



Idemitsu Kosan

Idemitsu Integrated Report
2019

Idemitsu Kosan Co.,Ltd.

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Management Vision We are an energy co-creation company that values diversity and inclusion, creates new values with customers and stakeholders, and seeks harmony with the environment and society.

- We will deliver various forms of energy and materials in a sustainable manner.
- We will expand and share our problem-solving capabilities with the world.
- We will grow stronger by anticipating change and responding flexibly.

Action Mindset



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Creating Value

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Editorial policy

In order to deepen stakeholders' understanding of 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" on our website.

Idemitsu Group and Showa Shell Group are disclosing the results of their efforts in FY2018 under the unified reporting standards wherever possible.

Idemitsu Integrated Report (Booklet version)

It 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.

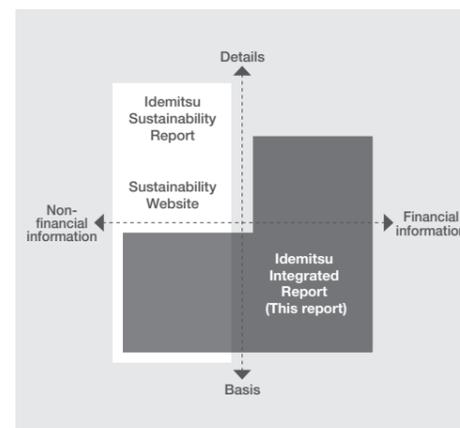
Idemitsu Sustainability Report (Web version)

The non-financial information in the Idemitsu Integrated Report is provided 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.



Scope of the reporting

As a general rule, this report covers Idemitsu Kosan Co.,Ltd. and its 239 group affiliates (major affiliates, general affiliates, subsidiaries, and equity-method affiliates) as of April 1, 2019. However, if the scope is different, this fact is noted.

Reporting period

Results for FY2018 (April 1, 2018 - March 31, 2019) are included in this report. However, due to a change in the accounting period for FY2018, the reporting period for Showa Shell Group is 15 months from January 1, 2018 to March 31, 2019. When the applicable period differs, this fact is noted. Activities since April 2019 are also included.

Reference guidelines

In the compilation of this report, reference has been made to the International Integrated Reporting Framework published by the International Integrated Reporting Council (IIRC), GRI's Sustainability Reporting Guidelines (Standard), SDGs, ISO 26000, TCFD (Task Force on Climate-related Financial Disclosures), and METI's Value Creation Guidance.

Publication information

Japanese version: Published annually since 2001, and the previous edition was published in November 2018.

English version: Published annually since 2003, and the previous edition was published in January 2019.

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

*As of April 1, 2019, Idemitsu Kosan Co.,Ltd. became the wholly owning parent company and Showa Shell Sekiyu K.K. became the wholly owned subsidiary through the share exchange. Both companies also entered into an absorption-type company split agreement in which Idemitsu becomes the succeeding company to the absorption-type company split, effective on July 1, 2019. Both companies are proceeding with the business integration and aim to create even more synergies by transferring Showa Shell's assets, liabilities, and rights and obligations to Idemitsu through the Company Split, and integrating their organizations and businesses.

*Shell has licensed its brand to Showa Shell. Under this license, Showa Shell uses the Shell Trademark. The opinions expressed in this report are those of Showa Shell and are not stated on behalf of any other Shell Group company. Furthermore, these opinions do not necessarily reflect the opinions of the Shell Group.

*The environmental data (climate change, energy consumption, etc.) and social data (employment, recruitment, etc.) contained in this report have undergone independent practitioner's assurance by Deloitte Tohmatsu Sustainability Co., Ltd. in Idemitsu Sustainability Report 2019.

Please see Idemitsu Sustainability Report 2019 more details.

Contact point for inquiries about Idemitsu Integrated Report

Idemitsu Kosan Co.,Ltd.
Contact form on the official website:
<https://www.idemitsu.com/contact/flow/>



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



Business History

Idemitsu and Showa Shell have been working to ensure a stable energy supply for over 100 years. We will continue to create new values together with all stakeholders based on our Management Vision and Action Mindset.

Idemitsu

1911
Idemitsu Shokai founded in Moji (Fukuoka Prefecture)



1919
Development of non-freezing axle oil for South Manchuria Railway in China



1923
Distribution ships equipped with measuring instruments were devised, and supply of marine fuel oil for fishing vessels commenced

1938
Launch of large tanker Nissho Maru (first generation)

1940
Idemitsu Kosan Co.,Ltd. established



1945
Disappearance of operations at home and abroad due to Japan's defeat in World War II

1947
Idemitsu returns to the oil business as 29 of its outlets across Japan are named retailers for the Oil Distribution Public Corporation

Merger of Idemitsu Shokai and Idemitsu Kosan Co.,Ltd.

1949
Designated as a primary oil distributor

1952
Launch of high-octane gasoline "Apollo Gasoline"

1953
Import of petroleum products from Iran (Nissho Maru Incident)



1957
Tokuyama Refinery completed (currently, Tokuyama Complex)

1963
Chiba Refinery completed (currently, Chiba Complex)

1964
Idemitsu Petrochemical Co., Ltd. established, Tokuyama Plant completed (currently, Tokuyama Complex)

1967
Launch of "Idemitsu 100 Gasoline"

1970
Central Research Laboratories opened (currently, Advanced Technology Research Laboratories)

1973
Hokkaido Refinery completed

1975
Chiba Plant of Idemitsu Petrochemical Co., Ltd. completed (currently, Chiba Complex) Aichi Refinery completed

1983
Launch of "Idemitsu Unleaded Gold Apollo Gasoline"

1988
Commencement of import of Australian coal with our interests

1992
Production began at Snorre Oilfield in the Norwegian North Sea Lubricants production plant completed in the U.S.

1993
Launch of low benzene gasoline "Idemitsu Super Zearth (high octane)" and "Idemitsu Zearth (regular)"



1996
Launch of automobile engine oil "Idemitsu Zepro"



Tagigami Power Station of Idemitsu Oita Geothermal Co., Ltd. began operation



2004
Idemitsu Kosan Co.,Ltd. merged with Idemitsu Petrochemical Co., Ltd.

2006
Stock listed on First Section of the Tokyo Stock Exchange
Astomos Energy Corporation established



2010
Participation in Futamata Wind Development Co., Ltd.

2015
Tosa Power Plant of Tosa Green Power Co., Ltd. began operation

2018
Nghi Son Refinery in Vietnam began commercial operation

2015
Signed a memorandum of understanding for the business integration

Major social trends

1914 Outbreak of World War I (ended in 1918)

1939 Outbreak of World War II

1946 Promulgation of the Constitution of Japan

1964 The Niigata Earthquake occurred, the Tokyo Olympics were held

1995 The Great Hanshin-Awaji Earthquake occurred.

2011 The Great East Japan Earthquake occurred

Major industry trends

1899 Implementation of petroleum product tariffs

1903 Implementation of oil consumption tax

1943 Petroleum Monopoly Law promulgated and enforced (abolished in 1946)

1955 The Petroleum Association of Japan established

1962 The Petroleum Industry Law enforced (abolished in 2001)

1976 The Oil Stockpiling Act enforced

1986 The Act on Designated Petroleum Products enforced (Provisional Measures Law on Importation of Specific Kinds of Petroleum Refined Products) (abolished in 1996)

2009 The Sophisticated Methods of Energy Supply Structures enforced, Feed-in tariff law for renewable energy introduced

2016 Full deregulation of the retail electricity

Showa Shell

1833
Marcus Samuel opened a shop in London selling oriental seashells, the origin of Shell's trademark

1876
Samuel Company, the predecessor of Rising Sun, began trading business in Yokohama (Kanagawa Prefecture)

1893
Import of kerosene in bulk, for the first time in Japan (spread of kerosene)

1900
Samuel Company spun off its petroleum business and established Rising Sun Petroleum Co., Ltd.



1907
Rising Sun Petroleum Co., Ltd. began business development as a base of the Shell Group in Japan.

1909
Saitozaki Refinery of Rising Sun Petroleum Co., Ltd. completed (Later, it was leased to Asahi Petroleum), commenced refining of diesel oil, kerosene, and lubricants

1917
Launch of "Red Shell Symbol" and "Black Shell Symbol" brand gasolines for automobiles



1924
Nippon Juyū Co., Ltd. established to sell imported heavy fuel oil (currently, TOA Oil Co., Ltd.) Rising Sun Petroleum Co., Ltd. imported tank trucks from the United Kingdom for the first time

1942
Showa Oil Co., Ltd. was established through the merger of Hayama Petroleum, Asahi Petroleum and Niitsu Petroleum

1948
Rising Sun Petroleum Co., Ltd. renamed to Shell Sekiyū K.K.

1949
Showa Oil Co., Ltd. and Shell Sekiyū K.K. designated as primary oil distributors

1951
Shell Group and Showa Oil Co., Ltd. entered into capital alliance

1955
Kawasaki Refinery of TOA Oil Co., Ltd. completed

1957
Showa Yokkaichi Sekiyū Co., Ltd. established

1958
Yokkaichi Refinery of Showa Yokkaichi Sekiyū Co., Ltd. completed



1962
Seibu Oil Co., Ltd. established

1963
Lubricants plant of Shell Sekiyū K.K. completed in Yokohama (Kanagawa Prefecture)

1967
Central Research Laboratories opened (currently, Advanced Technology Research Laboratories)

1969
Yamaguchi Refinery of Seibu Oil Co., Ltd. completed

1978
Commenced research and development of solar technologies

1985
Shell Sekiyū K.K. and Showa Oil Co., Ltd. merged to become Showa Shell Sekiyū K.K.

1987
Launch of groundbreaking high-octane gasoline "Formula Shell Super X"



1993
Commenced research and development on CIS solar cells

1996
Launch of the highest-grade automobile oil "Shell Helix Series,"



2002
Launch of high-octane gasoline "Shell Pura"



2003
Genex Mizue Power Station began operation and power sales (currently, Mizue Power Station of TOA Oil Co., Ltd.)

2005
Entered into a purchasing agreement for petroleum products with Fuji Oil Co., Ltd.

2006
Showa Shell Solar K.K. established (currently, Solar Frontier K.K.).



2010
Ohgishima Power Station, a natural gas power station, began commercial operation

2014
Launch of high-octane gasoline "Shell V-Power"



2015
Keihin Biomass Power Plant began commercial operation.

2016
Commenced retail sales of low-voltage electricity

2019 Business integration

Message from President



Aiming to Become an Energy Co-Creation Company

Idemitsu Kosan Co.,Ltd.
President and
Representative Director

Shunichi Kito

What do you think of the new integrated company's Management Vision?

We chose the path of business integration in order to build a strong management base capable of bearing the heavy responsibility of energy security in Japan.

Now that we have integrated, it is natural that we aim to create integration synergies and enhance competitiveness through economies of scale. However, business integration is a means, not a goal. It is putting the cart before the horse if the integration loses what each company has cherished. We have carefully discussed what our company should become, based on fundamental questions such as why we exist, what our stakeholders expect from us, and what points are unique, while watching the history of both companies.

Management Vision

We are an energy co-creation company that values diversity and inclusion, creates new values with customers and stakeholders, and seeks harmony with the environment and society.

Both Idemitsu Kosan Co.,Ltd., and Showa Shell Sekiyu K.K., the predecessors of the new integrated company, were established in Japan in the Meiji era (1868-1912). Both companies have a long history of selling petroleum products and fighting for energy security in Japan during and after the turbulent times of the war. We have always been challenging ourselves to create new values in order to realize the ideal society. For example, in Japan, Marcus Samuel, one of the founders of Showa Shell Sekiyu K.K., started selling kerosene oil (kerosene) for heating and lighting. Sazo Idemitsu, the founder of Idemitsu Kosan, led the Nisshou Maru Incident, which triggered the start of free international trade in oil.

Since then, Sazo Idemitsu has continued to work on the construction of the world's largest tanker and the world's first heavy oil direct hydrodesulfurization unit. The new integrated company will inherit the DNA of these founders and make it the core value of the company.

Japan's environmental and safety regulations and standards for quality and service are among the strictest in the world. We intend to contribute to the development of each country and region outside of Japan and to the resolution of social issues by utilizing the technological capabilities, products and services, and business know-how that we have developed and accumulated for over 100 years. One example is building petroleum products supply chains in emerging countries, particularly in Asia, where economic growth is booming.

"Co-creation" expresses our determination to create new values together with our customers, local communities, all our business partners, and employees, who are our group's strengths and assets by standing at a new starting point. I believe that there is no future as an extension of the past. Collaboration with diverse stakeholders is essential to creating new values.

We will discuss "Diversity & inclusion" and "Harmony with the environment and society" in another section.

Please tell us about "People-centered management."

