexes are not located in regions with high water stress, the volume of water intake by these business sites accounts for more than 95% of the Idemitsu Group's overall water intake volume. As most of our water utilization volume is thus attributable to our domestic business sites, our focus regarding water consumption is on reducing usage via the recycling of water resources with the objective of promoting effective resource utilization in the course of domestic operations.

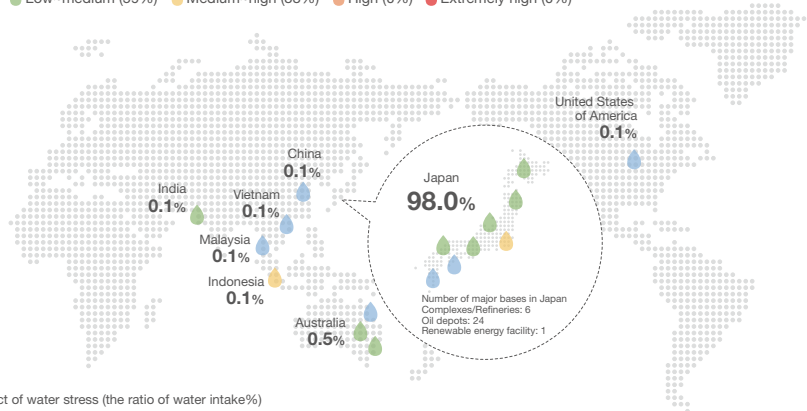
In addition, we have made it a rule to limit our water intake upon the request of relevant local government in cases where reserves fall below the dam water storage standard due to a temporary decrease in precipitation. In this way, we help eliminate water depletion risk. On the other hand, Japan's landscape is steep, and drainage from heavy rains can pour into rivers suddenly, which increases the risk of flooding due to increased rainfall. In recent years, the impact of weather has increased, and flood damage has become more frequent during typhoon passes.

As described above, in Japan, where our business is headquartered, we have a variety of water-related issues, and the risk of flooding is high. We anticipate that future damage will expand due to climate change, so we are moving forward with the strengthening of related infrastructure facilities. By implementing these measures and curbing sustained water stress, we are able to use stable water resources.

We also operate in countries and regions other than Japan where water resources are not necessarily abundant. The problem of water resources is becoming increasingly serious around the world, and it is said that more than 2 billion people do not have access to safe drinking water. Recognizing the current situation, we have begun efforts to look overseas. At present, although we do not operate in areas with high water stress, in order to maximize the effective use of precious resources like water, we are promoting efforts to reduce the amount of water used in Japan, where our water utilization is highest.

■ The water stress map for our main business locations

● <Low (6%) ● Low-medium (59%) ● Medium-high (33%) ● High (0%) ● Extremely high (0%)*1



*1 ●~● Impact of water stress (the ratio of water intake%)

*2 Data (%): The ratio of water intake at each location to the total water intake of the Idemitsu Group.

*3 As of July 2020 Source: WRI's Aqueduct assessment

*4 Scope: Main Business operations undertaken by Idemitsu Kosan Co., Ltd. and its consolidated subsidiaries

Strengthening of Water Recycling at Refineries and Complexes

Our refineries and complexes, which use large volumes of water, are working on reducing their water consumption and not just staying in line with waste water standards. A certain amount of water (seawater and fresh water) is required to cool the process fluid during the oil refining process at refineries. Fresh water that becomes hot when used for cooling is circulated in an air-cooled condenser to lower its temperature, and reused as cooling water for the process fluid to reduce the impact on the environment. As a water user, we will make further efforts to recycle water resources.

Recycling of industrial water

	Unit	FY2020
Industrial water intake	thousand t	82,074
Water recycling rate	%	94

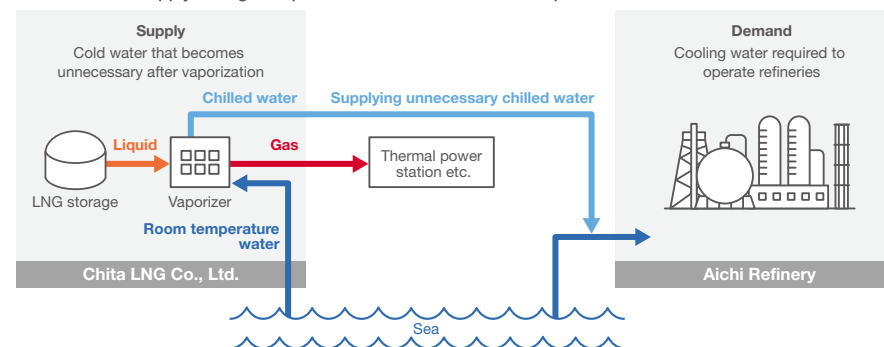
Notes: 1. Scope of calculation: Idemitsu Kosan and consolidated subsidiaries

2. Water recycling rate is only for industrial water. ((1)Industrial water intake: 82,074,000 t; (2)Industrial water use: 1,366,526,000 t; (3)Industrial water recycling amount: 1,284,452,000 t. The water recycling rate = (3)/(2) (2)=(1)+(2)

Reduction of Water Consumption through Collaboration with Other Companies

At Aichi Refinery, we are working to reduce water consumption by cooperating with other companies within the industrial complex to share cold water. By effectively using the chilled water discharged from the LNG vaporizer of Chita LNG Co., Ltd., which is adjacent to the complex, as process cooling water, we are contributing to the overall reduction of water intake in the Chita area.

■ Chilled water supply through cooperation within the industrial complex





Conservation of Water Resources

Participating in the Corporate Forest Program (Hokkaido Refinery)

Since December 1996, Hokkaido Refinery has been participating in the Corporate Forest Program started by the Forest Agency, in which companies participate in the upkeep of national forests to contribute to society and the environment. We named our watershed protection forest "Idemitsu Appenai Watershed Forest" and manage it appropriately.

In May 2008, we leased a 4.5-hectare man-made forest in Tomakomai City. In June, the following month, we invited 102 of the city's elementary school students to a hands-on forestation class. The children planted 6,500 Sakhalin spruces, Japanese white birches, and double-cherry trees. The forest was dubbed the Idemitsu Green-Filled Nature Forest by the students who participated in the class. We will continue to manage the forest for the next 80 years.

■ "Idemitsu Appenai Watershed Forest"



Conservation of Biodiversity

Stance on Biodiversity Conservation

A wide variety of organisms live on the earth, and these organisms are intricately intertwined to form ecosystems that have restorative functions that absorb various external changes and restore the ecosystems to their original state. The Idemitsu Group recognizes that in line with the goals of the Convention on Biological Diversity, passing on these ecosystems to the next generation, and maintaining and restoring an environment where diverse organisms can continue to live, is an important mission for companies to fulfill. Under our Environmental Protection Policy, we are working to protect biodiversity while building alliances with local communities. The Group has expressed support for Keidanren's Declaration of Biodiversity and is working to protect biodiversity while being mindful of the relationship between its business activities and biodiversity.

Biodiversity Conservation Activities

Assessing the proximity of main business sites to regions requiring conservation from the perspective of biodiversity

Also, referring to the Protected Planet, a website managed by the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), we have confirmed the proximity of our main business sites to regions requiring particular attention in terms of biodiversity conservation.

As a result of confirming the International Union for Conservation of Nature (IUCN) categories for conservation areas within a 10-km radius of Idemitsu business sites, we recognize the following category statuses. Moreover, there were no areas (Ia, Ib) designated as wilderness areas or strict nature reserves based on these results.

To avoid impacting biodiversity in the course of its business activities, the Group complies with strict emission standards set by national and local governments and works hard to prevent environmental pollution.

Number of Sites by IUCN Category and Area

	IUCN Category	Number of Sites*
I a	Strict Nature Reserve	0
I b	Wilderness Area	0
II	National Park	2
III	Natural Monument or Feature	1
IV	Habitat/Species Management Area	28
V	Protected Landscape/ Seascape	11
VI	Protected area with sustainable use of natural resources	16

* Number of main business sites with IUCN category areas located within a 10-km radius

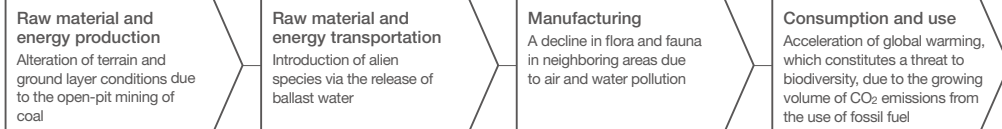


Conservation of Biodiversity

Accurately assessing and responding to the impact of Idemitsu's business value chain on biodiversity

With operations centered on fossil fuels and encompassing the production of energy and raw materials, Idemitsu ensures the comfort of consumers by providing a stable energy supply. In conducting business along the value chain from production to consumption, we assess the impact on biodiversity, consider countermeasures, and take action where necessary.

■ Noteworthy Impact of Our Operations on Biodiversity

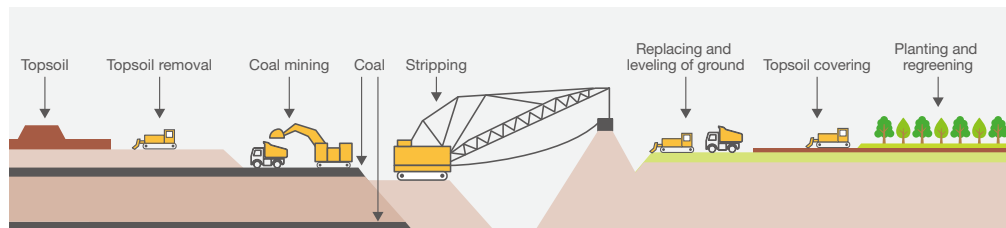


■ Raw material and energy production

The open-pit mining of coal involves the excavation of surface soil to extract coal from underground reserves. This inevitably exerts a negative impact on biodiversity. However, we are ensuring that the impact of mining on the environment is as minimal as possible via mining site rehabilitation. Specifically, once mining is completed at a site, we ensure that the site is refilled and the native plant species are reinstated to again thrive, with the aim of restoring the site's biodiversity. In addition, we are engaged in these endeavors in line with the concept on Land Use Change presented below.

We have disclosed data on our coal mines in Australia, including areas that have been subject to drilling and rehabilitation. We will continue these and other efforts in the course of mining operations.

■ Rehabilitation of the mining site



(Prepared by Idemitsu in reference with materials issued by the Japan Coal Energy Center)

■ Concept of Land Use Change

Along with air and water, soil is an essential element when considering the global environment. In recent years, along with world population growth, areas that used to be green belts have been developed and converted to agricultural land at an accelerated rate. The United Nations has pointed out the importance of initiatives related to Land Use, Land-Use Change and Forestry (LULUCF). Land-use changes can result in the loss of CO₂ sinks and have serious adverse effects from the perspective of climate change. In addition, nutrient-rich topsoil, which had been protected from wind and rain by forests, has been lost due to deforestation, leading to desertification. The Idemitsu Group is actively engaged in projects to minimize the environmental impact of changes in land use.

Status of Rehabilitation at Coal Mining Sites in Australia

(Unit: ha)

Category	2018 results	2019 results	2020 results	2021 forecast
A. Mining sites	1300.5	1433.9	1530.0	1548.6
B. Unrehabilitated sites	1062.3	1338.6	1406.3	1385.4
C. Completed preparation for rehabilitation	N/A	N/A	N/A	N/A
D. Sites currently undergoing rehabilitation	238.2	263.7	292.1	320.5
E. Rehabilitated sites	None	None	None	None

■ A site that was rehabilitated in 2018 (two years after rehabilitation)



■ A site that was rehabilitated in 2016 (four years after rehabilitation)



■ A site that was rehabilitated in 2008 (12 years after rehabilitation)



■ Transporting raw materials and energy transmission

We are working to prevent the destruction of ecosystems by invasive species in line with the guidelines from IMO and the Ballast Water Management Convention (an international convention to regulate and manage ships' ballast water and sediment), which came into effect on September 8, 2017. Ballast water is ocean water used as a weight to stabilize a ship. Because the convention obligates the installation of ballast water treatment equipment by a set deadline, we are steadily installing the equipment on Idemitsu Tanker's very large crude carriers (VLCCs). As of January 31, 2020, we finished installing electrolysis-based and filter- and chemical-based treatment equipment on APOLLO DREAM and APOLLO ENERGY.

So as to not disrupt the ecosystems of the waters around ports, the treatment equipment is used to eliminate harmful water-borne organisms and pathogens carried in ballast water and replace ocean water taken on as ballast water upon embarkation with open ocean water that has a small impact on ecosystems.



Conservation of Biodiversity

■ Initiatives at Refineries and Complexes

Most of Idemitsu's refineries and petrochemical plants, which are its main businesses, are located in Japan. They account for over 90% of the Company's total energy consumption and waste water emissions. Because air and water pollution significantly impact biodiversity, it is important to appropriately manage and address such emissions in operations.

In Japan, strict environmental emission standards have been set by national and local governments. We have in place processes that lower and treat COD, nitrogen, phosphorous, and other compounds and work steadily to fully comply with emission standards to prevent air pollution impacts on ecosystems through imbibition and acid rain as well as to prevent water pollution impacts on fish, shellfish, kelp, and other water organisms of water containing soot, SOx, and NOx from refineries and petrochemical plants in coastal areas.

In addition, even before the recent rise in public interest elevated the conservation of biodiversity, we have long taken it to heart, adopting a management approach that aims to harmonize concerns about the natural environment and business operations. In the course of constructing refineries and complexes, for example, we have ensured that the green areas within their premises exceed legal requirements.

We began building and operating these refineries and complexes, which represent our main business sites, across Japan in the 1950s when the government introduced regulations mandating that businesses secure greenery within newly constructed manufacturing facilities. In response, we have consistently sought to do more than simply meet our legal obligations for square meters of greenery. We have also striven to harmonize our new facilities with their surrounding natural environments. Our approach has resulted in green areas far more extensive than the legal requirement. Initiatives like these are highly evaluated by external organizations. Hokkaido Refinery and Aichi Refinery have received the highest grade of 5 (Superlative Stage) in the "Social and Environmental Green Evaluation System (SEGES)" organized by the Organization for Landscape and Urban Green Infrastructure.

SEGES Evaluation Points

1. Sustainability of land use: There is greenery and a system in place to enable its continued existence.
2. Green space management: Processes for creating green spaces and for protecting and growing greenery are clear.
3. Utilization of green space functions: The green space contributes to society and the environment.
4. Future potential of green spaces: There is progressiveness and uniqueness in the stance and vision related to the structure of green spaces contributing to society and the environment as well as in initiatives on leading the creation of a society rich with greenery.



Source: SEGES website (Japanese only) <https://seges.jp/>

■ Aichi Refinery's green belt



■ Hokkaido Refinery's green belt



■ Consumption of Products

Since fiscal 2019, Idemitsu has set target values and monitoring indicators related to CO₂ reduction as a countermeasure to climate change, which is a threat to biodiversity. We conduct activities aimed at reducing CO₂ emissions by providing eco-friendly products and services, expanding renewable energy power generation, and developing and promoting the adoption of innovative technologies.

Partnerships with Local Communities on Protecting Biodiversity

■ Collaboration with Local Communities

From the perspective of coexisting with nature in local regions, Idemitsu undertakes biodiversity efforts not by itself, but in cooperation with relevant members of the local communities.

■ Teruha Forest Restoration Project



■ Providing Students with Opportunities for Environmental Education

General public access to our production facilities, such as refineries and complexes, is strictly restricted because hazardous materials are handled on such sites. This has allowed the green spaces on facility grounds to flourish, becoming rich in biodiversity, providing sanctuaries for birds and other small animals, and, in some spots, developing into ideal habitats. The Hokkaido Refinery, the Chiba Complex, and the Aichi Refinery use these green spaces and natural parks to provide opportunities for environmental education to children and students of local elementary schools.

■ Bird watching (Hokkaido Refinery)



■ Nature observation (Aichi Refinery)



■ Conservation of Rare Species

Every time we install new equipment at our refineries and complexes, we conduct an environmental assessment to shelter any endangered plants species that have been identified through ecosystem surveys. Currently, at the Aichi Refinery we are working to conserve *Salvia plebeia*, a plant species designated quasi-endangered by the Ministry of the Environment. As this species was discovered on the grounds when new facility construction was undertaken, we have set aside conservation areas within the refinery's premises.

Undertaking environmental assessments

Example of Idemitsu's environmental assessment of the Tokuyama Complex Biomass Power Plant Construction Plan (commercial operations slated to start in fiscal 2022)

Meeting record: FY2021 2nd Shunan City Environmental Council

▶ <https://www.city.shunan.lg.jp/site/kaigi/59312.html> (Japanese only)



Management of Chemical Substances and Reduction of Hazardous Substances

Concept of Management of Chemical Substances and Reduction of Hazardous Substances

The Idemitsu Group, which manufactures and supplies petrochemical raw materials and products, has established the “General Principles of Quality Assurance” and “General Principles of Health, Safety and the Environment” and strives to ensure the safety of production line workers and consumers by conducting prior risk assessments of chemical substances, reducing and eliminating hazardous substances from production processes and products, and providing information on the chemical substances its products contain. In addition, we comply with domestic and overseas chemical substance-related regulations, which have grown ever stricter, and minimize not only the impact on human health but also the negative impact on the ecosystem and the environment.,

Initiatives for the Proper Management of Chemical Substances and Reduction of Hazardous Substances

Management of PRTR-Designated Substances

Crude oil, petroleum products and petrochemical raw materials contain benzene, toluene, xylene, normal hexane and some other highly volatile substances (such as HAPs*1 and POPs*2) regulated by the PRTR Law.*3 These substances partially evaporate into the atmosphere as VOCs*4 whenever oil is transferred into or out of storage tanks, as well as when it is loaded onto tanker trucks and ships. To minimize such VOC emissions, the Idemitsu Group stores these chemicals in floating roof tanks that reduce evaporation, and carries out measures aimed at ensuring VOC recovery during transport. Chemical substances transferred to locations outside industrial complexes are disposed of in compliance with the Waste Disposal and Public Cleansing Law.

*1 HAP: Hazardous Air Pollutant
*2 POP: Persistent Organic Pollutant
*3 PRTR: Pollutant Release and Transfer Register
*4 VOC: Volatile Organic Compounds

Controlling PCBs

In accordance with the Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes, at our refineries and complexes, we appropriately store and manage oil containing polychlorinated biphenyls (PCBs) as well as transformers and other equipment that contain these substances. Under the same law and the national Basic Plan for PCB Waste Treatment, final deadlines have been set for the completion of the treatment of all PCB waste and, accordingly, we are steadily carrying out the processing of such waste.

Managing Fluorocarbons

In accordance with the Act for Rational Use and Proper Management of Fluorocarbons, which came into effect on April 1, 2020, we have been implementing steps to prevent the leakage of fluorocarbons. We are also considering timing the replacement of large process equipment that uses HCFCs, which have strong ozone depleting effects, to coincide with periodic shutdown maintenance at our refineries and plants.

Discharge and Transfer of PRTR-Designated Substances

CAS No.	Substance name	Unit	Total/Discharged amount – Emissions to atmosphere (standard emission intensity)	Total/Discharged amount – Emissions to public water bodies (standard emission intensity)	Total/Discharged amount – Emissions to soil (standard emission intensity)	Total/Transferred amount – Disposed amount (standard emission intensity)	Total
0	Methanol	t	0.0	0.0	0.0	0.1	0.1
1	Water-soluble compounds of zinc	t	1.2	0.3	0.0	0.0	1.5
13	Acetonitrile	t	0.0	0.0	0.0	1.3	1.3
20	2-aminoethanol	t	0.0	0.0	0.0	42.4	42.4
33	Asbestos	t	0.0	0.0	0.0	0.7	0.7
53	Ethylbenzene	t	8.4	0.0	0.0	32.3	40.7
80	Xylene (also known as dimethyl benzene)	t	13.8	0.0	0.0	31.5	45.4
186	Dichloromethane (also known as methylene chloride)	t	0.2	0.0	0.0	14.9	15.2
232	N, N-dimethylformamide	t	0.0	0.0	0.0	0.1	0.1
238	Hydrogenated terphenyl	t	0.0	0.0	0.0	0.8	0.8
240	Styrene	t	23.1	0.0	0.0	1.0	24.1
242	Selenium and its compounds	t	0.0	0.0	0.0	5.5	5.5
243	Dioxins	mg-TEQ	0.0	2.4	0.0	0.0	2.4
245	Thiourea	t	0.0	0.8	0.0	0.0	0.8
260	2,4,5,6-tetrachloroisophthalonitrile (also known as chlorothalonil or TPN)	t	0.0	0.0	0.0	44.0	44.0
262	Tetrachloroethylene	t	0.0	0.0	0.0	0.7	0.7
296	1,2,4-trimethylbenzene	t	3.3	0.0	0.0	0.2	3.4
297	1,3,5-trimethylbenzene	t	0.3	0.0	0.0	0.0	0.3
300	Toluene (also known as methyl benzene)	t	91.0	0.0	0.0	120.6	211.6
302	Naphthalene	t	0.1	0.0	0.0	0.0	0.1
308	Nickel	t	0.0	0.0	0.0	0.4	0.4
321	Vanadium compounds	t	0.0	0.0	0.0	2.4	2.4
349	Phenol	t	0.2	0.0	0.0	2.5	2.7
389	Hexadecyltrimethylammonium chloride	t	0.0	23.2	0.0	0.0	23.2
392	N-hexane	t	194.3	0.0	0.0	7.8	202.1
400	Benzene	t	22.8	0.0	0.0	0.1	22.9
407	Poly(oxyethylene) = alkyl ether*1	t	0.0	0.0	0.0	0.1	0.1
412	Manganese and its compounds	t	0.0	0.0	0.0	10.6	10.6
438	Methylnaphthalene	t	0.8	0.0	0.0	0.0	0.8
453	Molybdenum and its compounds	t	0.0	0.0	0.0	2.0	2.0

Notes: 1. Limited to alkyl-based carbon numbers 12 to 15 and their compounds
2. Scope of calculation: Idemitsu Kosan Co., Ltd. and its consolidated subsidiaries
3. Chemicals are not listed if the total volume of discharge and transfer is less than 0.1 ton per year. Figures presented above may not be consistent with the totals since they are rounded off to one decimal place.



Pollution Prevention

Concept of Pollution Prevention

To reduce the environmental impact of our business, we do not only comply with environment-related laws but also autonomously take preventive measures in accordance with our internal rules (Basic Essential Points on Health, Safety and Environment(HSE)). Furthermore, in addition to preventing environmental pollution arising from our business operations, we seek to contribute to society as a whole in terms of the prevention of pollution. To this end, we became a member of the committees of the Ministry of the Environment and Keidanren (Japan Business Federation) that review the application of the Water Pollution Control Law and the Soil Contamination Countermeasures Act to offer the Idemitsu Group's knowledge and experience. We are also developing research and analysis methods while striving to reduce environmental impact by assiduously preventing emissions of pollutants.

Measures to Prevent Air Pollution

Air pollutants discharged through our business operations include sulfur oxides (SOx), nitrogen oxides (NOx), and soot/dust emitted from boilers and furnaces as well as volatile organic compounds (VOCs) from crude oil or petroleum product storage tanks and tanker truck loading facilities. Thus, our refineries and complexes carry out operational management to ensure compliance with emission standards under laws and regulations as well as with emission limits prescribed by regional pollution prevention agreements.

Air pollutant emissions

(Unit: t)

	FY2020
SOx	7,886
NOx	13,980
Soot/dust (particulate matter (PM))	223

Note: Scope of calculation: Idemitsu Kosan Co., Ltd. and its consolidated subsidiaries

Measures against Soil Contamination

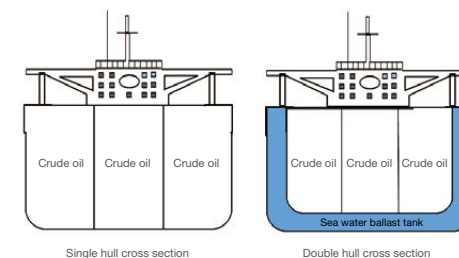
We are aware of the risks of ground contamination due to oil leakage from underground pipes and other oil-handling facilities in operation at our refineries, complexes, plants, and service stations. To address these risks, we have been implementing autonomous surveys of ground and groundwater pollution and undertaking purification measures where needed. In particular, when the closure or rebuilding of a facility causes changes in the character of its site, we implement proper management to prevent pollution, including the resurvey of ground pollution, in compliance with the Soil Contamination Countermeasures Act.

Note: In FY2020, there were no oil leakages that constituted environment-related compliance violations as defined on p. 20.

Measures to Prevent Water and Marine Pollution

Offshore oil development inevitably generates effluent water containing oil from the test drilling phase onward. To prevent marine pollution, we use a separator to treat the effluent water and transport the extracted oil content to land-based facilities for processing. After further treatment to meet effluent water standards, the oil-free water is returned to the sea. In addition, we always consult an expert who conducts an environmental impact assessment prior to test drilling and development to ensure that the impact is at an acceptable level. In case of a marine oil spillage, we promptly deploy an oil containment boom to restrict its spread and recover the spilled oil in accordance with our "Oil Pollution Contingency Plan."

During transport by ocean-going tankers, we take measures covering aspects of both equipment and personnel to maintain a record of zero oil spillage. In the area of equipment, each of our very large crude carriers (VLCCs) in operation is double-hulled (to prevent oil spillage due to a minor damage), thereby reducing the risk of oil spills. In terms of personnel, we provide regular training, including onboard emergency response drills and safety and environmental education, for all crew members.



In addition, we continually aim to provide safe and stable energy and materials, as well as to contribute to the creation of a sustainable society by proactively engaging in environmental protection activities, including those aimed at solving the problem of marine plastics. In September 2019, the Idemitsu Group joined the "Clean Ocean Material Alliance (CLOMA)" which aims to solve the problem of marine plastics.





Initiatives Aimed at Regional Revitalization

Idemitsu positions the creation of next-generation businesses that help solving social issues as an important management issue and is working to co-create solutions closely attuned to local issues in not just energy but also transportation, welfare, industry, the environment, personnel training, crime and disaster prevention, and tourism.

With its apollostation service stations, Idemitsu aims to create an ecosystem that provides not only conventional fueling and car care services, but optimized services that address specific local challenges, thereby evolving and transforming service stations into next-generation yorozuya (one-stop shop) for a new era that enrich the lives of local residents—a concept we call the “smart yorozuya”.



Mobility and Community Bases, “Smart Yorozuya”^{*} Concepts

In the revisions of the Medium-term Management Plan, Idemitsu outlined a “Smart Yorozuya” with the aim of evolving the apollostation network into smart one-stop shops for a new era that enrich the lives of local residents. We partner with around 6,300 energy supply bases nationwide and the dealers who operate them with the aim of building an ecosystem that solves unique local issues through the internal and external co-creation of value.

Through an OMO (Online Merges with Offline) platform, we provide various services to necessary places at necessary times and thereby comprehensively solves local problems and contributes to the enhancement of consumers’ QOL and stimulation of local communities.

^{*} Yorozuya is a traditional Japanese word that indicates a One-stop shop that solves problems that are closely related to the region. Smart Yorozuya is a modern version of it.

■ The “Smart Yorozuya” Concept

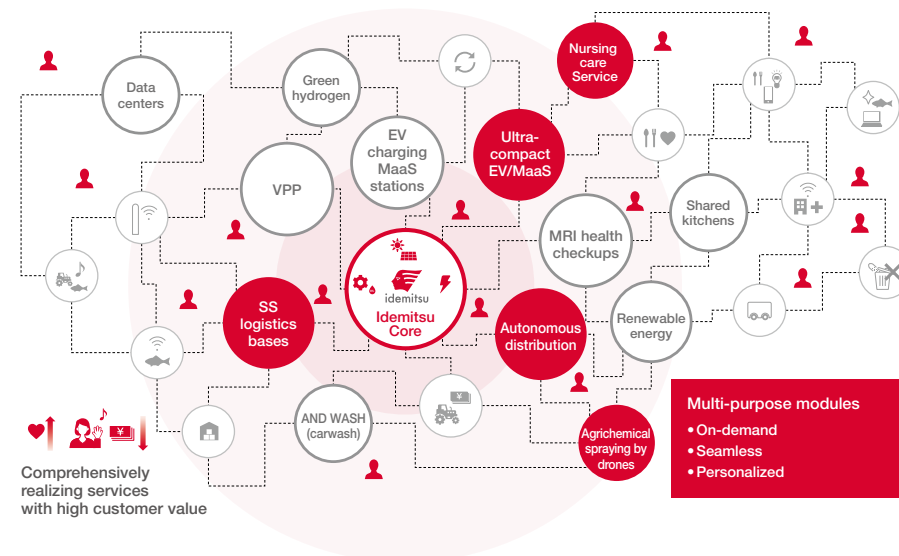


Spread of the Digital Ecosystem

The Group is using digital technologies to synergize assets and services inside and outside the Group to maximize customer value.

We aim to help enhance consumer's QOL and stimulate local communities as a one-stop shop that connects with local problems through various business modules (systems and functions) to offer comprehensive solutions.

To date, we have collaborated with startups to conduct pilot tests of comprehensive mobile “Brain Checkup” and personalized food delivery services (shared kitchens).





Initiatives Aimed at Regional Revitalization

Established Idemitsu Tajima EV Corporation

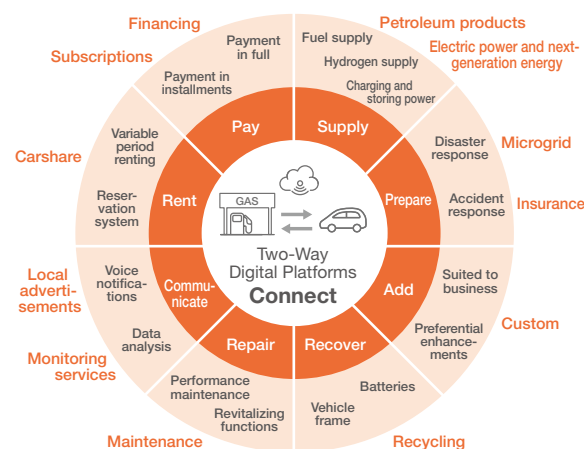
In April 2021, Idemitsu and Tajima Motor Corporation established Idemitsu Tajima EV Corporation to develop next-generation mobility products and services and to work toward solving mobility-related social issues.

Combining Idemitsu's service station network and materials development technology with Tajima Motor's vehicle design technology, Tajima EV Corporation will provide a totally new category of mobility, centered on ultra-compact EVs, to meet latent mobility-related needs.

In addition to developing EVs, Idemitsu Tajima EV will engage in operations involving solar-powered electric vehicles; applications for next-generation batteries; the development of automated driving, green slow mobility solutions, and new subscription and car share models; the establishment of MaaS-related digital platforms; and the creation of a mobility-related recycling system.

Going forward, the new company will also engage in efforts to develop new mobility services, including those combining electric power sales at service stations with ultra-compact EVs, a framework to monitor elderly users' driving status, a decentralized energy system that treats each vehicle as a rechargeable battery, and a vehicle and battery recycling system.

Expanding mobility services from service stations



Ultra-Compact EV developed by Idemitsu Tajima EV Corporation



Concluded a Comprehensive Partnership Agreement with Ichihara City in Chiba Prefecture Contributing to the environment and regional revitalization through ultra-compact EVs and other advanced technologies

In April 2021, Idemitsu and Ichihara City concluded a comprehensive partnership agreement with the purpose of partnering and collaborating in fields that contribute to regional revitalization, such as tourism and industry. Under this new agreement, we are rolling out into Ichihara the Auto Share car sharing service, which offers ultra-compact EVs that Idemitsu has been pilot testing.

Idemitsu is promoting this initiative to maximize local tourism assets in collaboration with SmartDrive Inc., which offers services using mobility data, and Nightley Inc., which offers solutions supporting regional vitalization using locational big data and analysis technologies. We are working to promote tourism in Ichihara by combining vehicle location data and social media data posted by tourists to take measures that ensure the smooth transportation of tourists and help guide them to hard-to-find famous locations and tourist spots.

Joint Research Aimed at Solving Local Issues at Tanegashima Selected as a Development Project under the JST's Program on Open Innovation Platform for Industry-Academia Co-Creation

In December 2020, Idemitsu launched an initiative involving a local innovation ecosystem research center for the recycling of resources in the Tanegashima region of Kagoshima. The research initiative is being conducted jointly by industry, academia, and government and was selected as a development project (co-creation field) under the Program on Open Innovation Platform for Industry-Academia Co-Creation (COI-NEXT) of the Japan Science and Technology Agency (JST).

Joint research is being conducted in collaboration with multiple institutions, with Tokyo University being the main representative, and aims to realize a vision based on the SDGs. Using a backcasting method involving industry, academia, and government co-creation, we strive to not only solve the increasingly complex local issues of Tanegashima but also roll out this initiative to other regions and realize this vision.

The JST's COI-NEXT is aimed at achieving a vision for society in the future (the center's vision) based on the SDGs. This initiative promotes co-creation with municipalities, citizens, and other diverse stakeholders based on industry-academia collaboration centered on universities as well as R&D aimed at realizing concrete, achievable targets.

The initiative selected comprises joint research with participating institutions under the center's vision, "industry-academia-government co-creation that develops systems for recycling local resources in an innovation ecosystem based on conceptual ideals, reasoning, and emotion." These efforts are centered on Nakatane-cho and Minamitane-cho in Nishinoomote City, one of the specific areas in which the COI-NEXT activities are being carried out.

Through this initiative, Idemitsu aims to work with participating institutions to test and roll out co-created solutions that are effective at solving local issues. We will contribute to local communities in the fields of mobility and distributed energy by leveraging our knowledge related to local issues accumulated through the operation of our service station network comprising around 6,300 locations nationwide as well as our alliances with dealers who develop business rooted in local communities.

Concluded a Co-Creation Alliance Agreement with Saitama City to Realize a Zero-Carbon City

In June 2021, Idemitsu concluded an alliance agreement with Saitama City to promote the use of renewable energy to realize a zero-carbon city (net zero carbon dioxide emissions by 2050).

Under the agreement, Idemitsu and Saitama City are cooperating in environmental and energy fields to promote the use of renewable energy within the city. We plan to develop services to purchase post-FIT (feed-in tariff) electric power generated by the city's households and conduct maintenance on solar power systems. In addition, we will promote the local production and consumption of energy as we consider using the city's post-FIT electric power and renewable energy resources at Saitama's facilities and Idemitsu's service stations under the new apollostation brand. As our affiliate Solar Frontier K.K. and NEDO* conduct joint research, we will study the application of solar panel recycling technologies and aim to realize a recycling-based society, or, in other words, a local recycling co-existence zone.

*New Energy and Industrial Technology Development Organization

Agreement signing ceremony





Initiatives Aimed at Regional Revitalization

Participating in the Wood Biomass Use Promotion Council of Shunan City, Yamaguchi Prefecture Testing and Promoting the Use of Wood Biomass to Encourage the Local Production and Consumption of Energy and Revitalize the Forestry Industry

In January 2021, Idemitsu participated as a member in the Wood Biomass Use Promotion Council started by Shunan City in Yamaguchi Prefecture. The council promotes the use of domestic wood biomass through pilot tests with the purpose of encouraging the local production and consumption of energy and revitalizing the forestry industry by leveraging the unique characteristics of Shunan City, which possesses both a wealth of forestry resources and biomass power generation facilities.

The council is studying expanding the use of domestic biomass in cooperation with participating companies and institutions through pilot tests using wood biomass from fast-growing trees in some of Shunan City's forests. In addition to the shorter timelines and lower costs entailed in producing biomass from fast-growing trees, we expect lower transport costs thanks to the close proximity of local forests and consumption areas. Shifting to fast-growing trees will also contribute to the circular use of forest resources and the revitalization of the forestry industry.

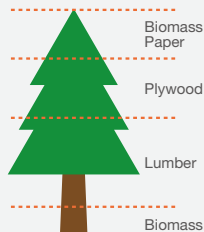
In addition, based on these pilot tests, we aim to expand the production of wood biomass from fast-growing trees into other areas within the city. We will also discuss methods of using domestic wood biomass.

With the aim of supplying lower-carbon energy, Idemitsu is constructing biomass power plants on the sites of decommissioned refineries at the Tokuyama Complex.

Going forward, Idemitsu and the Tokuyama Complex will work with Shunan City to promote the use of renewable energy and establish a local production and consumption model for energy.

Current State

- Regarding cypress and cedar, the thick trunk sections are used to make higher-value products like construction materials and paper.
- The roots, branches and other parts unable to be used for materials are used for biomass.
- It takes over 45 years of care to grow a highly valuable tree



Pilot Test Business

- We plant forests with the intention of using the entire tree as biomass
- We study reducing growing costs by omitting undergrowth removal, branch pruning, and tree thinning.
- We test growing fast-growing trees like the Chinese fir and other varieties that are expected to grow in a short period of time suited to Shunan City.

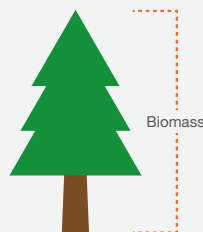
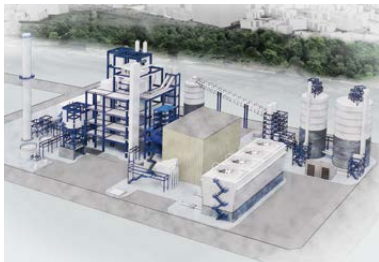


Illustration of the completed biomass power plant at the Tokuyama Complex site



Location: 2200 Shingu-cho, Shunan-city, Yamaguchi
(within the grounds of Idemitsu's Tokuyama Complex)
Generation capacity: 50 MW
Fuel: Wood pellets, palm kernel shells
Start of commercial operation: Fiscal 2022

Launched "Aizu Revitalization Center", an open innovation base in Smart City Aizuwakamatsu Collaboration under industry-academia-government-private partnership on the data linkage platform by utilizing ICT in the fields of circular economy, distributed energy, and mobility

In January 2021, we launched the open innovation base Aizu Revitalization Center in the ICT office building, "Smart City AiCT", located in Aizuwakamatsu of Fukushima Pref.

Aizu Revitalization Center is aiming to create new service models for local community by using ICT with opt-in type citizen participation on the data linkage platform (city OS) with University of Aizu specializing in computer science, companies located in AiCT, and local companies including our subsidiary, Wakamatsu Gas Co., Ltd., and Idemitsu dealers.

Specifically, we will run the projects to seek for the opportunities of next-generation business development with utilizing ICT and data in the area of mobility, distributed energy, circular economy, etc. In near future, we will build data driven business model with city OS, and contribute to development of safe, secure and comfortable community as well as creation of local employment.

Smart City AiCT



Started Demonstration Experiment of Energy Management System Linked with Vehicle Management System at Kunitomi Town Hall

Aiming to reduce energy costs and environmental burden and enhance resilience to disasters

In October 2021, along with Nihon Unisys, Ltd. and SmartDrive Inc., we have started a demonstration experiment for the purpose of constructing a system that contributes to reducing energy costs and environmental load and improving resilience in the event of a disaster on the site of the Kunitomi Town Hall in Kunitomi Town, Miyazaki Prefecture, which is working to popularize renewable energy as a "town development that is friendly to people and the environment".

The three companies are aiming to realize local production for local consumption of energy and low carbonization together with local government by utilizing their respective knowledge.

In this demonstration experiment, a solar power generation system, three EVs for public vehicles, vehicle management system for EV reservation management and vehicle information acquisition, multiple storage batteries, EV charger/ discharger, EV charger have been installed on the premises of the Kunitomi Town Hall.

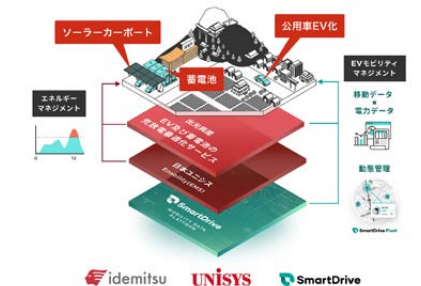
Then, we introduce an energy management system that controls these resources comprehensively from a remote location to optimize energy use.

By creating and operating an optimal charge / discharge plan for storage batteries and EVs, we will be able to reduce the power costs and CO₂ emissions of the Kunitomi Town Hall.

In addition, we will verify the optimal operation of the power supply from the storage battery and EVs in the event of a power outage due to a disaster, etc., and consider the business model.

Concept diagram of collaboration between Idemitsu, Nihon Unisys, Ltd., and SmartDrive Inc.

エネルギーコスト・環境負荷の低減、災害時のレジリエンス向上



Idemitsu UNISYS SmartDrive



Initiatives Aimed at Regional Revitalization

Pilot Test of First-in-Japan Mobile Brain Check Medical Service

Bringing advanced preventive care to local residents

From June to July 2021, Idemitsu and SmartScan, Inc. used a pilot test of a mobile brain check neurological screening service—the first in Japan—using a trailer containing an MRI machine in Toin-cho, Inabe-gun, Mie.

Early detection and treatment is vital to addressing sudden-onset cerebral disorders that are caused in part by lifestyle-related diseases, such as high blood pressure and diabetes. As such, the importance of preventive care has been attracting increasing attention in recent years. Periodic brain screenings are an effective tool for cerebral disorder prevention, but these screenings are only available at clinics equipped with advanced MRI machines.

Idemitsu and SmartScan are using a mobile trailer containing an MRI machine to offer brain check services requiring less time and at lower cost (approximately half the cost of ordinary brain check services) in areas that are far from existing brain check facilities.

By providing advanced preventive care, Idemitsu and SmartScan aim to contribute to the health and safety of people living in regional areas. We are examining ways to improve the service and offer it in more areas going forward.

■ MRI machine trailer



Senior Citizen Healthcare Business

Since forming a capital and business alliance with REHA CONTENTS Co., Ltd. in March 2018, Idemitsu has been promoting the development of directly-operated and franchised senior day service facilities to support autonomous lifestyles. In April 2021, Idemitsu acquired all shares of QLC Produce Corporation, making it a subsidiary.

We are also entering new businesses in areas covered by nursing care insurance and developing services not covered by insurance, aiming to establish a comprehensive care system that allows seniors to maintain their desired lifestyles.

Future Concepts Using Drones

Through our last-mile pilot test project for distribution using drones, we are working to study the feasibility of using service stations as logistics centers.

Drone technology is expected to be used in a wide range of fields, including area monitoring and infrastructure and factory inspection, in addition to distribution.

In the near future, we envision using service stations as drone maintenance hubs to support the widespread adoption of drone technology.

Respect for Human Rights

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," "Innovation," "Co-creation," "Health & safety," and "Integrity."

All employees shall strive to deepen understanding of the 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.



Human Rights Policy

Idemitsu Group Human Rights Policy

The Group formulated the Idemitsu Group Human Rights Policy in 2019 and declared its respect for internationally recognized human rights as set out in the Universal Declaration of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work, as we conduct business both in Japan and worldwide. In addition, in line with the United Nations Guiding Principles on Business and Human Rights, we codified conducting human rights due diligence in our policy and launched specific initiatives in fiscal 2020. We clarified nine human rights priority issues and promoted in-house awareness-raising activities. We established a reporting and consultation desk for executives and employees to respond to violations of the code of conduct, overt or potential, including matters related to human rights. We established a desk for stakeholders to report concerns regarding business activities. These and other human rights-related initiatives are regularly disclosed on our website.

Idemitsu Group Human Rights Policy ➡ <https://sustainability.idemitsu.com/en/themes/201>





Respect for Human Rights

Top Commitment Related to Human Rights

The Group designated “Respect for Human Beings” as its principle of management and has practiced “people-centered management” consistently since its founding. Essentially, respect for human rights is an indispensable foundation of management and should be prioritized in all decisions and actions. We have made this the Idemitsu Group Basic Human Rights Policy, which all executives and employees comply with.

Based on this policy, we continually address global human rights issues while referencing the cultures, customs, and social norms of different countries and regions. In addition, in response to human rights issues faced by the Group's affiliates and supply chain in Japan and overseas in recent years, we have focused our efforts on conducting human rights due diligence and identifying where human rights violation risks exist within the Group and at relevant suppliers. We are also strengthening our efforts to mitigate risks and build a rescue mechanism.

Moreover, we formulated the Compliance Code of Conduct to instill and promote a compliance mindset within each employee working around the world, including in Japan and overseas. The code clearly states that we will create a sound and appropriate workplace free from harassment that accepts diversity in such areas as race, nationality, and gender and that does not tolerate any kind of human rights violation.

We regularly disclose to stakeholders these kinds of human rights-related initiatives and actions.

President and Representative Director
Idemitsu Kosan Co.,Ltd.

Shunichi Kito

Human Rights Priority Issues

(1) Promotion of Diversity

The Idemitsu Group has outlined a policy of continuous striving to create new value with customers and stakeholders while working to achieve harmony with the environment and society based on diversity and inclusion. We formulated the Idemitsu Group Diversity & Inclusion Policy and are instilling it in-house.

(2) Prohibition of Forced Labor

The Idemitsu Group's policy is to not use, support, or profit from forced labor. When simply compliance with Japan's forced labor-related regulations is insufficient, we will consider international standards.

(3) Prohibition of Child Labor

The Idemitsu Group does not employ children. In addition, we do not employ young people in hazardous work.

(4) Prohibition of Discrimination

The Idemitsu Group definitively respects the basic human rights of all people and strives to be a company where no action is taken that infringes the dignity of individuals, such as unfair discrimination.

(5) Prohibition of Harassment

The Idemitsu Group prohibits all forms of harassment, including sexual harassment, power harassment, speech that makes others degraded, and physical and mental harassment.

(6) Freedom of Association and Recognition of the Right to Collective Bargaining

The Idemitsu Group respects employees' freedom of association, their freedom to join a labor union, and their right to collective bargaining.

(7) Maintaining Our Working Environment

The Idemitsu Group complies with the labor-related laws and regulations of countries around the world, including those concerning minimum wage and appropriate working hours. In addition, we strive to create a work environment where everyone can work easily with regard to employee health and safety.

(8) Land, Water, and the Use of Natural Resources

When dealing with the purchase, lease, and other use of land in the countries and regions where the Group conducts business, and when purchasing natural resources, the Idemitsu Group mitigates the impact of its acquisition of land on the environment and society. We pay attention to the rights of local residents who use or live on the land. In particular, we work to ensure there is no impact on the living standards of those requested to vacate a property.

In addition, we work to prevent soil and water pollution to ensure the Group's businesses do not inhibit the safe and hygienic use of water by local residents.

(9) Respect for the Rights of Indigenous Peoples

In the countries and regions where the Group conducts business, the Idemitsu Group respects indigenous people's cultures, spiritual traditions, and their unique rights based on history and philosophy. In addition, if there is a possibility that the Group's business expansion could have a negative impact, we work to avoid or reduce and minimize that negative impact.



Respect for Human Rights

Promotion System

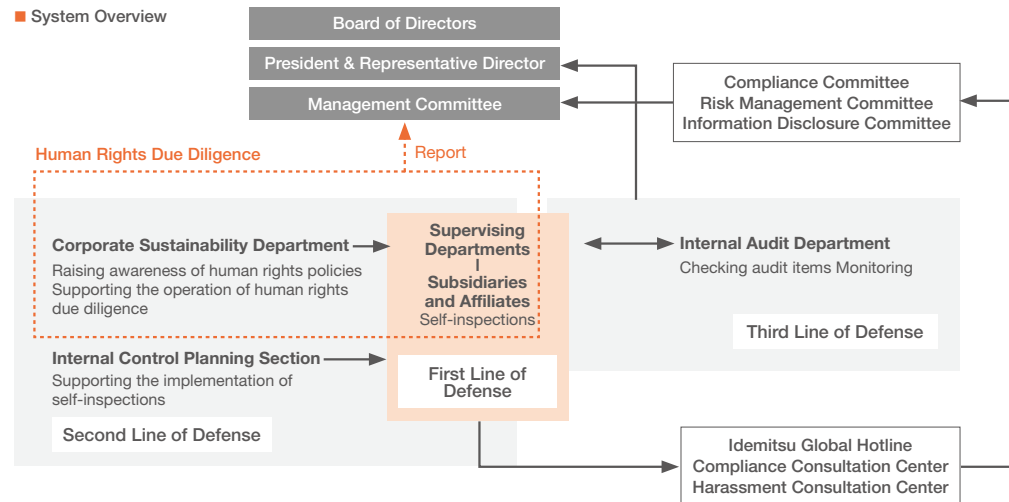
The Group is working to promote human rights initiatives in line with its stance on the three lines of defense.

As the first line of defense, affiliates and subsidiaries and their supervising departments check risks through self-inspections. As the second line of defense, the self-inspections are supported through cooperation with corporate departments, including the Corporate Sustainability Department and Internal Control Planning Section of the General Affairs Department. As the third line of defense, human rights risk items are checked and monitored through regular audits conducted by the Internal Audit Department, which is an independent organization under the direct supervision of the President.

As reporting desks related to human rights, we established the Idemitsu Global Hotline, Compliance Consultation Center, and Harassment Consultation Center and built a system for reporting issues to the management committee through various other committees.

Regarding human rights due diligence, the Corporate Sustainability Department, main departments, and subsidiaries are all working together to steadily conduct individual surveys. The survey results will be reported to management as appropriate.

■ System Overview

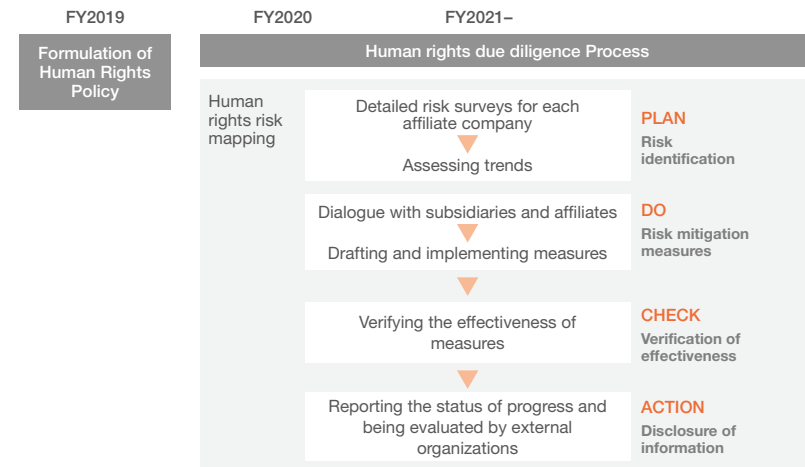


Conducting human rights due diligence

In line with the Group Human Rights Policy, the Idemitsu Group has conducted human rights due diligence since fiscal 2020. First, we scored all 241 affiliates (as of July 2020) in Japan and overseas based on a survey containing around 80 queries covering social, environmental, and occupational safety themes based on international standards. Using this data to create a human rights risk map for the entire group, we elucidated the possibility of latent human rights risks.

In fiscal 2021, we used the aforementioned risk map to rank our priorities and are conducting a detailed risk survey. As the first batch, we selected 19 affiliates based on (1) overseas location, (2) possession of a manufacturing base, and (3) a business scale of 50 or more employees, and conducted a survey of each affiliate's response to human rights risks using a questionnaire comprising around 360 questions. The questionnaire includes risk evaluation items related to on-site occupational problems, serving as a mechanism that enables us to swiftly identify where risks lie. From the second batch onward, we will methodically conduct surveys, beginning with those affiliates assigned the highest priority. We will assess the direction of the risk response for each business and region while holding dialogues with each affiliate to gain a more detailed understanding of the real situation on the ground for overseas Group companies and promote the creation and implementation of necessary measures. As for new investment projects, we maintain a mechanism for checking investment proposals for social issue risks (unjust labor practices, human rights violations, and unfair trade) and natural environment risks (climate change, use of land, water and natural resources).

■ Human Rights Due Diligence Process





Respect for Human Rights

Human Rights Due Diligence Status (first half of FY2021)

In the first half of fiscal 2021, we selected 19 top-priority affiliate companies and surveyed them.

Selection Criteria

1. Overseas location
2. Possessing of a manufacturing base
3. Business scale of 50 or more employees

Survey Content

A questionnaire comprising around 360 questions in the three fields of society, environment, and health & safety.

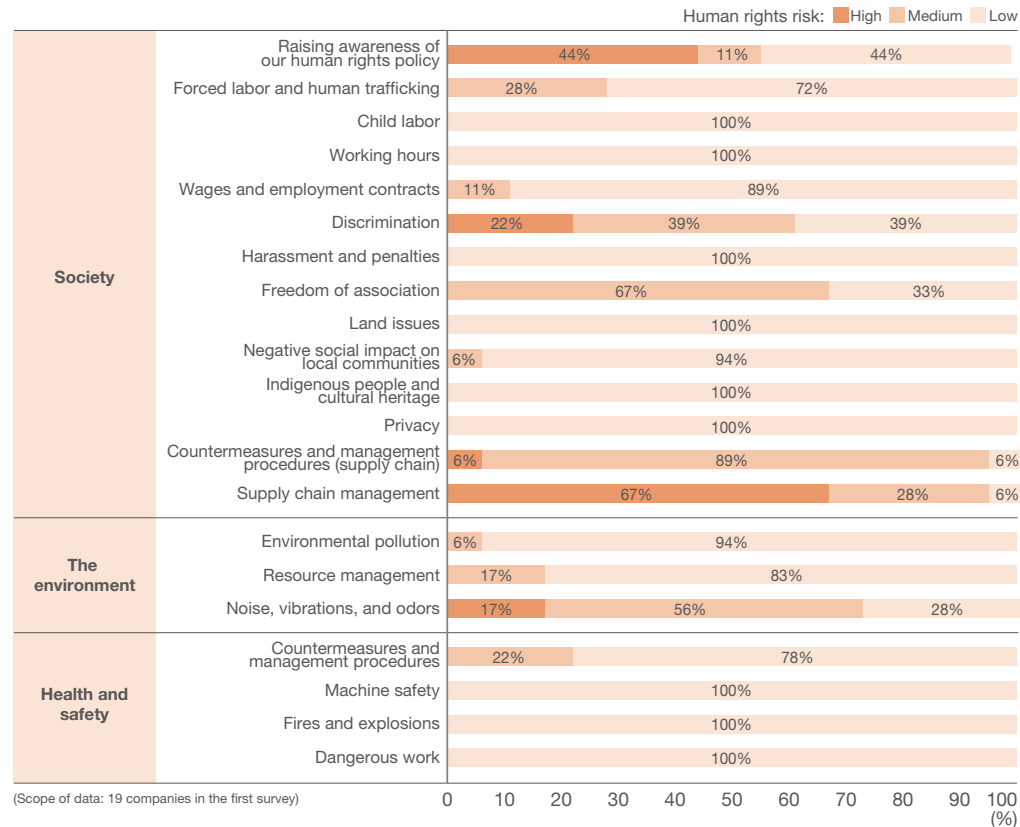
Survey Results

We identified the following areas for improvement.

1. Thoroughly raising awareness of human rights policies
2. Strengthening initiatives regarding grievance mechanisms and responsible procurement and management

Response

Regarding items that we think need swift action and improvement, including those listed above, we plan to confirm them individually with overseas Group companies, hold dialogues, and implement measures to mitigate risks.



Training related to human rights and compliance

The Group promotes various awareness-raising activities to enhance in-house understanding of respect for human rights and the focus on compliance. In fiscal 2020, we distributed awareness-raising materials using the intranet with the purpose of facilitating Group employees' understanding of the content of our basic human rights policy. In addition, with the aim of ensuring compliance, we conducted compliance training for the compliance managers of each department. For details, please refer to the compliance promotion activities described on pages 88 and 89.

Sustainable Procurement Guidelines

The Group has established a basic procurement policy based on the Management Philosophy and Action Mindset. We also established the Sustainable Procurement Guidelines and posted them on our official website. In these guidelines, we clarify the Group's stance related to human rights, such as respect for basic human rights and the prohibition of forced labor, child labor, harassment, and discrimination. We revealed a policy of exchanging information on initiatives related to sustainability with business partners and working to mutually increase the level thereof.

Basic Procurement Policy ➡ <https://www.idemitsu.com/en/company/purchase/basicpolicy.html>



Sustainable Procurement Guidelines ➡ <https://www.idemitsu.com/en/company/purchase/guideline.html>



Initiatives to Respect Human Rights in the Supply Chain

The Group holds dialogues with partners to promote initiatives to respect human rights across the entire supply chain, going beyond just Group companies. For details on initiatives with suppliers, please refer to the sustainable procurement initiatives on page 72.

Dialogues with External Stakeholders Related to Human Rights Activities

The Group takes advantage of various opportunities to promote communication with all stakeholders, including customers, suppliers, shareholders, local communities, and relevant organizations. We also work to ensure understanding of the Group's stance on human rights. In addition, through dialogues with stakeholders, we continue to work to appropriately undertake initiatives necessary for the Group.



Personnel Strategy / Diversity & Inclusion Policy

Basic Concept of Personnel Strategy

In line with the management goal of developing people under the Management Philosophy of being “Truly inspired,” Idemitsu believes in the boundless potential of human beings and does not place limits on individual growth, allows them to fully demonstrate their abilities, and rolls out personnel measures that support People-Centered Management, which enhances the total power of the entire organization and supply chain. Through the new value that we create, we not only contribute to social development, we also enable employees to further enrich their own lives.

Personnel Strategy for 2030

■ Overarching Concepts and Influences



■ Personnel Strategy for 2030



Instilling and Practicing the Management Philosophy

Idemitsu's Management Philosophy of being “Truly inspired” represents the idea of contributing to society while demonstrating limitless possibilities and developing people through work, centered on the value of People-Centered Management. We are implementing various measures aimed at ensuring that the Management Philosophy is instilled in and practiced by employees.

Initiatives for 2030

To realize our 2030 vision of being “Your Reliable Partner for a Brighter Future,” we will continue encouraging people to leverage their wide range of values and unique characteristics and establishing programs that accommodate diverse workstyles. We will also continue to foster an environment where every employee can independently build a career and grow amid environmental changes.

Idemitsu Group Diversity & Inclusion Policy

The Idemitsu Group will work with a diverse range of stakeholders to create new value in order to resolve various social issues.

Therefore, it is essential to initiate a positive chemical reaction by incorporating various perspectives, values, and strengths to maximize the potential of each individual.

The Group will eradicate discrimination on the basis of position, employment status, age, gender, educational background, place of origin, nationality, race, disability, beliefs, religion, sexual orientation, gender identity, or marital status. We will also actively promote “Diversity & Inclusion” through mutual respect by building each other up and making best use of everyone's individuality.

- We will eliminate all forms of discrimination.
- We will create an environment where individuals can make the most of their abilities.
- We will respect the work-life balance of each employee.
- We will create a workplace culture that respects and enhances each other's individuality and allows the team to maximize its strengths.

D&I Promotion System

In October 2021, we established the D&I Promotion Committee chaired by the vice president responsible for ESG.

The committee comprises directors, executive officers responsible for HR, and members of various departments. In addition, Outside Director Maki Kado serves as an advisor to the committee, providing additional diversity of perspective.

The committee identifies management issues related to D&I promotion, sets targets, drafts various measures, and confirms progress. The content of deliberations is shared with and discussed by executive officers and general managers as appropriate and regularly reported to the Board of Directors.

D&I Promotion Milestones

To date, Idemitsu has taken various measures to promote D&I. In fiscal 2021, we positioned diversity promotion as a management strategy and further accelerated initiatives with the aim of being a company that continues creating innovation where diverse employees grow and thrive.





Status of Employment & Recruitment

D&I Awareness Raising Initiatives

Conducting Unconscious Bias Training

Unconscious bias refers to distorted and warped perceptions that every person has but is unaware of. Although such bias may be effective in terms of risk avoidance, making unconscious judgements about others can have negative effects on workplaces and individuals. Such bias is considered a roadblock to promoting D&I (emerging as loss of opportunities for innovation and growth opportunities for female and other employees) and a factor in harassment.

We are aware that the basic principle of D&I is the acceptance of and mutual respect for each other's differences and backgrounds. By ensuring all employees are aware of their biases, we aim to enhance mutual understanding and workplace communications and realize a corporate culture in which innovation easily happens. As one measure to this end, across the Company we are rolling out unconscious bias training (e-learning, dialogue-based workshops, lectures), including for executives.

In fiscal 2021, we are continuing to hold "Uncon-Dialogues" interactive, dialogue-based workshops on unconscious bias open to the public, and to expand our efforts by holding such dialogues within each department and affiliate company.

■ Uncon-Dialogues



■ Overview of the Initiatives

Purpose: By recognizing our own unconscious assumptions (biases), we can help create a culture in which diverse people thrive and innovation is easily achieved.

Continual efforts to establish the program for all employees

Overarching Vision
Self-aware of unconscious bias
Established culture of dialogue and listening
Change in actions

Change in actions realized to be unconscious bias

Understanding unconscious bias and taking action to improve the workplace

STEP 1 (1)

October, November 2020

e-learning

All employees eligible

Number of participants: 5,668

Attendance rate: 92%

STEP 1 (2)

November 2020 on Dialogue Workshop (Uncon-Dialogues)

Participation is mandatory for executives, department heads, and management-level employees in charge of human resources.

450 participants (of which 153 were required to participate, 97.5% participation rate)

February 2021
Reported to management

Connecting management within the workplace

STEP 2

March 2021

Management-level employee training

Lectures by experts
650 participants (372 directors, executive officers, and management-level employees; 278 staff members)

STEP 3

Fiscal 2021

(1) Uncon-Dialogues

- Open dialogue
- Clubhouse dialogue
- Facilitator training

(2) Lectures and other events

Employment Overview

As of March 31, 2021, Idemitsu had 4,943 non-consolidated employees and 14,044 consolidated employees. We are promoting initiatives that enable all employees, regardless of age, gender, nationality, or disabilities, to work with a sense of purpose.

Status of Employees ☒

	Total	Men	Women	Percentage of women	Foreign nationals
Number of employees	4,943people	4,355people	588people	11.9%	35people
Number of employees in managerial positions	984people	960people	24people		
			Women at department head and above	3people	2.4%
			Section head and above	21people	-
Average age	42.1years old	42.3years old	40.3years old	-	-
Average years employed	19.4years	19.7years	17.3years	-	-
Percentage of employees with disabilities	2.3%	-	-	-	-

Notes: 1. The above data is for Idemitsu hiring (employees, seniors, full-time contract employees, and advisors) and excludes employees seconded to other companies.

However, the percentage of employees with disabilities includes employees seconded to other companies.

2. The percentage of employees with disabilities is based on the calculation method of the Ministry of Health, Labour and Welfare and is as of June 1, 2021.

3. All data besides the percentage of employees with disabilities is as of March 31, 2021.

Status of Recruitment

Our recruitment theme: NEXT BREAKTHROUGH.* We are recruiting people who can challenge themselves and create new value together while respecting diversity. We make it a priority to ensure that employees are not mismatched after joining the Company by providing internships and contact points with close senior employees so that they can see what we really are. We are also working to raise employee motivation, improve the corporate culture, and expand our systems to improve employee retention.

In our recruiting activities, we have taken all precautions to prevent the spread of COVID-19. We have been holding online seminars instead of the traditional in-person company presentations and used web interviews to help make decisions. Moreover, we have also put in place thorough precautions during onboarding programs and training, such as introducing digital tools (webinars, online meetings, and e-learning).

* This message is posted on our new graduate recruitment website and elsewhere. The Company has developed a wide range of businesses to meet the needs of society and will connect the value and technology it has cultivated to ensure harmony between society and the global environment going forward. What will be indispensable to creating a new future is realizing the tremendous potential of diverse people. Drawing on the potential and ideas of people who hold a diverse range of values, we will continue to take on new challenges through NEXT BREAKTHROUGH.

Recruitment of New Graduates in April 2021 ☒

Total	Men	Women	Percentage of women	Foreign nationals	Ratio of foreign nationals
151people	127people	24people	15.9%	2people	1.3%

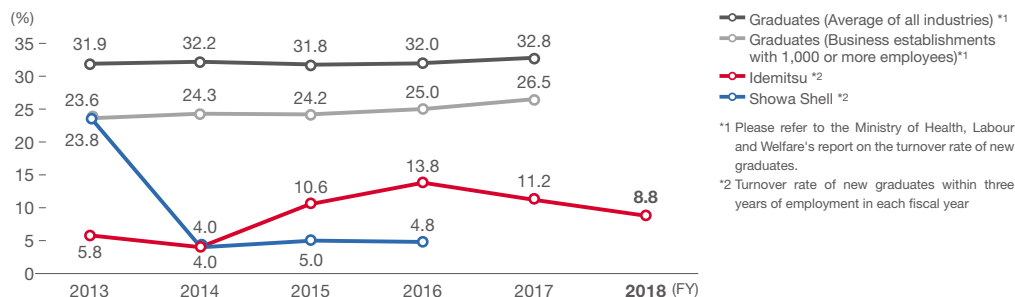
New graduate retention rate
(Average for newly hired employees between 2016 and 2018) ☒ 89.4%

■ Online company entrance ceremony



Status of Employment & Recruitment

■ Turnover rate of new graduates



Career Recruitment in FY2020	91people	* Refers to mid-career hiring.
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Internships in FY2020

Season	Eligible students	Duration	Number of participants	Content
	High school	1–5 days	25 people	Online training (refineries and business sites)
Summer	University and above	4–5 days	90 people	Work Experience of Engineers and Researchers (total of 7 courses) <ul style="list-style-type: none"> (1) Study of production technology processes for refineries and petrochemical plants (2) Discovery of new research themes (3) Asphalt research and core technology development (4) Performance materials research and product development (5) Research and product development of lubricants (6) Technical sales of lubricants (7) Research and development experience in geothermal power Administrative <ul style="list-style-type: none"> (1) Business strategy study and scenario planning
Winter	University and above	2 days (total 23)	1,069 people	Experience workshops for administrative and technical staff

Promoting the Active Participation of Women

Basic Policy and Vision

With the aim of enabling women and all other employees to thrive at work and ensuring the Company continues to co-create new value with various stakeholders, Idemitsu has positioned promoting the active participation of women as a key D&I promotion measure. To fulfill this commitment, we have set out our vision for both female employees and the Company as detailed in the table below.

Vision	
Female Employees	<ul style="list-style-type: none"> At each workplace and in each decision-making body, including meetings, multiple female employees participate and engage without stifling their own opinions Regardless of age or life events, female employees grow while maintaining career aspirations with the aim of creating value
Company	<ul style="list-style-type: none"> Provide fair growth opportunities regardless of sex, age, or life events, encourage employees to take on new challenges, and evaluate employees fairly according to their growth

Numerical Targets

	Current Status	Targets
Number of female executives (set as our target separately from the general business owner action plan)	2 people (as of March 31, 2021)	5 people (as of June 30, 2023)
Number of female management-level employees (employed by Idemitsu Kosan Co., Ltd.)	24 people (as of March 31, 2021) * 27 people (including employees seconded to other companies)	46 people (as of March 31, 2023)
Percentage of female graduates hired	24.1% (April 2021)	30.0% (March 31, 2023)
Percentage of annual paid leave taken by employees	69.5% (FY2020)	85.0% (March 31, 2023)

General Employer Action Plan Based on the Act on the Promotion of Women's Participation and Advancement in the Workplace

When formulating our general employer action plan, we set out to uncover the fundamental factors inhibiting the growth and active participation of female employees by using the actual hiring situation, analytical data tools and surveys of all employees on topics such as motivation. Based on these results, we established quantitative targets for issues requiring improvement.

We believe that better workplaces, where women can work easily and feel their work is rewarding, lead to better environments, where all employees can achieve better work-life balance and fully demonstrate their diverse capabilities. Accordingly, from FY2020 onward, we are implementing initiatives based on this action plan.

Plan Period	Idemitsu Issues	Plan Details
April 1, 2020–March 31, 2023 (3 years)	<ul style="list-style-type: none"> The percentage of female managers is low. The hiring ratio of women is low. 	1. Provide growth opportunities to female employees <div> Quantitative Target 1 *1 46 female managers (3.0%) or higher (currently 27 as of March 31, 2021) <div> Initiatives <ul style="list-style-type: none"> Ensure training and growth opportunities for female employees Reform the corporate culture and mindset of executives, superiors, and female employees </div> </div> <div> Quantitative Target 2 *1 30% or higher ratio of female graduate hires (currently 24% hired by April 2021) <div> Initiatives <ul style="list-style-type: none"> Strengthen hiring activities (provide internships, revamp our pamphlets and hiring website, etc.) Promote workstyle reforms at manufacturing sites, hold networking events for female employees in the Manufacturing & Technology Department, etc. </div> </div>
		2. Initiatives related to supporting a work-life balance <div> Quantitative Target 3 *2 85% or higher percentage of annual paid leave taken by employees (currently 69.5% in fiscal 2020) <div> Initiatives <ul style="list-style-type: none"> Promote workstyle reforms (remote work, encouraging the use of flextime, etc.) Holding dialogues with each department and branch to encourage the use of annual paid leave </div> </div>

*1 Employees directly employed by Idemitsu (including those seconded to other companies) are within the scope of calculation.

*2 Employees directly employed by Idemitsu (excluding those on temporary leave or seconded employees) are within the scope of calculation.

Status of Employment & Recruitment

Overview of Initiatives

Quantitative Targets 1	Reform the mindsets and corporate culture of executives, superiors, and female employees	<ul style="list-style-type: none"> Implement measures to follow up on life events Establish internal and external networking events Expand education for superiors and female employees Take initiatives to eliminate unconscious bias Introduce a mentorship program Reflect results in the goal achievement evaluation of management-level employees
	Ensure training and growth opportunities for female employees	
	Implement HR measures to increase the speed of growth	
Quantitative Targets 2	Strengthen hiring activities	<ul style="list-style-type: none"> Establish policies and targets to increase the ratio of female applicants Provide internships Revamp our pamphlets and recruitment website Pursue better introduction of the company at recruitment events Conduct a workstyle reform project at manufacturing sites Hold networking events for female engineer
	Promote workstyle reforms (lay a new foundation)	
Quantitative Targets 3	Promote workstyle reforms at manufacturing sites	<ul style="list-style-type: none"> Conduct a company-wide workstyle reform project Promotion of work-from-home and flextime arrangements Improve operational efficiency using IT Raise awareness of our targets Visualize the percentage of annual paid leave used Encourage the use of leave through dialogues with individuals, etc.
	Encourage the use of annual paid leave	

Introduction of a Mentorship Program Quantitative Target 1

Since September 2020, we have been running a mentorship program with the aim of offering career support to female employees. Female managers active outside the Company act as mentors to solve current concerns and issues and encourage the growth activities of women by offering advice on how to achieve growth. In fiscal 2020, 14 women participated. In the questionnaire, all participants said they noticed or learned something new, 93% said they were influenced in their attitude and behavior, and 93% of superiors said they felt a positive change. 11 women will participate in fiscal 2021.



Reflected in goal achievement evaluations of management-level employees Numerical Target 1

From fiscal 2020, we will include initiatives related to women's activities in the management-level employees' management-by-objectives (MBO) evaluations to encourage the growth of female employees.

Opinion Exchange Meetings with Female Engineer Quantitative Target 2

In February 2020, we held an opinion exchange meeting that was attended by eight female engineers from the Group's complexes and refining companies. The online follow-up meeting started in October and was held three times during fiscal 2020. In fiscal 2021, an opinion exchange meeting was held in August with 20 participants. We are continuing this activity because it helps participants get to know each other and motivates them to work and pursue their careers.

Promotion of D&I

Promoting Work-Life Balance

Basic Policy

We position work-life balance support and next-generation development as key measures for promoting D&I and are working to upgrade our policies in line with life events. Fostering a workplace culture where employees can balance work and life (childcare and care giving), work easily, and feel a sense of accomplishment will help create an environment where all employees can make full use of their abilities.

General Employer Action Plan Based on the Act on Advancement of Measures to Support Raising Next-Generation Children

We analyzed the Company's issues, considered specific measures, and formulated an action plan to support the activities of employees who aim to balance work and life. In addition, in 2012 and 2015, we were recognized by the Ministry of Health, Labour and Welfare as a child-care support company and received the Kurumin certification mark.*

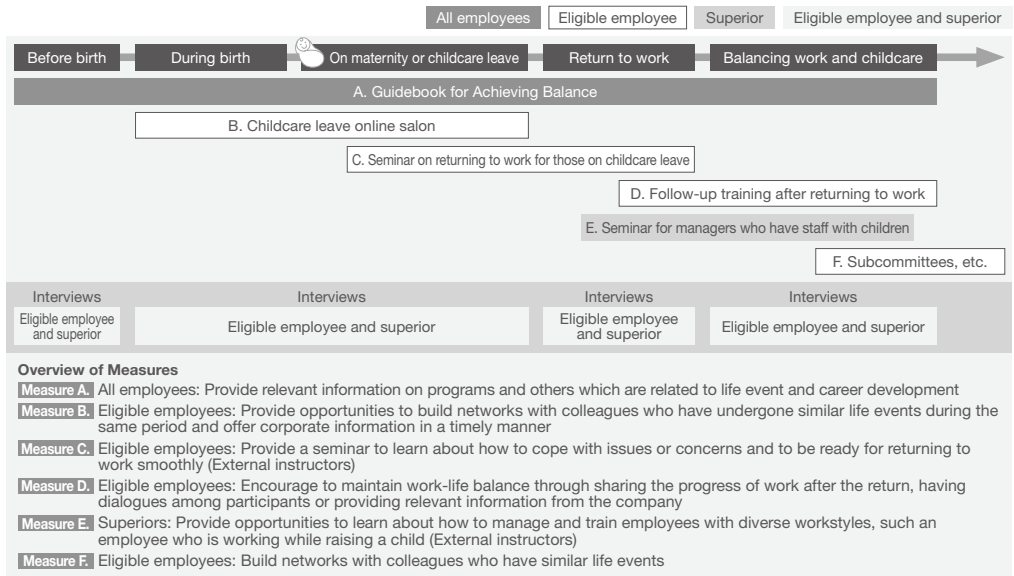
* The Kurumin certification mark is awarded by the Ministry of Health, Labour and Welfare to companies that actively support the development of the next generation. Based on the Act on Advancement of Measures to Support Raising Next-Generation Children, the General Employer Action Plan can be formulated and certified if certain standards are met.



Plan Period	Plan Details	
April 1, 2020–March 31, 2023 (3 years)	Measure 1. Initiatives to support balancing work and childcare	<ul style="list-style-type: none"> Conducting follow-ups in response to life events and encouraging male employees' participation in childcare
	Measure 2. Initiatives related to revising workstyles	<ul style="list-style-type: none"> Implementing initiatives aimed at promoting work-from-home and flextime arrangements and the use of annual paid leave
	Measure 3. Initiatives related to support the development of next generation	<ul style="list-style-type: none"> Holding "Children Office Tour" days for our employees' children and providing internships to university students

Note: Specific initiatives tied to the action plan are detailed to the right.

Measures Supporting the Balance of Work and Childcare in Response to Life Events





Promotion of D&I

Specific Initiatives

Response to the COVID-19 pandemic Measure 2.

For employees who needed to use working hours to address family matters, such as for caregiving or coping with school and daycare closings, under the emergency declaration, we exempted the deduction of their wages. In addition, we fostered an environment in which all employees can continue to work, including by flexibly responding to employees who had planned to return to work from childcare leave but instead needed to extend their leave due to the nature of their jobs and requests from their daycares to keep their children home.

Publishing the Guidebook on Supporting a Balance between Work and Caregiving/Childcare Measure 1.

In May 2020, we published an in-house guidebook on Idemitsu's work-life balance support programs and systems to ensure that all employees could easily understand them. It sets out the actions needed to be taken when faced with the prospect of maternity, childcare, and caregiving, how superiors need to respond, and the responses required of colleagues as well as basic knowledge that everyone in the workplace should know regarding workstyles that balance work and life.

Following Up with Employees on Childcare Leave through the Childcare Leave Online Salon Measure 1.

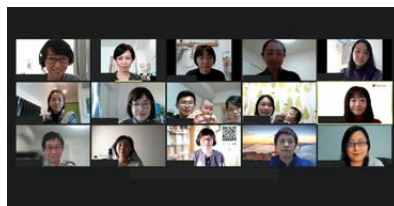
With the aim of supporting a smooth transition back to work by abating worries and concerns during childcare leave and providing corporate information in a timely manner, we held a Childcare Leave Online Salon for male and female employees on childcare leave in July 2020. By June 30, 2021, a total of 33 employees participated in a total of four such salon events (10 in July, 9 in September, 7 in December, and 7 in June, 2021). At the inaugural event, we not only shared corporate information, such as current workstyles during the pandemic and their future direction, we also exchanged information regarding communication with the workplace, childcare, daycare searches, and more. We will regularly hold such events going forward, provide unbiased corporate information to those on childcare leave, and build networks among those on childcare leave with the aim of enhancing engagement with those on leave.



Seminars for Employees on Childcare Leave on Returning to Work Measure 1.

In February 2021, we held a Seminar for Employees Returning to Work from Childcare Leave online with the purpose of gaining advice on achieving work-life balance and learning ways to resolve common issues and concerns affecting such employees.

Employees on childcare leave talked with senior employees who already returned to work mainly regarding daily strategies, work efficiency, and instruction, learning tips on balancing work and life to ensure a smooth return to work. We held the seminar on a Sunday so participants' partners could also participate. Thirteen employees and five partners participated.



Seminar to Support Work-Life Balance for Employees Returning to Work from Childcare Leave Measure 1.

Due to the COVID-19 pandemic, we canceled the in-person Seminars for Employees on Childcare Leave on Returning to Work originally scheduled in fiscal 2019. To this end, only for fiscal 2020, we held the Seminar to Support Work-Life Balance for Employees Returning to Work from Childcare Leave online in February 2021 for employees who returned to work from childcare leave since April 2018.

Twenty-three employees (21 women, 2 men) participated in the seminar for the purpose of gaining tips on thriving at work and feeling more satisfaction in work while solving common issues and concerns that arise when balancing work and childcare. Through discussions with senior employees who have experience with raising children in dual-income households and through workshops with other participants, employees thought about ways to solve issues and how to build their own careers.



Seminars for Managers Who Have Fathers and Mothers as Subordinates Measure 1.

We held the Seminar for Supervisors of Mothers and Fathers for managers who have subordinates with infants. Around 70 people participated and learned about organizational management assuming that the presence of employees with diverse workstyles, for example, how to develop and respond to employees who are raising children.

Going forward, we will continue working to create an environment that enables work-life balance and ensures the comprehension of eligible employees while also introducing seminars and workshops for employees raising children and their supervisors.



Holding "Children Office Tour" Measure 3.

We held "Children Office Tour" for the children of employees with the aim of creating opportunities for them to better understand their parents' place in our company and society, as well as to encourage communication between the children and their parents. We began holding these days in 2019 and held the third one in August 2021, with 28 children participating online, including children from one country overseas. In addition to introducing Idemitsu, this time we collaborated with the Fujii Research Laboratory of Shizuoka University, which won the Grand Prix and Audience Awards at the University SDGs ACTION! AWARDS by Asahi Newspaper Inc. The children also learned about disaster prevention through traditional illustrated storytelling, dances, and quizzes.



Promotion of D&I

Systems Supporting Diverse Employees

To create a worker-friendly environment for a diverse range of employees, on the basis of our Diversity and Inclusion Policy, we have established various systems. We have expanded systems to enable employees to achieve work-life balance, including those undertaking childcare and caregiving, and to continue working over the long term. As a part of our consideration of systems, we conducted trials for new workstyles between October and December 2020. Afterward, we studied and ameliorated issues that emerged and began running new systems from April 2021.

■ Systems Expanded Based on New Workstyles

Flextime	Former system	Current system
Flextime	Yes (Head Office, etc: 7:00–10:30, 15:30–22:00)	Yes (Head Office, etc: 7:00–22:00)
Core time	Yes	No
Leave during working hours	Not possible	Possible
Teleworking	Former system	Current system
Work place	Limited to home	Home, satellite office, and mobile work possible
Frequency	Up to once per week	No limit
Combination of working at the office and remotely	Not possible	Possible
Leave during working hours	Not possible	Possible

Systems for all employees

Annual paid leave	Paid leave is granted annually based on the number of years of service (up to 21 days per year). Employees can take leave in half-day increments.
Carryover of annual paid leave	In the event that the paid leave granted for a fiscal year is not all used, it can be carried over to the next fiscal year. A maximum of 10 days of that leave may be carried over to the next fiscal year for a maximum total of 31 days.
Flextime	Employees can decide their daily working hours themselves and can work flexibly.
Teleworking	To enhance productivity and job satisfaction, employees are free to choose where they work. (No limit on the frequency of teleworking.)
Self-development leave of absence	Employees can take a leave of absence of up to two years to attend school or obtain qualifications that will contribute to their career development at the Company.
Volunteer leave of absence	Employees can take a leave of absence of up to two years for activities such as disaster relief and international cooperation, nature and environmental conservation, support for people with disabilities, and support for the development of future generations focusing on children.
Volunteer leave of absence	In addition to annual paid leave, employees can take three days of special paid leave per year for activities such as disaster relief and international cooperation, nature and environmental conservation, support for people with disabilities, and support for the development of future generations focusing on children.
Leave of absence to accompany a spouse overseas	Employees can take a leave of absence up to three years to accompany their spouse overseas.
Lay judge and prosecution counselor leave	If an employee is appointed as a lay judge or a prosecution counselor, they will be granted necessary special paid leave in addition to annual paid leave.