There is another common value that both companies have valued. The idea is that "People-centered management." To be clear, I believe that our group's ultimate goal is to develop people who are useful and respected in society, and our business is a means to this end. This is different from the idea of developing human resources to maximize corporate value. For example, we may be able to increase our corporate value by making invest-

ments with limited risks and high returns. However, we basically do not make investments that do not lead to human development. We place a high priority on the process in which our employees engage directly in each business and work hard, overcome numerous difficulties, and grow vigorously through various experiences.

This is not just about naive thinking or idealism. In a turbulent business environment, it is difficult for management alone to respond quickly and appropriately to a variety of simultaneous and frequent issues. In many cases, it is more efficient and effective to trust experienced employees who are familiar with the workplace and leave decisions to them. Also, in order to create a future that is not in line with the present, it is necessary for employees with diverse backgrounds to constantly breathe new life into the company. "Human development" is not only the ultimate management objective, but also the principles of management indispensable to the development of our group.

With this in mind, the new integrated company's slogan is "Hitowa, Mugenno Energy. (People have limitless energy.)" This means that each employee can make the best use of his or her abilities without limiting them. At the same time, the team strength of the entire organization and supply chain is enhanced to contribute to the development of society, thereby enriching one's own life. Also, it expresses the preciousness of energy in humans and our group's mission as an energy company.

Based on the idea that human resources are the source of management vitality, we believe that the greatest responsibility of management is to create an environment in which employees can work energetically. As a result, we believe that we will be able to promote sustainable growth, which in turn will increase our attractiveness in the capital market.

What is the basic policy of the medium-term management plan?

Domestic demand for petroleum products peaked out in 1999 and has been on a gradual decline due to a dwindling of population and the spread of eco-cars. This trend is expected to accelerate even in the future, and is expected to decline by 30% in 2030 due to the shift from car ownership to shared use. As an energy supplier, responding to climate change issues is important and urgent, and we recognize that it is difficult to continue to be overly dependent on our petroleum products, oil exploration and production and coal business. Accordingly, in order to remain a strong corporate group 30 years from now, in 2050, our group embarked on the formulation of the current medium-term management plan from the perspective of how, what, and by when it must change. In November 2019, the company announced its first medium-term management plan (FY2020-2022) after the business integration. To begin with, we drew up several business environment scenarios up to 2050 based on the Paris Agreement. As a result, although the environmental forecast for 2050 is extremely uncertain, all scenarios are on the same track until 2030. Therefore, we have decided to set management targets with 2030 as a milestone. We have set 2030 as a turning point, and we intend to establish a system that will enable us to respond flexibly to any changes in the environment that occur after that. We then backcast our 2030 management targets into a medium-term management plan.

Our 2 basic policies for 2030 are "Realization of resilient business portfolio" and "Building a business platform that meets the needs of society." Let's talk about the former.

I would like to reiterate that our basic philosophy is to promote "Structural reform of the revenue base business," "Expansion of growth businesses" and "Creation of next-generation businesses" in order to be a company that can respond flexibly and resiliently to any environmental change. In the revenue base business, we will take various measures to secure cash flow in the petroleum business for the next 10 years. We will maximize integration synergies and strengthen the international competitiveness of our refineries to achieve world-class operational reliability and maintenance cost efficiency in FY2030. Based on this, we will continue to expand our overseas business in response to growing demand in Asia, taking advantage of the potential of our competitive refineries. At the Nghi Son Refinery, we will make an early contribution to earnings. In growth businesses, we will use cash generated from our revenue base business to expand our business scope and scale while making use of M&As in our functional materials business. Our business portfolio for 2030 consists of operating income from revenue base businesses such as petroleum products, oil exploration and production, coal business, and equity in earnings of affiliated companies which account for less than half of the total, compared to 60% in FY2019. Our goal is to expand our functional materials business, which includes

Message from President

lubricants, advanced materials & performance chemicals, Electronic materials; especially OLED materials, agri-bio products, and all-solid lithium-ion rechargeable battery materials, to more than 30% of the total operating income.

Furthermore, in order to create next-generation businesses, while keeping an eye on changes in society, diversification of customer needs, and progress in decarbonization, we will develop new business models to meet new energy demands, such as the development of next-generation service stations, the development of decentralized energy businesses, and the development of circular businesses.

I will also touch on our response to the digital innovation. Our group established the "Digital Innovation Department" in January 2020 as a specialized department. The purpose of the establishment is to increase operational efficiency through digitalization of core businesses, create new customer value, and create entirely new businesses. I expect these activities will take place across the group.

What is your view on cash balance in the medium-term management plan?

Under the current medium-term management plan, we forecast a 3 year cumulative net profit of ¥480 billion, and cash in will secure ¥1.03 trillion, including depreciation and amortization, asset sales. Cash out is calculated on the assumption that ¥630 billion will be allocated for capital investment, including M&As, and ¥200 billion will be allocated for shareholder returns. Free cash after shareholder return is expected to be ¥200 billion. After comprehensively considering such factors as income and expenditure, we intend to allocate these resources to strategic investments in growth areas, to strengthen our financial position, or to expand the source of returns to shareholders from FY2022 onwards.

Our group recognizes the return of profits to shareholders as an important management issue. Accordingly, from FY2019 to 2021, we plan to return profits to shareholders with a return ratio of at least 50%. Policies for FY2022 and beyond will be determined in FY2021.

What is your approach to the ESG (Environment, Society and Governance)?

Another basic policy of our medium-term management plan is "building a business platform that meets the needs of society." As an energy supplier, our group recognizes that harmony with the global environment and society is a top priority. The goals of the SDGs (Sustainable Development Goals) were first linked to respective businesses in the current medium-term management plan, and then priority issues (materiality) that our group should focus on and address specifically were clarified. Next, we set GHG (Greenhouse Gas) reduction targets.

Our specific target for 2030 is to reduce CO₂ emissions from Scope 1 + 2 by 2 million t-CO₂ (▲15% of 2017 levels). This target

exceeds the level of the reduction targets (1 million kl crude oil equivalent, about ▲2.7 million t-CO₂ compared to 2010) set by the national oil industry in light of Japan's draft commitments to the Paris Agreement. This is a very challenging target, but we intend to achieve it with all our group's resources.

It goes without saying that "Ensuring safety" and "Quality assurance" are the most important issues. Our group recognizes that its social mission and the foundation of its management are to continue safe and stable operations at refineries and complexes and to supply a stable supply of energy while earning the trust of local communities. We will continue to work to improve safety and foster a safety culture with the goal of achieving zero accidents. The number of group refineries increased due to the management integration. There has already been active communication among refineries, creating opportunities to learn from each other about common issues at production sites, such as safety, security, quality, and maintenance, based on risk management. I feel that safety and quality management have been further strengthened. We will continue to pay close attention to the wide range of our group products and concentrate our energies on ensuring product safety and quality throughout the entire supply chain.

Finally, let's talk about "Progress in governance." To revitalize and strengthen the functions of the Board of Directors, we will continue to have at least 1/3 of the Board of Directors as independent outside directors. In addition to these external standards, we will use a skill matrix to optimize the overall structure of the Board of Directors. At present, 5 out of 13 directors are outside directors, and when formulating the medium-term management plan, they gave advice from their respective specialized perspectives.

Please tell us about your initiatives for diversity, work style reform, and business reform.

At the outset of our management vision is "Diversity & inclusion." There is no future as an extension of the present situation, and if we try to transform our business structure in this context, sometimes our past successes and knowledge become obstacles. Also, the strengths that the company has worked hard to accumulate may turn into weaknesses in an instant. How should we deal with it in such an era? I believe that one solution is to initiate chemical reactions while drawing out the full potential of each individual by incorporating diverse viewpoints, values, and powers. That's why diversity & inclusion is important.

Diversity & inclusion is generally defined as recognizing and accepting diversity, but it is ambiguous. At our group, we are promoting diversity & inclusion by creating an environment that enables our employees to achieve a good work-life balance that they can make time to improve their individual capabilities, streamlining existing operations for the employees to interact with people outside the company, and combining knowledge to create new values. In addition, the strength of each individual can be demonstrated only when he or she is healthy as well as when he or she enriches his or her personal life. Along with the promotion

of diversity & inclusion, we are also promoting healthy management by positioning the promotion of healthy working conditions for both physical and mental health as a management issue.

At the same time, the acceleration of business change is essential to improving our group's competitiveness. To this end, "Next Forum" plays a major role. In February 2019, we began holding Next Forum, where employees and the top management communicate directly.

Forum committee members selected from each department gather opinions from the workplace and form a group of 7 to 8 members on a theme that is considered to be the company-wide issue. Directors also participate in this group to actively exchange opinions and finally compile proposals. One of the results of these efforts was the launch of "DTK(Dattara Ko Shiyo)Project(=Business Process Redesign)" triggered by Next Forum and other events.

DTK Project is aimed at developing a corporate culture that not only unifies work procedures and systems, but also promotes sustainable and autonomous business reform activities. The name reflects the desire of all employees to make their work more efficient and reform the way they work, to thoroughly discuss any issues they face, to come up with solutions based on flexible ideas and to carry out the decisions as a whole.

We hope that the time saved by these activities can be used to encourage individuals to pursue higher-value-added work, to spend time on their own development, and to enhance their personal lives, thereby increasing their motivation and capabilities, which in turn will lead to the expansion of growth fields and the creation of next-generation businesses. At the same time, we have started digitization, BPR (Business Process Redesign), and smart work initiatives that enable a variety of work styles, including the introduction of RPA (Robotic Process Automation).

I believe that no matter what changes occur in the business environment, as long as we nurture well-trained and respected people, we will be able to overcome any difficulties and open a new era.

What is the role of the Idemitsu Group in the society?

Recently, disasters such as earthquakes and typhoons hit the Japanese archipelago, threatening the lifeline of the people. Our group's social mission is to support energy security in Japan and protect the lifeline of its people. We will work to maintain and strengthen our supply chain in the event of an emergency. To fulfill this responsibility, we must create new services and business models that meet the needs of each region without further reducing our nationwide service station network.

The number of service stations has halved from the peak of approximately 60,000 to around 30,000 as a result of excessive competition for many years under the name of free competition. In particular, service stations in rural areas such as mountainous areas have decreased. Assuming that demand for petroleum products will decline by 30% over the next 10 years, the number



of service stations is certain to decline further if we remain idle. Our group is working to maintain and strengthen its network by thoroughly pursuing what service stations can do and increasing the added value of their services. Service stations play an important part as social infrastructure in rural towns and villages, where public transportation is not available and automobiles are a vital means of transportation, and in sparsely populated areas where the population is aging. As an example, we have begun a demonstration of the MaaS (Mobility as a Service) business that utilizes ultra-small EVs. This initiative has received high praise from various parties as a reassuring initiative for the elderly and other people with poor transportation. We are also taking on the challenge of creating new services based on the needs of our customers by making full use of digital technology. From "Last Mile" perspective, we believe that service stations have great potential and has room to expand into a variety of businesses.

What is your message to stakeholders?

In formulating this medium-term management plan, our group conducted scenario analysis focusing on energy demand through 2050.

This hypothesis was created based on the information obtained at present, and it is necessary to continue to collect, analyze, and refine this information. We intend to build a resilient business portfolio that can respond flexibly and resiliently to any environmental change. We will report on the progress of our medium-term business plan to our stakeholders in a timely manner. We will also promptly report any changes in our strategic assumptions.

Energy is indispensable for the people of the world to lead cultural lives. At present, oil and coal are the primary energy sources required. However, for our group, whose main product is fossil fuels, responding to climate change is an inevitable challenge. The fact that our group has set a GHG emission reduction target despite its difficulties is an indication of our determination. In addition, we are actively engaged in renewable energy-related businesses such as solar, geothermal, biomass, and wind power. Our medium-term management plan sets a target of achieving a total of 5GW of renewable energy development overseas by 2030. We will assess changes in the structure of energy demand and work to ensure a stable supply of energy required in each region, while boldly addressing global environmental issues.

As a "Energy co-creation company," we will strive to create new values together with all our stakeholders while maximizing the synergies of people and businesses resulting from the management integration. We look forward to hearing your frank opinions and requests regarding our group. Thank you very much for your continued understanding and support.

Medium-term Management Plan

Medium-term Management Plan Theme "Co-creation"

Idemitsu Group operates in 42 countries and regions. It is said that Japan's environmental and safety regulations and quality and service requirements are the most stringent in the world. Based on the technological capabilities, products and services, and business know-how that have been developed and accumulated in Japan through these efforts, we will create new values to many important and serious issues that we face both in Japan and overseas. For the issues which cannot be easily solved, we will use innovative and flexible ideas such as "Dat-tara Ko Shiyo (DTK)."

Collaboration with stakeholders is essential to creating new values. With all of its customers in Japan and overseas, members of the communities in which it operates, closely linked distributors and dealers, logistics and maintenance subcontracting companies, business partners in Japan and overseas, including oil-producing countries, and our employees with diverse backgrounds, we are taking on the challenge of creating those new values. "Co-creation" expresses our passion.