Systems for employees for childbirth or childcare

Maternity Leave (female) (referred to as "maternity leave" in the systems usage numbers table below)	Female employees can take pre-birth post-birth leave from 6 weeks (14 weeks for multiple births) before the expected date of delivery until 8 weeks after delivery.
Special leave for childbirth by the spouse (male)	When a spouse gives birth, her husband (employee) can take five days of special paid leave.
Childcare leave	Regardless of sex, employees can take a childcare leave until the child becomes two years old.
Childcare time (female)	Female employees can take up to one hour of childcare time per day in 30 minute increments (up until the child becomes one year old).
Leave to care for sick/injured child	Employees can take up to 10 days of special paid leave per year to take care of their sick/injured child (up until the child completes the third grade of elementary school). Employees can take such leave in full-day, half-day or one-hour increments.

Systems for employees providing family care

Nursing care leave	Employees can take up to 365 days of nursing care leave per family member (division of leave is available).
Family care leave	Employees can take up to 10 days of special paid leave per year to provide family care. Employees can take such leave in full-day, half-day or one-hour increments.

Systems for employees who provide childcare or nursing care

Reduced working hours for parenting	Employees can reduce their working hours by up to two hours per day in 30-minute increments (childcare: up until the child completes the third grade of elementary school; nursing care: for up to 1,095 days).
Exemption from overtime work	Employees can be exempted from overtime work (childcare: up until the child becomes one year old; nursing care: up until nursing care is no longer necessary).
Limitation on overtime work and holiday work	Employees are allowed to limit overtime work and holiday work to within the range of 24 hours per month and 150 hours per year (childcare: up until the child enters elementary school; nursing care: up until nursing care is no longer necessary).
Exemption from late-night shift	Employees can be exempted from late-night shifts (childcare: until the child enters elementary school; nursing care: up until nursing care is no longer necessary).

System for Employees Undergoing Medical Treatment (from FY2021)

Reduced Working Hours	Employees can reduce working hours to undergo treatment for eligible diseases with a monthly cap set at the number of regular work days multiplied by two hours.
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Various systems usage numbers (FY2020)

Name of system	Total	Men	Women
Maternity leave	35	-	35
Childcare leave	90	22	68
Nursing care leave	2	2	-
Reduced working hours for parenting	72	1	71
Leave to care for sick/ injured child	133	61	72
Family care leave	37	25	12

Note: These systems are available to Idemitsu hires (employees, seniors, re-employed), including employees seconded to other companies.



Promotion of D&I

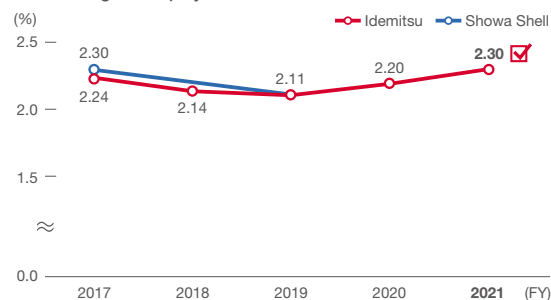
Promoting the Active Participation of People with Disabilities

We are working to provide opportunities for and an environment in which people with disabilities can demonstrate their abilities to work and thrive.

At Head Office departments and nationwide bases, we have created a suitable environment for people with disabilities to work on their own and rolled out the hiring of persons with disabilities in a teamwork-based structure. Extending to the Head Office, Chiba Complex, Advanced Technology Research Laboratories, and Tokuyama Complex, teamwork in this context refers to a work-style where multiple people with disabilities work as a team to help enhance the productivity of the entire company by taking on tasks from various internal departments. This can be broken down into three specific categories. The first is cleaning and office support tasks at the Advanced Technology Research Laboratories as well as the cultivation of flowering plants using the greenhouse facilities of our laboratories (Idemitsu Yume Farm). The second is performed under the “Team ☆≡ Kirara” initiative at the Tokuyama Complex and entails managing uniforms and company-owned vehicles, running the strawberry farm using waste heat from the complex, and providing the resulting produce to employees. The third is performed by “Team Artemis” at the Otemachi Head Office, running the mail center, cleaning, and digitizing paper documents as part of our Company-wide paperless initiative.

Going forward, we will create places for people with disabilities to thrive and grow, engrain teamwork, and work to achieve our target of realizing diversity and inclusion in terms of hiring people with disabilities.

Percentage of employees with disabilities



Notes: 1. The data for FY2021, as of June 1, 2021, cover Idemitsu hires (including employees seconded to other companies).

2. Idemitsu's data in FY2016 to 2019 are as of June 1 of each year.

3. Showa Shell's data in FY2016 to 2017 are as of December 31 of each year.

The logo of Team Artemis and a scene of a team member working



Promoting the Active Participation of Seniors

At present there are 640 senior employees (aged 60 or over) within the Company. Wanting to provide a place where everyone can thrive regardless of age, from FY2021 on, we will introduce a system that allows employees to choose their retirement age from 60 to 65 and that provides a grading, evaluation, and compensation framework equivalent with regular employees. Furthermore, in FY2025, we plan to introduce a system where all employees can continue to work as regular employees until age 65.

Amid diversifying employee preferences regarding working age, employment type, and motivations, we reformed systems to enable people to make full use of their abilities and work with a sense of satisfaction and security past the age of 60. We expect employees aged 60 and over to nurture younger employees through their daily cooperation, passing on their knowledge and skills. In addition, we plan to hold a Life Design Seminar during FY2020 as an opportunity for employees to independently think about workstyles after age 60 while learning about financial plans for after retirement.

	FY2021	FY2025 Plan
Conditions for employment	System to select retirement age between 60 and 65 (Can choose own age)	Regular employee system up to age 65 (All employees remain regular employees up to age 65)
Grading	Same system as those under age 60	Same as FY2021
Evaluation		
Compensation		
Welfare		
Retirement allowance	No increase at age 60 or after	Same as FY2021

LGBTQ+-related Initiatives

Based on the Group Human Rights Policy and Diversity & Inclusion Policy, Idemitsu does not permit any LGBTQ+-related discrimination, understands diversity in sexual orientation and gender identity, encourages respect for and elevation of each other's individuality, and has launched initiatives to create a workplace environment that fully leverages team power.

Direction of initiatives

- **Creating a corporate culture**
Establishing awareness-raising activities by level and a support and consultation system
- **Setting up systems**
Revising the HR and welfare system and considering the enhancement of in-house equipment
- **Contributing to society**
Sponsoring various LGBTQ+-related events and considering donation activities

Promoting the Active Participation of Foreign National Employees

There are 35 foreign national employees actively working at the Company, and we are taking various measures to enable them to securely engage in their work. As one such measure, we have formed Global Nakama Initiative (GNI) as a place for foreign national employees to interact and share information. We are rolling out GNI as a system to enable them to freely exchange opinions and foster conversation. Currently, there are many differences between the ideas and customs of foreign national employees working at Japanese companies and those of Japanese employees. Through this activity, we aim to foster an environment where each foreign national employee can work easily while supporting their life and work in Japan.

Specific Initiative

Global Nakama Initiative (GNI)

To create a place for foreign national employees to network and exchange information, we have been running the GNI since May 2018. The initiative also acts as a consultation desk where foreign national employees can easily seek guidance to ensure they can work with greater peace of mind. We have created guidelines for newly hired foreign national employees to help them in their work and personal life in Japan, and we distribute these guidelines when making job offers as well. We convened meetings for the GNI three times in fiscal 2018 and twice in fiscal 2019, holding discussions on methods and techniques (lifehacks) for more efficiently and comfortably working in Japan.

In fiscal 2020, with the new HR system coming into effect, we provided guidance on the career consultation desk and information to deepen understanding of the system. In addition, to support more active participation by foreign national employees, we conducted a survey in April 2021 to identify issues and tips.





Promotion of D&I

Enhancing Global Awareness

As globalization proceeds apace around the world, companies are seeking global talents, i.e., personnel who are open to the different cultures and diverse ways of thinking from other countries and can embrace them. With the aim of enhancing global awareness and providing new ambitious career opportunities, we established new overseas training programs, along with overseas and domestic study programs, and are promoting initiatives that enable young employees to actively experience overseas assignments. In addition, we are providing opportunities for free communication (information exchange) between domestic and overseas bases.

Overseas Training Programs

This program is designed to develop personnel who can thrive both in Japan and overseas by dispatching employees to overseas subsidiaries to broaden their knowledge and expertise and to accumulate diverse experience.

Specific Initiative

Global Values Workshops

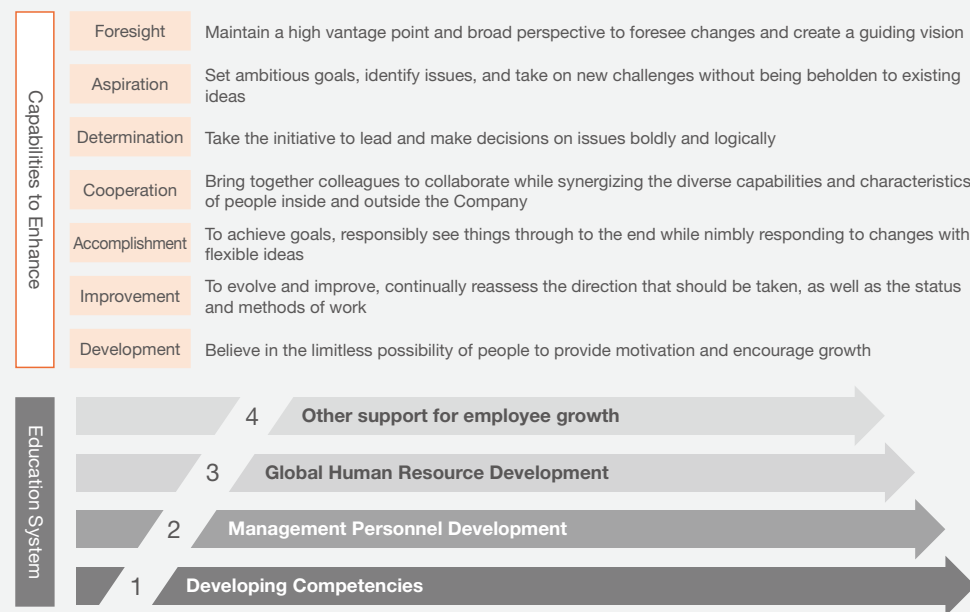
Global Values Workshops (GVs) are held as an opportunity for employees in Japan and overseas to freely communicate with each other by using the time when employees from overseas bases come to Japan for business trips. The purpose of these workshops is to deepen mutual understanding through communication among Group employees regardless of nationality, generation, department, or anything else, thereby creating a sense of unity in the Idemitsu Group at all its bases around the world as we develop as a global corporation. These workshops, held a total of two times to date (September 2019, January 2020), focused on fostering mutual understanding and included discussions on such topics as what the Group needs to do to become a global corporation and what a global corporation is in our perspective.



Human Resource Development

Human Resource Development Policy

Setting human resource development as one of our management objectives, we formulated an education and training system based on our Management Vision and Action Mindset in 2020. To increase the number of personnel who will embody the Action Mindset to a high degree, we set out “Independent & autonomy,” “Innovation,” and “Co-creation,” as the pillars of the Action Mindset that we especially strive to enhance. We meticulously set these pillars and “Growth,” which is the linchpin of the pillars, as “Capabilities to Enhance.” We carefully defined our desired attitude and action level from the perspectives of “Foresight,” “Aspiration,” “Determination,” “Cooperation,” “Accomplishment,” “Improvement,” and “Development.” This made it possible to reflect on one’s own current level and clarify what should be done to achieve growth.

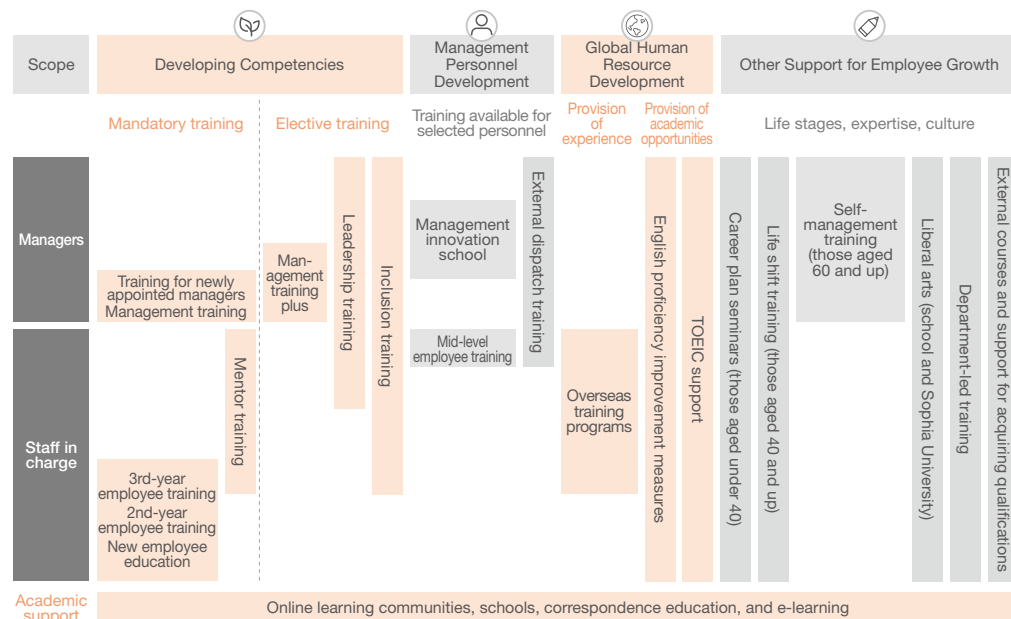




Human Resource Development

Overview of Our Education and Training System

The base of our education and training system is the cultivation of competencies to enhance the aforementioned capabilities. In addition, we strive to support not only occupational growth but also growth as human beings. We have therefore prepared programs to enhance people's sophistication and to support employees at different life stages. We expect all employees to maintain an awareness that they are the main actors of their lives and can grow to become proactive and contributing members of society.



Education and Training Results

In FY2020, we significantly reduced in-person training due to the COVID-19 pandemic and increased online training through an ongoing trial and error process. In FY2021, we again supported occupational and personal growth through programs for Developing Competencies, Management Personnel Development, Global Human Resource Development, and Other Support for Employee Growth.

Training hours and amount of investment in training in FY2020

Training hours	Total hours	57,581
	Per person	10.9
Amount of investment in training (Thousands of yen)	Total hours	256,000
	Per person	48

Note: Results are from training organized by the Human Resources Department of Idemitsu (non-consolidated).

Personnel Assignments and Transfers to Match the Right Person to the Right Place

Our employees have individual interviews with their superiors once a year to share their hopes and thoughts based on their "future planning sheet," which contains information on the level of satisfaction with their current job or workplace, career plans, and personal details. Grasping the direction of each individual employee's development, the Human Resources Department assigns them to appropriate positions in line with changes in the business structure. We also make changes in their job category and work location to create opportunities for them to further develop themselves.

Specific Initiatives

Inclusion Training (Developing Competencies)

We have been conducting inclusion training since fiscal 2020 with the purpose of developing employees who spur new value creation and learn mindsets and skills to fully draw out their individual latent talents.

In fiscal 2020, we offered training for managers, and 135 people participated. In fiscal 2021, we significantly expanded the scope of the training from upper-level managers to lower-level managers and conducted 10 training sessions (half day × 4 days / time) over seven months.

In this training, we encourage self-awareness of unconscious bias and employees learn skills for communicating, listening, coaching, giving feedback, and facilitating interactions.

We aim to create a culture in which the seeds of transformation continually grow by enabling employees to utilize their skills at the workplace with awareness of their unconscious bias and the value of a diverse mix of opinions.

Educational Cross-Industry Training for Developing Leadership (Management Personnel Development)

With the aim of training personnel capable of demonstrating leadership rooted in their own convictions, we have been holding cross-industry training since fiscal 2016.

In fiscal 2020, this training involved mid-level employees from various companies (around 30 people from a total of four companies) and was held in conjunction with other companies (in the daily necessities, insurance, and retail industries).

Over the course of about six months of training, participants develop their creativity and imagination as they look to the future and are exposed to diverse values and ideas through mutual study with employees from different industries. Participants acquire a sense of mission to realize the Idemitsu DNA through the exploration of their own leadership skills as potential leaders of future generations.

Career Plan Seminar (Other Support for Employee Growth)

Idemitsu offers support to enable each employee to autonomously build their career and work with a sense of satisfaction. For career building, we make departmental introductory materials available to all employees as a way of deepening understanding of the Company's departments and operations.

In addition to providing information on operations, since fiscal 2020 we have been conducting career development training (career plan seminars for people in their 20s and 30s and life shift training for people in their 40s and 50s). In the training, we support independent career building by organizing the content into what each participant can do (by reviewing their own career to date), what they want to do, and what they should do.



Various HR Systems

Promotion of Diverse and Flexible Working Styles

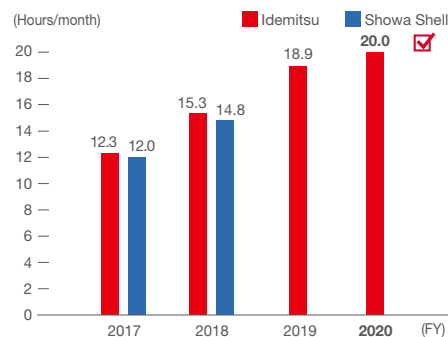
As part of our efforts to create a worker-friendly environment for a diverse range of employees, we have established systems and structures such as the work-from-home system, the flextime system, and satellite offices that could help reduce the burden of commuting.

From April 2021, we formalized the adoption of the more flexible working hours introduced as an emergency measure during the pandemic in fiscal 2020 and were able to establish a more flexible work environment. We are also

still considering how to use this pandemic experience to realize new workstyles in the post-pandemic era. Furthermore, to promote new workstyles, we formulated guidelines for online communication and meetings, creating a framework that enables employees to work with more flexibility.

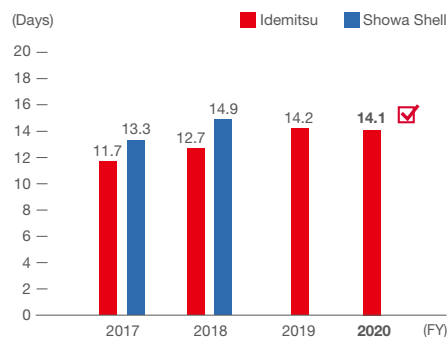
As for the management of working hours, we use the work management system to appropriately grasp the actual working conditions of employees and to regularly raise their awareness of working hours, aiming to increase productivity. In fiscal 2020, overtime work hours increased due to a temporary increase in workload during the early period of management integration. Through efforts to improve workplace culture and engagement, we aim to ensure employees improve work efficiency and productivity and enhance their quality of life (QOL).

Average overtime work hours per employee



Note: Results for Idemitsu hiring (employees, seniors, re-employed), excluding employees in managerial positions, employees on leave and seconded employees.

Average annual paid leave taken by an employee



Note: Results for Idemitsu hiring (employees, seniors, re-employed people), excluding employees on leave and seconded employees.

Initiatives aimed at promoting use of paid time off and reducing working hours

We are working to further promote the use of paid time off and reduce working hours to foster a culture where it is easier to work and enable diverse employees to thrive.

Raising awareness of and requesting HR managers to promote use of paid time off and reduce working hours

- Requesting managers to promote the use of annual paid time off by setting targets and outlining specific action plans to achieve those targets
- Raising awareness regarding the appropriate management of working hours and requesting collaboration on improving long working hours and supporting employees

System Notifications

- Under the work management system notification emails are sent to superiors and HR managers

Fair Evaluation and Compensation

In fiscal 2020, we introduced new core HR programs (grading program, development and evaluation program, compensation programs). From fiscal 2019, we have worked to enhance people's understanding of these programs through briefings. And, in fiscal 2020, on our in-house portal website, we uploaded videos carefully explaining the grading program and the development and evaluation program. We then conducted a follow-up on the comprehension of the HR programs.

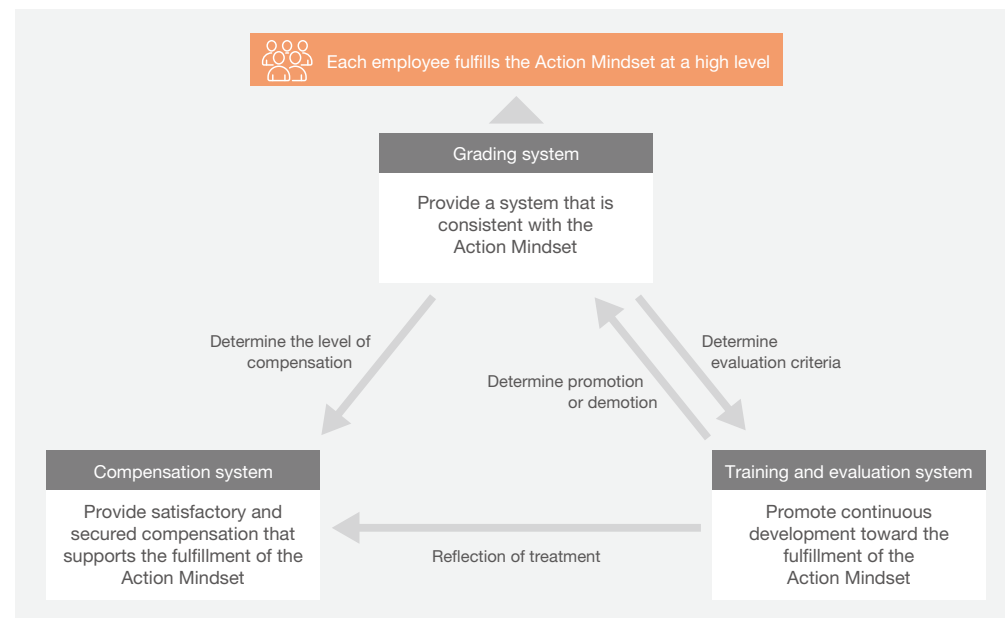
The new development and evaluation systems are designed to enable employees to continuously grow through comprehension of the significance of their evaluations. Each evaluation comprises an "competency evaluation" of the employee's work attitude and level of competency demonstrated and a "performance evaluation" that considers the employee's contribution to and/or achievement of objectives. In interviews with their superiors, employees confirm targets set, level of achievement, and abilities to be developed. The evaluation results connect to further growth and are reflected in compensation (pay and bonus) and personnel assignments and transfers. Evaluations are conducted once a year, and an interim interview is conducted during the fiscal year, providing opportunities for employees to work with their superiors to confirm their progress.

The compensation systems are designed to enable employees to work with a sense of security and acceptance. They comprise basic pay, which is stably provided for demonstrated abilities, bonuses for previous fiscal year results and contributions (based on goal accomplishment), and various allowances. This is based on the concept of respect for each employee's lifestyle and values along with a desire for the happiness of their family.

October 2019 briefing on HR programs



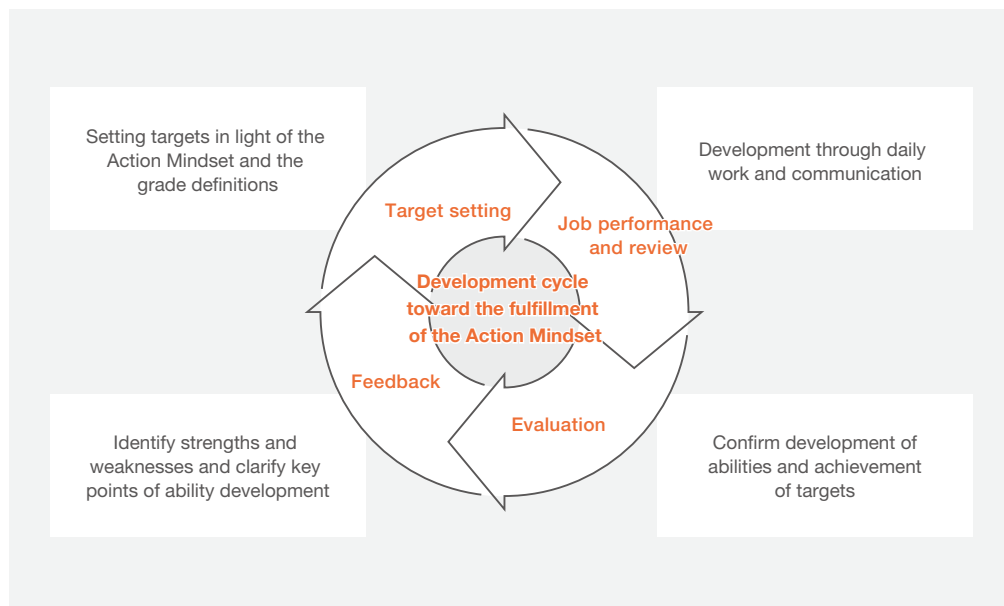
Overview of systems for human resource development





Various HR Systems

■ Development cycle toward the fulfillment of the Action Mindset



Exchange of Opinions with Employees on HR Policies

We strive to comply with all applicable labor laws and regulations at home and abroad and to create workplace environments in which all employees can concentrate on their work with assurance and satisfaction. Based on the Labor Standards Act, an employee representative creates written opinion statements accompanying the formulation of or amendment to labor agreements and/or the rules of employment. Dialogues between employees and the Company and notifications of changes to various HR measures, including the rules of employment, are conducted mainly at the Next Forum and employee briefings. In addition, Idemitsu's labor union named Forward Together with Our Energy (FTOE) regularly holds labor-management discussions related to the Company's management situation, vision, policies, workplace environment, and more. Through these efforts, we aim to develop policies that are highly acceptable by employees, including various HR initiatives, salary levels, labor conditions, and welfare benefits.

Promotion of Employees' Health

Health Declaration

The Group outlines People-Centered Management and positions the development of respected personnel as its ultimate goal. We aim to continue fully leveraging the power of people to contribute to society. To this end, the health of every employee is absolutely essential. We define prioritizing health and safety in all areas as the Group's Action Mindset and aim to be a company where everyone can thrive at work and be healthy in body and mind. We seek to ensure that employees are aware of their own health and work on it independently, the company actively supports them, and employees and the company work as one to realize a healthy company.

Idemitsu Kosan Co.,Ltd. President and Representative Director

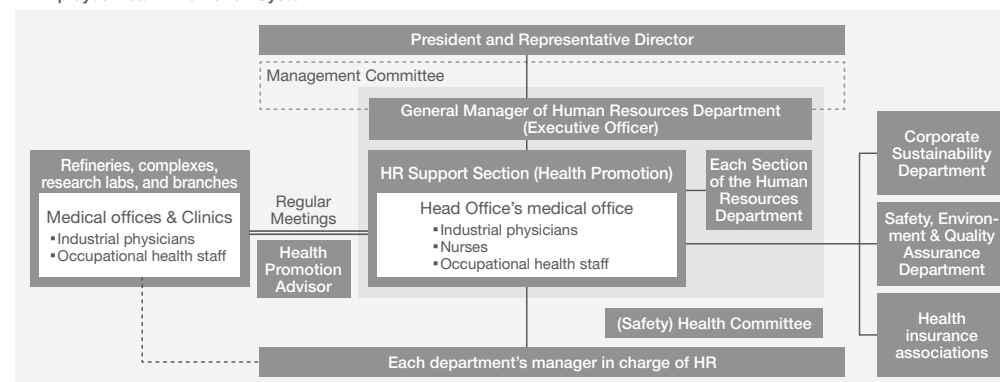
Shunichi Kito

Employee Health Promotion System

For the promotion of employee health, we placed a company-wide health promotion secretariat in the Human Resources Department in cooperation with health insurance associations and relevant departments. Our health management rules define the roles of the general managers and HR managers of each department with regard to health management and promotion in the workplace.

In addition, we have appointed 18 industrial physicians (including one psychiatrist at the Head Office and one physician for overseas matters) and 19 occupational health staff and nurses to our facilities in Japan as experts (including branches with less than 50 employees). We have also appointed an industrial physician specializing in psychiatry and another in overseas management at the Head Office along with industrial physicians to branches with fewer than 50 people. Furthermore, we receive health management guidance from doctors at the University of Occupational and Environmental Health, Japan.

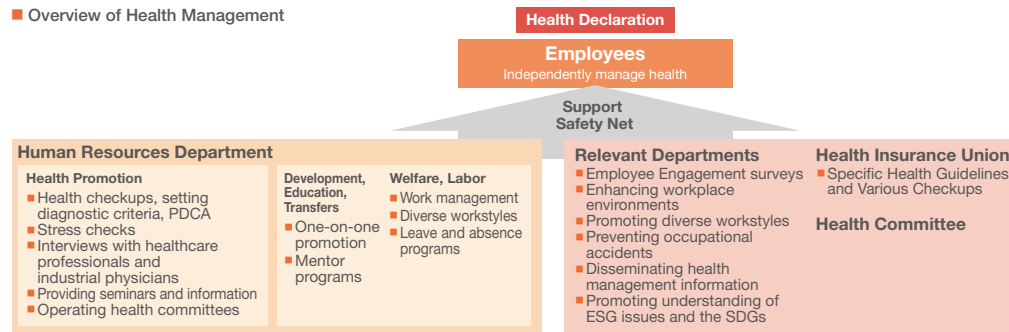
■ Employee Health Promotion System





Promotion of Employees' Health

■ Overview of Health Management



Activities of the Health Committee

To support the independent health management of employees, we convene the Health Committee once a month to raise awareness of and engrain health promotion activities at business sites with 50 or more employees based on the Industrial Safety and Health Act. At the Head Office, we have held meetings of the committee online since April 2020 to prevent the spread of COVID-19.

Committees Meeting at the Head Office

1. Timing and frequency of meetings

The third Thursday of every month

2. Committee members (53)

Committee chair: General manager of the Human Resources Department (general health and safety manager of the Industrial Safety and Health Act), expert industrial physician (1), health manager (1 dedicated, 7 concurrent), and health promotion committee members of each department (43)

3. Main Issues in FY2020

- Health lectures by industrial healthcare professionals (industrial physicians, nurses or occupational health staff)
- Occupational accidents (at offices and during commuting or working from home), employees working long hours, implementation status of industrial physician interviews (required if over the regular 70 work hours), workplace patrol results (industrial physicians and health managers), air environment measurement results, etc.
- Other communication matters related to health promotion

4. Deliberation matters

Implementation of stress checks at the end of first half of the year, decision of annual activity plan (proposal), implementation of world no-smoking day trial, reform of the Head Office Health Committee Operation Guidelines, etc.

Medium-term Initiatives

Main Priority Issues

1. Improvement of health awareness

We regularly inform employees of our health declaration, policies, and objective performance, thereby creating opportunities to discuss health issues on a daily basis.

2. Avoiding the need for leave of absence due to diseases or injuries

To support employees with mental health problems, we will enhance our in-house expert team. We will develop measures to prevent lifestyle-related diseases and support the individual efforts of our employees to stay healthy.

3. Reinforcement of promotion system and PDCA

We will clarify the promotion system, regularly report to the Management Committee, and make effective use of the system to implement the PDCA cycle effectively.

Health indicators (targets and FY2020 results) and specific initiatives

Mental health

We work hard to reduce the number of employees with mental health problems through training on preventive healthcare measures that are overseen by line managers as well as on measures employees can implement on their own in light of the lack of communication due to new workstyles (expanded working from home) and through support from a mental health team.

Physical health

To prevent serious COVID-19 infections, we strive to raise the percentage of healthy employees mainly by focusing on preventing lifestyle diseases and expanding health guidance and age-based measures for employees currently in poor health or at risk.

Health awareness

We aim to enable employees to manage their own health mainly through training in self-care and healthy living habits in response to the pandemic and new work styles.

FY2020 Initiatives

In fiscal 2020, we will continue rolling out effective measures that prioritize employee health amid the protracted COVID-19 pandemic.

Example Initiatives

- Stepped up information dissemination amid the pandemic (on self-care, care overseen by managers, and more)
- Held web seminars and exercise programs
- Quickly identified and responded to changes in conditions through pulse surveys
- Promoted healthy activities aimed at improving the rate of self-care
- Established the 22nd of each month as "Swan Swan Day" ("swan" sounds like the Japanese word *suwan* which mean "don't smoke"), prohibiting smoking during work hours on that day

■ Swan Swan Day symbol





Promotion of Employees' Health

Implementation of Specified Health Guidance (Promotion of Collaborative Health)

As a way of promoting physical health, we promoted specified health guidance at the Head Office and each work site in collaboration with the Health Insurance Union. We have continued the measure since fiscal 2021.

- In fiscal 2020, over 450 employees participated in the program, which was offered to employees (including those at Idemitsu and its subsidiaries and affiliates) who exceeded the standard values for determining pre-metabolic syndrome as set out by the Ministry of Health, Labour and Welfare.
- We conducted a three-month health program that uses a smart phone app to visualize food and exercise habits and maintain health guidance. Over 90% of participants were expected to complete the program.
- Around 70% of people who completed the program saw a decrease in waist circumference and weight.

FY2021 Initiatives

Workplace Vaccinations for COVID-19

We began workplace vaccinations for COVID-19 from July 2021. At the Head Office at the Otemachi Building, Hokkaido Refinery, Chiba Complex, and Aichi Refinery, we vaccinated around 9,000 people, including Idemitsu employees, affiliate employees, dispatch employees, and partner company employees who opted for it. To foster a workplace environment in which employees can comfortably work, we collaborated with each department of the Head Office and each work site. We promoted vaccinations in collaboration with healthcare professionals and many in-house volunteers.

■ Workplace vaccination site



■ Employee being vaccinated



Mental Healthcare Initiatives

Regarding mental health, we conduct employee stress checks every year based on the Industrial Safety and Health Act. In fiscal 2020, we conducted such checks on a total of 11,259 employees, or 91.7% of the Group's workforce. Based on the results of the stress checks, we provide face-to-face guidance to people with high stress levels and opportunities for consultations to people with high stress levels who do not want face-to-face guidance. In addition, we also support improving the stress level of each workplace by providing reports on the analyzed results for each department.

At the same time, we are concerned that the environmental changes attributable to the pandemic present a major source of stress and worry for employees. To thoroughly support employees, we have released information on mental health issues at each stage of the pandemic on the Internal Health Support Site of our internal information portal and conducted a web seminar for line managers on overseeing care that can be performed while working from home during the pandemic.

Addressing Global Health Issues

As a company with many overseas bases, the Group understands the importance of addressing global health problems, such as the three big global infectious diseases (tuberculosis, malaria, and HIV/AIDS) and is taking action in this regard. We support employees assigned overseas by providing education on health management before they are sent abroad (on infectious diseases, preventing lifestyle-related diseases, and self-care), follow up on employees with high stress levels after conducting stress checks, confirm their health status, provide health checkups for both the employees and their families during their assignments, and encourage them to get vaccinations.

With regard to the health of employees at the Nghi Son Refinery and Petrochemical Limited Liability Company (NSRP), NSRP not only provides vaccinations for seasonal infections like influenza, but also conducts pest control activities at company accommodations once a month to prevent infections from an animal vector. In addition, NSRP performs medical checkups for residents of neighboring communities and works to improve their health based on the results, such as by providing tuberculosis vaccinations.

During the COVID-19 pandemic, in addition to the aforementioned initiatives, we are taking measures to prevent infections of employees and their families in line with the laws, regulations, and government guidelines of various countries.

Measures when Handling Hazardous Substances

At refineries and complexes, we use radioactive substances in analysis equipment and other machinery. Based on laws related to regulating radioactive isotopes, we have established internal regulations for handling these substances and properly manage them. We have taken such measures as shielding employees with protective gloves, garments, and masks, as well as providing sufficient preparation, including education and training in operational procedures, to complete operations quickly and minimize the time they are exposed to radiation. In addition, to manage the health and safety of the people handling the substances, we prohibit unauthorized entry into managed areas, measure radiation on the border of managed areas (twice annually), manage the exposure of employees who enter managed areas (for example, requiring them to wear personal exposure monitors), and radioactive operation employees receive two health checkups per year. Furthermore, when disposing of waste that includes radioactive substances, we contract an operator that has permits to appropriately dispose of the waste. Furthermore, the radioactive substances handled by Idemitsu are not enough to cause exposure in local communities.



Harassment Prevention Initiatives

Approach to Harassment Prevention

The Idemitsu Group believes that respect for human rights must be the highest priority in all of its decisions and actions. Accordingly, we seek to maintain harmonious relationships with international society and local communities, and do not discriminate against any stakeholder group. Furthermore, we do not condone violence or words or deeds that are detrimental to human dignity, whether physically or mentally. To ensure sound, harassment-free work environments, we seek to deepen the understanding of all employees and have established a basic policy for harassment prevention measures and appropriately responding to incidents of harassment. By doing so, we aim to create and maintain work environments in which the human rights of all employees are respected and employees can utilize their abilities to the fullest. In addition, the Human Resources Department, General Affairs Department, and Corporate Sustainability Department engage in concrete cross-departmental initiatives.

* Basic Policy on Harassment in the Workplace  <https://sustainability.idemitsu.com/en/themes/200>

Specific Initiatives

Building Skills for Responding to Consultations about Harassment

From October to November 2020, we provided training aimed at building skills for those responding to requests for consultation about harassment, including the HR managers of company departments and affiliates and officers in charge of responding to consultations. This training taught participants the skills to appropriately respond to employees seeking consultation about harassment. A total of 98 participants took part, deepening their understanding of the appropriate mindset and key points to keep in mind when fielding consultation requests as well as the perspectives and feelings of employees seeking such consultations. We will continue to implement such training as needed going forward.

Anti-Harassment Training

From December 2018 to fiscal 2020, we held anti-harassment training for all management-level employees, including top management, with the goal of eradicating all forms of harassment. A total of 1,065 individuals took part in this training.

The training has served as an opportunity for participants to deepen their understanding of workplace sexual harassment and abuse of authority and reflect on their role as managers in preventing such issues. Going forward, we will continue this training as we strive to ensure harassment-free workplaces.



Workplace Harassment Prevention Guide

To create and maintain sound, harassment-free workplaces, in June 2020, we prepared a guide to concrete prevention measures to help raise awareness among all employees, instructing them to not engage in or tolerate harassment.



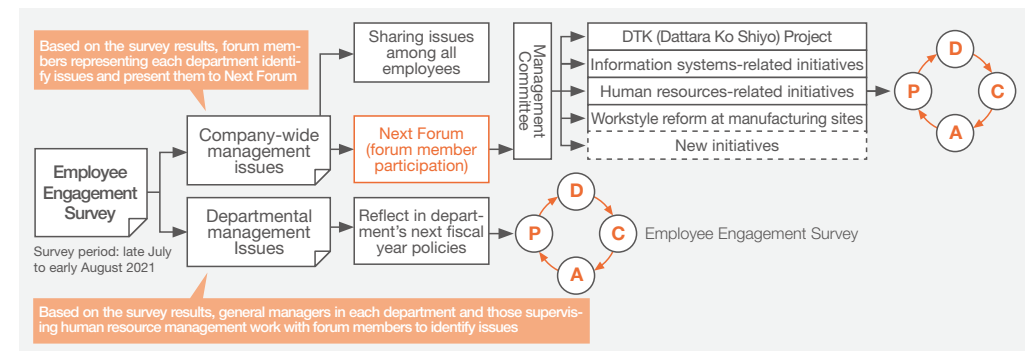
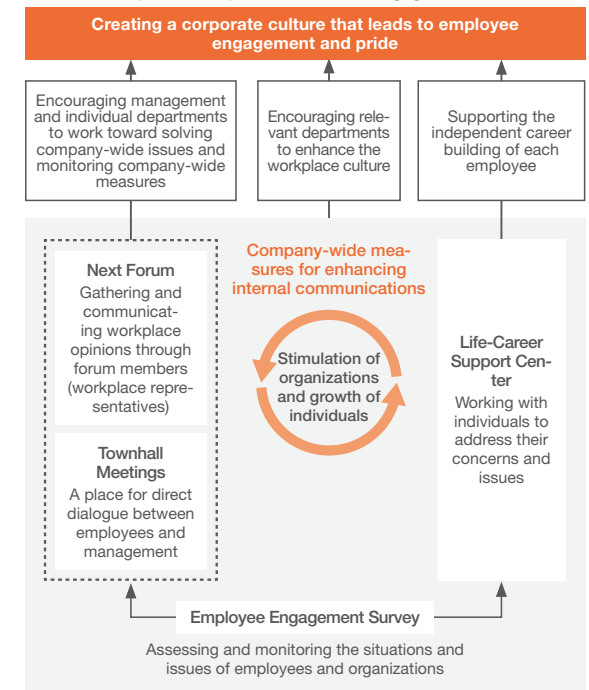
Efforts to Improve Workplace Culture and Engagement

We aim to co-create with our employees a better company, one in which all employees can thrive and feel rewarded, and we are working to stimulate internal communication to this end.

As outlined in the basic policies for 2030 in the Medium-term Management Plan, to enhance the engagement of every employee, we think it is necessary to create an open, flat, and agile corporate culture, an environment in which everyone feels safe, secure, and free to share what they really think. We therefore consider robust internal communication to be a foundation of our operations. Moreover, we believe that all employees should be on the same page about company-wide targets in addition to understanding department-specific targets they are directly tasked with pursuing.

The Next Forum is where employees and management can directly discuss, exchange opinions on, and make proposals about company-wide issues. Meanwhile, the DTK Project is aimed at improving operations and making each employee's job feel more rewarding. We are rolling out these and other various measures, including initiatives in each department.

■ Efforts to Improve Workplace Culture and Engagement





Efforts to Improve Workplace Culture and Engagement

Next Forum Initiatives

The Next Forum is a company meeting for employees and management to directly discuss, exchange opinions on, and make proposals about company-wide issues with the aim of co-creating a better company. Meetings are held twice a year, and forum members (a total of 110 persons from all 57 departments) selected from each department gather opinions from the workplace and directly communicate with management. In FY2020, meetings were held online in September 2020 and February 2021 as a precaution against COVID-19.

Drawing on input gleaned via dialogues at the Next Forum, a number of initiatives are being implemented to improve company-wide issues. In this way, we are reflecting employee voices in company-wide activities. Going forward, we will continuously strive to enable all employees to achieve growth and self-actualization through work at the Company and maintain a consistent feeling of engagement and pride.

■ An online session for the Next Forum in February 2021



Overview of the Next Forum in February 2021

■ Session 1: Answer session (all attendees)

Management and departmental representatives provided answers to suggestions and questions from forum members. The content of these exchanges was then addressed through dialogue involving all attendees.

Examples of suggestion topics: Management philosophy, career development, the mode of online communication, etc.

■ Session 2: Exchange of opinions (small-group discussion)

Attendees were divided into smaller groups by job category to engage in the in-depth exchange of opinions.

■ Examples of feedback from attendees: "These sessions helped me better understand where Idemitsu stands thanks to clear explanations on its future policies and the provision of robust answers to employee questions." "At this round, attendees were given a longer time for dialogue with management compared with previous rounds."

PDCA Cycle Based on an Employee Engagement Survey

We conduct an employee engagement survey once a year to quantitatively and continuously analyze employees' engagement, mutual trust, and unity. The results of the survey are fed back to management and all employees. Then they are analyzed in detail, and specific action plans are formulated and implemented based on it. The results of these analyses and plans are then confirmed in the next year's survey. This is the PDCA cycle.

Company-wide management issues identified in the surveys are discussed by management and employees at the Next Forum. This was the motivation for launching the following company-wide projects: the DTK Project and the reform of workstyles at manufacturing sites. Moreover, input gleaned from the surveys and via dialogue at the Next Forum included employee ideas that led to the April 2021 codification of our management philosophy. In addition, regarding departmental management issues, in each department, the general manager and other managers formulate action plans to address these issues, reflect them in the next fiscal year's policies, and promote and monitor the plans in daily tasks, thereby conducting the PDCA cycles.

Overview of FY2021 employee engagement survey

Survey period: Late July 2021–early August

Scope: A total of 11,896 people at Idemitsu and 29 affiliates and subsidiaries

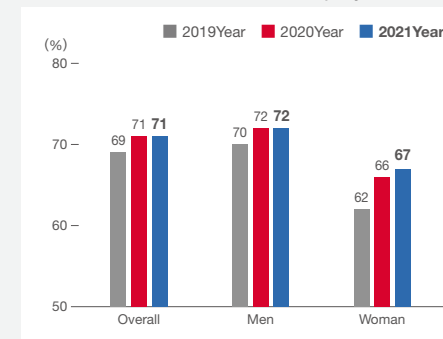
Response rate: 95.7%

* Results below are for Idemitsu (non-consolidated)

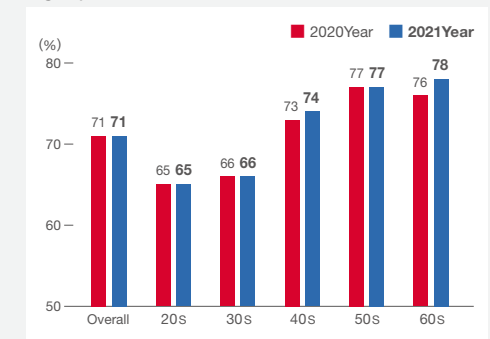
Features of the FY2020 survey:

Newly incorporated questions regarding the respondent's degree of empathy for and support of the management philosophy and corporate vision for 2030 as well as questions regarding the relationship between spare time discovered through the streamlining of operational processes and improvement in productivity

■ Percentage of employees who reported that they have enthusiasm to work in this company



■ Engagement, Mutual Trust, and Unity scores by age group



■ Questions regarding the management philosophy and corporate vision

Q. Do you empathize with Idemitsu's management philosophy?

(Unit: %)

■ Positive response ■ Neutral response ■ Negative responses



Q. Do you support Idemitsu's corporate vision for 2030, in which it aims to become a "reliable partner?"

(Unit: %)

■ Positive response ■ Neutral response ■ Negative responses



■ Number of freeform comments

Approximately 50% of respondents filled in comment spaces designed to solicit feedback regarding improvements and advances as well as any anxieties or feelings of deterioration during FY2020 and to accept suggestions for improvement. This ratio is deemed considerably large, suggesting higher employee awareness regarding the importance of the surveys. We will continue to collect and address real-life feedback from employees.



Efforts to Improve Workplace Culture and Engagement

Examples of Initiatives to Address Issues Identified via the FY2020 Employee Engagement Survey

Using the PDCA cycle shown in the diagram at right, we identified five key company-wide issues from among issues identified based on results of the FY2020 employee engagement survey. Following the exchange of opinions at the Next Forum between management and attendees, we launched various measures aimed at addressing these issues. In addition to promoting these measures, we will monitor their effectiveness via the FY2021 employee engagement survey. By doing so, we will brush up these measures while considering our next move.

■ The PDCA Cycle for Improving the Workplace Culture and Employee Engagement



Five Key Issues Identified via the FY2020 Employee Engagement Survey and Primary Measures to Address These Issues

Five Issues	Measures Being Undertaken
Understanding of the Corporate Vision and the Medium-term Management Plan as well as their relationships with the respondent's own job role	<ul style="list-style-type: none"> ■ Ongoing enhancement of direct communication opportunities for management and employees and the provision of opportunities for employees to be involved in business management (townhall meetings and round-table sessions attended by officers) ■ Codification of the management philosophy
Views on Idemitsu's future and its direction regarding new business initiatives	<ul style="list-style-type: none"> ■ The direct issuance of messages from management regarding the Medium-term Management Plan, corporate vision for 2030, the structural reform project and other forward-looking strategies ■ Robust explanations provided by management regarding the background of and concepts supporting measures as well as other efforts to ensure clear understanding among employees
Whether company-wide measures are firmly implemented and whether tangible changes in employee behavior are felt	
Regarding measures to assist individual employees in their independent career development efforts, whether counseling opportunities and assistance tools are sufficiently provided	<ul style="list-style-type: none"> ■ Improvement of communication between supervisors and their staff (one-on-one meetings, management skill enhancement training, etc.) ■ Introduction of a new evaluation program (ranking program) ■ Implementation of various career development assistance measures (rank-based career development training, mentoring program, etc.) ■ Establishment of the Life-Career Support Center
Relationship between novel workstyles, operational streamlining and improvement in productivity and added value	<ul style="list-style-type: none"> ■ Development of a working environment that embraces diverse value systems and lifestyles (the revision of personnel programs and the development of online tools) ■ Organizational reforms (the simplification of ranking structure to enable speedier decision making, the delegation of authority and the optimization of the breadth of control) ■ Upgrading of the DTK and DX activities along with horizontally rolling out these activities

Townhall Meeting: A Place for Direct Dialogue Between Employees and Management (two sessions)

Session 1

Date: May 26, 2021

Method: Online livestreaming event

Number of live participants: approximately 3,400; number of video viewers: approximately 3,000

Content: ■ Speech by President Kito (20 minutes) and Q&A session utilizing chat (70 minutes)

- During the session, participants sent in approximately 250 questions, opinions and other forms of feedback. Items that could not be addressed immediately were subsequently answered through the in-house distribution of messages.

- Moreover, questionnaires were sent out to participants after the session, and 94% of respondents (of a total 345) answered that the event helped them better understand management status and policies, suggesting an improvement in employee engagement and motivation.

Examples of feedback: "It was good for me to directly hear from President about what he really thinks as he spoke in his own words, which may often be blurred in official documents." "The session helped me develop a greater sense of ownership about the topics discussed as I was allowed to directly send my questions via chat." "Instead of merely conveying policies via a top-down approach, the event was designed to invite all participants to think together about Idemitsu's management philosophy and the direction of its operations so they can spontaneously take action."



Session 2

Date: June 2 to 7, 2021; a total of 12 meetings (90 minutes each)

Method: Online meetings

Total number of participants: 122 Group employees and 34 officers

Content: ■ A Q&A session and the exchange of opinions regarding topics discussed in the session 1 and other open-ended dialogue

- The online meetings were divided into five categories based on topic, with employees being allowed to sign up for any meetings with relevance to their job categories or areas of personal concern. In addition to facilitating the exchange of opinions with officers, these meetings were designed to help employees interact with one another.
- Examples of topics discussed
 - Future business development toward carbon neutrality
 - Responsibilities to be fulfilled by Idemitsu as a "reliable partner" in line with the corporate vision for 2030
 - The future direction of global expansion
 - Desirable workplace culture and novel workstyles

Examples of feedback: "Officers answered my questions in a frank and sincere manner." "I appreciated the exchange of opinions with other participants."





Efforts to Improve Workplace Culture and Engagement

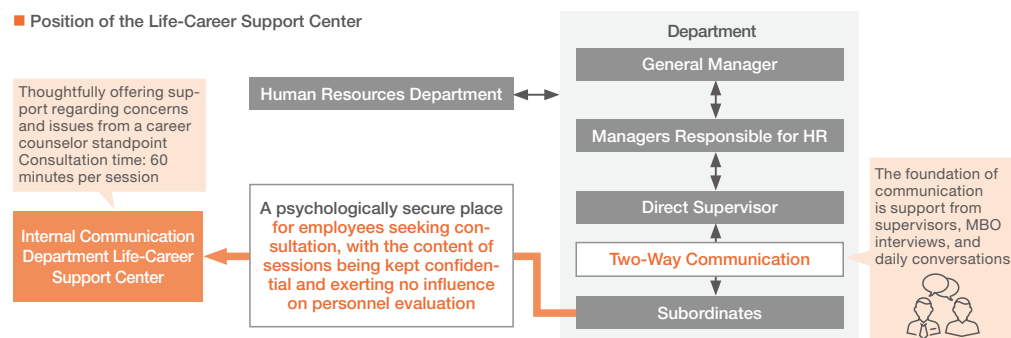
Life-Career Support Center

The Life-Career Support Center was established in July 2021 as part of measures to address the need to help each employee clarify their career plans, a company-wide issue identified via the FY2020 employee engagement survey. By enabling employees to utilize this consultation desk specializing in life and career issues, we are further supporting each employee's independent career building efforts and addressing concerns related to their life and career.

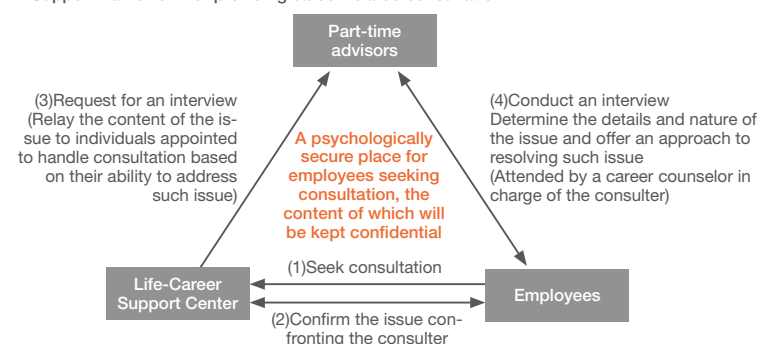
Although basic consultation regarding employees' life-and career-related issues is provided by their immediate supervisors with the cooperation of the Human Resources Department, the Life-Career Support Center offers face-to-face interviews conducted by certified career counselor. In order to ensure neutrality and confidentiality, these in-house counselor are totally independent from those authorized to determine human resource allocations. The center provides employees with opportunities to examine their career issues from a broader perspective and gain new insights, thereby contributing to improvement in employee engagement through meticulous support.

In addition, we appoint "part-time advisors" from among employees to provide consultation regarding a broad range of career issues. When necessary, career counselor set up interviews attended by part-time advisors with the consent of employees seeking consultation. With part-time advisors contributing their insights based on their own experience, this support framework is designed to enable employees to discover their own routes to resolving their issues.

Position of the Life-Career Support Center

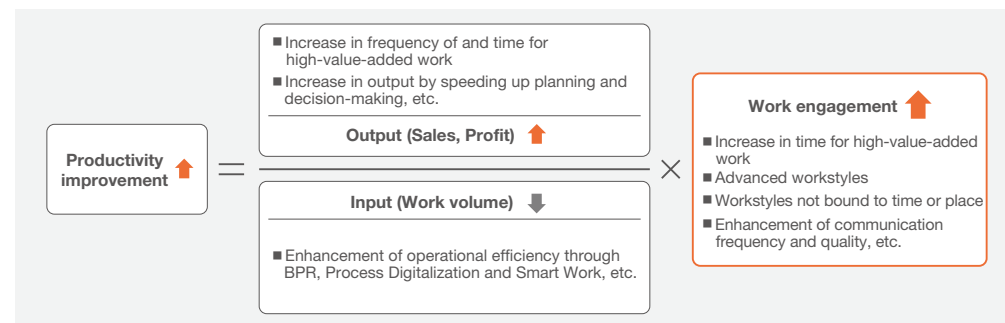


Support framework for providing career-related consultation



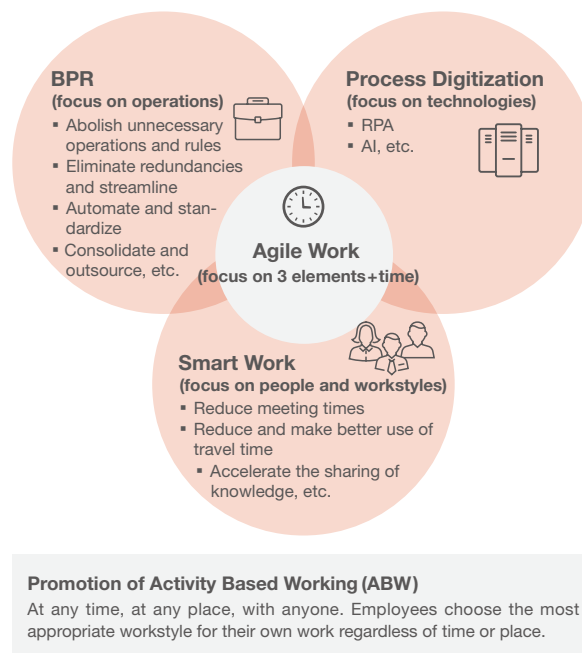
DTK (Dattara Ko Shiyo) Project (Business Process Redesign)

This project was launched with the aim of reforming the workflow and workstyle of all employees to ensure the sustainable development of the Company. Productivity improvement requires three things: improved results, a reduced volume of work, and better work engagement. Improved results and a reduced work volume are equivalent to existing operational improvement. The productivity improvement envisioned by this project is aimed at "operational improvement x improvement of each employee's work engagement."



In FY2019, we focused on creating new ways of working in all departments, including via digitization, while working to unify similar operations. In a company-wide achievement, we used digital technology to systematize contract management and create a workflow for approval applications. In addition, as department-specific projects, we worked to improve internal operational flows, cut unnecessary meetings, and reduce the frequency of meetings. In addition, regarding the progress of these efforts, we strove to disseminate information through our in-house information portal site and enhance understanding through PR videos.

In FY2020, we expanded the scope of activities included in this reform from the head office to branches, refineries, and complexes across the country. As a result, at the end of FY2020, we achieved our target of curbing total operational hours by more than 10% from the FY2018 level.





Efforts to Improve Workplace Culture and Engagement

Main Initiatives

Internal Communications

Accessible via our intranet, the “DTK Portal Site” disseminates informational content aimed at enhancing the awareness of the DTK Project (DTK-PJ) among employees with the aims of winning their understanding of and empathies for the project and encouraging them to develop a sense of ownership and transform their behavior accordingly. As of February 2021, this website recorded about 244,000 views, with the number of unique visitors totaling about 9,200. To facilitate bidirectional communications between members of this project, we have also established the “DTK-PJ Community” via the use of Microsoft Teams. Having thus facilitated networking among employees, we have seen a total of 746 individuals who signed up for this community as of February 2021.

Yorozu Consultation Desk

We have opened the “Yorozu Consultation Desk,” an in-house consultation desk designed to help employees resolve issues related to productivity and job satisfaction. When an employee seeks consultation, we assign experts with the ability to properly address their issues from among corporate department staff or external consultants. In this way, we extend ongoing support to the consulters until their issues are resolved. As of February 2021, the cumulative total number of consultations provided by this consultation desk amounted to more than 200.

Study Sessions and Workshops

We began holding study sessions and workshops for individuals appointed from various departments to promote the DTK Project to help them acquire useful insights and methods for pushing ahead with operational reforms. The study sessions are focused on helping attendees obtain knowledge and expertise, while the workshops are designed to equip them with practical capabilities to utilize input they acquired via study sessions. Currently, these events were held on 48 occasions in total, with the cumulative number of participants amounting to 1,600.

DTK Guidebook

We have issued the DTK Guidebook, which summarizes insights and takeaways we have gleaned via our engagement in the DTK Project, which has so far spanned about two years. In the course of compiling this guidebook, we strove to feature easy-to-understand and useful descriptions of “tips, tricks and traps” regarding operational reform activities, targeting especially individuals who seek to launch such reforms. Looking ahead, we will strive to foster an open, flat and agile corporate culture by, for example, undertaking BPR through which we review conventional modes of operation and establish new processes.



BPR Activities through Co-Creation with Employees (Digital for Idemitsu)

In April 2020, we launched BPR activities under the banner of “Digital for Idemitsu.” These activities are intended to transform the Company’s business processes as a whole via the use of digital technologies, with the aim of creating new social value and customer value. At the same time, employees are expected to accumulate experience in and expertise regarding co-creation through engagement in these activities.

As part of these efforts, we have implemented multiple rounds of on-site verification of BPR cases. Currently, upon the confirmation of verification results, we strive to improve operational process via the use of a “start small” approach. Thus far, these endeavors have been steadily progressing, resulting in the creation of synergies between business divisions and the optimization of information sharing among them.

Main Initiatives under Digital for Idemitsu

Relevant operations	Main initiatives
Power and Renewable Energy	Having launched a special project team, we are promoting the restructuring of power-related systems via the use of a forward-looking approach, as well as the development of business intelligence (BI) platforms centered on sales data analysis functions in addition to the thoroughgoing reform of operational process.
Lubricants	To improve ROIC, we defined and began monitoring KPIs to manage our global lubricant value chains (R&D, procurement, manufacturing, logistics, and sales) so that the status of these operations is easily visible. By doing so, we aim to develop robust BI platforms that enable us to make swift, data-driven management decisions.
Refineries	With refineries formulating a DX promotion structure in tandem with relevant departments, efforts are now under way to improve maintenance-related operational processes. Having positioned the Chiba Complex as a DX mother plant, we are striving to roll out these operational process reforms at other refineries and complexes.

Initiatives to Nurture Human Resources Capable of Creating Innovation Smart Yorozuya Juku, Business Design Juku and CNX Center Juku

In July 2021, we launched three training courses, each called “Juku” (Japanese for private academy), as part of measures to foster a corporate culture supporting innovation. These training courses are designed to nurture robust DX literacy and an entrepreneur mindset in our human resources.

With the number of individuals who can sign up for each course being limited to approximately 20, these courses help participants take on new challenges, offering unique curricula that incorporate on-site verifications and other real-life business tasks along with classroom lectures. We are thus encouraging employees to contribute new ideas and co-create new value in the course of their efforts to discover golden opportunities and realize innovation amid a time of radical change.

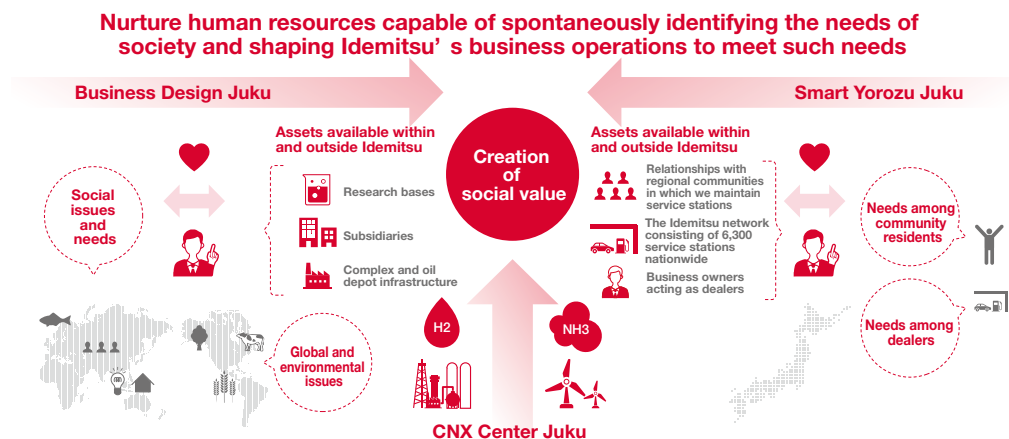
Outline of Each Course

Name	Overview	Main participants
Smart Yorozuya Juku	With the Digital & BPR Department and the Petroleum & Coal Marketing Department acting in collaboration, this course strives to nurture individuals who can drive Idemitsu toward its goal of becoming a “reliable partner.” To this end, participants strive to raise their DX literacy while engaging in the verification of new business ideas in an effort to transform service stations under their supervision into “Smart Yorozuya” (Smart one-stop shops).	Branch employees
Business Design Juku	This course is aimed at nurturing entrepreneurs capable of creating new businesses via the use of a customer-centered approach. Participants take on the challenge of launching new businesses and, to this end, work together with a team of digital business specialists who assist them in their endeavors.	Division employees
CNX Center Juku	Under the initiative of the Innovation Strategy & Carbon Neutral Transformation Department, this course helps participants conceive new ideas aimed at promoting various forms of carbon neutral transformation that align with region-specific needs.	Employees at refineries and complexes



Efforts to Improve Workplace Culture and Engagement

■ Unified Goals of the Three Courses



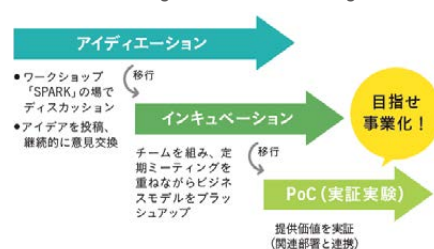
“SPARK”: Workshop for Creating Next-Generation Businesses

Designed to provide a place for employees to practice the co-creation of next-generation businesses, SPARK workshops and discussion sessions are open to all Idemitsu Group members regardless of department. Through these events, we are engaged in ongoing discussions to create new ideas based on needs and seeds within and outside Idemitsu as well as rapidly advancing technologies. Promising ideas are then refined via the incorporation of further input from internal and external sources. With the goal of developing new businesses that align with company-wide strategies and enable Idemitsu to achieve growth via the use of its strength, individuals who propose such ideas play key roles in these endeavors and work together with like-minded colleagues. In this way, the Idemitsu Group is taking on the challenge of reaching a new stage as a value-creation company through the development of innovative businesses.

■ Flow of ideas centered around SPARK



■ Process for creating new businesses through SPARK



Workstyle Reforms at Manufacturing Sites

The Manufacturing & Technology Department is engaged in workstyle reforms to ensure that employees can work with a sense of fulfillment even as they help enhance the competitiveness of the Company. To this end, a task team was launched, with its membership including manufacturing operators as well as Head Office staff, who exercise leadership. Employing unconventional approaches that defy prevailing norms and customs, these reforms are focused on (1) adapting to the diversification of on-site operations; (2) implementing workload reduction measures designed to go into immediate effects; and (3) achieving a shift of core working hours to daytime.

In FY2019, the task team formulated the outline of workstyle reforms targeting production engineers at business units charged with facility operations. Thus far, the department has succeeded in cutting back on workload by 8% following the launch of measures that went into immediate effect in December 2019.

From FY2020, workstyle reforms are under way at a growing variety of business units, including maintenance departments, subsidiaries and affiliates, such as Idemitsu Plantech.

Progress in Workstyle Reform Measures for Production Engineers

Reform 1: Adapting to the Diversification of On-Site Operations

In line with the personnel system, we have developed a set of rank-based performance targets for assessing level of personal growth to ensure that individual status regarding the pursuit of new challenges, dedication to daily operations, and the acquisition of specialist qualification is better reflected in employee evaluation. These targets came into effect from FY2020 as the first stage of the Reform 1. As the second stage, the targets were subsequently aligned with the diversification of employee duties and the differing pace of personal growth in FY2021.

Reform 2: Implementing Workload Reduction Measures Designed to Go into Immediate Effects

Launched in December 2019, these measures helped reduce workload by 8%, which is in excess of the target of 6%. In FY2019, we placed the utmost priority on reducing the burden to be borne by young employees, an employee group with a particularly high rate of attrition. At the same time, having learned that the motivation of young employees may have dampened by their working side by side with senior colleagues and veteran operators struggling with excessive workloads, we have also reduced the overall workload at on-site operations. In FY2020, we went on to launch measures to reduce the workloads of management-level employees. This initiative was focused on helping them resolve issues associated with securing sufficient time for communication with on-site operators.

Reform 3: Achieving a Shift of Core Working Hours to Daytime

After completing the outline of reform measures in FY2019, in FY2020 we launched detailed discussions regarding facility improvements along with undertaking the identification of issues via trial operations. In these endeavors, the Hokkaido Refinery was positioned as a model plant.

The goal of these reforms is to ensure that facility inspections and operations are carried out mainly during the day to reduce the physical burden placed on employees. Simultaneously, we will strive to reduce the size of the night-shift team specializing in surveillance, incident response, and troubleshooting. In these ways, we will enable employees to allocate greater resources to planning, discussion, and other tasks aimed at creating higher added value so that they find their jobs more rewarding.



Ensuring Safety

Policy for Ensuring Safety

Idemitsu's policy for ensuring safety is (1) to ensure the safety of people as our highest priority and (2) to reduce and eliminate risks through the appropriate allocation of management resources and the maintenance and improvement of facilities, processes and work mechanisms with the aim of eliminating accidents and injuries while also (3) making efforts to cultivate a safety-oriented culture. We have established the following specific policies as we strive to ensure the health and safety of all people connected to the Company.

- | | |
|--|--|
| 1. Ensure the safety of people | 4. Properly allocate and utilize management resources |
| 2. Ensure the safety assurance of facilities and processes | 5. Cultivate a safety-oriented culture and promote safety management |
| 3. Ensure the safety of work mechanisms and procedures | |

System for Promoting HSE Initiatives

We have positioned "Safety, Health and the Environment" as a management foundation and have established the Safety & Environmental Protection Headquarters to promote initiatives to secure and preserve this foundation. Members of the headquarters consist of the General Manager and co-head of the Safety & Environmental Protection Headquarters, general managers of departments in charge of supervising business sites and other managers who are appointed by the General Manager, in addition to the secretariat. The executive in charge of safety and environment (a Director) is appointed by the President and Representative Director to serve as the General Manager of the Safety & Environmental Protection Headquarters, overseeing the headquarters as the individual bearing the highest responsibility regarding safety, health, and the environment. Safety, Environment & Quality Assurance Department serves as the secretariat.

The role of the headquarters is (1) to determine the medium-term management plan, the annual basic policies, and priority issues associated with health, safety and the environment, (2) to assess and evaluate performance through audits, (3) to maintain, review, and improve the Health, Safety and Environmental Management System,* and (4) to instruct all departments and major affiliated companies on how to secure the management resources necessary to establish, implement, maintain, and continually improve these Management Systems.

In line with annual basic policies and priority issues determined by the headquarters, each department is autonomously engaged in HSSE activities by employing a PDCA cycle.

Each department appoints a manager in charge of safety and the environment to manage and promote the overall HSE activities of the department, including those of the business sites under its management.

In addition, in order to confirm and promote the HSE activities of each department, the General Manager of the Safety & Environmental Protection Headquarters or other top management representative conducts Safety and Environment related instructions or Safety patrols by visiting business sites. The secretariat of the headquarters also conducts Safety and Environmental audits at business sites. In particular, at our company's refineries and complexes, the General Manager of the Safety & Environmental Protection Headquarters conducts Safety and Environment related instruction and Safety patrol once a year, while the secretariat conducts Safety and Environmental audit on an annual basis.

At business sites other than those named above, Safety and Environmental audits are carried out at a frequency determined in consideration of the site's safety and environmental risks and the status of its safety and environmental management. Should safety- and/or environment-related issues.

Furthermore, in order to prevent serious accidents at our business sites, we have established the Safety & Security Advisory Committee, whose membership includes external experts, as an advisory body to the Board of Directors or the President and Representative Director, with the aim of establishing more effective safety and safety assurance measures.

Results of FY2020 Safety and Environmental Audits

Number of business sites subject to audits	11
Total number of issues commented on via audits	122
Major nonconformity	0
Minor nonconformity	7

* To promote safety, health, and environment management activities, policies, objectives and targets are established. To achieve these objectives, a management plan is formulated, implemented, reviewed, and continuously improved.

Health and Safety Management System

While leveraging the know-how we have gleaned from our experience to date, we have built and operate a unique management system based on an international standard for occupational health and safety management systems (ISO 45001) and the certification standards of the High Pressure Gas Safety Act. In addition, we continually improve the system through internal audits and management reviews. Furthermore, regarding ISO 45001, some of our overseas worksites have acquired certification.

Regarding certification under the High Pressure Gas Safety Act, all of Idemitsu's refineries, petrochemical plants, and Group refining companies have acquired certification.

Activities and Results Based on the Annual Basic Policies on HSE

Annual Basic Policies on HSE in FY2020

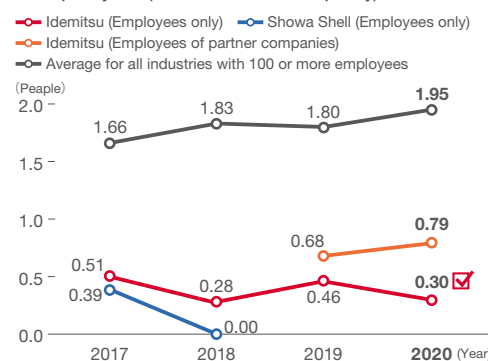
Continue to take on the challenge of zero accidents, and aim for "Zero serious accidents," "Zero fatal and lost time injuries," and "Zero environmental abnormalities." Continue also to strive for "Strict adherence to Life Saving Rule" as a priority while "Protecting the fundamentals of safety" and "Supporting and encouraging colleagues."

Idemitsu Group's Safety, Health and Environmental Performance in 2020 (including partner companies)

(Unit: cases)

Serious accidents	0	Accidents resulting in lost time injuries	27
Fatal accidents	0	Environmental abnormalities	3
Occupational accidents frequency rate		Severity rate	
Idemitsu's employees only	0.30	Idemitsu's employees only	0.00
Employees of partner companies	0.79	Employees of partner companies	0.05

Frequency rate (Accident incidence frequency)

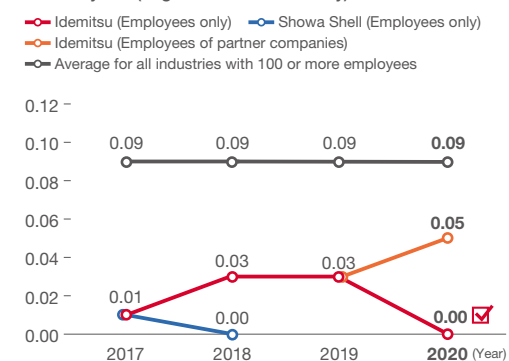


Notes: 1. The frequency rate refers to the number of fatalities and injuries due to occupational accidents per 1 million hours of actual work.

2. Data for 2019 is based on accidents reported by Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, Prime Polymer Co., Ltd. Anesaki Works, BASF Idemitsu Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., TOA Oil Co., Ltd., and Seibu Oil Co., Ltd.

3. Figures presented as averages for all industries with 100 or more employees are cited from the Ministry of Health, Labour and Welfare's Survey on Industrial Accidents.

Severity rate (Degree of accident severity)



Notes: 1. The severity rate refers to the number of lost working days due to absences attributable to occupational accidents per 1,000 hours of actual work.

2. Data for 2019 is based on accidents reported by Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, Prime Polymer Co., Ltd. Anesaki Works, BASF Idemitsu Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., TOA Oil Co., Ltd., and Seibu Oil Co., Ltd.

3. Figures presented as averages for all industries with 100 or more employees are cited from the Ministry of Health, Labour and Welfare's Survey on Industrial Accidents.



Ensuring Safety

Safety and Health Initiatives

Our Response to the COVID-19 Pandemic

With an eye to preventing the spread of COVID-19, we contained the degree of worker mobilization by reducing the scale of work carried out and extended the period allowed for shutdown maintenance undertaken at refineries and complexes. Moreover, we placed priority on utilizing workers from local communities to minimize bringing in workers from other areas. We have implemented thoroughgoing health management along with stringent countermeasures aimed at safeguarding the workers from COVID-19 infection during work hours as well as during their commutes.

Super Certified Business Sites

At Idemitsu's refineries and complexes, to enhance safety assurance based on advanced protection technologies, we are working to utilize advanced technologies, conduct sophisticated risk assessments, and provide sophisticated education and training. As a result, the following refinery and complexes were certified as Super Certified Business Sites that conduct sophisticated safety assurance initiatives in accordance with the High Pressure Gas Safety Act.

- Tokuyama Complex (certified September 5, 2019)
- Chiba Complex (certified March 17, 2020)
- Hokkaido Refinery (certified June 29, 2021)



As for Group refining companies, Seibu Oil Co., Ltd.'s Yamaguchi Refinery was also certified (June 4, 2021).

The Hokkaido Refinery Was Certified as a Super Certified Business Site Going Forward, We Will Achieve a Stable Energy Supply through Advanced Voluntary Safety Assurance

Idemitsu's Hokkaido Refinery was certified by the Minister of the Economy, Trade and Industry on June 29, 2021 as a specific certified operator under the new certified operator program established by the Ministry of the Economy, Trade and Industry (Super Certified Business Site). Until now, only the Group's Tokuyama Complex and Chiba Complex were registered as Super Certified Facilities.

The certification of Super Certified Business Sites with sophisticated safety assurance measures, including use of IoT and big data, are needed to enhance the safety assurance of the industry as a whole as it grapples with the increasing age of existing plants and the decrease in veteran employees. The rationalization of regulations for voluntary safety assurance applies to facilities that receive certification and will help strengthen our international competitive advantage.

At the Hokkaido Refinery, we have actively worked to address issues in line with efforts to realize our vision by, for example, introducing sophisticated risk assessments and advanced technologies and developing sophisticated personnel. With regard to the introduction of advanced technologies in particular, we are working to verify and introduce innovative technologies across the entire Company. Our refinery became the first facility in Hokkaido to become a Super Certified Facility. It received acclaim for being exceptional in effectively confirming hazards via risk assessments as well as for racking up accomplishments over many fields by applying its adopted elemental technologies, such as systems that use AI to develop diagnostic technologies and measure continuous pipe wall thickness, as well as its cyber safety assurance measures, experiential education employing VR, and practical simulators.

■ Hokkaido Refinery



Categorization of Facilities Related to Security

Item	Regular facilities	Certified facilities	Super Certified Facilities
Period of continuous operation	1 year (operations are suspended once a year for inspection)	4 years, etc. (period recognized by the Minister)	8 years or less (period freely set by the operator)
Completion and security inspection	Inspection by the prefecture	Inspection by the operators	Inspection by the operators
Inspection method	Method set by the proclamation	Method set by the Minister	Method freely set by the operator
Installation and alteration work	Approval from the prefecture, except for minor alterations	Expanded scope of minor alterations not needing approval	Further expanded scope of minor alterations not needing approval
Certification period	—	5 years	7 years
Visualization of security capabilities (mark)	—	Certification mark	Super Certification mark

Efforts for Zero Accident

In 2020, we achieved zero serious accidents. Unfortunately, in June 2021, an accident occurred at a Group refinery causing one partner company employee lost his life. Regarding the number of occupational accidents in 2020, it is approximately the same as in 2019.

In FY2021, we will continue the "Challenge of Zero Accident", establish a culture of adhering to the SOP, comply with the rules to protect lives, identify and respond to hazard sources from the worker's perspective during both regular and irregular operations, and strengthen activities related to safety-consciousness for partner companies.

In addition, as each department and major affiliated companies autonomously promote PDCA, we work to sustainably realize safe and stable operations through comprehensive potential hazard identification including reviewing operational process and maintaining facilities, as well as conducting appropriate risk assessment.

Safety & Safety Assurance Advisory Committee

Regarding earthquake countermeasures, such as the reinforcement of facility structures since 2005, in fiscal 2020, under the Earthquake Risk Management Guidelines formulated in fiscal 2019, we promoted studies of specific issues and, based on existing initiatives, we revised the New Earthquake Risk Management Guidelines to reflect new policies.

National Safety Week Initiatives

Idemitsu takes the following measures for National Safety Week, which is sponsored by the Ministry of Health, Labour and Welfare and the Japan Industrial Safety & Health Association.

- An email is sent by the Representative Director & President to Group employees in Japan and overseas to reaffirm respect for human life, which is the underlying principle of National Safety Week, and his commitment to achieving zero accident, an effort the Group continuously undertakes.
- From the Safety & Environment Headquarters to each department, Idemitsu strives to reaffirm and ensure compliance with its rules to protect life.
- At each department, facility, and affiliate, Idemitsu is implementing safety activities designed for each workplace based on these efforts.



Ensuring Safety

Reinforcement of Earthquake Resistance of Existing Facilities

Our refineries and complexes have worked to strengthen our measures in preparation for natural disasters. As for earthquakes, we have periodically assessed the earthquake resistance of our facilities based on the standards required by law to secure resilience against the expected earthquake magnitudes, and strengthen them, if necessary. In addition, having learned lessons from the Tokachi-oki Earthquake and other disasters, we have assessed and enhanced the earthquake resistance of our facilities against expected earthquake magnitudes to an extent that exceeds the standards required by law.

Following the Great East Japan Earthquake on March 11, 2011, laws concerning high-pressure gas equipment were tightened and the standards of earthquake resistance were reviewed. In response to these changes, we have been systematically reinforcing the spherical tanks and other relevant facilities that store LPG at the Group's refineries and complexes in order to improve the earthquake resistance of their support structures.

In FY2020, we reinforced our facilities at refineries, complexes and oil depots by employing subsidy programs offered by the government under the banner of building national resilience. Looking ahead, our group will consider the further enhancement of earthquake resistance.

■ LPG tanks with reinforced support structures
(Tokuyama Complex)



■ Reinforcement of marine jetty with a view to strengthening disaster response capabilities
(Yokkaichi Refinery of Showa Yokkaichi Sekiyu Co., Ltd.)



Safety Education

Companywide Education

As part of company-wide education efforts, we use videos of serious accidents that have occurred at Idemitsu in safety training for new employees as part of their orientation every April, thereby instilling a persistent awareness that putting safety first is the foundation of management. Furthermore, during training for newly appointed management-level employees, which is carried out every time personnel are reassigned, we provide effective education about the legal role of management-level employees in safety and environmental management.

Education via the Safety & Environmental Protection Headquarters

Safety, Environment & Quality Assurance Department as the secretariat of the Safety & Environmental Protection Headquarters conducts training for key persons. Basic training educates them on their roles and the basics of safety and environmental management, and other training enhances their safety and environmental management capabilities (level up training, audit technical capability enhancement training, accident analysis training, environmental management capability enhancement training, and risk assessment training). This training develops the leadership abilities participants need to proactively operate PDCA cycles for environmental and safety management in their own divisions and complexes (carried out 11 times in FY2020).

Education Organized by the Manufacturing & Technology Division's Technical Training Center

Production Facility Operator Education

Based on the medium-term education plan, the Technical Training Center is carrying out education aimed at developing all operators as production engineers (PEs). PEs are operating division engineers who have a logical understanding of processes, facilities, and systems and the ways that these are interrelated. They are able to synthesize this knowledge to make comprehensive decisions and carry out optimized and efficient operations of the Group's refineries and complexes, thus playing an important role in ensuring the safety of such facilities.