Long-term Energy Business Environment Scenario

The climate change issue will have a significant impact on the management and business continuity of Idemitsu group, whose core business is energy. We have therefore set 2050 as a long-term target based on the Paris Agreement, and has prepared a number of long-term energy business environment scenarios towards that year.

Scenario analysis identifies energy demand and the effects of climate change in the Asia-Pacific region and the business environment in 2050 is assumed. Four scenarios were prepared, including

a scenario in which the increase in energy demand exceeds the trend toward low-carbon emissions due to the high growth of the Asian economy, and a scenario in which the targets of the Paris Agreement are achieved. (Figure 1) We are drawing up the medium-term management plan and examining specific priority topics with a strong awareness of the "Prism" scenario (Cases where the power to seek environmental measures has increased and the government or companies have responded to such demands), in which the company is expected to take stronger environmental measures.

Figure1 Long-term Scenarios for Conditions of the Energy Business in the Run-up to 2050

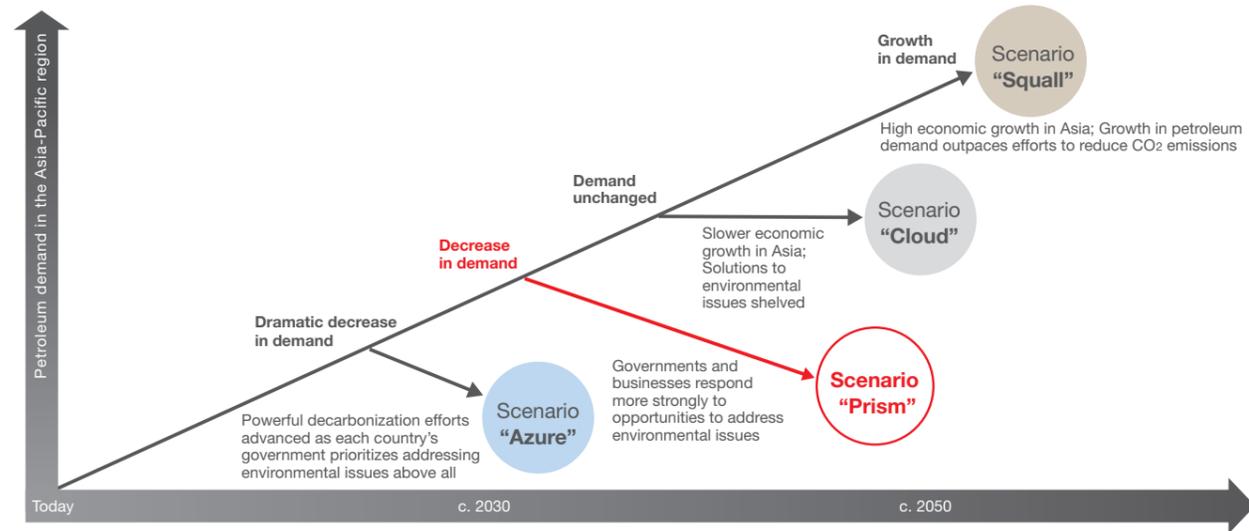
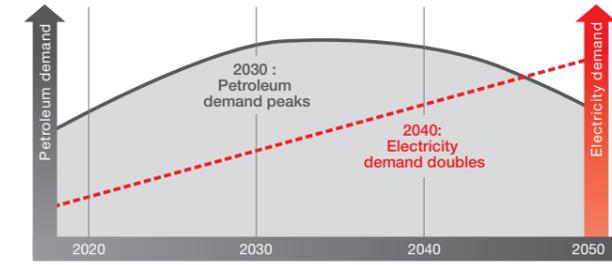


Figure2 Long-term Changes in Conditions of the Energy Business (Asia-Pacific region)

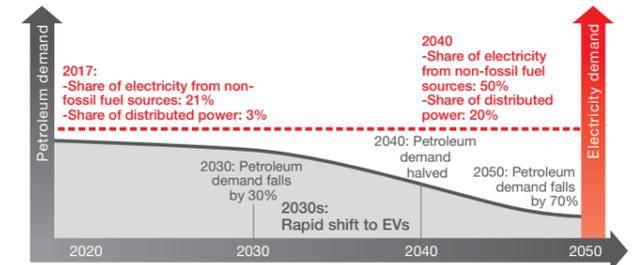


In the "Prism" scenario, energy demand in the Asia-Pacific region and Japan was estimated.

Figure 2 shows the outlook for demand for oil and electricity in the Asia-Pacific region. Although demand for oil will peak in 2030 and will be on a downward trend thereafter, demand is expected to remain almost unchanged in 2050. Electricity demand will double in 2040 and will continue to rise thereafter.

On the other hand, Figure 3, which shows the outlook for domestic demand for oil and electricity, shows that demand for oil is expected to decline by 30% in 2030, and then by 70% in 2050 as

Figure3 Long-term Changes in Conditions of the Energy Business (Japan)



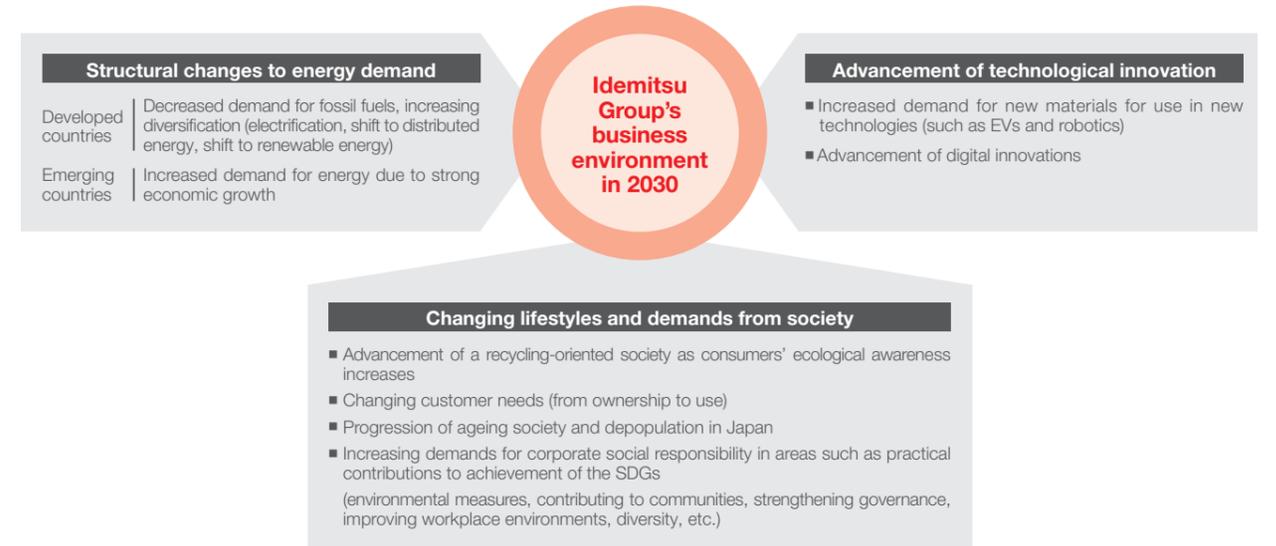
the population declines and the shift to EVs progresses. Although demand for electricity is expected to remain stable, the ratio of non-fossil power sources is expected to increase to 50% and the ratio of distributed power sources to 20%, indicating significant progress in the shift to renewable energy and the diversification of power sources.

Based on these projections, we recognize that the threats we face as an energy supplier coexist with opportunities for business expansion into 2050. Based on this recognition, we have formulated the medium-term management plan.

Business Environment Recognition (Assumptions for 2030)

The environment surrounding Idemitsu group, including the energy situation, is complex and diverse, making it difficult to accurately forecast the 2050 year future. However, every scenario is expected to follow a similar trajectory through 2030. We have set 2030 as a relatively reliable milestone, aiming to become a company that is

flexible and resilient no matter what future comes. Based on these scenarios, we see the business environment in 2030 from 3 perspectives: "Structural changes to energy demand," "Advancement of technological innovation" and "Changing lifestyles and demands from society."



Medium-term Management Plan

Basic Policies and Priority Topics for 2030

Based on the recognition of the business environment given on page 12, Idemitsu group established 2 basic policies toward 2030: "Realizing a resilient business portfolio" and "Building a business platform suited to the needs of society."

In addition to promoting business activities based on them, we will also work to resolve social issues.

Basic Policy

Realizing a resilient business portfolio

Over the next 10 years, we will steadily secure cash flow in the petroleum business, which is our revenue base. With this cashflow, we will use M&As in growth fields such as functional materials businesses to expand our business scale and scope. At the same time, with a view to responding to changes in society, diversifying customer needs, and reducing environmental impact, we are working to create next-generation businesses, including the development of next-generation service stations, the development of decentralized energy businesses, and the creation of circular businesses.

Priority Topics and Main Initiatives

[Structural reforms to core revenue-generating businesses]

- Pursuing profits in the petroleum business (maximizing integration synergies, making refineries more reliable)
- Enabling Nghi Son Refinery to contribute to profits

[Expansion of growth businesses]

- 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 to 5GW by 2030 (of which, 4GW is renewable energy)
- Transformation of solar-power business

[Creation of next-generation businesses]

- Creating new businesses with an eye on societal changes, diversifying customer needs, lessening environmental impact, etc.

Building a business platform suited to the needs of society

As specific targets for the harmony with the global environment, we have set quantitative reduction targets for GHG (Greenhouse Gas) and our own monitoring indicators. In particular, we will give top priority to reducing CO₂ emissions, which account for more than 90% of GHG emissions in Japan. In order to be a company that can earn the trust and expectations of shareholders and all other stakeholders, we will not only strengthen our governance functions, but also use digital technology to enhance our operations and create new values for our customers. We are also working to create an environment in which every employee can continue to work and grow according to his or her life stage.

Priority Topics and Main Initiatives

[Harmony with the global environment and society]

- Efforts to reduce GHGs (2030: Down 2 million t-CO₂ vs. 2017(down 15%))

[Progress in governance]

- Enhancing roles and functions of the Board of Directors

[Acceleration of digital innovations]

- Utilizing digital technologies to create new values

Quantitative Targets for 2030

Operating income and equity in earnings of affiliates for FY2030 are set at ¥300 billion, and we are transforming our business portfolio from a comprehensive perspective, including growth potential, stable earnings, and reduced environmental impact. As a result,

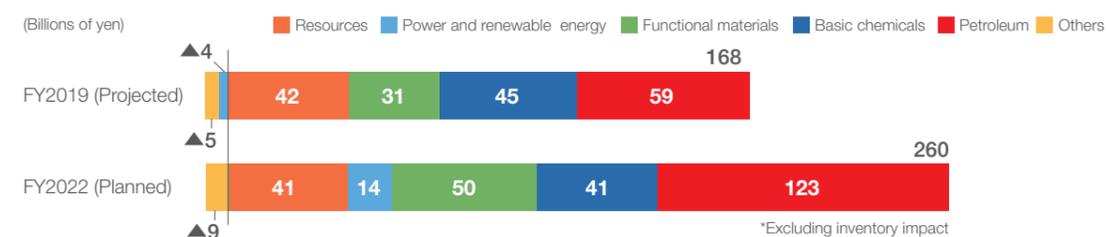
we will reduce our excessive dependence on the fossil fuel business. The GHG reduction target was set at 2 million t-CO₂ (15%) compared to FY2017. (GHG reduction target P.44)

	FY2019(Projected)	FY2030	vs. FY2019
Operating income+equity earnings of affiliated companies	¥168 billion (Excluding inventory impact)	¥300 billion	+ ¥132 billion
Operating income ratio of 3 businesses (petroleum, exploration, coal)	60%	Less than 50%	▲10%
Operating income ratio of functional materials business	18%	30% or more	+ 12%
Cumulative total power development (overseas)	1.0GW (0.2GW)	5GW or more (4GW)	+ 4GW

Management Targets for the Medium-term Management Plan Period (FY2020 - FY2022)

	FY2022 (Final year of medium-term management plan)	Three-year cumulative total
Net income	¥175 billion	¥480 billion
Operating income+equity earnings of affiliated companies	¥260 billion	¥720 billion
ROE (Return on equity)	10% or higher	
FCF (Free cash flow)	¥400 billion	

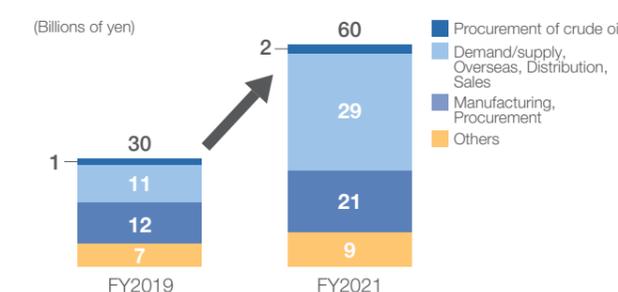
Operating Income + Equity Earnings of Affiliated Companies, by Segment



	Main factors behind changes vs. 2019
Petroleum +64	<ul style="list-style-type: none"> ■ Maximization of integration synergies ■ Expansion of overseas sales ■ Improving earnings of Nghi Son Refinery
Basic chemicals ▲4	<ul style="list-style-type: none"> ■ Downturn in product markets (aroma, etc.)
Functional materials +19	<ul style="list-style-type: none"> ■ Expansion of domains of lubricants/advanced materials & performance chemicals businesses, etc. ■ Strengthening the electronic materials
Power and renewable energy +18	<ul style="list-style-type: none"> ■ Expansion of power development from renewable energy sources overseas ■ Expansion of the domestic electricity business
Resources ▲1	<ul style="list-style-type: none"> ■ Commencement of production at Vietnam gas field ■ Downturn in coal market
Others ▲4	<ul style="list-style-type: none"> ■ Increase in costs of new business development, etc.