Reinforcing Process Safety Education

The Technical Training Center is working to reinforce process safety education. For example, the center provides training for foremen or their proxies (assistant foremen) with the aim of enhancing their abilities as leaders to make decisions about measures to be taken in emergencies. This training, in which participants form operating teams, utilizes a training plant created by modifying decommissioned desulfurization facilities within the Tokuyama Complex. Developed by Idemitsu, it is the only high-level training of its kind in Japan. The training program is designed to be realistic, thrusting participants into scenarios where irregularities occur at night or on days off, so they must take such steps as reporting and implementing first response, emergency shut-down, and disaster prevention measures as the situation develops. In addition, we provide safety process management training for newly appointed technical managers at refineries and complexes. This training is conducted in two sessions. First, in the basic training, participants go over the key points of safety process management. Follow-up training then fosters an awareness of the urgency of reinforcing process safety and goes over action plans. In addition, as part of experiential training for local authorities and organizations and human resource development in coordination with local communities, we hold seminars to raise safety awareness using our danger simulation facilities and virtual reality, in cooperation with outside training centers. These activities have been well received by our external partners.

Practical Fire-Fighting Training

Training for Disaster Prevention Personnel at Refineries and Complexes

In the event of a fire or explosion, first-response firefighting and containment measures are extremely important to minimize harm within the effected refinery or complex, as well as external damage. As such, we focus efforts on training disaster prevention personnel. We believe that ongoing, repeated practical drilling (based on the fundamentals of fire-fighting theory) is crucial. For example, participants learn the basics of disaster prevention in lectures and practice handling actual equipment and extending fire hoses according to response plans. In particular, the Hokkaido Refinery, Chiba Complex, and Aichi Refinery conduct firefighting training with real fire in training facilities.

Training with Real Fires at the Niigata Disaster Prevention Training Center

The Safety, Environment & Quality Assurance Department maintains the Niigata Disaster Prevention Training Center. This facility provides training on an ongoing basis to many participants each year, not only from within the Company, but also from other companies in the industry. The training comprises scenarios based on fires occurring at different types of complex facilities and includes both theory (lectures) and practice (drills with real fires) to teach participants about first-response firefighting methods suited to the characteristics of oil fires in order to reinforce first-response firefighting systems at complexes. The training center has been widely praised as providing valuable experience and firefighting skills.



Ensuring Safety

Utilizing External Training

Training for Top Management

To prevent serious industrial accidents and disasters, it is vital that the top management of worksites, such as the general managers of refineries and complexes, maintain a strong awareness of process safety and that accident prevention measures are carried out under their strong leadership. In light of this, oil and chemical industry organizations and related companies, including Idemitsu, communicated the importance of fostering process safety awareness among top management to an external training center. In response, the center has held a special seminar about safety and the role of top management going forward on a regular basis since March 2016. The general managers of Idemitsu's refineries and complexes and the top management of its Head Office manufacturing and technology divisions participate in this seminar every year, working to strengthen production process safety leadership together with the general managers of the refineries and complexes of other companies, mainly those in the region near the training center.

Quality Control and Quality Assurance

Basic Approach to Quality

Idemitsu Group has defined its basic stance on quality as follows. "In order to ensure product safety and minimize the impact on people and the environment, we aim to promote quality assurance activities that take into account the entire life cycle of our products and services, from development and consumption to disposal, and strive to improve customer satisfaction and protect consumers." In addition, the Basic Essential Points on Quality Assurance serve as the highest-level internal regulation on quality, and set forth the following quality assurance policy as the basic concept of quality.

- 1. Provide products and services of appropriate quality from the customer's perspective.**
- 2. Take an environmentally conscious approach to production activities and product development.**
- 3. Provide safe and secure products.**
- 4. Always ensure compliance and fulfill our social responsibilities.**

Quality Control and Quality Assurance System

Our quality assurance system consists of two components: systems in place at business units and affiliated companies, and a corporate-level system for overseeing these. In actual quality activities, these systems work together to ensure that the Group as a whole implements its quality assurance policy.

Quality Control and Quality Assurance Systems in Each Business Division and Affiliated Company

Our business divisions and affiliated companies conduct quality management activities at every stage of their operations, from product development to manufacturing and sales. These activities are intended to contribute to the maintenance and improvement of the quality of products and services to meet the needs of customers and society. In addition, each business division and affiliated company has introduced a quality management system to ensure the quality of products and services provided to customers. A total of 34 business units and affiliates in our group have acquired ISO 9001 certification. (As of June 30, 2021)

Quality Control in Lubricants

In our lubricants departments, we strive to enhance product quality through an ISO 9001-compliant quality management system with the aim of providing a stable supply of products with consistent quality to our customers worldwide. All Idemitsu-owned sites in and outside Japan are ISO 9001-certified. We continually strive to prevent complaints and problems, aiming for zero customer complaints.



Quality Control and Quality Assurance

Quality Assurance System at the Corporate Level

The Quality Assurance Headquarters has been established as a corporate quality assurance organization to strengthen the governance of quality throughout our group. The Quality Assurance Headquarters is headed by the executive in charge of quality assurance (a Director) appointed by the Board of Directors. Members of the headquarters consist of the heads of quality-related business divisions and the presidents of affiliated companies, with Safety, Environment & Quality Assurance Department serving as its secretariat. The Quality Assurance Headquarters formulates policies for company-wide quality assurance activities and promotes initiatives to address such important issues as the maintenance, review and improvement of the quality management system. Each business division operates its own PDCA cycle in accordance with these policies. As a general rule, the Quality Assurance Headquarters meets once a year to monitor progress in quality assurance activities and determine our basic policies for the next fiscal year. We also conduct regular quality audits to improve the activities of each division.

■ Idemitsu Group's Quality Management System (PDCA cycle)



Employee Education and Awareness Raising Regarding Quality

The Idemitsu Group conducts education and awareness raising activities aimed at increasing employees' awareness of quality. Specifically, we hold workshops for managers in charge of quality to empower them to promote quality assurance activities at their respective divisions or affiliates, as well as internal seminars on such highly specialized topics as responding to laws and regulations on chemical substance management. Such activities help us advance quality assurance activities across the Group. Furthermore, every November, we conduct Quality Month events, holding lectures on quality, soliciting quality slogans, and putting up posters to inspire each and every employee to think about quality (in FY2020, lectures were cancelled to prevent the spread of COVID-19).

Promotion of Quality Control and Quality Assurance

Initiatives to Ensure Product Safety

We conduct checks of product safety at each product stage, from research and development through sales based on Rule for the Product Safety. Regulations of various countries concerning chemical substances have been frequently changing, and it is essential to respond swiftly and decisively to these changes. In FY2017, we introduced a new tool aimed at better managing information on the hazardous properties of chemical substances used in our products. Having expanded the scope of departments subject to chemical information management, we have successfully responded to domestic and overseas regulations, which are evolving frequently.

Response to Complaints on Quality

In the unlikely event of serious product safety or quality issues, we follow the "Crisis Response Rules" to minimize damage and any impact on society at large. The Customer Relations Center receives quality-related complaints and inquiries and, depending on the content, works with relevant departments to provide a swift response. We had no serious quality incidents requiring company-wide response during FY2020.

Providing Appropriate Product Safety Disclosure and Labeling

We issue safety data sheets (SDS) for the products it manufactures as stipulated under the relevant laws. Each product bears labeling that indicates its hazardous properties and safety-related details in accordance with chemical classification that complies with the GHS (Globally Harmonized System of Classification and Labelling of Chemicals). Product safety information is also available via Idemitsu's website as it is equipped with a system that enables users to search product data by name or usage.



Cooperation with Partners

Sustainable Procurement

Sustainable Procurement Policy

Idemitsu aims for the sustainable development of society and the company by conducting fair and equitable procurement based on proper procurement ethics, contributing to the improvement of business competitiveness, and conducting honest management for all stakeholders. To this end, we established the Basic Procurement Policy and internal rules dubbed General Rules Concerning Procurement Activities.

Through the policy and rules, we aim to contribute to the realization of a sustainable society throughout the supply chain. In particular, we have established criteria for selecting suppliers when purchasing or borrowing the materials, construction work, and services necessary for our business operations, and we ensure that suppliers understand the policy.

About Our Sustainable Procurement Guidelines

The business environment is diversifying, and in order to achieve sustainable development, it is expected that every company will actively strive to fulfill its social responsibilities not only for itself but for the entire supply chain. The Basic Procurement Policy is based on the Management Philosophy and Action Mindset and we will work with business partners to co-create a sustainable society throughout the entire supply chain through procurement activities grounded in unwavering ethics. In order to fulfill this responsibility, we formulated our own Sustainable Procurement Guidelines based on ISO 26000 (Guidance on Social Responsibility), ISO 20400 (Guide to Sustainable Procurement), the Sustainable Development Goals (SDGs), and the 10 principles of the United Nations Global Compact. Our guidelines cover seven fields: 1) organizational governance, 2) human rights, 3) labor practices, 4) environment, 5) fair business practices, 6) consumer issues, and 7) social contribution. We exchange information with business partners regarding the status of our sustainability-related efforts as we strive to mutually attain a higher level.

* Procurement Information ► <https://www.idemitsu.com/company/purchase/>



Promotion System

The Group established its Basic Procurement Policy based on the Management Philosophy and Action Mindset. To co-create a sustainable society throughout the entire supply chain with our business partners through procurement activities based on strict ethics, the Procurement Department is leading efforts to move forward in close collaboration with our partners and based on the Sustainable Procurement Guidelines.

Achievement in Supplier Dialogue (FY2020)

Prior to engaging in dialogue, we sent out a supplier questionnaire drawn up in conformity with our Sustainable Procurement Guidelines. Covering 35 items, the questionnaire enabled respondents to provide self-evaluations based on a five-grade rating system. We subsequently entered into dialogue with the respondents, prioritizing suppliers whose answers rated them among the lowest for one or more items. After that, we entered into dialogue with respondents whose answers for one or more items in our questionnaires indicated a second lowest rating.

- The number of suppliers called upon to enter into dialogue with Idemitsu: 124
- The number of suppliers that have already completed their dialogue with Idemitsu: 96

Since engaging in dialogue, each supplier has been striving to make improvements in items that they rated the lowest. To assist them in their efforts, we have established reporting hotlines for suppliers while communicating initiatives being undertaken by Idemitsu via, for example, the sharing of the Company's cyber security letter. We also accommodate requests for support from suppliers in the course of promoting sustainable procurement.

In FY2021, we intend to engage in ongoing dialogue with 28 suppliers whose answers for one or more items in our questionnaires indicated a second lowest rating.

Conduct Self-Assessment of Sustainable Procurement for Suppliers

To promote sustainable procurement throughout the entire supply chain, in 2019 we began an independent survey to determine the degree to which our major suppliers are adopting sustainable procurement. The Corporate Sustainability Department, the Procurement Department, and some other departments collaborated to send a Sustainable Procurement Self-Evaluation Sheet consisting of 35 items in 7 fields—organizational governance, human rights, labor practices, the environment, fair business practices, consumer issues, and social contribution—based on the Sustainable Procurement Guidelines to major suppliers and asked them to perform self-evaluations. In FY 2019, we conducted a survey of around 300 major suppliers, and, in FY 2020, we entered into dialogue with 96 of these companies, asking them to make improvements. In addition to providing feedback on the results of these assessments, if there are any concerns, we work with suppliers to improve and solve those issues together through dialogue, thereby reducing risk throughout the entire supply chain. This survey will be repeated once every three years to ensure continuous improvement.

Our sustainable procurement initiatives have only just begun, but we are working with society and suppliers to achieve a triple win.

Supplier Training

We are working to deepen mutual understanding while communicating the Company's stance on sustainable procurement and its Basic Human Rights Policy. Specifically, from the perspective of preemptively preventing threats to our computer network, we are making such improvements as sharing the Company's cyber security letter to suppliers upon request and establishing reporting hotlines in the supply chain. On an as-necessary basis, we also provide suppliers with document drafts designed to help them formulate various rules while assisting them in the implementation of employee education on biodiversity. Through these and other support measures, we are striving to help suppliers resolve issues confronting them.



Cooperation with Partners

Selection of New Suppliers Based on Social and Environmental Standards

Working in collaboration with all our suppliers, we hold in-house workshops as part of our procurement activities to convey that we strive to fulfill our social responsibility through the entire supply chain. Furthermore, when selecting new suppliers, we adhere to our Sustainable Procurement Guidelines.

Collaboration with Dealers

Idemitsu conducts businesses in collaboration with 1,192 dealers around Japan, leveraging a powerful network of approximately 6,300 service stations nationwide. Branches serve as contact points with dealers and through them we strive to enhance communication with dealers via the use of the apollostation portal, which was launched in January 2021 during the COVID-19 pandemic as part of digital transformation measures.

In March 2021, we held the “Idemitsu Dealers’ Nationwide Online Meeting 2021” to convey the new fiscal year’s policies and measures, and a great number of dealers attended the event. To prevent COVID-19 infections when holding the meetings, we spread them out among around 40 locations and took strict precautions at each site, ensuring zero transmission.

In cooperation with the National Idemitsu Association and the National Showa Shell Association, we are also working to strengthen social contribution by providing community support and doing our part to revitalize local communities. Moreover, the Idemitsu Group has established its own certification and training systems to enhance the knowledge and skills of its staff. Looking ahead, we will leverage these systems to increase customer trust in Idemitsu technologies and services, as well as to continue generating new added value by identifying and being sensitive to customer needs.

In order to ensure a stable supply of energy, service stations, which provide strength in times of disaster, are expected to play a role as disaster response centers. We are demonstrating a system that combines solar panels and power storage functions at several service stations in the Tokyo metropolitan area.

In addition to providing a constant refueling function in the event of a power failure, a service station can also be used as a power supply point for charging mobile phones and smartphones and for Wi-Fi connections, enhancing the durability and versatility of emergency power supplies.

■ A disaster-response service station



* The numbers of dealers and service stations provided in the text are as of the end of March, 2021.

Major Independent Certification Programs

■ Idemitsu Technical Master Program

A qualification program for developing human resources who can make comprehensive energy proposals that meet customer needs in the field of industrial petroleum and lubricant sales.

Individuals certified in FY2020		(Unit: Persons)		
Division	Individuals certified	Grade 1	Grade 2	Grade 3
Petroleum division	381	28	87	266
Lubricants division	636	62	154	420
Total	1,017	—	—	—

Note: The above figures include a number of individuals who have been counted more than once due to being granted a rise in grade or certified by multiple divisions in the period from 2009 through 2020.

■ Zepromeister Program

A certification program to train service station oil leaders through the acquisition of oil-related basic knowledge and product knowledge as well as exchange techniques, which will become increasingly complex in the future.

Certified individuals as of June 30, 2021		(Unit: Persons)	
Grade 1	Grade 2	Grade 3	
493	2,349	4,063	

■ Showa Shell Royal Manager (SRM) Program

A qualification program launched in 1979 to further develop the abilities of service station managers with the aim of enhancing service station management capabilities in line with evolving needs and helping management adapt to change.

Cumulative total certified individuals as of June 30, 2021		(Unit: Persons)	
Grade 1	Grade 2	Grade 3	
286	1,982	7,227	

■ Showa Shell Oil Meister Program

A qualification program for training service station lubricant sales leaders who have a high level of both technical and sales skills.

Cumulative total certified individuals as of June 30, 2021		(Unit: Persons)	
		993	

■ Showa Shell Car Life Advisor Program

A qualification program that trains service station personnel with advanced overall knowledge of vehicles, so they are able to appropriately advise customers.

Cumulative total certified individuals as of June 30, 2021		(Unit: Persons)	
		447	

Collaboration with Subcontractors

Refineries and plants outsource various operations, ranging from plant maintenance to product shipping and the unloading of cargo, to a number of subcontractors. These subcontractors belong to one of three sector-specific cooperative associations (the Cooperative Association for Construction and Maintenance, the Cooperative Association for Land Transport, or the Cooperative Association for Sea Transport), working together with Idemitsu to promote safety activities.

At the Chiba Complex, representatives from the Cooperative Association for Construction and Maintenance visit construction sites along with construction supervisors in an assiduous effort to help operators enhance their safety awareness, passing on words of encouragement, such as “Thank you for your hard work” and “Stay safe!”

Meanwhile, the Cooperative Association for Land Transport carries out periodic safety patrols in tandem with managers at transport companies to confirm the status of loading areas, focusing on implementing preemptive measures to remove potential danger in these sites.

Furthermore, the Cooperative Association for Sea Transport holds periodic meetings with various shipping companies to exchange insights and requests to make improvements and ensure safe transportation.

Pursuing a target of achieving zero lost-time disasters, the Chiba Complex is acting in close collaboration with these three associations. This is but one example of our efforts aimed at promoting safe, stable operations and environmental conservation at our refineries and complexes in cooperation with associations of subcontractors.



Cooperation with Partners

Collaboration with Transport Companies and Maritime Shipping Companies

Idemitsu's petroleum products are transported by land and maritime contract transport companies. To promote safety and strengthen cooperation, the contract transport companies have organized two councils, one related to maritime safety and another related to land safety. We are a special member of both councils. In May 2020, a council of tanker truck operators was reorganized and rebranded "Koun-kai" with 32 contract transport companies constituting its membership. This council of land transport companies holds safety campaigns and training sessions for operations managers and gives awards to crew members boasting accident-free and violation-free operations. Also, in May 2020, the ISG Marine Environment Safety Council was formed from a total of 10 maritime transport companies operating coastal tankers. To promote safe maritime transport, the council carries out safety campaigns through which it ensures the thorough implementation of safety activity policies and specific measures as well as the sharing of best practices and cautionary case studies.

While placing emphasis on promoting safety activities rooted in the workplace, we are working to build a competitive logistics system in addition to enhancing the safety and quality of logistics operations.

Our efforts to this end are not confined to calling attention to the safety, environmental, and quality aspects of operations through these councils. We reach out to tanker truck and coastal tanker crews, who are the people actually undertaking safety operations and safe transportation, listening to their comments and opinions, providing feedback to them, and using their input to inform our activities.

In addition, as a new initiative, seven companies in Japan, including Idemitsu and maritime transport companies, established the e5* Consortium in May 2020. The consortium focuses on the abundant potential and prospects for EV ships and has brought together the strengths of its participating companies, including technical know-how and networks. The aim is to construct a platform that provides revolutionary maritime infrastructure services as a foundation for EV ships.

* e5: In the maritime transport industry, providing safe, secure, and quality transport services by realizing the five values of electrification, environment, evolution, efficiency, and economics.

Initiatives to Maintain Our Supply Chain

As the Idemitsu Group operates in a broad range of regions in Japan and abroad, we are paying close attention to the maintenance of our supply chain, to this end regularly discussing relevant risks and countermeasures. In light of the particular importance of petroleum supply, which supports essential living infrastructure, the Group has implemented the best possible risk countermeasures by, for example, developing a mutual assistance framework involving external companies and strengthening collaboration among subsidiaries, affiliates and subcontractors. By doing so, we are striving to ensure that our supply chain is viable no matter the circumstances, even at times of emergency.

Collaboration with Partner Companies

Idemitsu works with partner companies in diverse industries in Japan and overseas to further expand business, including via the launch of joint ventures and new projects. In Japan, we have established joint ventures in the basic chemicals business, the agri-bio business, and more. One example is a collaboration we entered into with NIPPON GREASE Co., Ltd. that entails working together on R&D, the optimization of our product portfolio, discussions on sales channels and other topics, and the regular exchange of technologies. Overseas, we have established the joint venture Nghi Son Refinery and Petrochemical Limited Liability Company (NSRP), which operates the Nghi Son Refinery in Vietnam. In the advanced materials & performance chemicals business, we have partnered with Formosa Petrochemical Corporation (FPCC) to establish Idemitsu Formosa Specialty Chemicals Corporation. This joint venture launched commercial operations in FY2020 as a new production base for hydrogenated hydrocarbon resin.

Exchanges and Dialogues with Oil-Producing Countries

Idemitsu has been promoting exchanges and dialogues with oil-producing countries in the Middle East and other regions through its representative offices, in order to build strong relationships of trust. In recent years, we have further strengthened our relationships of trust through capital participation in the joint venture businesses.

In addition, we cooperate with these countries on human resource development and technical support, by dispatching experts under the aegis of the JCCP (Japan Cooperation Center Petroleum) and by accepting senior officials and technical trainees in Japan. Having decided to refrain from accepting overseas trainees in FY2020 amid the COVID-19 pandemic, we hosted remote training sessions instead. These sessions were attended by trainees from such oil-producing countries as the United Arab Emirates, Qatar and Vietnam.

We also participate in joint infrastructure development projects in the oil-producing countries (FY2020) implemented by the JCCP.

Through these activities, we are promoting our cooperation with national oil companies in crude oil procurement in order to select, procure and transport the crude oil with flexibility and thus maximize the performance of our refineries even amid volatile market trends.

■ A remote training session in FY2020





Social Contribution Activities

Social Contribution Activity Policy

The Idemitsu Group continues to work on social contribution activities, focusing on the development of young people and children who will lead future generations. Through these activities, we interact closely with people of all regions.

Social Contribution Expenses

Trends in Social Contribution Expenses*

(Unit: Millions of yen)

	Idemitsu	Showa Shell
FY2018	219	68
FY2019	386	—
FY2020	374	—

* The following activities are included in our calculations:

Idemitsu Music Award, Shell Art Award, Environmental Photo Contest “Watashi no Machi no O to X,” KidZania (co-sponsoring), Energy Education Program for Children (ended with the FY2020 round), TABLE FOR TWO (ended with the FY2020 round), office provision to Refuges International Japan (RIJ) (ended in December 2020), Mirai wo Kanaderu Ongakukai, FURUSATO PROJECT, IDEMITSU IHATOVE TRIAL (co-sponsoring), community promotions by sales departments, Daigaku SDGs Action! (co-sponsoring), and donations.

Examples of Social Contribution Activities

Connecting with People

Idemitsu Music Award

In 1990, we established the Idemitsu Music Awards to commemorate the 25th anniversary of the television music program “Daimei no Nai Ongaku-kai” (Untitled Concert) sponsored by Idemitsu. The awards support the activities of promising young and up-and-coming musicians as a way to help elevate music culture in Japan. Over the course of the 30 awards ceremonies held thus far (as of FY2019), 106 individuals and one group have been honored. Every honoree continues to shine in their respective field. Among the many talented musicians, selection requires something beyond mastery. With an eye to nurturing new talent, the selection criteria also focus on drive, intrinsic ability, and future potential. To qualify, a candidate must be a musician no older than 30 and living and working in Japan. Each award recipient is given 3 million yen in prize money to encourage them to continue perfecting their self-improvement.

Every year, a concert is held commemorating the awards, and the musicians give wonderful performances in front of a large audience. The concert is broadcast on “Daimei no Nai Ongaku-kai” (Untitled Concert) and garners a lot of public attention.

Note: Selection period for the 31st (FY2020) round of the Idemitsu Music Award program was lengthened to encompass one more fiscal year (FY2021) as a number of performance opportunities for musicians were lost due to the COVID-19 pandemic.

■ From the left: Haruma Sato (cello), Moné Hattori (violin), and Mao Fujita (piano).



■ Award ceremony of the 30th Idemitsu Music Award program



Shell Art Award

The Shell Art Award was established in 1956 to support young future leading artists and is open to all artists aged 40 or younger. This art award is highly evaluated as a “gate to success for young artists” and boasts a long history as a prize in the completely open competition, which was highly unusual at the time of its establishment. In 2020, its 64th anniversary, we had 597 applicants and 846 entries of works, from which we selected recipients for the Grand Prix, Judges’ Award, and Special Student Award. At the “Shell Art Award 2020” held at the National Art Center in Roppongi, Tokyo, in December 2020, 54 award-winning and other winning works were exhibited, and 2,730 people visited during the 13-day exhibition. At the exhibition hall, we held the “Shell Art Award – Artist Selection (SAS) 2020” at the same time, which showcased four young artists’ recent and new works selected by the judges in the previous year. In this way, we continue working to support young artists.

In addition, the “Audience Award,” which is selected by the votes of visitors, was granted for the seventh time.

■ Winner of the 2020 Grand Prix
Shinya Imanishi
“Story - Where are we going?”



■ Winner of the Audience's
Selection Award
Shinichi Kiyose “134”



Environmental Photo Contest “Watashi no Machi no O to X” (Things to Preserve and Correct around Our Town)

We hold a photo contest for children and students across the country for scenic photos of things that they want to preserve in their local community (Photo O), and scenic photos of things that they want to improve immediately (Photo X), with comments attached. We held the 16th contest in 2020 supported by the Ministry of the Environment.

The individual category consists of the elementary school, junior high school, and high school/technical college divisions. In 2020, there were 11,655 entries, a record high for the third consecutive year. The photos are used as teaching materials for environmental education at school and homework during summer vacation. In the school division, we had applications from 489 schools from all over Japan.

Elementary School Gold Award “For My Favorite River Bank”

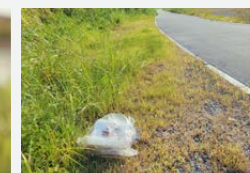
Comments on the photo Kento Suzuki (Osaka)

I found a ladybird at my favorite river bank. I enjoyed watching this tiny creature crawling up my finger to the tip and then spreading her wings and flying away. There are many other creatures living in the field, but I often find trash lying about. If we are to see this abundance of creatures continuing to thrive even after I become an adult, we have to keep their environment clean. So, I thought I have to be always careful as each small piece of trash makes big difference to them.

■ Photo O



■ Photo X





Social Contribution Activities

Connecting with Communities

The Hokkaido Children's Drawing Contest

The Hokkaido Children's Drawing Contest sponsored by the Hokkaido Idemitsu Association* marked its 12th round in FY2020. Over the years, it has grown into an event well-known throughout the prefecture. In FY2020, although the COVID-19 pandemic made it difficult to advertise the event via school visits, local dealers, who are association members, strove to solicit entries. As a result, a total of 6,261 entries were submitted. Following the selection, high-ranking pieces were reproduced as posters that were displayed at Idemitsu service stations within Hokkaido. We have also publicized these pieces through newspapers and our corporate website.

* An association consisting of business owners acting as Idemitsu dealers

■ The Best Drawing Award: Category of 1st to 3rd graders



■ The Best Drawing Award: Category of 4th to 6th graders



Mirai wo Kanaderu Ongakukai (Music events hosted by Idemitsu Kosan)

We have held concerts since 2006, mainly in regions where we have established refineries and complexes. In FY2017, the concert program was reimagined as "Portraying the Future in Music," with the aim of supporting musical experiences for the future generations in part by providing opportunities for young musicians to showcase their talents and for children and students to perform with professional musicians. We also hold music workshops at local elementary and middle schools around the time of the concerts. In 2020, however, we canceled all the concerts that had been scheduled in regions around Japan under this program in light of the need to prevent the spread of COVID-19. Instead, we held an online concert featuring the MLM National Orchestra led by up-and-coming pianist Kyohei Sorita, with their performance streamed under the catchphrase "We can get together even if we cannot meet." Drawing on the unique functions of online concert platforms, the event also featured a special chorus session in which singing videos submitted by 108 applicants from among the general public were accompanied by professional orchestral musicians.

■ Kyohei Sorita performing for the online concert



■ A chorus session involving the performance of "Coming Home: The Sun Setting over a Distant Mountain"



FURUSATO PROJECT

Since 2018, we have been holding the "FURUSATO PROJECT" at elementary schools across the country. This project allows children to participate in hands-on lessons of traditional musical instruments and conduct commemorative cherry-tree planting. We started these activities with the aim of providing children of future generations with opportunities to experience real music. We hope these memorable experiences will help children expand their interest in Japanese traditional culture and remember their hometowns, even after growing up, so that they will pass on the essence of those hometowns to future generations. As of the end of December 2020, we held the event at 14 elementary schools nationwide, with 3,454 elementary school children participating, from Hokkaido in the north to Okinawa in the south. In 2020, we cancelled all the events involving school visits from the perspective of preventing the spread of COVID-19. Instead, we distributed videos featuring performances of traditional musical instruments.

■ Hands-on Japanese drum lesson



■ Commemorative cherry tree planting



Sponsoring Cultural and Social Activities

"Daimei no Nai Ongaku-kai" (Untitled Concert)

We have been the sole sponsor of the music television program "Daimei no Nai Ongaku-kai" (Untitled Concert) for over 50 years since 1964. The program features live performances of orchestras with the aim of delivering quality music straight to people's living rooms, with its principal focus on classical music. In April 2017, Kanji Ishimaru, who is active on television and stage, became the sixth host of the show, helping the audience appreciate the appeal of the music from a new viewpoint and contributing to the history of the program.

■ "Daimei no Nai Ongaku-kai" (Untitled Concert)



© TV Asahi

KidZania

At KidZania, inspiring, interactive indoor theme parks located in Toyosu, Tokyo, and Koshien, Hyogo Prefecture where children experience various occupations and social activities, we have been operating service station pavilions (called "gas stations" at KidZania) since 2006, allowing children to learn how society works in a fun way.

■ Idemitsu Service Station (gas station) Pavilion





Social Contribution Activities

IDEMITSU IHATOVE TRIAL

We also contribute to local community development through the promotion of motorsports by serving as the main sponsor of the Idemitsu Ihatove Trial, a motorcycle trial held in the northern part of Iwate Prefecture since 1989. The theme since the 2017 Trial has been “giving the trial spirit to future generations.” We have been striving to nurture genuine trial riders and to support children to broaden the horizons for riders. As part of our environmental initiatives, we offset CO₂ emissions from motorcycles used in this event by using the “J-VER offset credit” scheme in maintaining forests owned by Iwate Prefecture. We aim to further develop the event by demonstrating the allure of motorcycle trials to future generations.

■ Children's motorcycle experience



©tvi

■ Group photo of riders



©tvi

Activities at Overseas Bases

Support for Japanese Language Learning in Vietnam

Our Hanoi Office in Vietnam has supported Japanese language classes at Tohoan Junior High School in Hanoi every year since 2015 as a social contribution activity.

Every year, the completion ceremony for the school's Japanese classes is attended by a number of Hanoi Office employees, both Japanese and Vietnamese, to congratulate students alongside the principal and teachers. In 2020, a total of around 450 people attended the event.

As it has been doing annually, the Hanoi Office also gave a commemorative gift to the top students with excellent grades and, after the ceremony, invited all the students to tour the Idemitsu Q8 Petroleum Service Station.

They witnessed a demonstration of the staff's Japanese-style customer service, and some students remarked: “I learned a lot about the service at Idemitsu's service stations” and “I saw how deeply committed the staff is to customer service.”

In addition, we have been co-sponsoring a Japanese culture festival since 2018 as a similar social contribution activity, with the 2020 round of the festival held on November 15. It is an event for exchanging Japanese and Vietnamese culture that is geared toward junior high school students, bringing together many students and school staffs from 10 schools in Hanoi as well as representatives from Hanoi Department of Education and Training and the districts' Japanese language training sections. Each school held an audition, and the groups who had the best performances (speeches, dances, songs, plays, etc.) participated in a contest at the festival. From the 2020 round, the festival began operating booths where each school offered food and cultural experiences of both countries to introduce and exchange the cultures of Japan and Vietnam. We will continue to co-sponsor this festival as a place where we can once again introduce and endear people to Japanese culture.

■ The completion ceremony for Japanese classes



Initiatives Addressing Community Issues in Australia

Idemitsu Australia Resources Pty Ltd. (based in Brisbane), which is one of the coal business bases, is working to promote initiatives that contribute to solving social problems in the community from a long-term perspective under the following four policies by the management level.

- Environmental Management Policy
- Energy Management Policy
- Cultural Heritage Policy
- Stakeholder Engagement Policy

■ 2020 Initiatives

Girls' Academy

To lower the high unemployment rate among Aboriginal women and help realize quality of life improvements for the community over the long-term, IAR sponsors a youth training program that offers guidance to local female students through cultural exchange.

■ Girls' Academy



Construction of the Boggabri Community Childcare Center

We constructed a facility offering care for children below school age as well as after-school care for school-age children and provided it to the municipal government. In addition, for communities neighboring mines, we helped maintain populations and build more robust communities and will continue to provide long-term support going forward.

Forest Restoration Activities in Indonesia

In 2004, P.T. Idemitsu Lube Techno Indonesia was founded to produce and market lubricants in Indonesia. On the island of Sumatra, the company is working with a local NGO (Orangutan Information Centre) to rejuvenate forests that are at risk of destruction.

The Leuser Ecosystem, which is a world heritage site centered on Leuser, North Sumatra Province, is one of South Asia's most precious forests, spanning over 2.6 million ha and providing a habitat for orangutans, tigers, Sumatran rhinos, elephants, and other wildlife. However, due to its mineral reserves, the forest is in crisis because of forest destruction from roadworks, large-scale mining operations, palm oil plantations, and other development. Thus, with a portion of profit from the sale of fuel-efficient motor oil 0W-20 for gasoline engines as funds for planting, we have been planting trees in a 7 ha area of forest to return the area to its original forested state since May 2017. From 2021, we plan to plant 10,000 mangrove saplings on the northern coast of the island of Java.

Through this initiative, the company contributes to reducing environmental impact while supporting activities that directly protect the natural environment.

■ Tree planting activities





Message from Outside Directors



Becoming a Leader in Realizing a Carbon-Neutral Recycling-Based Society

Outside Director **Takeo Kikkawa**

Aiming to Be a Leader in Realizing a Carbon-Neutral Recycling-Based Society

Of the 17 sustainable development goals (SDGs) for 2030 adopted at the U.N. summit in 2015, the seventh deals with energy. It simply states, “ensure access to affordable, reliable, sustainable and modern energy for all,” but this is a rather difficult challenge. Currently, to achieve this goal “for all” we must use fossil fuels, but to achieve it on a “sustainable” basis we have to restrain the use of fossil fuels.

Idemitsu is in position to take the lead in solving this difficult challenge.

First, Idemitsu has a responsibility to supply the petroleum products and coal that currently are indispensable to supporting people’s lives and the economy. Nothing can happen unless we are alive to do it.

On the other hand, Idemitsu is already working to achieve net-zero greenhouse gas emissions—carbon neutrality—from its operations by 2050 and will continue helping customers who use our products to reduce their emissions. The Company is producing and supplying carbon-free synthetic liquid fuel (e-fuel) derived from carbon dioxide and hydrogen and is striving to transform its current coal-fired power plants into ammonia-fired and black pellet-fired power plants.

In May 2021, Idemitsu revised the Medium-term Management Plan covering fiscal 2020 through 2022. The policies we worked out will open a path toward carbon neutrality. The revised policies include turning all complexes, including refineries, into carbon neutral transformation centers, turning apollo station outlets into smart one-stop shops, commercializing lithium solid-state electrolytes, and expanding renewable energy power sources, such as solar, wind, biomass, and geothermal power.

Simultaneously pursuing this many initiatives is a major characteristic of Idemitsu and is proof that the Company can become a leader in “ensuring access to affordable, reliable, sustainable and modern energy for all.”

Working to Chair the Board of Directors and Lead the Way in Being “Truly Inspired”

When I became the first outside director to be appointed chair of the Board of Directors, I felt a bit apprehensive. Taking on the legacy of the two previous chairs, I will continue working hard to ensure active and positive Board of Directors meetings.

The petroleum industry is currently facing two major structural changes: a long-term decline in demand for petroleum in Japan and a growing shift toward carbon neutrality. Idemitsu must work to address these challenges head on, using the revised forward-looking Medium-term Management Plan to gain a foothold.

The role of the highest decision-making body, the Board of Directors, in this process is very important. It has been two years since the business combination. The period of introspection, in which we firmed up the results of the integration, has come to an end, and we are now entering into a time of looking outward as we leverage the achievements of the integration to affect the broader society. We need to positively integrate a backcast perspective, in which we work backwards from our 2050 vision to figure out what should be done now, as well as a forecast perspective, in which we take a direct and honest look at the current reality and set out to accomplish target after target.

To achieve this, we will need active and constructive discussions at the Board of Directors. The Board of Directors meetings are where leadership in being “truly inspired” begins and the board must lead the way ensuring the Company’s fulfillment as “Your Reliable Partner for a Brighter Future.” I intend to do everything I can as chair to realize this and more proactively communicate this idea as an Outside Director than before.



Message from Outside Directors



When Boldly Taking on New Possibilities to Convert Our Business Portfolio

Outside Director **Mitsunobu Koshiba**

Time to Boldly Try Out New Possibilities to Convert the Business Portfolio

Around the world, awareness of the threat posed by global warming is rapidly increasing. In addition, the new Biden administration has acted as a major catalyst for drafting and executing measures to combat global warming, especially the audacious goal of achieving carbon neutrality by 2050. Although we were able to predict that this kind of world would arrive eventually, the truth of the matter is that Idemitsu and other Japanese companies are struggling to convert their business portfolios to achieve not only the goal of carbon neutrality but also to achieve the goal of reducing global warming gas emissions by about half by 2030. On the other hand, the Board of Directors of Idemitsu, which underpins Japan's energy, has garnered acclaim for taking the lead on declaring its goal of carbon neutrality.

Key to achieving these lofty goals will be the technical skills of each business company. Furthermore, the commitment and leadership of management will be important in conducting a bold business transformation with a broad overview not bound by conventional business strategies. I can also offer high praise for Idemitsu's development of advanced materials, promotion of digital transformation (DX), and stance toward taking on the global warming problem, which encompasses entering into the next-generation mobility business, which is linked to regional revitalization, via the Company's nationwide network of service stations. Although management resources are limited and it will eventually be necessary to convert the business portfolio and select new business fields, I think it is probably time now to boldly try out new possibilities to achieve these lofty goals.

Aiming for a Highly Transparent and Effective Nomination and Compensation Advisory Committee

I have recently been appointed as chair of Idemitsu's Nomination and Compensation Advisory Committee. In fiscal 2021, Idemitsu integrated its nomination and compensation advisory committees, amending the composition so that only Outside Directors serve as members. (Previously, Outside Audit & Supervisory Board Members could also serve on the committee.) The purpose of the amendment is to enable rational discussions regarding the performance evaluations of management, including the selection and termination of top management, and important management issues, such as succession. Although the committee comprises diverse Outside Directors, adding the President and Representative Director as a sponsor for proposals to the advisory committee enabled the opinion of the executive side to be reflected in the discussions of the advisory committee. Opportunities are provided to discuss the selection and termination of top management as well as the evaluation of operating results among only the advisory committee members. The responses are provided to the Board of Directors, ensuring transparency and effectiveness in the resolution process.

An overview of corporate management in the 2020s seems to indicate that the decade will see corporate managers focusing on achieving not only short-term operating results but also sustainability and resilience amid increasing unprecedented instability and volatility in global affairs and market environments. Accordingly, the advisory committee, which is composed of Outside Directors, objectively and fairly evaluates the performance of Idemitsu's management by tapping into the experience of the committee members in this rapidly changing environment. We then provide the Board of Directors with advice that addresses shareholders' concerns.




Directors and Audit & Supervisory Board Members (As of June 30, 2021)

*Board of Directors and Audit & Supervisory Board meeting attendance figures are for FY2020


*Number of shares held are as of the end of March, 2021.