Maximizing Integration Synergies

Our goal is to realize synergies of ¥60 billion by FY2021. Of this amount, ¥30 billion is expected to be achieved by FY2019 through initiatives launched in May 2017. The remaining ¥30 billion will be achieved by FY2021 through integration of brand policies, review of sales strategies, optimization of refining costs, and improvement of operational efficiency through DTK(Dattara Ko Shiyo) Project(=Business Process Redesign), with the aim of creating further synergies.



Return to Shareholders

FY2019 - FY2021	Return to shareholders with a total return ratio of at least 50%	<ul style="list-style-type: none"> ■ At least 10% of the amount to be returned to shareholders will be allocated to repurchase treasury stock, with a minimum dividend of ¥160 per share. ■ Planned retirement of treasury stock acquired
From FY2022	Consider further shareholder returns, such as increasing dividends in accordance with earnings levels and flexibly acquiring treasury stock, with a minimum dividend of ¥160 per share.	<ul style="list-style-type: none"> ■ The final policy will be decided in FY2021, taking into account the overall cash balance, such as strategic investment for growth and strengthening the financial structure.

Idemitsu Group's Sustainability

At Idemitsu group, we value contributing to society through our business. Our mission is to continue supplying energy that supports people's lifelines while contributing to social development. In recent years, the environmental impact of energy use has become a major social issue, and we recognize that harmony with the global environment and society is an important and urgent issue. Accordingly, with

a long-term perspective, we have identified priority topics that it should prioritize during the medium-term management plan as materiality. The entire our group will work as one to resolve issues of materialities, with the aim of achieving our sustainable development with the global environment and society.

Relationship Between Priority Topics (Materialities) and SDGs

Materiality	Major initiatives	Mainly related SDGs	Risks and opportunities (impact on society and Idemitsu group)
<p>Structural reform to core revenue base businesses</p> <p>Build a strong supply chain and further strengthen stability and competitiveness through collaboration with partners in the revenue base business centered on petroleum products and chemicals.</p>	<ul style="list-style-type: none"> Pursuing profitability in the petroleum business (maximizing integration synergies, making refineries more reliable) ➡ P.21-23, 41 Enabling Nghi Son Refinery to contribute to profits ➡ P.22 Using the pacific rim supply chain to meet growing demand in Asia ➡ P.21-24 Southeast Asia gas development ➡ P.31 		<p>Risk</p> <ul style="list-style-type: none"> Resource (energy, water, materials and land) use may increase due to business expansion Reputation decline and increased costs for environmental measures <p>Opportunity</p> <ul style="list-style-type: none"> GHG emissions reductions from energy efficiency improvements that could lead to cost savings in our company Contributions to the improvement of accessibility to basic services such as energy infrastructure, employment, and income distribution in new business areas. With those contributions, it is expected that we will strengthen its ties with the local regions
<p>Expansion of growth businesses</p> <p>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.</p>	<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 ➡ P.25-28 Increasing total power generated from renewable energy to 5GW by 2030 (of which, 4GW is renewable energy) ➡ P.29-30 Transformation of solar-power business ➡ P.29-30 Development of black pellets (biomass fuel) ➡ P.32 Strengthen development of functional materials through open innovation 		<p>Risk</p> <ul style="list-style-type: none"> Resource (energy, water, materials and land) use may increase due to business expansion Reputation decline and increased costs for environmental measures <p>Opportunity</p> <ul style="list-style-type: none"> Promoting R&D can create new products and services that simultaneously create technological innovation, solve social issues, and increase our profits Opportunities to expand low-carbon products and services Opportunities to expand agri-bio businesses that contribute to safe and secure food
<p>Creation of next-generation businesses</p> <p>Accelerate technological innovation and innovation beyond organizational frameworks to create new businesses with an eye toward the future.</p>	<ul style="list-style-type: none"> Creating new businesses with an eye on social changes, diversifying customer needs, lessening environmental impact ➡ P.39 Development of next-generation service stations ➡ P.23 Distributed energy business development, etc. ➡ P.42 Circular business ➡ P.24, 30 		<p>Risk</p> <ul style="list-style-type: none"> Resource (energy, water, materials and land) use may increase due to business expansion Reputation decline and increased costs for environmental measures <p>Opportunity</p> <ul style="list-style-type: none"> Promoting R&D can create new products and services that simultaneously create technological innovation, solve social issues, and increase our profits Opportunities to expand the renewable energy business New business establishments and reputation improvement through reduction of environmental impact and effective use of resources
<p>Harmony with the global environment and society</p> <p>Promote measures to realize a low-carbon and recycling-oriented society in consideration of climate change risks, and promote diversity and inclusion in partnership with business partners, communities, and employees.</p>	<ul style="list-style-type: none"> Efforts to reduce GHGs (2030: Down 2 million t-CO₂ vs. 2017 (down 15%)) ➡ P.43-44 Contributing to areas in which we conduct business ➡ P.23 Practice of diversity and inclusion ➡ P.33-35 Improving employee satisfaction ➡ P.36 SDGs educational activities ➡ P.18 		<p>Risk</p> <ul style="list-style-type: none"> Risk of increased costs such as capital investment to achieve GHG reductions <p>Opportunity</p> <ul style="list-style-type: none"> Practices of specific measures to climate change can lead to improvement of our company's reputation Opportunities for co-creation with partners through new initiatives Opportunities for regional revitalization, invigorating local economic cycles, and strong partnership between our company and the region Opportunities to promote understanding of diversity among employees, which can lead to improvements in the workplace environment and the creation of diversified innovations
<p>Progress in governance</p> <p>Strengthen governance functions to maintain the trust of shareholders and all other stakeholders.</p>	<ul style="list-style-type: none"> Enhancing roles and functions of the Board of Directors ➡ P.51-54 		<p>Opportunity</p> <ul style="list-style-type: none"> Transparency and fairness enhancement Initiatives promotion support
<p>Acceleration of digital innovations</p> <p>Capitalize on evolving digital technologies to transform existing business processes and management in response to the business environment and customer needs.</p>	<ul style="list-style-type: none"> Utilizing digital technologies to create new values Digitalization of core businesses (established in January 2020 "Digital Innovation Department") 		<p>Risk</p> <ul style="list-style-type: none"> Increased initial investment costs associated with the introduction of new systems and the risk of problems during the transition period <p>Opportunity</p> <ul style="list-style-type: none"> Opportunities to reduce costs and create time by improving operational efficiency Opportunities to solve social problems through technological innovation

Idemitsu Group's Sustainability

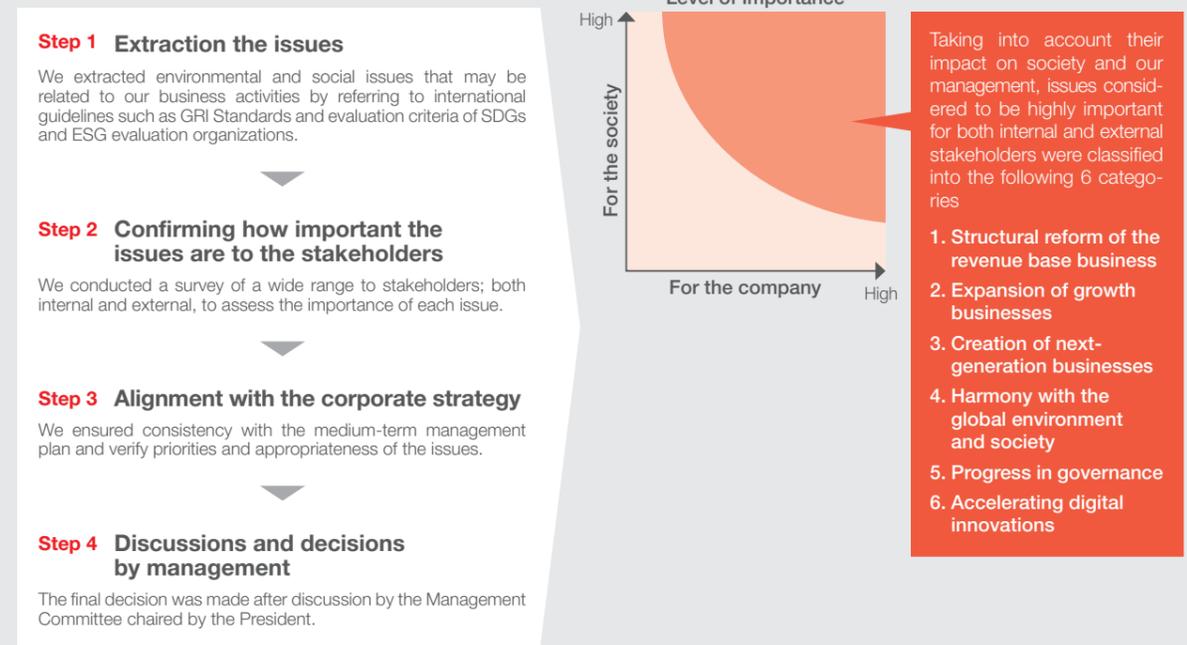
Materiality Identification Process

In determining materiality, we identified issues to be considered by referring to international guidelines such as the GRI Standards and ISO26000, as well as research items from SDGs and ESG evaluation organizations. Idemitsu group's business activities and environmental and social issues that could be affected by these activities were identified and sorted out into 38 categories. We also conducted a questionnaire survey of internal and external stakeholders, including

customers, business partners, shareholders, investors, and group employees, to confirm their expectations.

In the end, we identified six materialities by aligning them with our medium-term management plan, which is our corporate strategy, and taking into account discussions at the management level. Materiality is closely linked to corporate and departmental strategies, and is priority topics in our medium-term management plan.

As an energy co-creation company, we continue to challenge new values creation with various stakeholders. In order to do so, we considered priorities from a long-term perspective, taking into account environmental and social issues, and set them as our priority topics "Materialities."



Relevance Between Materialities and SDGs

We considered the impact on the SDGs through the promotion of key initiatives that are classified as materiality and linked to materiality. We realize that all goals of the SDGs are connected to each other. Therefore, our business activities will bring impact, not only to one specific goal, but also the SDGs as a whole, although the impact itself may vary from one goal to another. In particular, we believe that the following three areas can contribute to the achievement of goals through our business activities.

Areas where goals can especially be achieved



While working to achieve the goals, there are also aspects in which promoting the achievement of the goals leads to increased use of resources and GHG emissions. We recognize that our busi-

ness activities might impose burden to the following areas and keep us away from achieving the goals. Therefore, it is necessary to make serious efforts to address them.

Areas that especially need to be addressed due to possibility of risks arising from business activities



We are considering measures to minimize or eliminate the impact of these social issues. Specifically, we will set reduction targets for GHG emissions related to the use of petroleum resources and the risk of climate change, and will consider measures to achieve them. The entire group will also work together to promote the recycling of plastics and other petrochemical products and solar panels.

Our Group's Efforts to Promote Understanding of SDGs

We will use the SDGs as an opportunity to raise the awareness of each employee so that they can see social issue as their own issues and take initiative in solving them. We will essentially promote the SDGs understanding through workshops and internal information media. The SDGs, which combine the views of experts from various fields, member countries, and various stakeholders, serve as a valuable reference for us in pursuing sustainable growth together with

society. We are confident that by raising each employee's awareness of social issues through the SDGs, we will be aware of the link between our business activities and social issues and will create measures to solve them. We will promote understanding of the SDGs through internal communication so that the key points of the SDGs are reflected in future corporate strategy and materiality.

At present, we consider the following to be important points of SDGs.

- Acknowledging from multiple perspectives
- Having a sense of connectedness and inclusiveness
- Thinking in an integrated manner and deriving a solution
- Visualizing and taking action

Examples of initiatives in FY2019

181 new employees participated in the "SDGs Workshop" held on April 3 as part of the new employee education program.

For employees' children (elementary school students), "Children's Visit & SDGs Workshop" was held on August 8 and 9.

Signing of the United Nations Global Compact

Idemitsu announced its support for the United Nations Global Compact (UNGC) in July 2019. The 10 principles on human rights, labor, the environment, and anticorruption represent the most fundamental aspects of corporate compliance. Idemitsu group will promote

responsible management from a global perspective, respond to requests from stakeholders, and contribute to the creation of a sustainable society.



Support for TCFD Recommendations

Idemitsu expressed its support for the TCFD (Task Force on Climate Financial Disclosures) recommendations in February 2020. Considering and implementing the risks and opportunities of climate change and their countermeasures in line with the TCFD recommendations are the very essence of our business strategy and we

believe that these will lead to contributions to a sustainable society. We will use the TCFD framework to appropriately disclose information to stakeholders and make sincere efforts to address climate change.

Dialogue with Stakeholders

Our group's Management Vision is to continue to create new values together with stakeholders.

Through responsible dialogues with a wide range of stakehold-

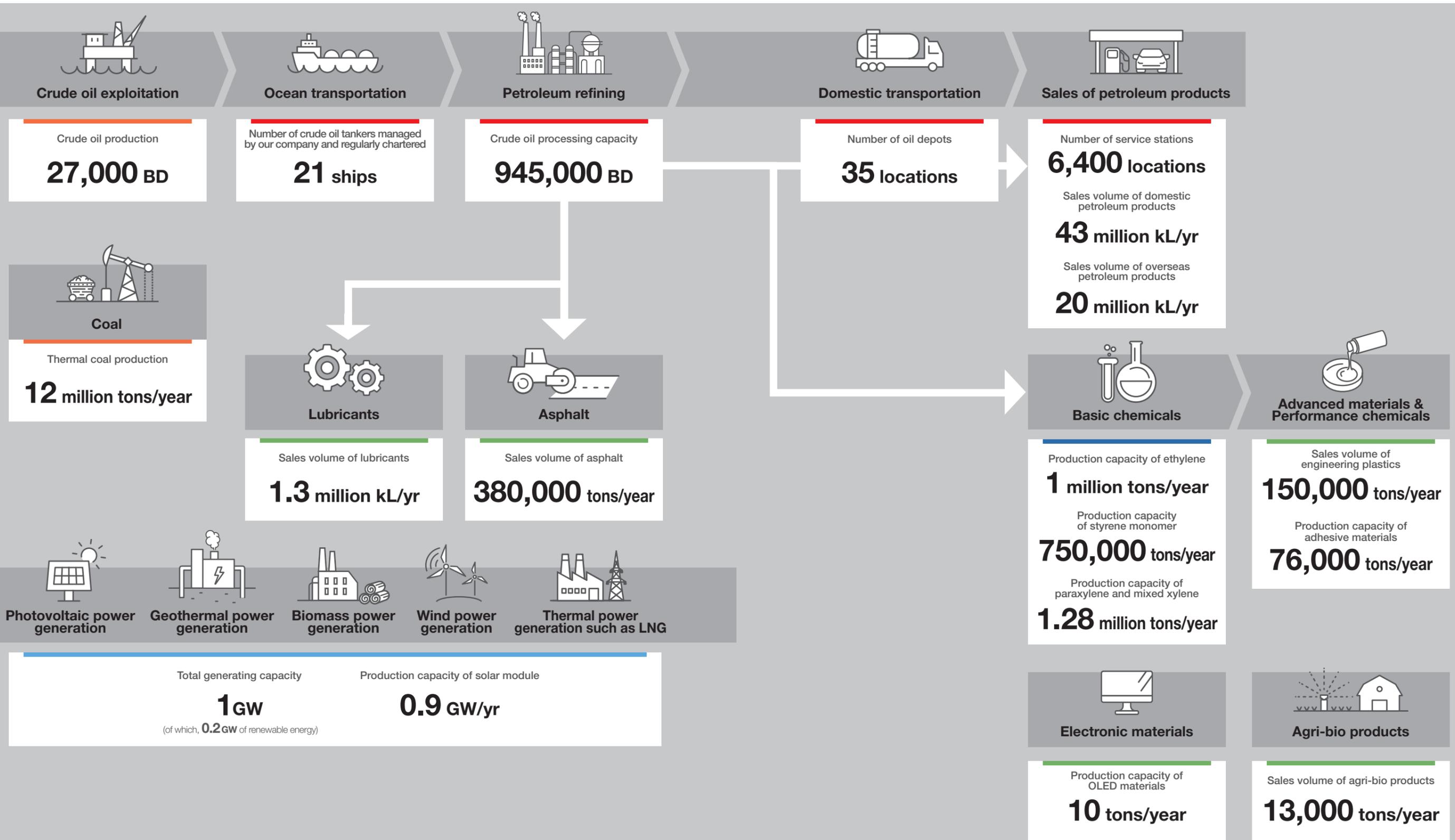
ers, we strive to contribute to sustainable improvement of corporate value and social development through our business activities.

Stakeholders	Initiatives
All	<ul style="list-style-type: none"> ■ Information disclosure via website Official website
Shareholders and investors	<ul style="list-style-type: none"> ■ Information disclosure to individual investors ■ Information disclosure to analysts and institutional investors
Customers	<ul style="list-style-type: none"> ■ Maximizing the role of customer center counters ■ Public relations activities through advertising Customer center counters
Corporate customer	<ul style="list-style-type: none"> ■ Holding customer seminars
Community	<ul style="list-style-type: none"> ■ Holding regional explanatory meetings (report on safety and environmental activities) ■ Implementation of environmental education ■ Implementation of environmental protection activities
Employee	<ul style="list-style-type: none"> ■ Next Forum ▶ P.36 ■ Conducting an employee engagement survey ▶ P.36

Review of Operations

Idemitsu Group is expanding its business globally in such areas as petroleum products, lubricants, asphalt, oil and gas development, renewable energy, coal, petrochemicals, electronic materials, and agri-bio products.

■ Petroleum (P.21-23) ■ Basic chemicals (P.24) ■ Functional materials (P.25-28) ■ Power and renewable energy (P.29-30) ■ Resources (P.31-32)



Petroleum Segment



Review of Operations

Idemitsu group delivers petroleum products, such as gasoline, kerosene, and diesel oil, to customers through approximately 6,400 service stations (SS) throughout Japan. In particular, service stations play a significant role as social infrastructure in regions where public transportation is not well developed, and their importance as lifeline hubs is being reevaluated. We also sell industrial use energy such as jet fuel, kerosene, diesel oil, heavy fuel oil A, and heavy fuel oil C to corporate customers such as electric power companies, general industries, airlines, and shipping companies. In addition to the well-balanced distribution of oil refineries and oil depots around the country, we have a supply network that enables us to deliver more efficiently and stably to our customers throughout the country through logistics alliances with other companies.

Business Environment Outlook

Demand for petroleum products in Japan is expected to decline at an annual rate of 1.6%* compared to FY2018 levels until FY2022, due to a decline in the population and the spread of eco-cars. The decline is expected to continue thereafter. The supply and demand environment is expected to remain surplus. Overseas, we expect demand for petroleum products to grow in the Asia-Pacific region at least until 2030. Despite the construction of new refineries and capacity increases, particularly in China and India, the increase in demand is expected to outpace the increase in supply capacity.

* The domestic demand forecast is calculated based on the figures of the FY2019 petroleum products demand estimation review committee of the Agency for Natural Resources and Energy of the Ministry of Economy, Trade and Industry.

Risks and Opportunities

Risk

- Deterioration in the supply-demand balance due to continued decline in domestic fuel oil demand
- Deterioration in equipment capacity balance at refineries due to changes in demand structure for oil

Opportunity

- Achieving synergies through management integration
- Improving the supply-demand balance by expanding demand for petroleum products in the Asia-Pacific region
- Strengthening sulfur content regulations for marine fuel by IMO (International Maritime Organization)

Supply and Demand

Medium-term Management Plan Business Policy

Based on our mission to support energy security in Japan, we will give top priority to "stable supply of petroleum products in Japan." In order to ensure stable supply, we aim to realize "sustainable business growth." To this end, we are pursuing three strategies: "Strengthening the cost competitiveness of the supply chain," "Responding to changes in the domestic supply and demand environment" and "Establishment of overseas business." To strengthen the cost competitiveness of the supply chain, we will take advantage of the opportunity of management integration to strengthen the network between refineries and business sites, thereby achieving integration synergies and strengthening cost competitiveness. In addition, we will respond to changes in the supply and demand environment, including a decline in domestic demand and IMO regulations on the sulfur content of marine fuel, by increasing exports and ensuring the supply of products that comply with these regulations through efficient capital investment in refineries and operational improvements. As for establishing overseas business, we will reinforce the business foundation at the Nghi Son Refinery in Vietnam and establish a business foundation by maximizing the strengths of us, which has a broad sales network centered on Asia and Pacific rim.

Manufacturing

Medium-term Management Plan Business Policy

Under the banner of "Establish domestic manufacturing bases that will prevail in Asia" and "Expansion of field of activity," we will strive to realize safe and stable operations, enhance competitiveness, reform business operations, and contribute to growth businesses and expand technological fields. We aim to achieve top-level operational reliability in Japan in FY2030 by continuing improvement activities, utilizing advanced technologies, and improving profitability. Against the backdrop of expected decline in domestic demand, we will reinforce our competitiveness by implementing optimal area-specific strategies in Hokkaido (Hokkaido Refinery), Keihin and Keiyo (Chiba Complex, TOA Oil, Fuji Oil), Chukyo (Aichi Refinery, Showa Yokkaichi Sekiyu), and Western Japan (Tokuyama Complex and Seibu Oil), as well as implementing management strategies to comply with IMO regulations on the sulfur content of marine fuel oil, expand the use of fuel oil fractions in petrochemical products, and increase export capacity. In addition, we are making steady progress in reforming the way people who support our workplaces work, steadily executing existing projects, promoting the development and commercialization of new fields, and preparing for global business development.



Hokkaido Refinery

TOPICS

Integrated synergies Strengthening supply chain competitiveness

We are working to generate synergies by strengthening its network of 7 refineries and business sites that expanded as a result of business integration, as well as 8 sites, including Fuji Oil Co., Ltd., which has concluded a petroleum products transaction agreement. Specifically, we will reduce costs and optimize production margins in procurement and transfer activities through joint procurement of crude oil and interchange of products, and will strengthen the competitiveness of the supply chain while taking advantage of the group refineries' strengths in heavy oil cracking equipment.

TOPICS

Efforts for safe and stable operations

As more than 40 years have passed since the construction of our refineries and complexes, they are being forced to cope with aging and discontinuing the production of equipment parts. In addition to preventative maintenance and facility renewal, we have been working to prevent the recurrence of such problems by horizontally deploying cases of problems inside and outside the company. In the future, we will continue to work to improve the reliability of our facilities by making analysis of the causes of trouble caused by the facilities, identification of the causes of damage, countermeasures against long-period deterioration, and thorough implementation of PDCA in facility management, among other important issues.



View of Aichi Refinery

Logistics

Medium-term Management Plan Business Policy

We are strengthening our petroleum products supply chain under the themes of "safety," "stable supply" and "strengthening competitiveness" while working to resolve issues such as labor shortages at distribution sites. These are the social missions of companies that handle fuel, and in particular, ensuring safety is the foundation of management. We will thoroughly pursue the safe transportation and quality assurance of petroleum products from loading to unloading and return. Also, in order to maintain stable supply and stable operations, we are striving to prevent a shortage of transportation means during the busiest season under the basic policy of "The necessary space shall be secured by dedicated vessels and vehicles." We will also examine and implement improvement activities from a wide range of perspectives, including "Larger ships and vehicles," "Improvement of loading efficiency," "Reduction of non-stacking," "Examination of optimal transportation methods and routes" and "Increased utilization of distribution assets" to enhance cost competitiveness.

TOPICS

Use of AI in ship allocation planning to improve transport efficiency

For coastal shipping from refineries to oil depots around the country, experts take the time to formulate ship allocation plans based on various data and experiences, including inventory at oil depots and weather and sea conditions. Idemitsu is the first company in the industry to introduce advanced AI, such as deep reinforcement learning, into part of its ship allocation planning, and is working to automate such work and conduct verification tests to improve transport efficiency. Based on our mission of providing a stable supply of energy, we aim to optimize the entire supply chain, not just the ship allocation plan.