(1) Name (2) Position (3) Number of shares of the Company held (4) Nomination Advisory Committee (5) Compensation Advisory Committee
(6) Board of Directors meetings attended (7) Audit & Supervisory Board meetings attended

Directors


	<p>(1) Shunichi Kito (2) President and Representative Director Chief Executive Officer (3) 26,215shares (4) 16/16 (5) —</p>
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Career	
April 1980	Joined Idemitsu Kosan Co., Ltd. ("Idemitsu")
April 2005	Deputy General Manager of Personnel Department, Idemitsu
July 2008	Deputy General Manager of Treasury Department, Idemitsu
June 2011	Executive Officer and General Manager of Treasury Department, Idemitsu
June 2013	Director, Managing Executive Officer and General Manager of Treasury Department, Idemitsu
June 2014	Managing Director, Idemitsu
June 2017	Executive Vice President and Director, Idemitsu
April 2018	Representative Director & Chief Executive Officer, Idemitsu
April 2019	President and Representative Director, and Chief Executive Officer, Idemitsu (to date)

	<p>(1) Takashi Matsushita (2) Executive Vice President and Representative Director Executive Vice President and Executive Officer (3) 26,398shares (4) 16/16 (5) —</p>
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Career	
April 1979	Joined Idemitsu Kosan Co., Ltd. ("Idemitsu")
Oct. 2004	Deputy General Manager of Hokkaido Refinery, Idemitsu
April 2007	Deputy General Manager of Manufacturing Department, Idemitsu
April 2010	Executive Officer and General Manager of Tokuyama Refinery and General Manager of Tokuyama Plant, Idemitsu
April 2013	Executive Officer and General Manager of Manufacturing & Technology Department, Idemitsu
June 2013	Director, Managing Executive Officer and General Manager of Manufacturing & Technology Department, Idemitsu
June 2014	Managing Director, Idemitsu
June 2017	Executive Vice President and Director, Idemitsu
April 2018	Executive Vice President and Representative Director, Idemitsu
April 2019	Director, and Executive Vice President and Executive Officer, Idemitsu
May 2020	President, The Japan Petroleum Institute (to date)
June 2020	Executive Vice President and Representative Director, and Executive Vice President and Executive Officer, Idemitsu (to date)

Current responsibilities: Assistant to the President (manufacturing technology, petrochemicals, functional materials, IP and research, Vietnam project)

	<p>(1) Susumu Nibuya (2) Executive Vice President and Representative Director Executive Vice President and Executive Officer (3) 20,161shares (4) 16/16 (5) —</p>
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Career	
April 1982	Joined Idemitsu Kosan Co., Ltd. ("Idemitsu")
June 2008	Managing Director, Idemitsu Engineering Co., Ltd.
April 2011	General Manager, Internal Audit Office, Idemitsu
April 2013	Executive Officer and General Manager, Corporate Planning Department, Idemitsu
June 2015	Director and General Manager, Corporate Planning Department, Idemitsu
June 2017	Managing Director, Idemitsu
April 2019	Executive Vice President and Executive Officer, Idemitsu
June 2020	Executive Vice President and Representative Director, and Executive Vice President and Executive Officer, Idemitsu (to date)

Current responsibilities: Assistant to the President (resources; planning, negotiations, and public relations; ESG; DX; special matters) and management of the Internal Communication Department

	<p>(1) Atsuhiko Hirano (2) Director Managing Executive Officer (3) 2,786shares (4) 16/16 (5) —</p>
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Career	
April 1985	Joined Showa Shell Sekiyu K.K. ("Showa Shell")
Sep. 2002	General Manager, Shizuoka Area, Showa Shell
Sep. 2004	General Manager, Marketing Planning Division, Showa Shell
March 2005	Executive Officer and General Manager, Marketing Planning Division, and 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")
June 2020	Director and Managing Executive Officer, Idemitsu (to date)

Current responsibilities: Assistant to the President (petroleum, power and renewable energy)


	<p>(1) Noriaki Sakai (2) Director Managing Executive Officer (3) 11,670shares (4) — (5) —</p>
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Career	
April 1985	Joined Idemitsu Kosan Co., Ltd. ("Idemitsu")
July 2010	Deputy General Manager of Tokuyama Refinery and Deputy General Manager of Tokuyama Plant, Idemitsu
July 2012	Deputy General Manager of Human Resources Department, Health Insurance Union President and Corporate Pension Fund President, Idemitsu
July 2015	Deputy General Manager of Accounting Department, Idemitsu
June 2017	General Manager of Accounting Department, Idemitsu
July 2018	Executive Officer and General Manager of Accounting Department, Idemitsu
April 2019	Executive Officer and General Manager of Financial Department, Idemitsu
July 2020	Senior Executive Officer and Chief Finance Officer, Idemitsu
June 2021	Director, Managing Executive Officer, and CFO, Idemitsu (to date)

Current responsibilities: CFO (Accounting Department and Finance Department), in charge of procurement (Procurement Department), Head of Safety & Environmental Protection Headquarters and Quality Assurance Headquarters


	<p>(1) Masakazu Idemitsu (2) Director (part-time) (3) 3,411,900shares (4) 16/16 (5) —</p>
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Career	
April 2010	Councilor, Public Interest Incorporated Foundation Idemitsu Museum of Arts (to date) Councilor, Public Interest Incorporated Foundation Idemitsu Culture and Welfare Foundation
Dec. 2015	Director and Vice President, Nissho Kosan Co., Ltd. ("Nissho Kosan")
April 2016	Representative Director and President, Nissho Kosan (to date)
April 2019	Director, Idemitsu Kosan Co., Ltd. (to date) Representative Director, Showa Kosan K.K. (to date)
April 2020	Executor, Akama Ltd. (to date)
April 2021	Representative Director, General Incorporated Association Idemitsu Kosan Corporate History and Philosophy Laboratory


	<p>(1) Kazunari Kubohara (2) Director (part-time) (3) — (4) 16/16 (5) —</p>
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Career	
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
Sep. 2015	Auditor, General Incorporated Association for Realizing Prescription of Adequate Amount of Anti-Dementia Drugs (to date)
June 2016	Outside Statutory Auditor, Class Technology Co., Ltd.
July 2017	Auditor, Medical Corporation Hakueikai 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

	<p>(1) Toshiyuki Tanida (2) Audit & Supervisory Board Member (3) 7,075shares (4) 16/16 (5) 17/17</p>
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Career	
April 1984	Joined Idemitsu Kosan Co., Ltd. ("Idemitsu")
July 2009	Deputy General Manager, Integrated Supply & Trading Department, Idemitsu
July 2010	General Manager, Logistics Center, Integrated Supply & Trading Department, Idemitsu
July 2013	Executive Officer and General Manager of Logistics Department, Idemitsu
June 2018	Audit & Supervisory Board Member, Idemitsu (to date)

	<p>(1) Tsutomu Yoshioka (2) Audit & Supervisory Board Member (3) 8,064shares (4) — (5) —</p>
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Career	
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")
June 2021	Audit & Supervisory Board Member, Idemitsu (to date)

Directors and Audit & Supervisory Board Members (As of June 30, 2021)


*Board of Directors and Audit & Supervisory Board meeting attendance figures are for FY2020


*Number of shares held are as of the end of March, 2021.


(1) Name (2) Position (3) Number of shares of the Company held (4) Nomination Advisory Committee (5) Compensation Advisory Committee
(6) Board of Directors meetings attended (7) Audit & Supervisory Board meetings attended

Independent Outside Directors



	(1) Takeo Kikkawa (2) Outside Director (3) — (4) 16/16 (5) —
Career	
April 1987 Assistant Professor, Aoyama Gakuin University School of Business	April 2015 Professor, Graduate School of Innovation Studies, Tokyo University of Science
Oct. 1993 Assistant Professor, Institute of Social Science, The University of Tokyo	(currently, Graduate School of Management, Tokyo University of Science)
April 1996 Professor, Institute of Social Science, University of Tokyo	June 2017 Director, Idemitsu Kosan Co., Ltd. (to date)
April 2007 Professor, Hitotsubashi University Graduate School of Commerce and Management	April 2020 Professor, Graduate School of International Management, International University of Japan
Jan. 2013 President, Business History Society of Japan	April 2021 Vice President, International University of Japan and Professor, Graduate School of International Management (to date)
June 2013 Outside Director, Mitsubishi Chemical Holdings Corporation	
Reason for appointment	
Mr. Takeo Kikkawa has not engaged in corporate management in any manner other than serving as an outside officer. However, management has judged that he will be able to perform his duties as an Outside Director properly as he has long experience and wide knowledge as a university professor, has full knowledge about corporate management as an expert in business administration studies and especially in energy industry theory, and satisfies the "Requirements for Independence of Outside Officers" of the Company. In addition, as a member of the Nomination and Compensation Advisory Committee, Mr. Kikkawa provides objective and neutral advice regarding decisions on the selection of executive candidates and executive compensation.	

	(1) Mitsunobu Koshiba (2) Outside Director (3) — (4) 16/16 (5) —
Career	
Oct. 1981 Joined Japan Synthetic Rubber Co., Ltd. (currently, JSR Corporation)	June 2006 Managing Director, General Manager of Electronic Materials Division, JSR
June 2002 Officer and General Manager of Electronic Materials Department I, Electronic Materials Division, JSR Corporation ("JSR")	June 2007 Managing Director, JSR
June 2003 Officer, General Manager of Electronic Materials Division, and General Manager of Electronic Materials Department, JSR	June 2008 Senior Managing Director, JSR
June 2004 Director, General Manager of Electronic Materials Division, JSR	April 2009 Representative Director and President, JSR
June 2005 Senior Officer, General Manager of Electronic Materials Division and Assistant in charge of Fine Chemicals Business, JSR	June 2019 Representative Director and Chairman, JSR (to date) Director, Idemitsu Kosan Co., Ltd. (to date)
	June 2020 Director and Chairman, JSR (to date)
	March 2021 Outside Director, A Holdings Co., Ltd. (to date)
	June 2021 Honorary Chairman, JSR (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 wide knowledge as a business manager, and satisfies the "Requirements for Independence of Outside Officers" of the Company. In addition, as a member of the Nomination and Compensation Advisory Committee, Mr. Koshiba provides objective and neutral advice regarding decisions on the selection of executive candidates and executive compensation.	

	(1) Yumiko Noda (2) Outside Director (3) — (4) — (5) —
Career	
April 1982 Joined Tokyo Branch, Bank of America Corporation	Oct. 2017 President and Representative Director, Veolia Japan K.K. ("Veolia")
March 1996 Deputy General Manager, London Branch, the Long-Term Credit Bank of Japan Ltd. (Head of Structured Finance)	April 2019 Chairman, Administrative Reform Committee, Japan Association of Corporate
Jan. 2000 Partner, Head of PPP (Public Private Partnership) and Privatization, PwC Financial Advisory Service Co., Ltd. (currently, PwC Advisory LLC) ("PwC")	June 2020 Vice Chairs of the Board of Councilors and Chair of Committee on Environment and Safety, Japan Business Federation (to date)
June 2007 Deputy Mayor, Yokohama City	Chairman and Representative Director, Veolia (to date)
Jan. 2011 Partner, Head of PPP and Infrastructure Asia Pacific, PwC	June 2021 Director, Idemitsu Kosan Co., Ltd. (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 wide knowledge as a business manager, and satisfies the "Requirements for Independence of Outside Officers" of the Company. In addition, as a member of the Nomination and Compensation Advisory Committee, Ms. Noda provides objective and neutral advice regarding decisions on the selection of executive candidates and executive compensation.	

	(1) Maki Kado (2) Outside Director (3) — (4) — (5) —
Career	
April 1992 Joined NEC Corporation	April 2017 Executive Officer, Head of Procurement, Coca-Cola Bottlers Japan Inc. ("Coca-Cola Bottlers Japan")
April 1996 Joined United Feature Syndicate Inc. Japan Branch	Feb. 2019 Executive Officer, Head of Procurement, Coca-Cola Bottlers Japan
May 2000 Joined Microsoft Product Development Inc. (currently, Microsoft Japan Co., Ltd.)	June 2019 Executive Officer, Head of Procurement and Head of Executive Business Management, Coca-Cola Bottlers Japan
April 2004 Joined Microsoft Corporation Inc. (US) Headquarters	Nov. 2019 Executive Officer, Head of Business Transformation and Head of Procurement, Coca-Cola Bottlers Japan
July 2013 General Manager of Purchasing, salesforce.com Co., Ltd.	Jan. 2020 Executive Officer, Head of Business Transformation, Coca-Cola Bottlers Japan (to date)
April 2014 Business Manager, Coca-Cola East Japan Co., Ltd.	April 2020 Executive Officer, Executive Business Manager, Coca-Cola Bottlers Japan Holdings Inc. ("Coca-Cola Bottlers Japan Holdings") (to date)
Dec. 2014 Director, Coca-Cola Business Services Co., Ltd. ("Coca-Cola Business Service")	June 2021 Director, Idemitsu Kosan Co., Ltd. (to date)
Jan. 2015 Operating Committee member (Officer), Coca-Cola Cross Enterprise Procurement Group (to date)	
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 (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 at Coca-Cola Bottlers Japan Co., Ltd. since 2017. Management has judged that she will be able to perform her duties as an Outside Director properly as she has expertise in international business, retail marketing, and DX knowledge as well as long experience and wide knowledge, and satisfies the "Requirements for Independence of Outside Officers" of the Company. In addition, as a member of the Nomination and Compensation Advisory Committee, Ms. Kado provides objective and neutral advice regarding decisions on the selection of executive candidates and executive compensation.	

Independent Outside Audit & Supervisory Board Members

	(1) Taigi Ito (2) Outside Audit & Supervisory Board Member (3) 6,453shares (4) 16/16 (5) 17/17
Career	
Jan. 1970 Joined Tsuji Audit Corporation	Jan. 2012 Chairman of the Disciplinary Committee, The Japanese Institute of Certified Public Accountants
May 1973 Registered as Certified Public Accountant (Registration No.5095)	June 2012 Audit & Supervisory Board Member, Idemitsu Kosan Co., Ltd. (to date)
Feb. 1989 Representative partner, MISUZU Audit Corporation	Outside Statutory Auditor, IT Holdings Corporation (currently, TIS INC.)
July 2004 Deputy Chairman, The Japanese Institute of Certified Public Accountants	June 2014 Outside Corporate Auditor, Mitsubishi Chemical Holdings Corporation
Aug. 2007 Opened Certified Public Accountant Ito Taigi Office (to date)	Outside Corporate Auditor, Mitsubishi Chemical Corporation
April 2009 Professor, Graduate School of Accountancy, Waseda University	Outside Director, Mitsubishi Chemical Holdings Corporation
June 2009 Supervisory Director, The Investment Trusts Association, Japan	Sep. 2018 Outside Director, Koa Shoji Holdings Co., Ltd. (to date)
Oct. 2010 Supervisory Director, Japan Law Foundation	
	(1) Kenji Yamagishi (2) Outside Audit & Supervisory Board Member (3) — (4) 16/16 (5) 17/17
Career	
April 1973 Registered as an attorney	April 2009 President, Tokyo Bar Association Vice President, the Japan Federation of Bar Associations
April 1997 Vice President, Tokyo Bar Association	May 2012 President, the Japan Federation of Bar Associations
April 2004 Secretary General, Japan Federation of Bar Associations	April 2019 Audit & Supervisory Board Member, Idemitsu Kosan Co., Ltd. (to date)
July 2007 Committee Member, Central Third-Party Committee to Check Pension Records, Ministry of Internal Affairs and Communications	
March 2008 Outside Audit & Supervisory Board Member, Showa Shell Sekiyu K.K.	

Reason for appointment
Mr. Taigi Ito was selected after comprehensively assessing his experience and expertise as a certified public accountant and university professor, character, and knowledge. He has independence without concerns regarding conflicts of interest with general shareholders.
Reason for appointment
Mr. Kenji Yamagishi was selected after comprehensively assessing his experience and expertise as an attorney, character, and knowledge. He has independence without concerns regarding conflicts of interest with general shareholders.



Corporate Governance

Basic Concept of Corporate Governance

The Company believes that contributing to the resolution of issues confronting society, along with supporting stable energy supply, is an integral part of its responsibilities. Based on this belief, we announced our policy of acting as a “reliable partner” in line with our corporate vision for 2030 and aim to fulfill the following three responsibilities: “Protect the Environment and Lifestyles,” “Support Regional Communities,” and “Provide for Society with Technological Capabilities.” Through these endeavors, we intend to play our part in business domains associated with the “energy material transition to a carbon-neutral recycling society,” “next-generation mobility and community adapted to an aging society,” and the provision of “advanced materials that enable the solution of these issues.”

With this aim in mind, the Company recognizes the importance of constructing positive relationships with all stakeholders, including customers, shareholders, business partners, local communities and employees, by fulfilling its social responsibility as a good corporate citizen, improving management transparency, and promoting sound and sustainable growth.

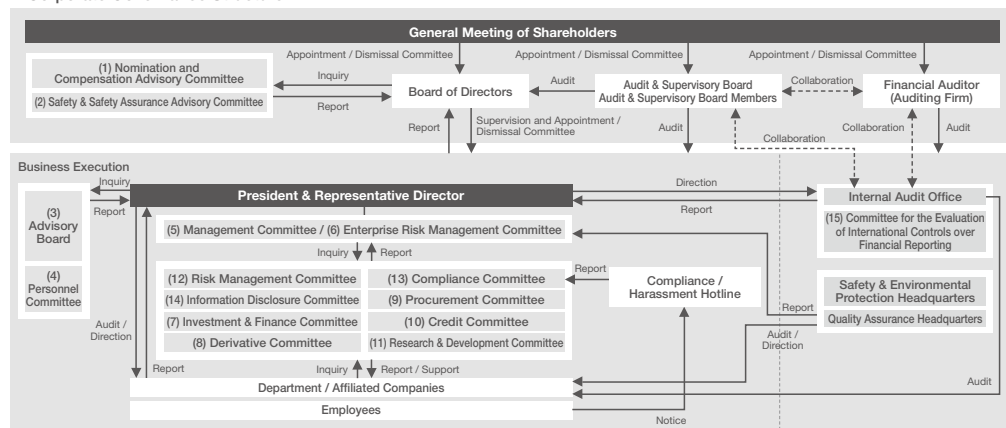
Japan's Corporate Governance Code is aimed at achieving sustainable corporate growth and increasing medium to long-term corporate value by maintaining dialogue with shareholders. The Company, which strives to be both socially respected and highly trusted, believes that it must comply with the code in principle.

The Company attaches great importance to being self-governing, thinking for itself, and making independent judgments in accordance with its corporate vision for 2030. In addition, the Company openly discusses its 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. The Company sincerely takes heed of their unrestricted views, as it endeavors to continue operating in a transparent and fair manner.

Outline of Corporate Governance System

The Board of Directors of the Company shall make important business decisions and supervise the execution of business. As a company with an Audit & Supervisory Board, the Company 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 the Company, make decisions on business strategy, business planning, and other key business matters for the Company and supervise the execution of business. In order to increase the objectivity of the Board of Directors, the Company has made it possible to separate the roles of the chairperson and the CEO through the April 2019 revision of a clause in the Articles of Incorporation, which previously stipulated that the CEO serve as the chairperson of the Board of Directors, to instead mandate that the chairperson will be determined by the Board of Directors. For FY2021, the chairperson was appointed from among the Outside Directors. With regard to matters other than those mentioned above, the Company shall delegate authority for business execution to the Representative Director and CEO as well as the heads of departments and other business units with a view to facilitating speedier decision making.

■ Corporate Governance Structure



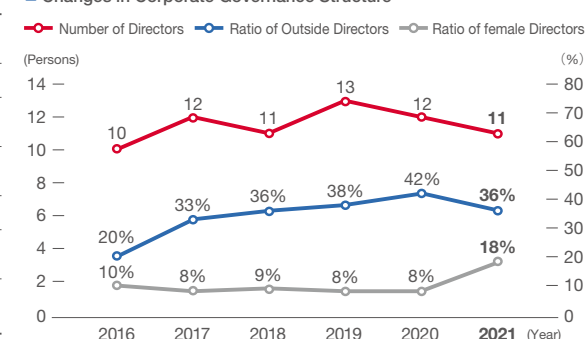
Overview of the Board of Directors

Chairperson	Takeo Kikkawa (Outside Director)
Number of Directors	11
Number of Independent Outside Directors (ratio)	4 (36%)
Number of female Directors (ratio)	2 (18%)
Term	1 year
Number of Board of Directors meetings held in FY2020	16

Overview of the Audit & Supervisory Board

Number of Audit & Supervisory Board Members	4
Number of Outside Audit & Supervisory Board Members (ratio)	2 (50%)
Term	4 years
Number of Audit & Supervisory Board meetings held in FY2020	17

■ Changes in Corporate Governance Structure



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, the Company has 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 issues associated with nomination and compensation.

With regard to nomination, this committee reports on proposals made by the President and Representative Director in connection with the submission to the General Meeting of Shareholders of candidates for election to the offices of Director and Audit & Supervisory Board Member or for the dismissal of current officeholders. Similarly, the committee offers advice regarding such matters as the election and dismissal of Executive Officers who fill specific positions and the determination of such positions. (the Company's policy for the nomination of Director and Audit & Supervisory Board Member candidates is presented on page 61.)

With regard to compensation, the committee engages in multifaceted discussions and, upon the request of the Board of Directors, provides advice in line with the Company's basic policies on compensation for Directors and Executive Officers. (The details of compensation are presented on page 63.)

Composition of the Nomination and Compensation Advisory Committee

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



Corporate Governance

(2) Safety & Safety Assurance Advisory Committee / (3) Advisory Board

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

The “Safety & Safety Assurance Advisory Committee” is focused on providing the Board of Directors and the President and Representative Director with advice on the maintenance of safety assurance for the entire Group, to this end addressing issues associated with the strengthening of facility safety assurance, particularly technical issues. In addition, recent changes in the business environment have increased the importance of ensuring safety and safety assurance in business deployment, new businesses, and overseas expansion. 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” was established in April 2021 to take over from the Management Advisory Committee. It is designed to act as an advisory body to the President and Representative Director, with members consisting of Outside Directors and other outside experts, and is given ample opportunity to contribute recommendations on management issues. The “Advisory Board” met in April 2021 to issue recommendations regarding the revision of the Medium-term Management Plan and is expected to meet several times a year as necessary.

(4) Personnel Committee

The “Personnel Committee” was established as an advisory body to the President and Representative Director, with the aim of facilitating the optimal allocation of human resources, including Executive Officers, to optimal positions. This committee also aims to ensure fair and impartial evaluation and enhance the transparency of relevant decision-making processes. The “Personnel Committee” is attended by the President and 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)-(15) Management Committee, Enterprise Risk Management Committee, and Other Committees

The “Management Committee” (5) and the “Enterprise Risk Management Committee” (6) are charged with deliberating management strategies for the entire Group as well as for each executive department in addition to discussing management issues.

The “Management Committee” formulates and discusses strategies associated with Group management while striving to ensure smooth and appropriate decision making on important matters associated with business execution. Under this committee, there are five specialized committees established to study specialized risks affecting business execution: the “Investment & Finance Committee” (7), the “Derivative Committee” (8), the “Procurement Committee” (9), the “Credit Committee” (10), and the “Research & Development Committee” (11).

The “Enterprise Risk Management Committee” (6) discusses and decides on risk management-related matters associated with Group management and monitors said matters as necessary. Under this committee, the “Risk Management Committee” (12) and the “Compliance Committee” (13) work to strengthen the Company’s response to operational risks and secure a robust structure for deliberating and formulating risk management policies. The Management Committee and the Enterprise Risk Management Committee are both chaired by the President and 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-sectional issues and risks.

The “Information Disclosure Committee” (14) works to ensure timely and appropriate information disclosure based on the Group’s information disclosure policy, while the “Committee for the Evaluation of Internal Controls over Financial Reporting” (15) operates within the Internal Audit Department to strengthen J-SOX compliance.

Committee name	Chairman	Members	Meeting frequency	Roles
(5) Management Committee	President	Individuals appointed by the committee chair based on deliberation by the Human Resource Committee	In principle, three times a month	To discuss and consider management strategies and issues for the entire Group and for each division To deliberate the execution of business
(6) Enterprise Risk Management Committee	President	Individuals appointed by the committee chair	In principle, twice a year	To discuss and consider management strategies and issues for the entire Group and for each division To determine policies for and monitor the status of risk management
(7) Investment and Finance Committee	The general manager of Corporate Planning Department	General managers of relevant departments	As needed	To deliberate and report on investment-related matters and to establish investment standards
(8) Derivatives Committee	Director or Executive Officer	General managers of relevant departments	In principle, once a month	To deliberate and consider basic policies on derivatives for the entire Group as well as the status of relevant audits and transactions
(9) Procurement Committee	Director or Executive Officer	General managers of relevant departments	In principle, once a month	To deliberate and consider matters related to the procurement of materials as well as construction work and other services
(10) Credit Committee	Director or Executive Officer	General managers of relevant departments	In principle, once a month	To deliberate and consider basic policies on credit management for the entire Group and measures to collect non-performing loans
(11) Research & Development Committee	Director or Executive Officer	General managers of relevant departments	In principle, four times a year	To consider matters related to the direction, strategies, and issues pertaining to company-wide research and development
(12) Risk Management Committee	Director or Executive Officer	General managers of relevant departments	In principle, four times a year	To deliberate and prepare important policies to promote business risk management
(13) Compliance Committee	Director or Executive Officer	General managers of relevant departments	In principle, twice a year	To address compliance concerns and to formulate compliance promotion plans To monitor the status of compliance activities
(14) Information Disclosure Committee	Director or Executive Officer	General managers of relevant departments	As needed	To make decisions regarding information disclosure including internal systems
(15) Internal Control Evaluation Committee over Financial Reporting	Director or Executive Officer	Directors or Executive Officers in charge of relevant departments	In principle, twice a year	To deliberate and consider matters related to determination of annual review, operation policy, as well as evaluation plan and scope

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, the Company’s 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 and 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. Audit results are reported to the President and Representative Director, Directors in charge of executive departments subject to audit, and Audit & Supervisory Board Members, with the President and other senior management members issuing instructions to relevant departments as necessary. Recommendations and proposals regarding matters specified via audits as requiring improvement are communicated to the 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.

Corporate Governance

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. Part-time 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.

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

Nomination of Director Candidates

The Company has adopted human resource standards for Directors with an eye to ensuring the optimal composition of the Board of Directors.

The Company believes that in order for the Board of Directors to fulfill its roles and responsibilities and to strategically direct the Group, it is important to secure a sufficient number of Board of Directors members who are familiar with the Company's business and the issues it is confronting. The Company also deems it essential to ensure the independence and objectivity of the Board of Directors as well as diversity in the knowledge, experience, and capabilities of each Director. With this in mind, we have prepared a Skill Matrix as one of the criteria for selection.

Based on the concepts outlined above, the Board of Directors appoints, upon the receipt of recommendations from the Nomination and Compensation Advisory Committee, a certain number of Director candidates who are familiar with the Company's business and the issues it is confronting and who are capable of carrying out the Company's management in an appropriate, fair and efficient manner.

Prior to the election of Director candidates, the President and Representative Director shall submit 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 the Company. The Board of Directors shall then finalize its decision on the selection based on recommendations of the Nomination and Compensation Advisory Committee.

When deemed necessary, the Nomination and Compensation Advisory Committee deliberates on the dismissal of Directors and reports its conclusions to the Board of Directors. Currently, discussions are under way to determine the details of the process entailed in the appointment and dismissal of candidates for Representative Director successors.

Skill Matrix		Areas in which the Company particularly expects Director candidates to contribute									
		Terms in office (years)	Corporate philosophy/business strategy	Governance/legal affairs	Finance/accounting/tax	International business/diversity	Digital innovation/technology	Environment/society/energy policies Resource Recycling/Regional Revitalization	Human resources development	Marketing/sales/retail marketing	Manufacturing/supply
Reappointment	Shunichi Kito	8	●	●	●				●	●	
Reappointment	Takashi Matsushita	8	●			●	●				●
Reappointment	Susumu Nibuya	1	●	●				●		●	
Reappointment	Atsuhiko Hirano	1	●			●	●			●	
New appointment	Noriaki Sakai	—	●	●	●				●		
Reappointment	Masakazu Idemitsu	2	●	●							
Reappointment	Kazunari Kubohara	2		●	●			●			
Reappointment	Takeo Kikkawa	Outside Independent	4			●	●	●			
Reappointment	Mitsunobu Koshiba	Outside Independent	2	●	●	●	●				
New appointment	Maki Kado	Outside Independent	—	●		●		●			
New appointment	Maki Kado	Outside Independent	—	●		●		●		●	

Notes: Outside Directors account for 36% of the Board of Directors. The cells marked by ● indicate areas in which the Company particularly expects the relevant Director to contribute and do not represent all of his/her knowledge and experience.

Nomination of Candidates for Audit & Supervisory Board Members

Candidates for Audit & Supervisory Board Members are selected from among those who have appropriate experience and abilities as well as the necessary knowledge of finance, accounting or legal affairs. Moreover, candidates for internal Audit & Supervisory Board Members are selected based on their full knowledge of the Company's business and the issues it is confronting in addition to their abilities to conduct audits and execute the supervision of the Company in an appropriate, fair and efficient manner.

In the selection of candidates for Audit & Supervisory Board Members, the President and Representative Director discusses the matter with all representative directors and, based on the recommendations of the Nomination 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 the Company, after obtaining the consent of the Audit & Supervisory Board.

Independence Requirements for Outside Officers

To ensure that the Board of Directors fulfills its supervisory functions, the Company's basic policy is to appoint a sufficient number of Independent Outside Directors and Independent Outside Audit & Supervisory Board Members capable of providing useful advice to management based on their knowledge and experience so that they account for more than one third of its Directors and half of its Audit & Supervisory Board Members. In line with this basic policy, candidates for these positions are selected from among persons who satisfy the Company's "Independence Requirements for Outside Officers" in a way that secures diversity in terms of expertise and backgrounds.

Training

The Company provides training to its Directors and Audit & Supervisory Board Members on their roles and responsibilities as well as the level of compliance literacy expected of them when they assume these positions at a listed company. In addition, the Company explains its business, finance, and organization to newly appointed Independent Outside Directors and Independent Outside Audit & Supervisory Board Members of the Company, so that they can fulfill their roles and responsibilities. The Company also encourages Directors and Audit & Supervisory Board Members to spontaneously strive for skill improvement and, to this end, provides them with training opportunities tailored to their individual needs, while at the same time offering a broad range of support for necessary expenses.



Corporate Governance

Outline of Agenda Items Discussed by the Board of Directors, etc.

In FY2020, the Board of Directors placed a particular focus on deliberating the revision of the Medium-term Management Plan. Specifically, the Board of Directors engaged in active discussion on multiple occasions to address such matters as those associated with codifying the Company's corporate mission, formulating a corporate vision for and basic strategy towards 2030, shifting the business portfolio and implementing other strategies as well as taking on the challenge of achieving carbon neutrality in 2050. In the process, the Board of Directors also utilized such opportunities as Outside Director meetings aimed at sharing information with Outside Directors. The revised Medium-term Management Plan has thus been finalized via a resolution at a Board of Directors meeting held in May 2021 and publicly announced. In addition, the Board of Directors discussed strategic issues identified via the FY2019 assessment of the effectiveness of its operations.

Main Agenda Items Discussed by the Board of Directors

Management and Business Strategies	<ul style="list-style-type: none"> • Codifying a corporate philosophy and passing it down to future generations ➡ p.4 • Long-term energy business environment scenarios toward 2050 ➡ p. 7 • Shifting the business portfolio toward the future ➡ p.9 • Developing apollostation, a new service station brand ➡ p.41 • Making Nghi Son Refinery a profit contributor • Changes in the business environment due to the COVID-19 pandemic and its impact on the Company's management plan • Future vision for listed subsidiaries • Basic plan for FY2022 (earnings/expense, investment and funding)
Governance	<ul style="list-style-type: none"> • Methods used for the assessment of the Board of Directors' effectiveness • Results of the assessment of the Board of Directors' effectiveness (its mode of operations, measures to enhance the quality of discussion, etc.) • Revision of process for appointing Executive Officers • Basic policy on internal control systems • Medium-term initiatives to improve internal control systems • Strengthening of governance for overseas subsidiaries • Revision of KPIs used for the determination of compensation for Representative Directors (inclusion of non-financial criteria) • Audit policies for Audit & Supervisory Board Members
IR, Shareholder Returns and General Meeting of Shareholders	<ul style="list-style-type: none"> • Policies for shareholder returns • Introduction of a system enabling shareholders to submit questions prior to General Meeting of Shareholders as part of efforts to enhance dialogue with them • Introduction of a system enabling online participation of the General Meeting of Shareholders in response to the COVID-19 pandemic • Review of the recent General Meeting of Shareholders and future direction

Assessment of the Effectiveness of the Board of Directors

Assessment Methods

Based on the results of questionnaires sent out to all Directors and Audit & Supervisory Board Members in November 2020, the Board of Directors met on three occasions to assess the effectiveness of its operations, thereby identifying issues to be tackled and initiatives to be implemented going forward.

The questionnaires used in this round were designed to confirm conformity with Japan's Corporate Governance Code while incorporating items aimed at qualitative improvement. We employed the advice of an expert organization to determine the content of these items and analyze input from respondents.

■ Process for the Assessment of the Board of Directors' Effectiveness

Sending out questionnaires to all Directors and Audit & Supervisory Board Members

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)

Determining issues to be tackled and implementing initiatives aimed at effecting improvement

■ Assessment results: Overall functions of the Board of Directors were confirmed.

■ Issues identified and future initiatives

Based on results of the assessment of its effectiveness, the Board of Directors deliberated on its mode of operations and reconfirmed that it will continuously strive to contribute to further improvement in corporate value. Specifically, the Board of Directors will address medium- to long-term important issues related to management strategies with the greater involvement of Outside Directors to facilitate the exchange of frank opinions and in-depth discussion, with the aim of improving the quality of its future decision making. To this end, it will tackle the following issues.

1. Review of agenda items	The Board of Directors will determine priorities among agenda items identified via the assessment of its effectiveness and deliberate on them accordingly.
2. Enhancement of opportunities for Outside Directors to step up their involvement in discussion and acquire necessary information, etc.	Utilizing Outside Director meetings and other sessions, we will create greater opportunities for Outside Directors to engage in information exchange toward the revision of the Medium-term Management Plan and discussion with business departments. At the same time, we will enhance the content of information and other input offered to them to support their judgments.
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 will improve the Board of Directors' mode of operations and enable it to better focus on and secure greater time for discussion aimed at improving corporate value.
4. Enhancement of the content of discussion regarding the nomination of and compensation for Executives	The Nomination and Compensation Advisory Committee began to share important points of its discussion with the Board of Directors in addition to continuing to report its conclusions so that matters related to the nomination of and compensation for Executives are sufficiently discussed by the Board of Directors.



Corporate Governance

Compensation for Executives

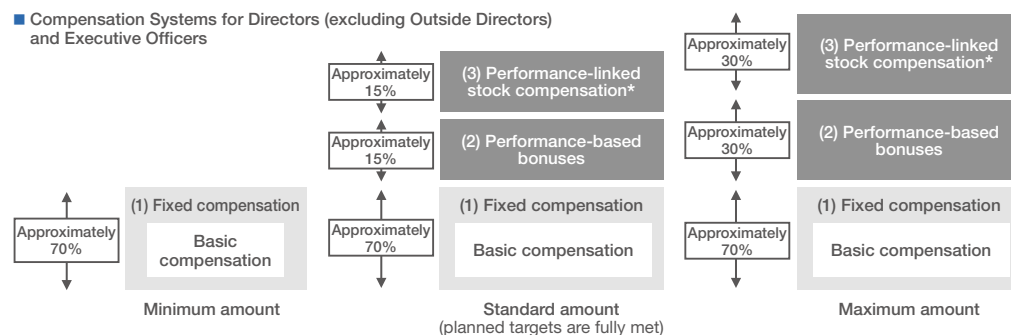
Basic Policy on Executive Compensation

The Company's basic policies regarding remuneration for its Directors and Executive Officers are twofold: 1) to increase corporate performance and corporate value over the medium to long term to realize its corporate mission and Management Vision and 2) to establish a remuneration system and decision-making process that is transparent, rational, and fair so that the Company can fulfill its accountability to customers, society, the environment, shareholders, business partners, employees, and other stakeholders. Based on this policy, the Company's executive compensation system is as follows.

Amount and Composition of Compensation

Compensation for Directors and Executive Officers 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, the Company utilizes data obtained from a consulting firm that is independent from the Company to assess its appropriateness. Moreover, 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. 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 the Company shares that can be owned by Directors and Executive Officers, nor does a clawback provision apply to shares granted to these individuals.

■ Compensation Systems for Directors (excluding Outside Directors) and Executive Officers



* Stock compensation is granted only after the recipients have stepped down from their positions. To provide the recipients with medium- to long-term incentives, the value of stock compensation is designed to reflect fluctuations in stock prices during their terms in office.

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 the Company's operating results (net income, consolidated operating income, etc.), with the payment ratio ranging from 0% to 200%. 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 Companywide strategic issues, ESG issues, human resource development, and corporate culture reforms, etc.) aimed at improving corporate value over the medium to long term. Bonuses for Directors who concurrently serve as Executive Officers, excluding Representative Directors, and bonuses for other Executive Officers, 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.).
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 the Company's operating results (net income and consolidated operating income), with the payment ratio ranging from 0% to 200%. 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.

* Determined in line with weighting allocated to net income and consolidated operating income as follows.
Directors and Executive Officers (Senior Executive Officers or higher): 60%/40%
Other Executive Officers: 40%/60%

FY2020 Compensation

With regard to its FY2020 targets vis-à-vis performance indicators, the Company opted to set conservative targets when target values to be assessed in the determination of performance-linked compensation were discussed at the beginning of the fiscal year. This was due to a looming sense of uncertainty regarding the external environment influenced by the COVID-19 pandemic. As a result, the Company's operating results were in excess of these targets. However, taking into account special circumstances attributable to the pandemic, the Company has determined that target values defined at the beginning of the fiscal year (consolidated operating income of ¥60 billion and net income of ¥5 billion) shall be considered reference values in the course of calculating performance-linked compensation, and the amount of such compensation was determined accordingly following discussion by the Nomination and Compensation Advisory Committee.

Main Agenda Items Discussed by the Nomination and Compensation Advisory Committee

Timing of committee meetings	Main agenda items
April 2020	Assessment of targets for Directors who concurrently serve as Executive Officers, excluding Representative Directors, in connection with areas of their supervision
June 2020	Compensation for newly established executive positions and medium- to long-term issues associated with officer compensation
August 2020	Incorporation of non-financial targets into indicators used to determine performance-based bonuses for Representative Directors and the determination of targets for Directors
November 2020	Treatment of performance-linked compensation for Directors and Executive Officers who step down from their positions during their terms of office
February 2021	Confirmation of the level of officer compensation

Total Amount of Compensation, etc. by Executive Category

Total amount of compensation and other wages paid to Directors in FY2020, their breakdown by type and the number of recipients is as presented below

Category	Number (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)	10	360	43	127	531
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	2	62	—	—	62
Outside Directors and Outside Audit & Supervisory Board Members	7	101	—	—	101
Total	19	524	43	127	695

Note: Figures presented above include compensation paid to three Directors who stepped down from their positions at the closure of the 105th annual General Meeting of Shareholders held on June 25, 2021.



Corporate Governance

Strategic Holdings of Listed Shares

Policy on Strategic Holdings of Listed Shares

The Company's 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. The Company also engages in sufficient dialogue with business partners whose shares are earmarked for divestment from its shareholding portfolio. Upon securing their understanding, the Company carries out divestment while giving due consideration to its impact on share prices. At the end of FY2020, the Company's strategic holdings of listed shares comprised 18 stocks, a decrease of four stocks from the end of FY2019. This represents a decrease of 47 stocks compared with the end of FY2014,* prior to the enforcement of Japan's Corporate Governance Code.

* Comparisons based on the simple sum of stocks held by pre-merger companies.

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, the Company has 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, the Company requests 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 the Company and said investee, the Company exercises its voting rights on an as-necessary basis after consulting with Independent Outside Directors and external specialists.

Compliance

Concept of 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, in 2019 the "Compliance Code of Conduct" was established for all employees working around the world, both overseas and in Japan, 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. The "Compliance Code of Conduct" supports "Integrity," as set forth in the Action Mindset, and constitutes common compliance concepts for all to follow. In line with this, we will act with a compliance-first attitude.

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.

1. Compliance with Laws, Regulations, and Morals

We will comply with domestic and international laws and regulations, social ethics, internal regulations, and contracts, and act with integrity as good corporate citizens.

2. Respect for Human Rights

We will not tolerate any infringement of human rights. We accept diversity in all forms (e.g. race, nationality, gender, etc.), and strive to create healthy and comfortable workplaces free of harassment.

3. Safety, Quality, and Environmental Preservation

We will ensure the appropriate quality of our products and services; We will do our utmost to prevent accidents and minimize losses due to disasters, and will act with due consideration to the preservation of the global environment.

4. Fair and Free Competition

We will conduct business transactions based on fair and free competition.

5. Anti-Corruption

We will maintain sound and transparent relationships with civil servants, government authorities, etc., both in Japan and abroad when conducting our business activities.

6. Information Disclosure and Information Management

We will manage information held by the Company appropriately with transparency and soundness of management. We will disclose information appropriately to the general public when necessary.

Compliance Code of Conduct ➡ <https://sustainability.idemitsu.com/en/themes/200>





Compliance

Compliance Promotion Activities

Major Compliance Violations in FY2020

Major Compliance Violations in FY2020*: 0

* Violations disclosed as having a serious impact on group management

Raising Employee Awareness

“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 updating employees on the latest compliance concerns inside and outside of Idemitsu, disseminating other relevant insights to a broad range of Group business units, and raising employees’ awareness of compliance.



Disseminating Communication Tips via Group Newsletters

To ensure our workplace is free of harassment, we disseminate tips on interpersonal communications via Group newsletters.

Compliance Education

Every year, we provide employees with web-based compliance learning programs. The latest round of these programs was implemented in November 2020 to aid Group employees in their acquisition of compliance literacy and identification of compliance issues specific to their workplaces. In addition, we implement compliance training specially designed for new hires and individuals appointed to managerial positions.

Compliance Book

At the end of January 2020, we issued our *Compliance Book*, with the aim of offering specific compliance standards in conformity with the Compliance Code of Conduct. 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 Book



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 “Rules for the Prevention of Bribery” 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.

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 “Rules for Compliance with the Antimonopoly Law,” 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. Furthermore, 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 recognize that the coordinated handling of tax compliance is a matter of increasing importance.

With this in mind, we have appointed a Director who serves as CFO and a Managing Executive Officer to be responsible for tax governance across the Group, and established the Group Basic Tax Policy, outlined below, in addition to the Group Tax Regulations, the Group Tax Practices Guide and other relevant rules that provide specific operational guidelines. In these ways, we are striving to fulfill our corporate social responsibilities by paying taxes in a proper and fair manner in conformity with all applicable tax laws enforced in countries where we operate while maintaining appropriate information disclosure to enhance the transparency of our tax payment.

Group Basic Tax Policy

(1) Compliance with Tax Compliance

Group employees must adhere with a basic policy of properly filing taxes, making payments, and otherwise handling transactions involving the Group in conformity with tax laws and regulations, and are prohibited from engaging in tax evasion or other illegal actions.

(2) Proper Management of Tax Expenses

Group employees must give due consideration to various tax systems to prevent the emergence of tax-related risks. At the same time, they are expected to fully utilize legally permitted measures to optimize the Group’s tax-related operations.

Framework for Promoting Tax-Related Operations

The Finance & Accounting Department serves as the primary business unit responsible for tax-related operations. In accordance with the “Group Tax Regulations,” this department is charged with furnishing information and advice to each Idemitsu department as well as Group subsidiary and affiliate 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-Related Compliance Violations

Should a tax-related 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.

Risk Management

Policy of Risk Management

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. At our group, 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, system failures, terrorism, and labor problems. 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.

- 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 legal and regulatory compliance
- Risk associated with intellectual properties
- Risk arising from natural disasters and accidents
- Risk associated with the management of personal information
- Risk arising from the spread of COVID-19

Risk Management Promotional Framework

Enterprise Risk Management Committee

The Enterprise Risk Management Committee, which is supervised by the Board of Directors, handles “Business Strategy Risk” and 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 chairman, committee members mainly consist of Executive Officers and heads of relevant divisions. In principle, this committee meets once every six months and requests reports 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.

Risk Management Committee

Our group has established the “Risk Management Committee” tasked with handling “Operational Risk” and is promoting company-wide risk management by taking necessary measures in a timely and prompt manner. The committee chairman is appointed by the Management Committee from among the Directors or Executive Officers, while committee members consist mainly of the Executive Officer in charge of general affairs as well as heads of General Affairs, Safety Environment (HSE) & Quality Assurance, Finance & Accounting, Legal, Corporate Planning, Human Resources, and Public Relations departments. The committee holds periodic meetings on a quarterly basis to specify major risks for the entire Group, formulate countermeasures, and identify signs of their emergence while assessing novel types of risks. In addition to deliberating on these and other matters related to the management of Operational Risk, including measures for risk prevention and managing the progress of such measures, the committee is responsible for submitting its conclusions to the Enterprise Risk Management Committee.

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, the business unit responsible for the incident site will swiftly relay the ascertained risk-related information will be swiftly reported to the business unit responsible for the incident site and the General Affairs Department’s Risk Management Section in accordance with these rules. This risk-related information will also be communicated to the Risk Management Committee as necessary. 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 have held annual comprehensive disaster drills and confirmed problems regarding actual execution and coordination among all business bases in order to strengthen our practical response capabilities and have reflected appropriate revisions to 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.

In FY2015, Idemitsu was appointed as a designated public institution by the Cabinet Office and we accordingly announced the Disaster Prevention Action Plan. This plan was updated in conjunction with management integration, with the latest edition being submitted to the relevant authorities in December 2019. As a designated public institution, we worked to ensure that the tanker trucks we operate in each prefecture have been registered for emergency use.

Idemitsu's Disaster Prevention Action Plan is posted on the Cabinet Office's disaster prevention information website (Japanese only).
➡ http://www.bousai.go.jp/taisaku/keikaku/gyomu_koukyou.html

Countermeasures against the COVID-19 Pandemic

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. Aiming to ensure the stable supply of petroleum products and materials, which are essential to supporting economic and social activities, we have constantly updated our relevant policies and measures in light of changes in social conditions. At the same time, we rallied the Group’s overall strengths to protect the safety of employees and implemented thoroughgoing countermeasures to prevent the spread of infection.

Outline of our initiatives	
January 2020	Distributed the first alert regarding the prevention of infection, urging the families of expatriates in China to temporarily return to Japan
February 2020	Established the task force chaired by the President and Representative Director
April 2020	In response to the declaration of a state of emergency, thoroughgoing and highly effective measures to prevent the spread of infection were immediately enforced. These measures included a general prohibition of commuting to company facilities and taking business trips.
May 2020	In conjunction with the lifting of the state of emergency, the aforementioned measures were partially relaxed.
July 2020 onward	In response to a resurgence in the outbreak in Japan and the declaration of a state of emergency, thoroughgoing measures to prevent the spread of infection were once again implemented in conformity with internal policies flexibly aligned with evolving pandemic situation. Targeting a decrease in the ratio of employees who commute to company facilities to less than 30%, preventive countermeasures have thus been strengthened and still in place.
July 2021	Implemented COVID-19 vaccination at workplaces



Risk Management

Implementation of Comprehensive Disaster Drills

Since 2007, we have held annual comprehensive disaster drills aimed at enhancing the effectiveness of our BCPs. In FY2021, the 15th round of the comprehensive disaster drill was held in September 2021. This round was a hybrid drill focused on combining an emergency task force, which was physically established at the Idemitsu Head Office to confirm its headquarters functions following its relocation to the new building, with remote communication platforms employed in light of the COVID-19 pandemic. As part of this drill, we also confirmed employee safety on a company-wide basis, with approximately 14,000 individuals, including those working at subsidiaries and affiliates, reporting their whereabouts in a prompt manner. Looking ahead, we will update our BCPs by incorporating issues and takeaways identified in the course of this latest round, with the aim of enhancing our crisis readiness.

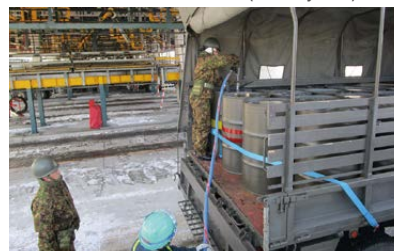
■ A hybrid drill



Acquiring Highest BCM Rating from the Development Bank of Japan

In January 2020, Idemitsu 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. This program provides a loan menu that incorporates Business Continuity Management (BCM) ratings. Using a proprietary screening system, DBJ assesses disaster prevention measures and BCPs in place at prospective borrowers' facilities and offers loan conditions that favor borrowers deemed excellent based on the assessment results. The ratings are classified into three grades from "Rank C" to "Rank A." We were granted "Rank A: an outstanding company in terms of disaster prevention and business continuity initiatives" thanks to high evaluations in the three areas that follow.

■ A joint drill conducted in tandem with the Japan Ground SDF Northern Army and the Hokkaido Bureau of Economy, Trade and Industry to practice fuel supply in a simulated disaster situation (February 2018)



1. Under the commitment of the top management, we have established a risk management system that covers all-risk hazards, including geopolitics and cyber risks. Employees work with management to strengthen the Company's resilience to risks via, for example, risk control through prior investment in addition to the preparation of various risk financing methods based on the analysis of financial impact at the time of risk occurrence.
2. As we are aware of our social mission of maintaining oil supply and believe that its disruption can affect people's lives, we have thoroughly implemented industry-leading quake-resistance measures. As part of these efforts, we have introduced risk engineering survey methods employed by our overseas peers to undertake safety and disaster prevention inspections and implemented robust countermeasures in conformity with global standards. In addition, we have established a system to ensure continued oil supply across Japan based on the "Plan for Joint-Operations of Oil Supply in Disasters," which is an industrial cooperative framework for emergency supply.
3. We work to constantly improve our BCPs by implementing various drills involving outside stakeholders, including Japan's Self-Defense Forces (SDFs). We also work to improve the effectiveness of emergency response via, for instance, the enhancement a human resource development system to support sophisticated risk management.

Information Management

Information Management System

In line with the Information Security Basic Policies, the Idemitsu Group is endeavoring to ensure the confidentiality of its information assets and to simultaneously secure the accessibility and security of its information systems and networks. Utilizing information technologies, Idemitsu is thus striving to maintain and enhance the level of customer services. In addition, Idemitsu has established the Customer Information Management Standards to appropriately collect and use customer information, keeping it up to date while safeguarding it. The standards also mandate the proper disposal of such information.

Furthermore, we mandate that every year all IT system users (including permanent and temporary employees as well as subcontractors) take "Security Standards for the Use of IT Systems," an e-learning information security course aimed at ensuring that they practice thoroughgoing information management measures. At the same time, each department carries out an autonomous inspection of information management and data security audits are implemented on an annual basis as part of periodic internal audits. Should information leakage occur, the incident will be handled in accordance with the "Crisis Response Rules," and the Information Control Guidelines.

Information Security Basic Policies

1. The Idemitsu Group shall endeavor to ensure the secrecy of its information assets, secure the availability and security of its information systems and networks, and enhance the level of customer services by employing information technologies.
2. The Idemitsu Group shall put in place appropriate protective measures to prevent the leakage, falsification, or destruction of customer information.
3. The Idemitsu Group shall strive to secure the availability and security of its information systems and networks and protect their secrecy, in an effort to prevent information-related incidents that may cause trouble to customers, business partners, or other stakeholders.
4. The Idemitsu Group shall ensure that all employees, temporary staff, and vendors are aware of the importance of information security and educated on the proper use of information and information systems by providing them with training and otherwise raising their awareness.
5. The Idemitsu Group shall conduct periodic audits aimed at inspecting and evaluating the status of security policy compliance, thereby ensuring robust information security.

Promotion Structure

Departments in charge of information management

Promote information management, formulate relevant rules, provide in-house departments, subsidiaries and affiliates with advice and guidance on information management

Information Systems Department

General Affairs Department
Plan and promote information management-related operations across the Group

Intellectual Property Department

Departments

Department general managers
Appoint general directors in charge of information management as well as information control supervisors

Information control supervisors
Plan and promote information management-related operations at each department and supervise the handling of information in general (Disseminate relevant rules and standards and implement information management education)

Employees
Observe rules and standards and undergo information management education

Subsidiaries and affiliates

Department in charge of information management
Promote information management and formulate relevant rules

Information control supervisors
Plan and promote information management-related operations at each department and supervise the handling of information in general (Disseminate relevant rules and standards and implement information management education)

Employees
Observe rules and standards and undergo information management education



Risk Management

Serious Information Security Violations in FY2020

Number of serious information security violations: 0

Employee education

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 2021 round of these programs was implemented during the January – March 2021 period and completed by a total of 15,755 people, or 100% of targeted individuals.

Specialized e-learning program

In FY2019, we also launched e-learning programs for employees tasked with handling or administering control systems. The 2020 round of this program was implemented during the January – March 2021 period and completed by a total of 5,297 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

Basic Policy

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.

1. Compliance with Laws and Regulations

We comply with the Act on the Protection of Personal Information, the Act on the Use of Numbers to Identify a Specific Individual in Administrative Procedures and other relevant laws and regulations, cabinet and ministerial ordinances, and prevailing guidelines.

2. Matters concerning the Acquisition of Personal Information, etc.

We will acquire personal information, etc., only through proper and fair methods. Furthermore, we will inform all individuals from whom we acquire personal information of the purpose of such information gathering either before obtaining said information or, immediately upon obtaining it, by providing them with notification individually or via a public statement of purpose, except in situations in which the Company is legally exempt from these measures. In cases where special care is required, we will obtain the prior consent of the individual from whom we acquire such information, except in situations in which we are legally exempt from obtaining such consent.

3. Matters concerning the Use of Personal Information, etc.

We will strictly limit the use of personal information, etc., to the extent necessary to achieve the defined purpose of usage, except in situations in which the use of personal information outside such purpose is legally permitted.

4. Matters concerning the Provision and Disclosure of Personal Information, etc.

We will not disclose or provide personal information to third parties other than contractors, companies engaged in the joint use of such information, and successors of our operations without the consent of any individual identifiable through such personal information, except in situations in which disclosing or providing such information is legally permitted.

5. Matters concerning Safe Management Measures

We will implement necessary and appropriate measures to protect personal information, etc., from unauthorized access, loss, destruction, falsification, leakage, or other incidents while continuously improving our structure for the protection and management of personal information. To this end, we will designate the individuals responsible for these measures at each business unit while ensuring that employees and contractors tasked with handling personal information, etc., are properly educated, trained, and supervised.

Furthermore, we will maintain the accuracy of personal information, etc., and keep it updated. If it has served its purpose, we will swiftly discard or erase such information upon the lapse of storage periods stipulated by applicable laws and regulations.

Should the leakage of personal information or a similar incident occur, we will promptly carry out correction measures in light of the nature of such an incident.

6. Matters concerning the Disclosure of Personal Information, etc.

In accordance with applicable laws and regulations, we will accommodate requests regarding the disclosure and correction (revision, update, deletion, suspension, elimination, or block them from being provided to third parties) of retained personal data or specific personal information files.

If we decide to not disclose information held or if we retain no applicable data or files subject to the above requests, we will notify the individual who issued such requests about our decision or the nonexistence of these items.

Serious Violations of personal information in FY2020

Number of serious violations of personal information: 0



Intellectual Property

Utilization of Intellectual Property

Within the Group, each department works with the Intellectual Property Department to conduct intellectual property activities. Business departments, the R&D Department, and the Intellectual Property Department cooperate to help develop the Group's businesses and enhance brand value by filing for, managing, and utilizing patents, trademarks, and other intellectual property protections.

Utilization of Intellectual Property

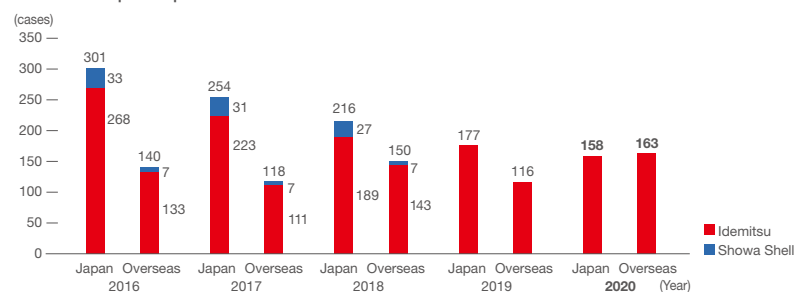
Promotion of Intellectual Property Activities

Idemitsu has a structure that establishes intellectual property departments in each division to swiftly and effectively solve issues in line with each business's characteristics and strategies in a wide range of business fields. These divisional intellectual property departments act in collaboration with the Intellectual Property Department to smoothly carry out a range of intellectual property activities, such as surveying and analyzing intellectual property-related information as well as filing for and utilizing intellectual property while engaging in external negotiations.

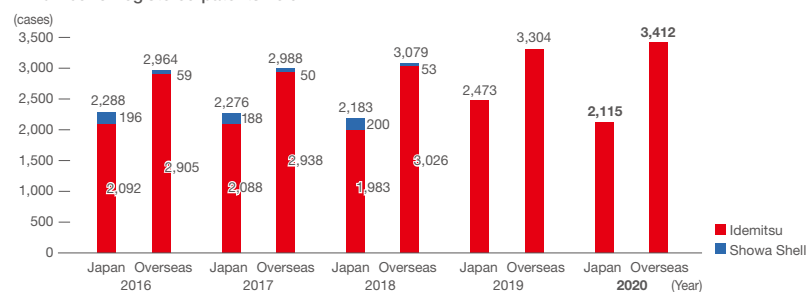
In the petroleum field, we have completed the filing of applications for trademark and design registration regarding the apollostation brand, which was renewed in 2021, to protect its brand value. In the lubricants field, we command a large share of the global market for refrigerating machine oil, which is one of our strengths, and we have established global patent portfolios.

Because market growth is expected in the OLED business, the core field of the electronic materials business, we have entered into alliance agreements with companies in Japan and overseas that hold useful patents related to OLED materials, enabling the mutual use of patents in specific fields. Through these and other measures, we are working to create and expand businesses while expanding the areas in which development is possible.

■ Number of patent publications



■ Number of registered patents held



Exercising Intellectual Property Rights

Intellectual property rights are being exercised with increasing frequency in response to the diversification of business activities, from licensing to the pursuit of alliances and mergers and acquisitions. We established a specialized negotiation team within the Intellectual Property Department to support its various business segments by handling the negotiation and signing of technology contracts with partners as well as performing due diligence.

Working with Patent Firms and Government Agencies

Through cooperative efforts with patent firms in Japan and major overseas countries, we are focusing our energy on securing the intellectual property rights necessary for business development. In particular, we are strengthening cooperation with overseas patent firms through, for example, direct communication with patent attorneys. To secure a strong patent portfolio, we are also engaging in direct interviews, negotiations, and technology presentations with each country's examiners. In addition, with the support of the Japan External Trade Organization (JETRO), we address pressing issues besetting emerging nations, such as counterfeit products, while lobbying governmental organizations. In these ways, we remain apprised of the patent-related problems and implement robust countermeasures.

Responding to the Patent Laws of Each Country

Patent laws are set independently by each country, and the application for as well as the receipt and maintenance of patents requires adherence to said laws. With a rising number of corporations pursuing global expansion, there has recently been a global trend toward patent law revision aimed at facilitating swift patent acquisition and harmonization, including by ironing out differences between laws, rules, and examination processes. Because of this, in the countries in which they operate or their products are sold, businesses have to pay close attention to every law revision and new piece of legislation. In line with the globalization of business, the Intellectual Property Department stays informed of changes in relevant laws and examination processes used by individual countries and regions, from the United States to Europe, China, South Korea, Taiwan, and others, and takes these changes into account during daily intellectual property activities.

Providing Staff Education

Idemitsu helps its employees be mindful of intellectual property by, for example, providing staff education and otherwise helping them raise their intellectual property awareness. As part of in-house education to this end, we provide rank-based programs for new hires, first-year researchers, and mid-level researchers.

* Intellectual Property Mind: awareness and attitude to develop business with fair competitiveness through comprehension and utilization of own intellectual property rights while respecting the intellectual property rights of other companies

Data Analysis

To beat global competition, it is imperative that the Idemitsu Group understand the strengths and weaknesses of its intellectual properties within the industry while comparing and analyzing the competitiveness of rival companies. To create our own strategies leveraging our strengths, we deem it important to leverage a large numbers of patent big data around the world in addition to examining and analyzing corporate patent data, industry trends and other information. With this in mind, we have established a specialized patent information group tasked with promoting these endeavors through the use of the "IP landscape" method and collaboration with relevant departments.



ESG Data

Environment

- For data from FY2017 to FY2018, the upper row is the Idemitsu Group and the lower row is the Showa Shell Group. (The Showa Shell Group's FY2018 results are reported for 15 months from January 2018 to March 2019.)
- FY2019 data is for the Idemitsu Group. Idemitsu and Showa Shell merged in April 2019, and the data is after the business integration.
- The scope of data for FY2019 is Idemitsu and consolidated subsidiaries. However, the reporting scope of some data points differs from the others. For details, please refer to the notes for each data point.
- Data calculation conditions have been revised in conjunction with business integration. Therefore, data for FY2019 is not consistent with the sum of the two companies' data before FY2018. (From FY2017 to FY2018, there are differences in the calculation conditions of the Idemitsu Group and Showa Shell Group.
- The data for FY2020 indicated with (☑) has been assured by the Independent Practitioner.

GHG Emissions by Scope	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Scope 1	thousand tCO ₂	7,465	7,347	12,041	12,193	☑	
		5,137	7,015				
	tCH ₄	-	-	1,986	14,531	☑	
		-	-				
	tHFC	-	-	0.103	0.413	☑	
		-	-				
	tN ₂ O	-	-	228	392	☑	
		-	-				
Scope 2	thousand tCO ₂	424	460	855	829	☑	
		530	556				
	thousand tCO ₂ e	82,224	79,318	117,691	108,187	☑	Use of products sold: Amount of fuel produced at refineries and complexes (scope of reporting: Idemitsu and consolidated subsidiaries)
		56,526	63,331				
Scope1+2	thousand tCO ₂	7,889	7,807	12,896	13,022	☑	
		5,667	7,571				
	thousand tCO ₂ e	-	-	13,014	13,503	☑	Total 7 GHGs (no use of PFCs, NF ₃) converted to carbon dioxide
		-	-				
Scope 1+2+3*	thousand tCO ₂	90,113	87,125	130,586	121,209	☑	
		62,193	70,902				
	thousand tCO ₂ e	-	-	130,704	121,690	☑	Total 7 GHGs (no use of PFCs, NF ₃) converted to carbon dioxide
		-	-				

* Scope 3 records category 11 (Only third-party warranty coverage)

ESG Data










Trends in CO ₂ Emissions	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
1. Main body + consolidated companies	thousand tCO ₂	14,200	13,793	12,896	13,022		The data for fiscal 2017 and 2018 are the result of calculating and combining the data of Idemitsu group and Showa Shell Group using the current calculation method.
2. 1 + Group affiliates and subsidiaries	thousand tCO ₂	16,775	16,473	15,488	15,419		The following table shows the total emission volume of “FY2030 management targets CO ₂ reductions (Scope 1+2), including group refineries.”
Trends in CO ₂ Emissions	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
3. CO ₂ emissions reduction (compared to FY2017)	thousand tCO ₂	-	407	1,304	1,178		
4. CO ₂ emissions reduction (compared to FY2017)	thousand tCO ₂	-	302	1,287	1,356		Scope: 2 (1 + Group affiliates and subsidiaries)
5. Reduction target achievement rate	%	-	8	32	34		Achievement rate against the target of 4,000 thousand tons (target: 4)
GHG emissions per unit of production	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Crude oil production	tCO ₂ e/bbl	-	-	0.007	0.006		Scope of Reporting: Idemitsu Petroleum Norge AS Unit: GHG emissions / crude oil production
Coal production	tCO ₂ e/t	-	-	0.033	0.066		Scope of Reporting: Ensham Resources Pty. Ltd., Muswellbrook Coal Co., Ltd., Boggabri Coal Pty. Ltd. Unit: GHG emissions / coal production
Oil refining	tCO ₂ e/bbl	-	-	0.034	0.040		Scope of Reporting: Hokkaido Refinery, Chiba Complex (Petroleum), Aichi Refinery, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd. Unit: GHG emissions / refinery throughput
Petrochemical plants	tCO ₂ e/t	-	-	0.902	0.896		Scope of Reporting: Chiba Complex (Chemicals), Tokuyama Complex Unit: GHG emissions / petrochemicals production volume (ethylene equivalent)
Energy Consumption	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Heat quantity equivalent	PJ	188	186	196	191		Before FY2018, energy consumption includes both the Idemitsu Group's and other companies' business activities. In FY2019, the scope is limited to the energy consumption of only the Idemitsu Group's business activities.
		84	108				
Crude oil equivalent	thousand kL	4,858	4,811	5,070	4,916		
		2,156	2,808				
Unit energy consumption (Refinery)	L/kL	8.79	8.87	8.09	8.64		Scope of Reporting: Idemitsu Kosan Co., Ltd., Hokkaido Refinery, Chiba Complex (Petroleum), Aichi Refinery, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd. Unit energy consumption = Crude oil equivalent (L) / Atmospheric distillation equipment converted throughput (kL)
		7.47	7.28				
Unit energy consumption (Petrochemical plant)	kL/t	0.406	0.396	0.421	0.415		Scope of Reporting: Idemitsu Kosan Co., Ltd., Chiba Complex (Chemicals), Tokuyama Complex Unit Crude oil equivalent energy consumption (kL) / Ethylene equivalent production (t)
		-	-				



ESG Data

Amount of Water Resources Intake and Wastewater	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Seawater intake	thousand t	1,257,447	1,288,375	1,330,838	1,357,736	☑	
		133,554	170,600				
Industrial water intake	thousand t	58,322	60,143	81,740	82,074	☑	
		31,797	41,795				
Tap water intake	thousand t	-	-	16,500	11,711	☑	Amounts for Idemitsu before 2018 are included in industrial water.
		249	304				
Underground water intake	thousand t	-	-	18,894	15,789	☑	Amounts for Idemitsu before 2018 are included in industrial water. Groundwater also contains hot water from geothermal power generation.
		2,009	2,102				
Total water intake	thousand t	1,315,769	1,348,518	1,447,972	1,467,310	☑	
		167,609	214,801				
Wastewater destination (sea)	thousand t	-	-	1,330,838	1,357,736		
		-	-				
Wastewater destination (other)	thousand t	-	-	81,235	71,944		The destination includes reduced water (hot water) used in geothermal power generation.
		-	-				
Wastewater	thousand t	1,314,002	1,345,990	1,412,073	1,429,680	☑	
		150,515	199,813				
Water recycling rate	%	-	90	94	94	☑	The water recycling rate only applies to industrial water. (1. Industrial water intake: 82,074; 2. Industrial water use: 1,366,526; 3. Industrial water recycling: 1,284,452, Water recycling rate = 3 / 2)
		97	97				* 2 = 1 + 3
Water withdrawal rate	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Crude oil production	t/bbl	-	-	0.499	0.467	☑	Scope of Reporting: Idemitsu Petroleum Norge AS Unit: Water withdrawal volume / crude oil production volume
		-	-				
Coal production	t/t	-	-	0.713	0.486	☑	Scope of Reporting: Ensham Resources Pty. Ltd., Muswellbrook Coal Co., Ltd., Boggabri Coal Pty. Ltd. Unit: Water withdrawal volume / coal production volume
		-	-				
Oil refining	t/bbl	-	-	3.314	3.830	☑	Scope of Reporting: Hokkaido Refinery, Chiba Complex (Petroleum), Aichi Refinery, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd. Unit: Water withdrawal / refinery throughput
		-	-				
Petrochemical plants	t/t	-	-	155	164	☑	Scope of Reporting: Chiba Complex (Chemicals), Tokuyama Complex Unit: Water withdrawal / petrochemicals production volume (ethylene equivalent)
		-	-				
Water Pollution Effects	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
COD	t	104	97	276	336	☑	Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., Solar Frontier K.K., Shell Lubricants Japan K.K., Nippon Grease Co., Ltd., Idemitsu SM (Malaysia), Petrochemicals (Malaysia)
		-	255				
Total nitrogen	t	93	104	97	146	☑	
		-	-				
Total phosphorus	t	1.2	1.5	1.8	3.2	☑	
		-	-				

ESG Data

Air Pollutant Emissions	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
SOx	t	48,223	47,349	12,315	7,886		Before FY2018, air pollutants include both the Idemitsu Group's and other companies' business activities. In FY2019, the scope is limited to the air pollutants of only the Idemitsu Group's business activities.
NOx	t	2,250	2,972				
		42,823	42,029	17,286	13,980		
		1,942	2,769				
Soot/dust	t	230	231	232	223		
		72	95				
VOC	t	3,707	3,658	5,536	5,411		Scope of Reporting: Hokkaido Refinery, Chiba Complex (Petroleum), Aichi Refinery, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., Shell Lubricants Japan K.K. Kobe Plant, Okinawa Idemitsu Co., Ltd.
		4,873	4,639				
Waste	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Total waste	t	215,354	209,828	217,516	224,084		Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd.
		37,994	40,188				
Reduced by intermediate treatment	t	91,227	107,605	110,264	96,768		
		-	26,087				
Recycled	t	123,182	100,840	106,640	124,699		
		-	14,102				
Final disposal	t	945	1,383	614	38		
		-	0				
Final disposal rate	%	0.439	0.659	0.282	0.017		
		-	0				
CFC leakage	Unit	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
	t	-	-	-	1		Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, performance materials laboratories, Lubricants Research Laboratory, Advanced Technology Research Laboratories, Technology & Engineering Center (Anesaki) Figures based on CFC method reporting
	CO ₂ e	-	-	-	1,852		
Number of Environmental Disorders		FY2020					
		3 cases					
Acquisition Status of ISO 14001 (Environmental Management Systems)		*As of June 30, 2021					
Domestic business sites		21 sites					
Overseas business sites		13 sites					

*More than 95% of the Idemitsu Group's GHG emissions are from sites that have acquired ISO 14001 certificates.



ESG Data

Social

- For data from FY2016 to FY2018, the upper row is the Idemitsu Group and the lower row is the Showa Shell Group. (The Showa Shell Group's FY2018 results are reported for 15 months from January 2018 to March 2019.)
- FY2019 data is for the Idemitsu Group. Idemitsu Kosan and Showa Shell merged in April 2019, and the data is after the business integration.
- The scope of data for FY2019 is Idemitsu Kosan non-consolidated. However, the reporting scope of some data point differs from the others. For details, please refer to the notes for each data point.
- The data for FY2020 indicated with (☑) has been assured by the Independent Practitioner.

Status of Employees <small>*As of March 31, 2021</small>			Unit	FY2020	Independent Practitioner's Assurance	Note
Number of employees		People		4,943	☑	Scope of Reporting: Idemitsu hires (employees, seniors, full-time contract employees, and advisors) Excluding employees seconded to other companies
	Men	People		4,355	☑	
	Women	People		588	☑	
	Percentage of women	%		11.9	☑	
	Foreign nationals	People		35		
	Percentage of foreign nationals	%		0.7		
	Seniors (Over 60 years old)	People		600		
Number of members		People		3,959		
	Men	People		3,395		
	Women	People		564		
	Percentage of women	%		14		
Number of employees in managerial positions (Including managers, general managers, and executive officers)		People		984	☑	
	Men	People		960	☑	
	Women	People		24	☑	
	Percentage of women	%		2.4	☑	
Of the numbers mentioned above, higher posts than general manager		People		37		
	Men	People		34		
	Women	People		3		
	Percentage of women	%		8.1		
Of the numbers mentioned above, managers		People		947		
	Men	People		926		
	Women	People		21		
	Percentage of women	%		2.2		
Average age		years old		42.1	☑	
	Men	years old		42.3	☑	
	Women	years old		40.3	☑	
Average years employed		years		19.4	☑	
	Men	years		19.7	☑	
	Women	years		17.3	☑	
Average wage	Basic wages received by men	Management-level employees	yen/month	689,656		Scope of Reporting: Idemitsu hires (employees, seniors, full-time contract employees, and advisors)
		Staff members	yen/month	368,413		
	Bonuses received by men	Management-level employees	yen/year	4,139,552		
		Staff members	yen/year	1,831,199		
	Basic wages received by women	Management-level employees	yen/month	675,789		
		Staff members	yen/month	342,353		
	Bonuses received by women	Management-level employees	yen/year	4,261,621		
		Staff members	yen/year	1,666,345		



ESG Data

Status of Employees		*as of March 31, 2021	Unit	FY2020	Independent Practitioner's Assurance	Note						
Status of employees with disabilities	*As of June 1, 2021		Percentage	%	2.30	<input checked="" type="checkbox"/>	Scope of Reporting: Scope of Reporting: Idemitsu hires (employees, seniors, full-time contract employees, and advisors) Including employees seconded to other companies, but excluding employees seconded from other companies Based on the calculation method of the Ministry of Health, Labour and Welfare					
			Number	People	119							
Number of employees (Consolidated)			*As of the end of March 2021		People	14,044	Scope of Reporting: Idemitsu and 63 consolidated subsidiaries					
Turnover rate (Including honorable retreat)					%	3.18	Scope of Reporting: Idemitsu hires (employees, seniors, full-time contract employees, and advisors) Excluding employees seconded to other companies					
Voluntary retirement rate					%	1.42						
New graduate retention rate (Average for newly hired employees between 2016 and 2018)					%	89.4	<input checked="" type="checkbox"/>	Scope of Reporting: Results are from Idemitsu's direct hires Retention rate: Average rate of three-year retention of new graduates in the relevant fiscal years Turnover rate: Turnover rate of new graduates within three years of employment in the relevant fiscal year				
Turnover rate of new graduates					%	8.8					<input checked="" type="checkbox"/>	
Status of Recruitment			Unit	FY2020 / FY2021	Independent Practitioner's Assurance	Note						
Recruitment of new graduates	*Hired in April 2020		People	151	<input checked="" type="checkbox"/>	Scope of Reporting: Results are from Idemitsu's direct hires						
	Men		People	127	<input checked="" type="checkbox"/>							
	Women		People	24	<input checked="" type="checkbox"/>							
	Percentage of women		%	15.9	<input checked="" type="checkbox"/>							
	Foreign nationals		People	2	<input checked="" type="checkbox"/>							
	Percentage of foreign nationals		%	1.3	<input checked="" type="checkbox"/>							
Career recruitment			*Hired in FY2019		People	91	<input checked="" type="checkbox"/>					
Work-Life Balance Support Systems and Usage Numbers			Unit	FY2016	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note		
Maternity leave	Women	People	25	26	28	39	35	<input checked="" type="checkbox"/>	Scope of Reporting: Idemitsu hires (employees, seniors, re-employed, including employees seconded to other companies). Telecommuting (as of the end of FY2019), self-development leave of absence, and volunteer leave of absence are results only for Showa Shell.			
			-	-	26							
Childcare leave		People	51	47	47	96	90	<input checked="" type="checkbox"/>				
			52	43	37							
	Men	People	-	-	3	15	22	<input checked="" type="checkbox"/>				
			2	4	3							
Women	People	-	-	44	81	68	<input checked="" type="checkbox"/>					
		50	39	34								
Rate of employees returning to work after childcare leave			Women	%	-	-	-	100			100	
Nursing care leave		People	1	4	3	7	2	<input checked="" type="checkbox"/>				
			0	1	2							
	Men	People	-	-	3	6	2	<input checked="" type="checkbox"/>				
			0	1	2							
	Women	People	-	-	0	1	0	<input checked="" type="checkbox"/>				
			0	0	0							



ESG Data

Work-Life Balance Support Systems and Usage Numbers	Unit	FY2016	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Reduced working hours for parenting		34	51	42				Scope of Reporting: Idemitsu hires (employees, seniors, re-employed, including employees seconded to other companies). Telecommuting (as of the end of FY2019), self-development leave of absence, and volunteer leave of absence are results only for Showa Shell.
	People	27	32	38	69	72	☑	
	Men	-	-	1				
	People	1	0	0	2	1	☑	
	Women	-	-	41				
Leave to care for sick/injured child	People	26	32	38	67	71	☑	
	Men	-	-	113	206	133	☑	
	People	61	82	113				
	Men	-	-	51	103	61	☑	
	Women	-	-	62	103	72	☑	
Family care leave	People	35	50	57				
	Men	-	-	43	50	37	☑	
	People	9	16	17				
	Men	-	-	34	19	25	☑	
	Women	-	-	9	31	12	☑	
Telecommuting (Rebranded in FY2020 in conjunction with the upgrade of the conventional work-from-home system)	People	3	6	6				
	Men	15	24	191	543	3,592	☑	
	People	1	1	111	400	3,086	☑	
	Men	14	23	80	143	506	☑	
	Women	3	2	3	3	2	☑	
Self-development leave of absence	People	1	0	1	2	2	☑	
	Men	2	2	2	1	0	☑	
	People	-	0	1	1	1		
	Men	-	0	1	0	0		
	Women	-	0	0	1	1		
Volunteer leave of absence	People	-	-	-	-	4		
	Men	-	-	-	-	0		
	People	-	-	-	-	4		
	Men	-	-	-	-	0		
	Women	-	-	-	-	4		
Cessation from work by employees whose spouses are transferred to countries abroad (from FY2020)	People	-	-	-	-	4		
	Men	-	-	-	-	0		
	People	-	-	-	-	4		
	Men	-	-	-	-	0		
	Women	-	-	-	-	4		
Overtime Work and Annual Paid Leave	Unit	FY2016	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note
Average overtime work hours per employee	hours/month	9.9	12.3	15.3				Scope of Reporting: Idemitsu hires (employees, seniors, re-employed) Excluding employees on leave and seconded employees Results of overtime work is excluding employees in managerial positions
		12.0	12.0	14.8	18.9	20.0	☑	
Average annual paid leave taken by an employee	Days	11.2	11.7	12.7				
		13.9	13.3	14.9	14.2	14.1	☑	
Average usage rate of annual paid leave per employee	%	-	-	68.4				
		68.3*	65.7	74.6	70.0	69.5	☑	

Note: Excluding management-level employees

ESG Data

Training Results		Unit	FY2016	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note	
Training hours	Total	Hours	-	101,920	70,880	117,455	57,581	<input checked="" type="checkbox"/>	Scope of Reporting: Results for Idemitsu non-con- solidated from training organized by the Human Resources Department	
			-	-	14,633					
	Per person	Hours	-	26.0	17.8	19.5	10.9	<input checked="" type="checkbox"/>		
			-	-	21.0					
Amount of investment in training	Total	thousand yen	-	142,612	226,769	352,000	256,000	<input checked="" type="checkbox"/>		
			133,853	198,733	299,611					
	Per person	thousand yen	-	51	57	59	48	<input checked="" type="checkbox"/>		
			170	275	430					
Results related to health		Unit	FY2016	FY2017	FY2018	FY2019	FY2020	Independent Practitioner's Assurance	Note	
Occupational accidents frequency rate	Idemitsu's employees only	-	0.00	0.51	0.28	0.46	0.30	<input checked="" type="checkbox"/>	Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, Prime Polymer Co., Ltd., Anesaki Works, BASF Idemitsu Co., Ltd., TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., Seibu Oil Co., Ltd. Reporting period: From January to December 2020	
		0.00	0.39	0.00						
	Employees of partner companies	-	-	-	0.68	0.79				
Fatalities due to occupational accidents	Idemitsu's employees only	People	-	-	-	0	0			
	Employees of partner companies	People	-	-	-	0	0			
TRIFR (Total Recordable Injury Frequency Rate)	Idemitsu's employees only	-	-	-	-	2.94	1.35			[Calculation method]
	Employees of partner companies	-	-	-	-	2.11	3.14			Frequency rate= (Number of casualties due to occupational accidents/hours of actual work) ×1,000,000
LTIFR (Lost Time Injury Frequency Rate)	Idemitsu's employees only	-	-	-	-	0.46	0.30			TRIFR= (Number of overall occupational accidents/ hours of actual work)×1,000,000
	Employees of partner companies	-	-	-	-	0.68	0.79		LTIFR= (Number of accidents resulting in lost work days/hours of actual work)×1,000,000	
Severity rate		-	0.00	0.01	0.03	0.03	0.00	<input checked="" type="checkbox"/>	Severity rate= (Number of lost working days/hours of actual work) ×1,000	
	Idemitsu's employees only	-	0.00	0.01	0.00					
	Employees of partner companies	-	-	-	-					0.03
Number of accidents related to safety				Unit	FY2020	Note		Acquisition Status of ISO 9001 (Quality Management Systems) *As of June 30, 2021		
Serious accidents				Cases	0	Scope of Reporting: Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, Prime Polymer Co., Ltd., Anesaki Works, BASF Idemitsu Co., Ltd., TOA Oil Co., Ltd., Showa Yokkaichi Sekiyu Co., Ltd., Seibu Oil Co., Ltd. Reporting period: From January to December 2020		Domestic and overseas business sites		34 sites
	Of the numbers mentioned above, partner companies			Cases	0					
Fatal accidents				Cases	0					
	Of the numbers mentioned above, partner companies			Cases	0					
Accidents resulting in lost time injuries				Cases	27					
	Of the numbers mentioned above, partner companies			Cases	19					
Accidents not resulting in lost time injuries				Cases	60					
	Of the numbers mentioned above, partner companies			Cases	34					



ESG Data

Results related to health		Unit	FY2019	FY2020	Note
Periodic medical checkup participation rate		%	99.9	100.0	Scope of Reporting: Idemitsu hires, including employees seconded to other companies but excluding employees seconded from other companies and overseas workers
Ratio of employees who underwent follow-up medical checkups		%	92.1	89.1	Scope of follow-up medical checkups: Including non-mandatory items
Ratio of employees requiring blood pressure control measures		%	0.6	0.2	Calculation criteria: Individuals whose systolic blood pressure is 180mmHg or higher or whose diastolic blood pressure is 110mmHg or higher
Ratio of employees requiring diabetes control measures		%	0.7	0.5	Calculation criteria: Individuals with an HbA1c level of 8.0% or higher
Ratio of employees who received health guidance after being diagnosed as high risk		%	96.0	94.7	Calculation criteria: Individuals considered as requiring control measures for BMI, blood pressure, ALT/HDL cholesterol, LDL cholesterol, neutral lipid or HbA1c in order to meet Idemitsu's standards
Ratio of employees who receive ongoing assistance after being diagnosed as high risk		%	52.2	63.0	Scope of Reporting: 2,542 individuals under Idemitsu hires who are supervised by Head Office's medical office (including employees seconded to other companies but excluding employees seconded from other companies and overseas workers)
Ratio of employees not considered as requiring weight control measures		%	67.1	65.9	Calculation criteria: Individuals whose BMI ranges from 18.5 to below 25.0
The result of the medical examination questionnaire	Ratio of employees who smokes	%	25.1	22.0	
	Ratio of employees who maintain exercise habits	%	33.0	34.0	Calculation criteria: Individuals who engage in at least 30 minutes of physical exercise twice a week
	Ratio of employees with no sleeping issues inhibiting sufficient rest	%	72.9	78.4	
	Ratio of employees who maintain a regular drinking habit	%	24.8	19.1	Calculation criteria: Individuals who habitually drink alcohol in a quantity equivalent to at least 360ml of rice wine on a daily basis or several days a week
	Ratio of employees who eat breakfast	%	74.4	76.3	Calculation criteria: Individuals who eat breakfast at least five times a week
Ratio of employees deemed to practice robust self healthcare		%	23.9	26.2	Calculation criteria: Individuals with no lifestyle-related issues, such as smoking, a lack of exercise, poor sleeping, a regular drinking habit, or failure to eat breakfast
Ratio of employees who took leave due to mental health issues		%	1.6	1.5	Scope of Reporting: Idemitsu hires, including employees seconded to other companies and overseas workers but excluding employees seconded from other companies Calculation criteria: Individuals who took at least a full month of leave due to mental health issues (two or more rounds of such leave taken within a single fiscal year are counted separately)
Employee stress checks	Participation rate	%	89.3	89.4	Scope of Reporting: Idemitsu hires, including overseas workers but excluding employees seconded to other companies and employees seconded from other companies
	Ratio of employees exposed to a high level of stress	%	8.2	7.3	Scope of reporting: Individuals who underwent stress checks Criteria for a high level of stress: Based on standards recommended by the Ministry of Health, Labour and Welfare