Sales

Medium-term Management Plan Business Policy

We will take advantage of the characteristics of new integrated company to develop and strengthen our domestic revenue base for the next generation. At service stations, while maintaining the existing service station network, we will integrate the measures of both companies, such as car life-related products and services, and human resource development programs for distributors and dealers, and develop new measures to improve customer convenience. Furthermore, in order to respond to the changing and diversifying needs of our customers, we will establish a new business model in the areas of car life and lifestyle-related services based on service stations. In industrial use energy sales, we will respond to the expected strong demand for aviation petroleum products and structural changes in petroleum product demand due to the start of IMO regulations. We will also consider external sales measures such as the development of new commercial products and small-lot delivery.



Auto share official website

TOPICS

Strengthening service station networks

Aiming to become "A life partner that supports the lives and mobility of each and every customer living in the community," we are reviewing the roles that service stations can play as indispensable members of the local community and building a new business model following petroleum products sales. In addition to car washing, sales of car care products such as tires and batteries, and car leasing, car sharing, and car inspection, we are also working on MaaS (Mobility as a Service). The expansion of car-sharing services using ultra-small EVs is being in the demonstration phase and drawing attention to be an easy way to travel to tourist destinations and local areas, as well as a way to contribute to the last mile of people and goods. We believe that service stations in rural areas, where there is no public transportation, need to be used as a vital base for daily life and mobility. We have also entered the rehabilitation day service business as a means of diversifying our service station business.

Basic Chemicals Segment



Review of Operations

As a manufacturer of raw materials for petrochemical products, Idemitsu group is developing business activities in cooperation with our customers and group companies, taking advantage of our consistency with the oil refining business.

Business Environment Outlook

Global demand for ethylene and other basic chemicals will continue to grow due to population growth in emerging countries and the expansion of the middle-income bracket. Demand for shale gas oil-based chemicals in North America will increase as demand grows. In addition, the issue of waste plastics has become a matter of growing public concern, and efforts to minimize waste generation have begun in earnest worldwide. In Japan, the demand structure for petrochemical products is expected to change (increased demand for individualized foods and medical and nursing care services) due to the declining birthrate, aging population, and declining population, and to increase their functionality. We are also working to develop new technologies and applications for recycled products to strengthen product recycling.

Medium-term Management Plan Business Policy

We will work on "Appropriate response to business risks," "Restructuring of existing businesses" and "Global development of new businesses" with the aim of to "Build a business structure that can flexibly respond to changes in the business environment and support corporate management as a part of the revenue base business." In response to business risks, we will strengthen cooperation with other companies in the Chiba and Shunan petrochemical complexes and enhance cost competitiveness by diversifying raw materials (production of chemical products from gas and other sources instead of naphtha, the main raw material). Structural reforms in the existing business include the promotion of fuel & chemical in conjunction with the petroleum business to ensure efficient equipment operation and improve profitability. Overseas, while responding to the strengthening of plastic-related regulations, we will gather information on the needs of each country and explore new business possibilities.

Risks and Opportunities

Risk

- Expansion of sales of petrochemical products from shale gas oil in North America to Asia
- Decline in demand due to economic slowdown caused by prolonged trade friction between the United States and China
- Concerns over a slowdown in demand growth for general-purpose plastics due to the reduction of disposable plastics
- Increasing public interest in waste plastics and strengthening regulations

Opportunity

- Expanding demand for petrochemical products mainly in Asia
- Continuation of abundant supply and cost advantage of shale gas in North America
- Expanded use of plastics with added functionality to solve social issues such as food loss and CO₂ reduction

TOPICS

Addressing the waste plastic problem

The Material Circular Economy (resource recycling economy) Working Group was established in 2019 to promote activities to solve the waste plastic problem across the company. We are also working on the practical application of chemical recycling, in which collected plastics are decomposed using the decomposition equipment of petroleum refining and then returned to chemical raw materials. We are also a member of industry organizations such as the Japan Initiative for Marine Environment (JaIME) and Japan Clean Ocean Material Alliance (CLOMA), and are promoting initiatives in line with the government and industry.

Functional Materials Segment



Review of Operations

Idemitsu Group is developing lubricants, advanced materials & performance chemicals, electronic materials, functional asphalts, and agri-bio products using core technologies cultivated in petroleum refining and petrochemistry.

Lubricants

Business Environment Outlook

Lubricants are used in a wide range of fields, from automobiles and ships to industrial machinery. Since the required performance varies depending on the application, we develop and provide products that meet customer needs. Typical applications include automobile engines and transmissions, construction equipment actuators, wind power decelerators, and cutting oil used in metal processing.

As automobile sales in Japan have leveled off, the market for engine oil for automobiles is shifting to emerging countries, such as Asia, as car manufacturers and parts manufacturers move overseas. We also expect new demand for lubricants used in electric vehicles and other products to increase in order to realize a carbon-free society, which is becoming a global trend. As for industrial lubricants such as hydraulic oil and gear oil for industrial machinery, demand is also expected to increase worldwide for functional, environmentally friendly products that meet the needs for energy and resource conservation due to heightened interest in environmental issues.

Medium-term Management Plan Business Policy

In the lubricants business, based on our basic policy of "Continuing to create new values as a technology-based and community-based global lubricants manufacturer," we will promote further overseas expansion and product development in new fields.

In the field of automotive lubricants, we make full use of advanced tribology (lubrication technology) to provide OEM products that meet customer needs and support their business development. We also offer a wide range of products in the after-market, making the most of our extensive network in Japan and overseas to meet the diverse needs of our customers. In the field of industrial lubricants, we will apply technologies developed mainly in

Risks and Opportunities

Risk

- Slowing demand for engine oil and other internal combustion engine oil due to the spread of EVs
- Worsening profitability due to intensifying competition

Opportunity

- Increased demand in emerging countries
- Changes in demand characteristics due to increased energy and resource conservation needs
- New demand arising from technological innovations related to EVs
- Increased demand for aircraft parts processing and food processing

Japan to overseas R&D, accelerate the development and sales of products that meet local needs, and expand into China and South-east Asia. In particular, in the field of metalworking oil, we will develop products that incorporate cost and performance in a well-balanced manner at a development speed that meets local needs. In a new area, we will focus on the development of lubricants suitable for electric units of EVs and greases to meet the needs for high heat resistance and low noise caused by motor drive. In addition, we will actively promote the development of products that offer new values, such as naturally-derived and safe grease for food machinery.

TOPICS 1

Support for motor athletes challenging the world from Asia

Since 2013, Idemitsu has been a main sponsor of the racing teams that compete in the FIM Grand Prix World Championship and supporting riders challenging the world from Asia. The FIM Grand Prix World Championship takes place around the world and determines the champion. Races are divided into 3 classes according to engine displacement. In the top MotoGP, "LCR Honda IDEMITSU," Takaaki Nakagami belongs to, the Moto2 class with medium engine displacement, "IDEMITSU Honda Team Asia," and the Moto3 class with small engine displacement, "Honda Team Asia," we sponsor and support each team.

In addition, the ASIA TALENT CUP, in which we have been a main sponsor since 2017, was established in 2014 to discover young riders who can compete and play an active role at the world's top level. Riders from Japan and other parts of Asia and Oceania between the ages of 13 and 21 are participating. All six tournaments are held in one season, and riders are trained through their experience in races at the main circuit sites in Asia.



TEAM IDEMITSU

TOPICS 2

Product development through collaboration between Japan and overseas laboratories

Our strength lies in its ability to anticipate customer needs through its research laboratories specializing in lubricants. We conduct R&D not only in Japan but also in the United States, China, and Singapore. As a mother laboratory, Japan develops a wide range of lubricants for transportation machinery such as automobiles and ships, industrial machinery, and metal working processes, and dispatches researchers and provides guidance in order to train researchers at overseas laboratories.

Overseas R&D institutes have the same functions as those in Japan, and are focusing on developing products for the automobile industry in the United States where there is high demand for automobile lubricants, metal processing oil in China where rapid development is required, and locally specified products in Southeast Asia in Singapore. By doing so, we have established a system that enables rapid and high-level development, and we are responding to customer needs for optimal lubricants for machines that are advancing every day.

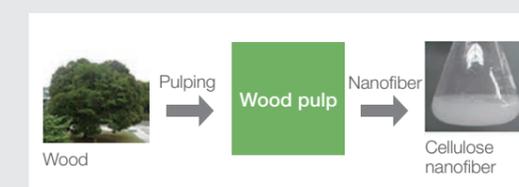
TOPICS 3

Development of naturally-derived and safe grease for food machinery

In the grease field, we are developing products made from cellulose nanofibers obtained from trees. We have developed a greasing technology for cellulose nanofiber and is working to apply it to food processing machinery.

■ Features

- Naturally-derived and safe
- Carbon neutral, biodegradable and low environmental impact
- Light weight and excellent tensile strength



Advanced Materials & Performance Chemicals

Business Environment Outlook

Technological innovation has accelerated in areas such as EVs, where advanced materials are used, and high-speed communications. As living standards continue to improve due to rising incomes in emerging countries, demand for automobiles, home appliances, daily necessities, etc. is expected to increase, particularly in Asia. In addition, the supply-demand environment is expected to deteriorate, as suppliers in emerging countries, mainly China, are starting to construct or expand production facilities for functional derivative products.

Medium-term Management Plan Business Policy

In the performance chemicals business, which handles engineering plastics, adhesive materials, derivative products, solvents, etc., we have positioned vehicles, information and communications equipment, daily necessities, and intermediates for durable consumer goods as growth markets. By offering solutions based on our own technologies, we aim to expand our business and become a core business supporting the functional materials segment. We will accelerate business growth by creating product synergies with other functional materials in the group, such as lubricants, and by aggressively acquiring resources through collaboration and M&A.

Risks and Opportunities

Risk

- Prolonged economic slowdown due to trade friction between the United States and China
- Deterioration of general purpose polycarbonate and hydrogenated petroleum resin market due to increased supply from Chinese suppliers
- Soaring cost of compound materials for SPS*
- Intensifying competition in technology development

* SPS : syndiotactic polystyrene

Opportunity

- Increased demand for functional materials for EVs, 5G high-speed communications and AI/IoT devices
- Increased demand for consumer goods and other daily necessities mainly in Asia
- Increased demand for basic chemicals and petrochemical derivative products as Asia grows

TOPICS

SPS (syndiotactic polystyrene)

SPS is a pure domestic engineering plastic that we succeeded in synthesizing for the first time in the world. Thanks to our proprietary technologies, it is highly heat-resistant (melting point: 270°C), hot water-resistant, insulating, and radio wave transmissivity. It is used in automotive parts, including electric vehicles, and antenna parts for high-speed communications equipment such as 5G. With the aim of supplying to Southeast Asia, where demand is expected to grow in the future, we plan to construct a No. 2 SPS production facility at the Pasir Gudang Complex in Malaysia and start commercial operation in August 2022.



Example of use of SPS resin (Product Name: XAREC™) automotive parts

Electronic Materials

Business Environment Outlook

Display manufacturers in South Korea and China are aggressively investing in OLED display manufacturing facilities, and the switch from conventional LCDs to OLED displays is expected to continue in many products, including smartphones and large-screen televisions. Demand for OLED materials is also expected to increase as the market for foldable phones, which take advantage of the flexibility inherent in OLED, begins to appear.

Medium-term Management Plan Business Policy

In addition to developing businesses centered on OLED materials, special polycarbonate resins for surface coating of Organic Photoconductor (OPC) drums, which are the heart of laser printers and copiers, and polyaniline, which is a conductive polymer used in capacitor electrodes and battery electrodes, we will promote the development of new businesses and applications. As for OLED materials, while deepening our relationships with display manufacturers and development partners, we will work to develop high-performance next-generation materials that contribute to energy saving and long lifetime of displays, including blue light-emitting materials in which our excels.

High Performance Asphalt

Business Environment Outlook

In line with the government's policy to strengthen its national resilience for infrastructure, economic and social system, the domestic road-related budget remains at a high level, and demand for functional asphalt is expected to remain firm. As environmental awareness increases and the population structure changes due to the declining birthrate and aging population, there is growing interest in asphalt paving technology that contributes to CO₂ reduction, recycling asphalt technology, and extended pavement life technology. In Asia and the Middle East, demand for functional asphalt for both paving and waterproofing is expected to increase as economic grows.

Risks and Opportunities

Risk

- Sluggish demand for displays due to the prolonged economic slowdown caused by trade friction between the United States and China
- Sluggish diffusion of OLED TVs
- Intensifying competition in technological development with competing material manufacturers
- Rise of new display technology such as MicroLED

Opportunity

- Accelerating the switch from LCDs in the smartphone and TV markets by reducing the cost of OLED displays
- Progress in switching from LCDs to new applications (PCs, tablets, automotive applications, etc.)
- Increase in replacement demand for smartphones due to the shift to 5G
- Expanding demand by creating new markets such as foldable phones and rollable televisions

Medium-term Management Plan Business Policy

As a "comprehensive asphalt manufacturer" that supplies asphalt for a wide range of applications, for roads, waterproofing materials for housing and industrial materials, we will fulfill our social mission of supporting infrastructure in Japan. Specifically, we are contributing to the reduction of CO₂ emissions from road construction and the reduction of road life-cycle costs through the development of various asphalt products, including technology for improving the workability by greatly reducing the allowable paving temperature, technology for recycling high-quality pavement, and technology for longer life of pavement and improving durability.

We will also expand the technologies developed in Japan to build infrastructure in Asia and the Middle East.

Risks and Opportunities

Risk

- Declining domestic population and depopulation in rural areas
- Deterioration of domestic market and profitability due to excess supply capacity
- Labor shortages in construction and transport industries
- Impact of IMO regulations on Asphalt Supply - Demand and Prices

Opportunity

- Growing needs to reduce environmental impact and CO₂ emissions
- Growing momentum toward permanent recycling of asphalt pavement
- Increasing needs for longer life of pavement
- Expanding demand for asphalt products in Asia and the Middle East



Example of use of light color asphalt (Meibright A) for landscape paving

Agri-bio Products

Business Environment Outlook

As global population increases and food demand increases, there are concerns that agricultural and livestock product production sites will experience a decrease in arable land area, an increase in feed grain consumption due to an increase in meat demand, and an increase in serious damage to agricultural products due to drought and other abnormal weather conditions. As a result, demand for agricultural and livestock materials that support efficient food production is increasing. At the same time, the need for naturally-derived materials such as biological pesticides continues to increase due to the tightening of regulations on the use of certain chemical pesticides and antibiotics mainly in Europe.

Medium-term Management Plan Business Policy

Based on the above environmental assumptions, we will contribute to improving the efficiency of global production of agricultural and livestock products by developing and popularizing naturally-derived biological pesticides and livestock materials. In particular, we plan to expand sales of biological pesticides, which are expected to expand worldwide, such as Tough Block (paddy rice seed fungicide), Boto-killer (fungicide) and Impression Clear (fungicide), which are expected to expand worldwide. We will also continue to develop new active ingredient for biological pesticides in cooperation with our major affiliate, SDS Biotech K.K. In the livestock business, we will strengthen sales of Ruminup (rumen function improving agent for cattle) and Molluca (probiotics), which have been well received by our customers, and promote activities for global expansion.

Risks and Opportunities

Risk

- Japanese pesticide market stagnant due to decline in agricultural population and area
- Increased cost of pesticide development due to reduced probability of discovery of new chemical pesticides
- Expansion of scale gap with Japanese manufacturers through integration and reorganization of multi-national companies

Opportunity

- Expansion of global pesticide market due to population increase and food demand increase
- Shift to materials derived from microorganisms and plants by tightening of environmental regulations
- Growing need for functional natural materials to improve the productivity of agricultural and livestock products
- Expanding the potential for new businesses that contribute to the ESG by Combining our company's proprietary and advanced technologies



Lithium-ion Battery Material

Business Environment Outlook

Lithium-ion batteries provide higher capacity than primary batteries and have expanded their market for smartphones, mobile PCs, digital cameras and other products as rechargeable secondary batteries. The market for lithium-ion rechargeable batteries is expected to expand further as a result of spreading of EVs (electric vehicle), HEVs (hybrid vehicle) and PHEVs (plug-in hybrid vehicle) that incorporate lithium-ion batteries with improved driving range and safety due to heightened awareness of the realization of a low-carbon society, as well as expansion of their application to other consumer products such as energy storage and 5G devices.

Medium-term Management Plan Business Policy

Liquid lithium-ion batteries, which are widespread today, use highly volatile and flammable electrolytes. We are conducting research and development on solid electrolytes which are the key materials for all-solid lithium-ion rechargeable batteries that are fire-resistant and safe, and are produced from lithium sulfide prepared by a unique production technology that utilizes hydrogen sulfide obtained from petroleum refining. Our initiatives for commercialization of solid electrolytes business is also in progress.

Power and Renewable Energy Segment

Review of Operations

Idemitsu group conducts power generation and electricity retailing. In the power generation business, we operate a variety of renewable energy sources, including solar, wind, biomass, and geothermal, as well as large, high-efficiency LNG thermal power plants, which have a low environmental impact, and petroleum-based thermal power plants, which fully utilize the byproduct gas generated from the decomposition of heavy oil in oil refining as fuel. Going forward, we will promote the development of a variety of renewable energy sources in Japan and overseas to contribute to a low-carbon society and to ensure the stable and safe operation of existing power sources. In the electricity retail business, we are expanding nationwide, except in Okinawa, and will propose a retail electricity menu that meets customer needs.

Business Environment Outlook

In Japan, it is expected that the introduction of geothermal power generation will be promoted as a result of a review of the feed-in tariff (FIT) for renewable energy, moves to convert renewable energy into a major power source in accordance with the 5th Basic Energy Plan, and the effects of policies such as power system reform and progress in decarbonization and technological innovation. At the same time, competition in solar panel manufacturing is expected to intensify as Chinese manufacturers enter the market.

Overseas, the expansion of business related to renewable energy is expected in light of the expected increase in electricity demand due to the promotion of renewable energy and the reduction of the cost of power generation from renewable energy sources as well as economic development in emerging countries.

Medium-term Management Plan Business Policy

Based on our medium-term visions of "Development and promotion of power sources and related businesses using diverse energy sources that contribute to CO₂ reduction," "Overseas development utilizing knowledge and problem-solving skills cultivated in Japan" and "Maintenance and expansion of the base domestic electric power business and development of new solutions and commercial products," we will address the following 3 points as our basic policies.

Maintenance and expansion of core businesses

We are involved in the operation of approximately 1GW of power plants in Japan, overseas and affiliated companies.

Japan operates about 700MW, including solar, geothermal, biomass, and wind power, totaling about 200MW.

These power stations aim to provide a stable supply of electricity to customers throughout Japan, and are working to ensure safe and stable operations. We will also invest in LNG thermal power plant projects not only in Japan but also overseas to acquire know-how and secure stable earnings in overseas power generation businesses.

At the same time, in the area of electricity sales, we will expand sales of high-voltage and low-voltage products. We will also continue to develop products and services to meet diverse customer

needs, such as by further enhancing our low-carbon CO₂ menu to meet the increasing needs of customers.

We will continue to leverage its strengths in the electric power business, which combines power generation and retail, with the aim of expanding its customer base by leveraging the sales channels it has cultivated throughout Japan.

Promoting the development of renewable energy sources in Japan and overseas

As of the end of November 2019, we were operating a photovoltaic power plant in Vietnam, and a renewable energy power plant with a total development capacity of 200MW with diverse resources in Japan, including solar, wind, biomass, and geothermal power. Based on the management know-how accumulated to date, we will actively develop photovoltaic power plants and other facilities with a target of building up to 4GW by 2030. As a target area, we plan to develop mega solar power plants in North America and Southeast Asia, which have favorable conditions for sunlight and policy guidance.

Specific Initiatives in FY2019

- Construction of 49.5MW mega solar plant completed in Vietnam
- Start of 100MW photovoltaic power generation project in Colorado, USA
- Start of 50.5MW photovoltaic power generation project in California, USA
- Decision made to commercialize biomass power generation at the Tokuyama Complex

Demonstrating and developing solution businesses

- Obtaining opportunities arising from the expansion of renewable energy and institutional reforms
- Coexistence with local communities by promoting local production and local consumption models using renewable energy
- Providing solutions such as microgrids to meet the growing electrification needs of Southeast Asia
- Development of high-value-added fields utilizing the elemental technologies of CIS solar cells
- Development of next-generation solar cells based on CIS elemental technologies

Risks and Opportunities

Risk

- Decline in business profitability due to policy and institutional changes in Japan and overseas
- Further intensifying competition in the retail electricity business in Japan
- Complexity of grid connection (power transmission line) process in Japan
- Mass disposal of solar modules after completion of FIT period
- Decline in production competitiveness due to intensified sales competition for solar modules
- Regulation of geothermal power generation development in potential areas by the Natural Parks Act as well as the forestry and forest-related law

Opportunity

- Increasing social needs for renewable energy worldwide by responding to climate change issues and guiding policies
- Increase in electricity demand in emerging Asian countries
- Expansion of business opportunities in line with domestic power system reforms
- Growing social needs for decentralized energy such as strengthening domestic energy supply, local production for local consumption, and private consumption
- Lower costs of renewable energy generation due to technological innovation and the rise of new business models

TOPICS 1

Initiatives for photovoltaic power generation

Our photovoltaic power generation business is centered on the construction and operation of solar power plants on idle land in our group and the research, development, manufacturing, and sales of CIS solar modules by Solar Frontier K.K., a group company. In Japan, we not only operate 16 solar power plants on its own, but also develop solar plants in cooperation with other companies.

At Solar Frontier K.K., we aim to grow our business by shifting from panel sales to system integrators selling power systems. As part of our efforts for the next generation, we are working on the development of ultra-lightweight panels, which we believe will enable us to expand the range of installation sites and create new markets with high added value. We are also working with construction material manufacturers in Japan and overseas to develop next-generation building integrated photovoltaics.

In addition, as a measure to deal with the mass disposal of panels at the end of the FIT period, we are engaged in joint research with NEDO (New Energy and Industrial Technology Development Organization) to develop recycling technology for CIS solar cells. This recycling technology is characterized by the separation and collection of each material. It has been confirmed that more than

90% of rare metals such as indium and selenium contained in the battery can be collected. We will apply this treatment technology to the recycling of crystalline silicon solar panels. In the future, we plan to construct a pilot line at the Kunitomi Plant, where we will study the feasibility of solar panel recycling technology.



Ultra-light panel prototype

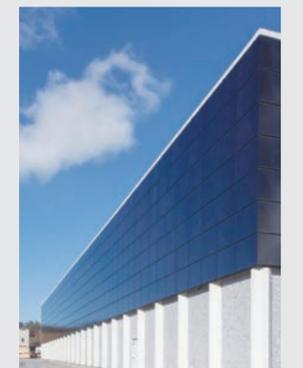


Image of a building integrated photovoltaics

TOPICS 2

Initiatives for geothermal power generation

Since the 1970s, we have focused on geothermal energy as a renewable energy alternative to oil and have been working on its development. In 1996, Idemitsu Oita Geothermal Co., Ltd., one of our group companies, started supplying steam for power generation to the Takigami Power Station (Oita Prefecture) of Kyushu Electric Power Co., Inc. In addition to striving for stable operation, in March 2017, Idemitsu started commercial operation of the Takigami Binary Power Plant, one of Japan's largest geothermal binary power plants. In 2018, the power plant received the highest rank of "Minister of Economy, Trade and Industry Award" at the 2017 New Energy Awards sponsored by the New Energy Foundation. Since 2011, we have conducted joint exploration for geothermal energy development in the Oyasu District of Akita Prefecture, and in 2017 and 2018, we conducted flow tests to evaluate the capacity of the

wells drilled. In addition to working to ensure the safe operation of existing power plants, we will promote activities with a view to developing new geothermal projects in Japan and expanding them overseas.



Flow test

Resources Segment



Review of Operations

Idemitsu group is promoting oil and natural gas exploration, development, and production projects in Norway and Southeast Asia, particularly in Vietnam. We are also developing coal mining operations in Australia and Indonesia for making efforts to provide a stable supply of oil and natural gas to customers in Japan and other Asian countries.

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Oil and Natural Gas Development

Business Environment Outlook

From a medium- to long-term perspective, we are working to secure sufficient reserves to maintain and expand production through oil and gas exploration-to-development activities in Norway and Southeast Asia. In Europe, we believe the importance of low-sulfur Norwegian crude oil from one of our core areas will continue. On the other hand, demand for natural gas for power generation is expected to increase in Southeast Asia, since economic development and population growth in the area will expand the demand for electricity.

Medium-term Management Plan Business Policy

We will focus on natural gas development in Southeast Asia while securing profits from oil exploration and production in Europe. Over the medium term, we aim to develop natural gas supply chain for local production to consumption in Asia by developing sales businesses as well as production. We signed a contract with Petrovietnam in 2004 for an offshore block in southern Vietnam and conducted exploration. As a result, a gas field was discovered in

Risks and Opportunities

Risk

- Decline in oil demand in Europe
- Volatility in oil resource value

Opportunity

- Increased demand for oil and natural gas in Asia
- Expanding electricity demand in Southeast Asia

2010. We are working on the development as an operator, aiming to start production in the latter half of 2020.

In Europe, we are also promoting the stable production of existing oil fields (Snorre, Fram, etc.) in the Norwegian Northern North Sea, together with the development of discovery structures from successful explorations in the Northern North Sea and the Barents Sea.