ESG Data

Governance

Composition of Executive		Unit	FY2017	FY2018	FY2019	FY2020	FY2021
Directors		People	12	11	13	12	11
	Of the numbers mentioned above, Outside Directors	People	4 (Female:1, Non-Japanese:1)	4 (Female:1, Non-Japanese:1)	5 (Female:1, Non-Japanese:1)	5 (Female:1, Non-Japanese:1)	4 (Female: 2)
Audit & Supervisory Board Members		People	4	4	4	4	4
	Of the numbers mentioned above, Outside Audit & Supervisory Board Members	People	2	2	2	2	2
Number of Convened Meetings of the Board of Directors, etc.		Unit	FY2020				
Board of Directors	Number of meetings	Times	16				
	Average rate of attendance	%	99.5				
Audit & Supervisory Board	Number of meetings	Times	17				
	Average rate of attendance	%	100				



ESG Data

Environmental Data of Refineries and Complexes

Hokkaido Refinery

	Unit	FY2017	FY2018	FY2019	FY2020
Crude oil throughput	thousand kL	8,235	6,750	7,768	4,598
Crude oil equivalent	thousand kL*1	608	522	578	373
Unit energy consumption	kL/thousand kL*2	8.46	8.73	8.24	8.98
Seawater	thousand t	138,293	121,659	128,835	111,202
Industrial water	thousand t	11,114	12,693	12,484	12,608
Tap water	thousand t	-	-	60	65
Underground water	thousand t	-	-	356	279
CO ₂	thousand tCO ₂	990	894	1,664	1,124
SO _x	t	2,086	1,877	2,397	1,612
NO _x	t	1,231	1,037	1,224	867
Soot/dust	t	5	15	8	6
Wastewater	thousand kL	149,407	134,352	141,380	123,875
COD	t	36	31	33	18
Total nitrogen	t	-	-	-	-
Total phosphorus	t	-	-	-	-
Total waste	t	12,003	9,155	9,584	10,571
Reduced by intermediate treatment	t	1,026	1,800	1,006	1,763
Recycled	t	10,973	7,351	8,575	7,412
Final disposal	t	4	4	3	3

Chiba Complex (Only oil refining until FY2017)

	Unit	FY2017	FY2018	FY2019	FY2020
Crude oil throughput	thousand kL	10,321	11,122	9,351	9,937
Petrochemical product manufacturing (Ethylene equivalent)	thousand t	-	2,056	1,661	1,776
Crude oil equivalent	thousand kL*1	833	1,555	1,315	1,426
Unit energy consumption	kL/thousand kL*2	8.65	8.42	9.11	8.97
	kL/t*3	-	0.32	0.35	0.34
Seawater	thousand t	349,977	503,972	418,108	468,093
Industrial water	thousand t	18,131	22,513	21,064	19,641
Tap water	thousand t	-	-	-	-
Underground water	thousand t	-	-	364	320
CO ₂	thousand tCO ₂	1,727	3,148	3,072	3,455
SO _x	t	2,205	2,579	2,541	3,268
NO _x	t	1,440	2,752	2,342	2,478
Soot/dust	t	150	160	128	125
Wastewater	thousand kL	368,108	524,140	437,723	486,602
COD	t	30	40	40	37
Total nitrogen	t	57	80	59	67
Total phosphorus	t	0.4	0.6	0.5	0.4
Total waste	t	78,087	66,850	51,488	76,711
Reduced by intermediate treatment	t	20,149	21,213	18,993	17,534
Recycled	t	57,916	45,630	32,470	59,170
Final disposal	t	22	7	27	6

Chiba Complex (Petrochemicals)

	Unit	FY2017	FY2018	FY2019	FY2020
Petrochemical product manufacturing (Ethylene equivalent)	thousand t	1,838	Aggregate in Chiba Complex	Aggregate in Chiba Complex	Aggregate in Chiba Complex
Crude oil equivalent	thousand kL*1	611			
Unit energy consumption	kL/t*3	0.332			
Seawater	thousand t	109,444			
Industrial water	thousand t	3,303			
CO ₂	thousand tCO ₂	1,274			
SO _x	t	16			
NO _x	t	804			
Soot/dust	t	8			
Wastewater	thousand kL	110,987			
COD	t	9			
Total nitrogen	t	12			
Total phosphorus	t	0.1			
Total waste	t	8,730			
Reduced by intermediate treatment	t	3,200			
Recycled	t	5,524			
Final disposal	t	6			

Aichi Refinery

	Unit	FY2017	FY2018	FY2019	FY2020
Crude oil throughput	thousand kL	7,049	7,699	8,577	7,474
Crude oil equivalent	thousand kL*1	586	608	681	667
Unit energy consumption	kL/thousand kL*2	9.40	9.76	8.51	9.24
Seawater	thousand t	207,469	242,389	241,254	239,380
Industrial water	thousand t	12,438	12,375	12,396	12,256
Tap water	thousand t	-	-	103	114
Underground water	thousand t	-	-	-	-
CO ₂	thousand tCO ₂	1,146	1,187	1,870	1,851
SO _x	t	851	789	904	884
NO _x	t	1,270	1,267	1,278	1,240
Soot/dust	t	52	38	60	44
Wastewater	thousand kL	219,907	254,764	253,753	251,750
COD	t	6	8	11	11
Total nitrogen	t	6	11	8	13
Total phosphorus	t	0.3	0.4	0.9	1.2
Total waste	t	81,988	99,762	94,556	80,775
Reduced by intermediate treatment	t	47,787	64,417	59,115	51,124
Recycled	t	34,149	35,321	35,410	28,707
Final disposal	t	52	24	31	26

*1 Crude oil equivalent from FY2019 is the figure subtracted from sales of by-product energy.

*2 Unit energy consumption = Crude oil equivalent (L) / Atmospheric distillation equipment converted throughput(kL)

*3 Unit energy consumption = Crude oil equivalent (L) / Ethylene equivalent production(t)



ESG Data

Tokuyama Complex

	Unit	FY2017	FY2018	FY2019	FY2020
Petrochemical product manufacturing (Ethylene equivalent)	thousand t	1,986	1,814	1,888	1,536
Crude oil equivalent	thousand kL*1	958	898	920	778
Unit energy consumption	kL/t*2	0.47	0.49	0.49	0.51
Seawater	thousand t	452,264	420,355	431,407	397,463
Industrial water	thousand t	13,069	11,962	10,554	11,502
Tap water	thousand t	-	-	193	201
Underground water	thousand t	-	-	-	-
CO ₂	thousand tCO ₂	2,051	1,928	2,002	1,712
SO _x	t	835	821	1,006	815
NO _x	t	1,712	1,583	1,624	1,423
Soot/dust	t	15	18	14	14
Wastewater	thousand kL	465,332	432,508	442,154	409,166
COD	t	23	18	13	16
Total nitrogen	t	19	14	17	18
Total phosphorus	t	0.4	0.5	0.4	0.3
Total waste	t	34,573	34,061	31,786	24,924
Reduced by intermediate treatment	t	19,091	20,175	19,046	15,001
Recycled	t	14,621	12,537	12,187	9,920
Final disposal	t	861	1,348	553	2

*1 Crude oil equivalent from FY2019 is the figure subtracted from sales of by-product energy.

*2 Unit energy consumption = Crude oil equivalent (L) / Ethylene equivalent production(t)

Comparative Table with GRI Standards

		Idemitsu Sustainability Report 2021 Page Listing		Idemitsu Integration Report 2021 Page Listing	
GRI102: General Disclosures					
1. Organizational profile					
102-1	Name of the organization	P.3	Editorial policy	P.1-2 P.82	Editorial policy Stock Information
102-2	Activities, brands, products, and services	P.10 P.10 P.21	FY2020 Review of Operations Idemitsu Group by the Numbers Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations	P.81 P.37-38 P.13-14	Idemitsu Group by the Numbers FY2020 Review of Operations Value Creation Process
102-3	Location of headquarters	P.1	Cover	P.82	Stock Information
102-4	Location of operations	-		P.82	Stock Information
102-5	Ownership and legal form	P.3	Editorial policy	P.1-2	Editorial policy
102-6	Markets served	P.10 P.10 P.8-9 P.6	FY2020 Review of Operations Idemitsu Group by the Numbers Basic strategy towards 2030 Our Path to 2050	P.37-38 P.81 P.17-20 P.11-12	FY2020 Review of Operations Idemitsu Group by the Numbers Basic strategy towards 2030 Our Path to 2050
102-7	Scale of the organization	P.10 P.21 P.49-51	FY2020 Review of Operations Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations Status of Employees and Recruitment	P.37-38 P.13-14 P.81-86	FY2020 Review of Operations Value Creation Process Data Section
102-8	Information on employees and other workers	P.98	Social	P.73-74 P.75-78	Initiatives Related to Human Rights and the Supply Chain Personnel Strategy
102-9	Supply chain	P.10	FY2020 Review of Operations	P.37-38 P.37-54	FY2020 Review of Operations Initiatives Aimed at Realizing Our Vision
102-10	Significant changes to the organization and its supply chain	P.3	Editorial policy	P.1-2	Editorial policy
102-11	Precautionary Principle or approach	P.12-16 P.23	Idemitsu Group's Sustainability Our Response to Climate Change •Risks and Opportunities	P.21-24	Idemitsu Group's Sustainability
102-12	External initiatives	P.12 P.22-30 P.40 P.51	Idemitsu Group's Sustainability •Signing of the United Nations Global Compact and Accompanying Initiatives Our Response to Climate Change Pollution Prevention •Measures to Prevent Water and Marine Pollution Promotion of D&I •Promoting Work-Life Balance	P.21	Idemitsu Group's Sustainability • Signing of the United Nations Global Compact and Accompanying Initiatives
102-13	Membership of associations	P.12 P.22-30 P.40	Idemitsu Group's Sustainability •Signing of the United Nations Global Compact and Accompanying Initiatives Our Response to Climate Change Pollution Prevention •Measures to Prevent Water and Marine Pollution	P.21	Idemitsu Group's Sustainability • Signing of the United Nations Global Compact and Accompanying Initiatives

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102-17	Mechanisms for advice and concerns about ethics	P.87-89	Compliance	P.65	Compliance
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102-19	Delegating authority	P.82	Corporate Governance •Outline of Corporate Governance System	P.59	Corporate Governance • Outline of Corporate Governance System
102-20	Executive-level responsibility for economic, environmental, and social topics	P.19	Details of Our Environmental Management and Environmental Policy •Environmental Management System Ensuring Safety •System for Promoting HSE Initiatives Quality Control and Quality Assurance •Quality Control and Quality Assurance System Corporate Governance • Overview of Each Committee Compliance • Compliance Promotion Structure Risk Management • Risk Management Promotional Framework	P.60	Corporate Governance • Overview of Each Committee Compliance • Compliance Promotion Structure Risk Management • Risk Management Promotional Framework Ensuring Safety • System for Promoting HSE Initiatives Quality Control and Quality Assurance • Quality Control and Quality Assurance System
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102-23	Chair of the highest governance body	P.80-81	Directors and Audit & Supervisory Board Members	P.57-58	Directors and Audit & Supervisory Board Members

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102-25	Conflicts of interest	P.82-87	Corporate Governance	P.59-64	Corporate Governance
102-26	Role of highest governance body in setting purpose, values, and strategy	P.12	Idemitsu Group's Sustainability • Sustainability Promotion Structure	P.21	Idemitsu Group's Sustainability • Sustainability Promotion Structure
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102-27	Collective knowledge of highest governance body	P.84	Corporate Governance • Policy for the Nomination of Director and Audit & Supervisory Board Member Candidates by the Board of Directors	P.61	Corporate Governance • Policy for the Nomination of Director and Audit & Supervisory Board Member Candidates by the Board of Directors
102-28	Evaluating the highest governance body's performance	P.85	Corporate Governance • Outline of Agenda Items Discussed by the Board of Directors, etc. • Assessment of the Effectiveness of the Board of Directors	P.62	Corporate Governance • Outline of Agenda Items Discussed by the Board of Directors, etc. • Assessment of the Effectiveness of the Board of Directors
102-29	Identifying and managing economic, environmental, and social impacts	P.12	Idemitsu Group's Sustainability • Sustainability Promotion Structure	P.21	Idemitsu Group's Sustainability • Sustainability Promotion Structure
		P.85	Corporate Governance • Outline of Agenda Items Discussed by the Board of Directors, etc.	P.62	Corporate Governance • Outline of Agenda Items Discussed by the Board of Directors, etc.
102-30	Effectiveness of risk management processes	P.90	Risk Management • Policy of Risk Management • Risk Management Promotional Framework • Other Risk Management Initiatives	P.66	Risk Management
102-31	Review of economic, environmental, and social topics	P.85	Corporate Governance • Outline of Agenda Items Discussed by the Board of Directors, etc.	P.62	Corporate Governance • Outline of Agenda Items Discussed by the Board of Directors, etc.
102-33	Communicating critical concerns	P.90	Risk Management • Policy of Risk Management • Risk Management Promotional Framework	P.66	Risk Management • Policy of Risk Management • Risk Management Promotional Framework
102-34	Nature and total number of critical concerns	P.90	Risk Management • Policy of Risk Management	P.66	Risk Management • Policy of Risk Management
102-35	Remuneration policies	P.86	Corporate Governance • Compensation for Executives	P.63-64	Corporate Governance • Compensation for Executives
102-36	Process for determining remuneration	P.86	Risk Management • Policy of Risk Management	P.63-64	Corporate Governance • Compensation for Executives
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5. Stakeholder engagement					
102-40	List of stakeholder groups	P.15	Idemitsu Group's Sustainability • Dialogue with Stakeholders	-	
102-43	Approach to stakeholder engagement	P.15	Idemitsu Group's Sustainability • Dialogue with Stakeholders	-	

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102-47	List of material topics	P.12-16 P.23 P.7	Idemitsu Group's Sustainability Our Response to Climate Change • Risks and Opportunities Business Environment to 2050	P.21-24 P.15-16	Idemitsu Group's Sustainability Business Environment to 2050
102-49	Changes in reporting	P.3	Editorial policy	P.1-2	Editorial policy
102-50	Reporting period	P.3	Reporting period	P.2	Reporting period
102-51	Date of most recent report	P.3	Publication information	P.2	Publication information
102-52	Reporting cycle	P.3	Publication information	P.2	Publication information
102-53	Contact point for questions regarding the report	P.3	Contact point for inquiries about Idemitsu Sustainability Report	P.2	Contact point for inquiries about Idemitsu Integrated Report
102-54	Claims of reporting in accordance with the GRI Standards	P.3	Reference guidelines	P.2	Reference guidelines
102-55	GRI content index	P.106-115 P.116-117	Comparative Table with GRI Standards Comparative Table with ISO 26000	-	
102-56	External assurance	P.118	Independent Practitioner's Assurance Report	-	
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103-1	Explanation of the material topic and its Boundary	P.12-16 P.23 P.7	Idemitsu Group's Sustainability Our Response to Climate Change • Risks and Opportunities Business Environment to 2050	P.21-24 P.15-16	Idemitsu Group's Sustainability Business Environment to 2050
103-2	The management approach and its components	P.12-16 P.6	Idemitsu Group's Sustainability Business Environment to 2050	P.21-24 P.11-12	Idemitsu Group's Sustainability Business Environment to 2050
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201-2	Financial implications and other risks and opportunities due to climate change	P.12-16 P.22 P.23	Idemitsu Group's Sustainability Our Response to Climate Change • Our Response to the TCFD Recommendations • Risks and Opportunities	P.21-24	Idemitsu Group's Sustainability
GRI203: Indirect Economic Impacts					
203-1	Infrastructure investments and services supported	P.75-77	Social Contribution Activities	-	
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205-2	Communication and training about anti-corruption policies and procedures	P.87-89	Compliance	P.65	Compliance
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GRI207: Tax					
207-1	Approach to tax	P.89	Compliance • Compliance Promotion Activities (Tax Policy and Tax Compliance)	P.65	Compliance • Compliance Promotion Activities (Tax Policy and Tax Compliance)
207-2	Tax governance, control, and risk management	P.82 P.89	Corporate Governance • Overview of Each Committee Compliance • Compliance Promotion Activities (Tax Policy and Tax Compliance)	P.65	Compliance • Compliance Promotion Activities (Tax Policy and Tax Compliance)
207-3	Stakeholder engagement and management of concerns related to tax	P.89	Compliance • Compliance Promotion Activities (Tax Policy and Tax Compliance)	P.65	Compliance • Compliance Promotion Activities (Tax Policy and Tax Compliance)

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Environmental		Idemitsu Sustainability Report 2021 Page Listing		Idemitsu Integration Report 2021 Page Listing	
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301-2	Recycled input materials used	P.33-34	Working Towards a Circular Economy	P.71	Working Towards a Circular Economy
GRI302: Energy					
302-1	Energy consumption within the organization	P.21 P.95	Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations Energy Consumption	-	
302-3	Energy intensity	P.95	Energy Consumption	-	
GRI303: Water and Effluents					
303-1	Interactions with water as a shared resource	P.35	Conservation of Water Resources	P.72	Initiatives for Water and Biodiversity • Concept of Utilization of Water Resources
303-2	Management of water discharge-related impacts	P.40	Pollution Prevention • Measures to Prevent Water and Marine Pollution	P.72	Initiatives for Water and Biodiversity • Strengthening of Water Recycling at Refineries and Complexes
303-3	Water withdrawal	P.96	Amount of Water Resources Intake and Wastewater	-	
303-4	Water discharge	P.96	Amount of Water Resources Intake and Wastewater	-	
303-5	Water consumption	P.21 P.96	Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations Amount of Water Resources Intake and Wastewater	-	
GRI304: Biodiversity					
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	P.36-38 P.75-77	Conservation of Biodiversity Social Contribution Activities	P.72	Initiatives for Water and Biodiversity • Stance on Biodiversity Conservation
304-2	Significant impacts of activities, products, and services on biodiversity	P.36-38 P.75-77	Conservation of Biodiversity Social Contribution Activities	P.72	Initiatives for Water and Biodiversity • Partnerships with Local Communities on Protecting Biodiversity
304-3	Habitats protected or restored	P.36-38 P.75-77	Conservation of Biodiversity Social Contribution Activities	-	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	P.36-38 P.75-77	Conservation of Biodiversity Social Contribution Activities	-	
GRI305: Emissions					
305-1	Direct (Scope 1) GHG emissions	P.21 P.25 P.25 P.94	Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations Our Response to Climate Change • Our Thoughts on How We Can Help Mitigate the Impact of Climate Change Our Response to Climate Change • CO ₂ Reduction Targets (Scope 1+2) and Monitoring Indicators (for Scope 1, 2, 3) GHG Emissions by Scope	P.67-70	Climate Change Action

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Environmental		Idemitsu Sustainability Report 2021 Page Listing		Idemitsu Integration Report 2021 Page Listing	
305-2	Energy indirect (Scope 2) GHG emissions	P.21	Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations	P.67-70	Climate Change Action
		P.25	Our Response to Climate Change <ul style="list-style-type: none">Our Thoughts on How We Can Help Mitigate the Impact of Climate Change		
		P.25	Our Response to Climate Change <ul style="list-style-type: none">CO₂ Reduction Targets (Scope 1+2) and Monitoring Indicators (for Scope 1, 2, 3)		
		P.94	GHG Emissions by Scope		
305-3	Other indirect (Scope 3) GHG emissions	P.21	Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations	P.67-70	Climate Change Action
		P.25	Our Response to Climate Change <ul style="list-style-type: none">Our Thoughts on How We Can Help Mitigate the Impact of Climate Change		
		P.25	Our Response to Climate Change <ul style="list-style-type: none">CO₂ Reduction Targets (Scope 1+2) and Monitoring Indicators (for Scope 1, 2, 3)		
		P.94	GHG Emissions by Scope		
305-5	Reduction of GHG emissions	P.25	Our Response to Climate Change <ul style="list-style-type: none">CO₂ Reduction Targets (Scope 1+2) and Monitoring Indicators (for Scope 1, 2, 3)	P.67-68	Climate Change Action <ul style="list-style-type: none">CO₂ Reduction Targets (Scope 1+2) and Monitoring Indicators (for Scope 1, 2, 3)
305-6	Emissions of ozone-depleting substances (ODS)	P.39	Management of Chemical Substances and Reduction of Hazardous Substances	-	
		P.97	CFC leakage		
305-7	“Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions”	P.21	Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations	-	
		P.40	Pollution Prevention <ul style="list-style-type: none">Measures to Prevent Air Pollution		
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GRI306: Effluents and Waste					
306-1	Waste generation and significant waste-related impacts	P.34	Initiatives to Reduce Industrial Waste Disposal	-	
306-2	Management of significant waste-related impacts	P.34	Initiatives to Reduce Industrial Waste Disposal	-	
306-3	Waste generated	P.21	Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations	-	
		P.34	Initiatives to Reduce Industrial Waste Disposal		
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306-4	Waste diverted from disposal	P.34	Initiatives to Reduce Industrial Waste Disposal	-	
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306-5	Waste directed to disposal	P.34	Initiatives to Reduce Industrial Waste Disposal	-	
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GRI307: Environmental Compliance					
307-1	Non-compliance with environmental laws and regulations	P.20	Details of Our Environmental Management and Environmental Policy <ul style="list-style-type: none">Environmental Compliance (Number of Environmental Abnormalities)	-	



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Social		Idemitsu Sustainability Report 2021 Page Listing		Idemitsu Integration Report 2021 Page Listing	
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401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	P.56 P.101	Human Resource Development • Education and Training Results Training Results	-	
401-3	Parental leave	P.53 P.99	Promotion of D&I • Systems Supporting Diverse Employees Work-Life Balance Support Systems and Usage Numbers	-	
GRI403: Occupational Health and Safety					
403-1	Occupational health and safety management system	P.67	Ensuring Safety • System for Promoting HSE Initiatives	P.79	Ensuring Safety • System for Promoting HSE Initiatives
403-2	Hazard identification, risk assessment, and incident investigation	P.67-70	Ensuring Safety	P.79	Ensuring Safety
403-3	Occupational health services	P.58-60	Promotion of Employees' Health	P.77	Promotion of Employees' Health
403-4	Worker participation, consultation, and communication on occupational health and safety	P.67-70	Ensuring Safety	P.79	Ensuring Safety
403-5	Worker training on occupational health and safety	P.69	Ensuring Safety • Safety Education	-	
403-6	Promotion of worker health	P.58-60	Promotion of Employees' Health	P.77	Promotion of Employees' Health
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	P.67-70	Ensuring Safety	P.79	Ensuring Safety
403-8	Workers covered by an occupational health and safety management system	P.67	Ensuring Safety • System for Promoting HSE Initiatives	P.79	Ensuring Safety • System for Promoting HSE Initiatives
403-9	Work-related injuries	P.67 P.101	Ensuring Safety • Activities and Results Based on the Annual Basic Policies on HSE Occupational Accidents, Number of accidents related to safety	P.79	Ensuring Safety • Activities and Results Based on the Annual Basic Policies on HSE
403-10	Work-related ill health	P.58-60 P.102	Promotion of Employees' Health Results related to health	P.77	Promotion of Employees' Health



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404-1	Average hours of training per year per employee	P.56 P.101	Human Resource Development • Education and Training Results Training Results	-	
404-2	Programs for upgrading employee skills and transition assistance programs	P.48 P.55-56	Diversity & Inclusion Policy / Personnel Strategy Policy • Personnel Strategy Policy Human Resource Development	-	
404-3	Percentage of employees receiving regular performance and career development reviews	P.57	Various HR Systems • Fair Evaluation and Compensation	-	
GRI405: Diversity and Equal Opportunity					
405-1	Diversity of governance bodies and employees	P.49-50 P.82-84 P.103	Status of Employment & Recruitment • Employment Overview / Status of Recruitment / Promoting the Active Participation of Women Corporate Governance • Outline of Corporate Governance System • Policy for the Nomination of Director and Audit & Supervisory Board Member Candidates by the Board of Directors Composition of Executive	P.59,61	Corporate Governance • Outline of Corporate Governance System • Policy for the Nomination of Director and Audit & Supervisory Board Member Candidates by
405-2	Ratio of basic salary and remuneration of women to men	P.49	Status of Employees	-	
GRI406: Non-discrimination					
406-1	Incidents of discrimination and corrective actions taken	P.88	Compliance • Overseas Consultation Hotline	-	
GRI410: Security Practices					
410-1	Security personnel trained in human rights policies or procedures	P.69	Ensuring Safety • Safety Education	-	
GRI412: Human Rights Assessment					
412-1	Operations that have been subject to human rights reviews or impact assessments	P.45	Respect for Human Rights • Human Rights Priority Issues	P.73-74	Initiatives Related to Human Rights and the Supply Chain • Respect for Human Rights
412-2	Employee training on human rights policies or procedures	P.45 P.48 P.61	Respect for Human Rights • Human Rights Priority Issues Personnel Strategy / Diversity & Inclusion Policy • Idemitsu Group Diversity & Inclusion Policy Approach to Harassment Prevention	P.73-74 P.75	Initiatives Related to Human Rights and the Supply Chain • Respect for Human Rights Personnel Strategy • Idemitsu Group Diversity & Inclusion Policy

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413-1	Operations with local community engagement, impact assessments, and development programs	P.75-77	Social Contribution Activities	-	
GRI416: Customer Health and Safety					
416-1	Assessment of the health and safety impacts of product and service categories	P.70	Quality Control and Quality Assurance • Quality Control and Quality Assurance System	P.80	Quality Control and Quality Assurance • Quality Control and Quality Assurance System
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	P.71	Quality Control and Quality Assurance • Promotion of Quality Control and Quality Assurance	P.80	Quality Control and Quality Assurance
GRI417: Marketing and Labeling					
417-1	Requirements for product and service information and labeling	P.71	Quality Control and Quality Assurance • Promotion of Quality Control and Quality Assurance	P.80	Quality Control and Quality Assurance
417-2	Incidents of non-compliance concerning product and service information and labeling	P.71	Quality Control and Quality Assurance • Promotion of Quality Control and Quality Assurance	P.80	Quality Control and Quality Assurance
GRI419: Socioeconomic Compliance					
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Human rights 1: Due diligence 2: Human rights risk situations 3: Avoidance of complicity 4: Resolving grievances 5: Discrimination and vulnerable groups 6: Civil and political rights 7: Economic, social and cultural rights 8: Fundamental principles and rights at work	P.44 P.48 P.51-55 P.58-60 P.61 P.67-70 P.75-77 P.87-89 P.90-92	Respect for Human Rights • Action Mindset Personnel Strategy / Diversity & Inclusion Policy Promotion of D&I Promotion of Employees' Health Harassment Prevention Initiatives Ensuring Safety Social Contribution Activities Compliance Risk Management	P.73-75 P.65 P.66 P.79	Respect for Human Rights • Action Mindset Personnel Strategy • Idemitsu Group Diversity & Inclusion Policy Compliance Risk Management Ensuring Safety
Labour practices 1: Employment and employment relationships 2: Conditions of work and social protection 3: Social dialogue 4: Health and safety at work 5: Human development and training in the workplace	P.15-16 P.44 P.48 P.53 P.55-56 P.57-58 P.58-60 P.61-66 P.67-70 P.87-89	Idemitsu Group's Sustainability • Dialogues with Stakeholders Respect for Human Rights • Action Mindset Personnel Strategy / Diversity & Inclusion Policy Promotion of D&I • Systems Supporting Diverse Employees Human Resource Development Various HR Systems Promotion of Employees' Health Efforts to Improve Workplace Culture and Engagement Ensuring Safety Compliance	P.73-75 P.65 P.79	Respect for Human Rights • Action Mindset Personnel Strategy • Idemitsu Group Diversity & Inclusion Policy Compliance Ensuring Safety
The environment 1: Prevention of pollution 2: Sustainable resource use 3: Climate change mitigation and adaptation 4: Protection of the environment, biodiversity and restoration of natural habitats	P.19-20 P.21 P.22-30 P.33-34 P.34 P.35-36 P.36-38 P.39 P.40	Details of Our Environmental Management and Environmental Policy Resource Inputs and Environmental Footprints Attributable to the Idemitsu Group's Operations Our Response to Climate Change Initiatives for a Circular Economy Initiatives to Reduce Industrial Waste Disposal Conservation of Water Resources Conservation of Biodiversity Management of Chemical Substances and Reduction of Hazardous Substances Pollution Prevention	P.37-54 P.67	Initiatives Aimed at Realizing Our Vision Climate Change Action • Environmental Policy
Fair operating practices 1: Anti-corruption 2: Responsible political involvement 3: Fair competition 4: Promoting social responsibility in the value chain 5: Respect for property rights	P.72-74 P.82-87 P.87-89 P.90-92 P.93	Cooperation with Partners Corporate Governance Compliance Risk Management Intellectual Property	P.73-74 P.53-54 P.59-64 P.65 P.66 P.80	Initiatives Related to Human Rights and the Supply Chain R&D and IP Asset Utilization Corporate Governance Compliance Risk Management Quality Control and Quality Assurance



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2: Protecting consumers' health and safety	P.22-30	Our Response to Climate Change	P.67-70	Climate Change Action
3: Sustainable consumption	P.33-34	Initiatives for a Circular Economy	P.59-64	Corporate Governance
4: Consumer service, support, and complaint and dispute resolution	P.39	Management of Chemical Substances and Reduction of Hazardous Substances	P.65	Compliance
5: Consumer data protection and privacy	P.70-71	Quality Control and Quality Assurance	P.66	Risk Management
6: Access to essential services	P.82-87	Corporate Governance	P.80	Quality Control and Quality Assurance
7: Education and awareness	P.87-89	Compliance		
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Community involvement and development	P.31-32	The Idemitsu Group's Technologies Underpinning Innovation		
1: Community involvement	P.51-55	Promotion of D&I	P.73-75	Respect for Human Rights • Action Mindset
2: Education and culture	P.58-60	Promotion of Employees' Health		Personnel Strategy
3: Employment creation and skills development	P.61-66	Efforts to Improve Workplace Culture and Engagement		• Idemitsu Group Diversity & Inclusion Policy
4: Technology development and access	P.75-77	Social Contribution Activities	P.53-54	R&D and IP Asset Utilization
5: Wealth and income creation	P.88	Compliance		
6: Health		• Establishment of Consultation Center		
7: Social investment				



Independent Practitioner's Assurance Report

Independent Assurance Report



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

We, SOCOTEC Certification Japan (hereafter "SOCOTEC"), have performed a limited assurance engagement, in relation to Idemitsu Kosan Co., Ltd. (hereafter "the Company") in order to provide an opinion as to whether the subject matter information ("FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data" (period: 1 April 2020 to 31 March 2021)) of the Company meets the criteria in all material respects.

1 Subject Matter Information and Criteria

The subject matter information for our assurance is "a report on GHG Emissions, Environmental and Social Performance Data (shown in APPENDIX)" covering the operations and activities of domestic bases and domestic and overseas group companies subject to consolidation of the Company described in "FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data (period: 1 April 2020 to 31 March 2021(*1))".

The subject matter information is provided based on "Environmental Performance Data Calculation Rules (revised on 27 August 2021)" and "Social Performance Data Calculation Procedures".

2 Management Responsibility

"FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data" was prepared by the management of the Company, who is responsible for the integrity of the assertions, statements, and claims made therein (including the assertions over which we have been engaged to provide limited assurance), the collection, quantification and presentation of all data and information in the report, and applied criteria, analysis and publication.

The management of the Company is responsible for maintaining adequate records and internal controls that are designed to support the reporting process and ensure that "FY2020 GHG Emissions and Environmental Performance Data" and "FY2020 Social Performance Data" is free from material misstatement whether due to fraud or error.

3 Assurance Practitioner's Responsibility

The responsibility of SOCOTEC is to express a limited assurance conclusion as to whether the subject matter information has been prepared in compliance with the criteria in all material respects.

SOCOTEC performed limited assurance engagement in accordance with the verification procedures stipulated by SOCOTEC and "ISO14064-3: Specification with guidance for the validation and verification of greenhouse gas assertions" as well as the International Standard on Assurance Engagements (ISAE) 3410 "Assurance Engagements on Greenhouse Gas Statements" and ISAE3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" of International Auditing and Assurance Standards Board.

The procedures implemented in the limited assurance engagement are limited in their type, timing and scope as compared to the procedures implemented in the reasonable assurance engagement. As a result, our limited assurance engagement does not provide as high assurance as reasonable assurance engagement.

Our procedures performed depend on the assurance professional practitioner's judgement, including the risk of material misstatement, whether due to fraud or error. Our conclusion was not designed to provide assurance on internal controls.

We believe that we have obtained the evidence to provide a basis for the conclusion for limited assurance.



4 Assurance Procedures

The procedures that SOCOTEC has conducted are based on professional judgment and include, but are not limited to:

- Evaluation of policies and procedures created by the Company in relation to subject matter information
- Questions to Company personnel to understand the above policies and procedures
- Verification that the target project meets eligibility requirements
- Matching with the basis data by trial calculation and recalculation
- Obtaining and collating material for important assumptions and other data
- We selected the Head Office and Tokuyama Complex of the Company as verification sites in order to confirm the calculation structure and procedures, data collection and implementation status of record control.

5 Statement of Our Independence, Quality Control and Competence

SOCOTEC has introduced and maintained a comprehensive management system that conforms to the accreditation requirements of "ISO17021 Conformity assessment -- Requirements for bodies providing audit and certification of management systems". In addition, we have also established a management system according to "ISO14065 Greenhouse gases -- Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition". These meet the requirements of "International Standard on Quality Control 1" by the International Auditing and Assurance Standards Board and "Code of Ethics for Professional Accountants" by International Ethics Standards Board for Accountants. We maintain a comprehensive quality control system that includes ethical rules, professional standards and documented policies and procedures for compliance with applicable laws and regulations.

The SOCOTEC Group is a comprehensive third-party organisation in inspection, testing and certification operations, and conducts management system certification services and training services related to quality, environment, labour and information security in countries around the world. Engaged in performance data and sustainability report assurance of environmental and social information, SOCOTEC affirms that it is independent of the organisation that has ordered the assurance engagement, its affiliated companies, and stakeholders, and that there is no possibility of impairing impartiality or conflict of interest.

We assure that the team engaged in the assurance is selected based on knowledge, experience in the relevant industry, and the competence requirements for this assurance engagement.

6 Use of Report

Our responsibility in performing our limited assurance activities is to the management of the company only in accordance with the terms for this engagement as agreed with the Company. We do not therefore assume any responsibility for any other purpose or to any other person or organisation.

7 Our Conclusion

On the basis of our procedures performed and evidence obtained nothing has come to our attention that causes us to believe that the subject matter information is not, in all material respects, prepared and reported in accordance with the stated criteria.

SOCOTEC Certification Japan

S. Futaba

Seigo Futaba
Managing Director
22 October 2021

*1: The time range for some social data is different (see APPENDIX).





Independent Practitioner's Assurance Report

APPENDIX to Independent Assurance Report



GHG Emissions, Environmental and Social Performance Data

Table 1-1 GHG Emissions by Scope

Item	Figure	Unit
Scope 1	12,193	thousand tCO ₂
	14,531	tCH ₄
	0.413	tHFC
	392	tN ₂ O
	0.002	tSF ₆
Scope 2	12,674	thousand tCO ₂ e
Scope 3	829	thousand tCO ₂
(Category 11: Sold products consumption)	108,187	thousand tCO ₂
Scope 1 + 2	13,022	thousand tCO ₂
	13,503	thousand tCO ₂ e
Scope 1 + 2 + 3	121,209	thousand tCO ₂
	121,690	thousand tCO ₂ e

Table 1-2 GHG emissions per unit of production

Item	Figure	Unit
Crude oil production	0.006	tCO ₂ e/bbl
Coal production	0.066	tCO ₂ e/t
Oil refining	0.040	tCO ₂ e/bbl
Petrochemical plants	0.896	tCO ₂ e/t

Table 1-3 Energy Consumption

Item	Figure	Unit
Heat quantity equivalent	191	PJ
Crude oil equivalent	4,916	thousand kL
Unit energy consumption (Refinery)	8.64	L/kL
Unit energy consumption (Petrochemical plant)	0.415	kL/t



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APPENDIX 1/5



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APPENDIX 2/5



Table 1-4 Amount of Water Resources Intake and Wastewater

Item	Figure	Unit
Seawater intake	1,357,736	thousand t
Industrial water intake	82,074	thousand t
Tap water intake	11,711	thousand t
Underground water intake	15,789	thousand t
Total water intake	1,467,310	thousand t
Wastewater	1,429,680	thousand t
Water recycling rate	94	%

Table 1-5 Water withdrawal rate

Item	Figure	Unit
Crude oil production	0.467	t/bbl
Coal production	0.486	t/t
Oil refining	3.830	t/bbl
Petrochemical plants	164	t/t

Table 1-6 Water Pollution Effects

Item	Figure	Unit
COD	336	t
Total nitrogen	146	t
Total phosphorus	3.2	t

Table 1-7 Air Pollutant Emissions

Item	Figure	Unit
SOx	7,886	t
NOx	13,980	t
Soot/dust	223	t
VOC	5,411	t



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APPENDIX 3/5



Table 1-8 Waste

Item	Figure	Unit
Total waste	224,084	t
Reduced by intermediate treatment	96,768	t
Recycled	124,699	t
Final disposal	38	t
Final disposal rate	0.017	%

Table 2-1 Status of Employees

Item	Figure	Unit
Number of employees*1	4,943	People
	4,355	People
	588	People
	11.9	%
Number of employees in managerial positions (including managers, general managers, and executive officers)*1	984	People
	960	People
	24	People
	2.4	%
Average age*1	42.1	years old
	42.3	years old
	40.3	years old
Average years employed*1	19.4	years
	19.7	years
	17.3	years
Status of employees with disabilities*2	-	2.3
		%
New graduate retention rate (Average for newly hired employees between 2016 and 2018)	-	89.4
		%
Turnover rate of new graduates	-	8.8
		%

*1 As of March 31, 2021

*2 As of June 1, 2021



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Table 2-2 Status of Recruitment

Item	Figure	Unit
Recruitment of new graduates*3	151	People
	Men	127
	Women	24
	Percentage of women	15.9
	Foreign nationals	2
Percentage of foreign nationals	1.3	%
Career recruitment*4	91	People

*3 Hired in April 2021

*4 Hired in FY2020

Table 2-3 Work-Life Balance Support Systems and Usage Numbers

Item	Figure	Unit
Maternity leave	35	People
Childcare leave	90	People
	Men	22
Women	68	People
	2	People
Nursing care leave	2	People
	Men	2
Women	0	People
Reduced working hours for parenting	72	People
	Men	1
Women	71	People
Leave to care for sick/injured child	133	People
	Men	61
Women	72	People
Family care leave	37	People
	Men	25
Women	12	People
Telecommuting	3,592	People
	Men	3,086
Women	506	People
Self-development leave of absence	2	People
	Men	2
Women	0	People



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Table 2-4 Overtime Work and Annual Paid Leave

Item	Figure	Unit
Average overtime work hours per employee	20.0	hours/month
Average annual paid leave taken by an employee	14.1	Days
Average usage rate of annual paid leave per employee	69.5	%

Table 2-5 Training Results

Item	Figure	Unit
Training hours	Total	57,581
	Per person	10.9
Amount of investment in training	Total	256,000
	Per person	48

Table 2-6 Results related to health

Item	Figure	Unit
Occupational accidents frequency rate*5	0.30	-
Severity rate*5	0.00	-

*5 January 2020 to December 2020



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