TOPICS

History of upstream business in Norway

In the late 1980s, we acquired an interest in the Snorre Field in the Norwegian Northern North Sea, and began upstream business in Norway. Since then, we have steadily expanded our business, starting production at the Snorre field (1992), Fram fields (2003) and Knarr field (2015), and discovering the Duva field (2016). In recent years, we expanded the scope of exploration to include frontier areas, and succeeded in discovering oil fields in the Barents Sea in 2013 and 2014. Since its inception, we have engaged in friendly competition on the Norwegian continental shelf, where prominent oil companies from around the world have entered. In 2019, we submitted a development plan for floating offshore wind power generation at the Snorre field to the Norwegian government.

This is the world's first attempt to directly supply electricity generated by offshore wind power facilities to oil and gas production facilities, and we are working to start operations in the second half of 2022.



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Illustration of renewable energy supply to an offshore oil field. Participation in a joint project with Equinor and other partners.

Coal Business

Business Environment Outlook

Coal is one of the major primary energy sources along with petroleum, natural gas, and nuclear power. Demand for coal is expected to remain strong in the medium term due to its excellent supply stability and economic efficiency. However, because coal emits more CO₂ than other forms of energy, further efforts are required to reduce emissions.

Medium-term Management Plan Business Policy

We have a value chain in which production, distribution, and sales work together to supply high-quality coal, and we have the only private comprehensive research institute specializing in coal in Japan. By taking advantage of this strength, we are working to ensure a stable supply to customers and win their trust. As for existing mines in Australia and Indonesia, we will strengthen our competitiveness by robust manage-

Risks and Opportunities

Risk

- Coal demand decrease due to climate change measures

Opportunity

- Expanding opportunities to provide low-carbon solutions
- Expanding renewable energy business opportunities using mine assets

ment and introducing new technologies such as remote controlled coal mining for future environmental changes. We will also promote initiatives to reduce environmental impact and contribute to local communities, such as contributing to the reduction of CO₂ emissions while using coal, and adopting photovoltaic power generation and pumped-storage hydroelectric power generation using mine assets.

TOPICS 1

Provision of low carbon solutions

- Development of black pellets (biomass fuel)

We are working on the development of black pellets, a biomass fuel that can reduce CO₂ emissions by co-firing with coal at coal-fired power stations. Black pellets are made by pulverizing, drying, roasting, and semi-carbonizing wood. They are superior to conventional white pellets in terms of water resistance and pulverization, and can be handled in the same way as coal. As a result, it is possible to reduce coal consumption and increase the use of renewable energy (black pellet) without modifying existing facilities. We have a demonstration plant in Thailand and are preparing to expand our business in Southeast Asia.



Black pellet

- Provision of coal boiler control optimization system

The coal boiler control optimization system "ULTY-V plus™" realizes the optimum operation of coal boilers used in power plants and factories by stabilizing steam characteristics through an AI incorporated self-learning function. Installation of this system in addition to existing control systems enables us to reduce coal consumption by approximately 1%, contributing to environmental measures and CO₂ emissions for domestic and overseas customers. That means, if we could reduce coal consumption in Japan by 1%, we could reduce CO₂ emissions by about 2.8 million tons a year.



Coal boiler control optimization system "ULTY-V plus™"

TOPICS 2

Study of renewable energy business utilizing mine assets

At the Muswellbrook coal mine in Australia, a study is underway with AGL Energy, a leading Australian electric power company, to commercialize a pumped-storage hydroelectric power generation system that utilizes the difference in elevation between the old mine site as a lower reservoir and the adjoining hilly area (Bells Mountain).

We are also considering photovoltaic power generation business using idle land in our own coal mines. By developing renewable energy businesses using mine assets, we aim to reduce the environmental impact of mining operations and contribute to local communities.



Bells Mountain and the former Muswellbrook mine site. Schematic diagrams (aerial photograph and cross section)



Organization and Human Capital

Human Resources Policy

Action Mindset

In order to realize Management Vision, 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 have the following 5 pillars: "Independence and autonomy" "Innovation" "Co-creation" "Health and safety" and "Integrity."

All employees shall strive to deepen understanding of Management Vision, Action Mindset and various policies, take pride in being a member of us, be aware of their responsibilities, and conduct fair and transparent corporate activities.



Concept of Human Rights

Idemitsu Group believes in the infinite possibilities of "the power of human beings". By maximizing the full potential of all our employees, trusting, and cooperating with each other, we aim to contribute to the energy security of countries and regions around the world for the brightness and prosperity of the people who live there.

With this vision for our group, respecting human rights is at the core of everything we do and is the fundamental element of our business. This policy applies to all executive officers and employees of our group. We also expect all business partners, including our suppliers, to understand and comply with this policy.

We seek to work in harmony with both the international and local community, and does not allow discrimination against any individual or groups. In addition, we prohibit words or actions that could harm human dignity, be it physically or mentally.

We respect 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. We also support the United Nations Guiding Principles on Business and Human Rights, the Voluntary Principles on Security and Human Rights, and the United

Nations Global Compact. In addition, we comply with the laws of the countries and regions where we operate, and if local laws contradict internationally recognized human rights standards, we will seek ways to honor the principles of international human rights without violating local laws.

We promote a culture of open communication and feedback so that employees can discuss human rights concerns with their managers. In addition, to deal with violations or potential violations of the Code of Conduct, including human rights issues, we have a reporting and consultation service (Internal and External Contact Points on page 55) for executives and employees. Also, we have a contact point (Customer Service Center on page 18) for external stakeholders to report concerns about our business activities. We also disclose information on our efforts to respect human rights on our website as needed.

Our group's Human Rights Policy has been approved by the Management Committee, which deliberates on important matters relating to the execution of business, and the Board of Directors, which is the decision-making body for the execution of business, with the advice of outside experts.

Human Rights Priority Issues

1. Promotion of Diversity
2. Prohibition of forced labor
3. Prohibition of Child Labor
4. Prohibition of Discrimination
5. Prohibition of Harassment
6. Freedom of Association and Recognition of the Right to Collective Bargaining
7. Maintaining our Working Environment
8. Land, Water and the Use of Natural Resources
9. Respect for the Rights of Indigenous Peoples

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



Concept of Diversity and Inclusion

As an energy co-creation company originating in Japan, Idemitsu Group will work with diverse stakeholders to create new values in order to solve the various social issues.

"Idemitsu Group Diversity & Inclusion Policy" has been established to clarify the significance and purpose of diversity and inclusion in our group and to promote them with a common understanding.

* Idemitsu Group Diversity & Inclusion Policy
 ➔ <https://sustainability.idemitsu.com/en/themes/200>



Basic Concept of Personnel Strategy

Idemitsu recognizes that human resource risks include mismatches in aptitude and career levels resulting from rapid environmental changes such as digitization and robotization, and a shortage of human resources due to intensifying competition in the acquisition of human resources. At the same time, however, we recognize that these environmental changes provide opportunities for diverse employees to grow autonomously and transform themselves into a company that creates new values.

In such an environment, our Management Vision and Action Mindset state that "Hitowa, Mugenno Energy. (People have limitless energy.)" as our slogan. We are developing personnel measures that support the "people-centered management" along the slogan We aim not only to contribute to the development of society, but also to enrich the lives of our employees by enabling each and every one of us to make the best use of our abilities and by enhancing the team strength of the entire organization and supply chain.



Overview of Personnel Measures

Growth in My Own Way	Stimulating Self-Growth Motivation and Providing Growth Opportunities
	<ul style="list-style-type: none"> ■ Development of education system to realize Management Vision <ul style="list-style-type: none"> • Enhancement of rank-based and open training to acquire business skills and mindsets • Improving management skills to create new values • Development of domestic and overseas study programs, overseas interns, and external training programs to broaden our horizons ■ Career development support (CDP) for employees based on structural changes and systematic development of management personnel <ul style="list-style-type: none"> • Formulation and implementation of a training plan that emphasizes mutual understanding between employees and the company • Internal recruitment system and personnel transfers to build autonomous career plans • Linking succession plans with education and transfer plans (including national staff)
Creating New Values Together	Creating a Workplace Where Diverse Employees Can Create Together and Hiring Human Resources
	<ul style="list-style-type: none"> ■ Creating workplaces that take advantage of diversity <ul style="list-style-type: none"> • Flexible and flat organization and personnel shift to growth areas • Creating time to create new values by promoting DTK project • Expanding cross-divisional networks, such as promoting the active participation of women • Improvement of workplace culture based on an employee engagement survey and Next Forum • Constructing a collaborative environment through 360 degree evaluation (multifaceted evaluation) ■ Recruitment of diverse human resources <ul style="list-style-type: none"> • Creation of a (recruitment strategy) recruitment and branding method that takes into account the youths' point of view and the uniqueness of us • Examination of recruitment timing and targets based on the characteristics of each division
Trust of Employees and the Company	Establishment of Personnel Systems That are Rewarding and That Enable Employees to Focus on Their Work with Peace of Mind
	<ul style="list-style-type: none"> ■ Shared vision and development of a fair and equitable, and reliable personnel system <ul style="list-style-type: none"> • Understanding and dissemination of Management Vision and Action Mindset • Establishment and operation of a fair and equitable personnel evaluation system • Efficient and reliable business operations through the introduction of a new personnel system ■ Dissemination of systems that respect diversity and work styles regardless of place or time <ul style="list-style-type: none"> • Enhancement of systems, including flexible working hours and telework, and development of measures to promote the use of such systems ■ Enhancement of systems that enable employees to focus on their work with peace of mind <ul style="list-style-type: none"> • Enhancement of systems related to childcare and nursing care and measures to support the return of employees on leave • Implementation of health management leading to autonomous health management • Development of systems and measures for further advancement of employees 60 years and older

Organization and Human Capital

Creating a Workplace Where Diverse Employees Can Create Together and Hiring Human Resources

Employment Situation

As of July 1, 2019, Idemitsu has 13,756 consolidated and 4,825 non-consolidated employees. We are promoting initiatives that enable

all employees, regardless of age, gender, nationality, or disabilities, to work energetically.

■ Status of Employees

	Total	Men	Women	Percentage of women
Number of employees	4,825 people	4,254 people	571 people	11.8%
Number of employees in managerial positions	971 people	949 people	22 people	2.3%
Average age	43.0 years old	43.3 years old	41.0 years old	—
Average years employed	19.3 years	19.6 years	16.9 years	—
Percentage of employees with disabilities	2.11%	—	—	—

* The above data covers Idemitsu hiring (employees, seniors, full-time contract employees, and advisors). Includes employees seconded from Showa Shell, but excludes employees seconded to other companies. However, the percentage of employees with disabilities includes employees seconded to other companies.
 * The percentage of employees with disabilities is calculated based on the calculation method of the Ministry of Health, Labour and Welfare.

Status of Recruitment

We said, "Hitowa, Mugenno Energy. (People have limitless energy.)" Under the slogan, we are recruiting people who can challenge themselves and create new values together while respecting diversity. In the hiring process, we make it a priority to ensure that employees do not make any mismatches 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 the system to improve employee retention.

■ Recruitment of New Graduates in April 2019

Total	Men	Women	Percentage of women	Foreign nationality	Percentage of foreign nationality
178 people	142 people	36 people	20.2%	5 people	2.8%

■ New graduate retention rate (Average for newly hired employees between 2014 and 2016) (Unit:%)

Idemitsu	Showa Shell
91.5	95.5

■ Career Recruitment in FY2018 (unit: people)

Idemitsu	Showa Shell
67	42

* Showa Shell's career recruitment include contract employees.

Promotion of Activities by All Employees (Promotion of D&I)

We have formulated the General Employer Action Plan based on the "Act on the Promotion of Women's Participation and Advancement in the Workplace" to promote participation and career advancement of women. In addition, we have been recognized by the Ministry of Health, Labour and Welfare as a child-care support company for the formulation and implementation of the General Employer Action Plan based on the "Act on Advancement of Measures to Support Raising Next-Generation Children" and have received the certification mark "Kurumin." * Based on the plan, we will continue to improve the employment environment and working conditions that will contribute to the development of the next generation and to implement measures to support the development of the next generation.



* Kurumin is a mark 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. We have obtained certification since 2012.

Promotion of Activities by Employees Aged 60 and Over

The system will be revised to allow each employee to make the most of his or her abilities after the age of 60 and to work with a sense of satisfaction and security against a backdrop of diversification of working age and form and willingness to work. Beginning in FY2021, we will introduce a retirement age selection system for employees aged 60-65. In FY2025, we plan to introduce a system in which all employees can work as employees up to the age of 65.

Promoting the Active Participation of People with Disabilities

We are working to create an environment in which people with disabilities can demonstrate their abilities and work, and to provide opportunities for such people. In addition to operations at the head office and other sites around the country, in 2011 we began cleaning accommodation facilities at our training centers and in 2015 we began operations in the horticulture division (Idemitsu Yume Farm), which cultivates flowering plants using the greenhouse facilities of our Advanced Technology Research Laboratories. In 2019, we constructed a strawberry plantation in Tokuyama Complex using waste heat from the site, creating employment opportunities such as culti-

vation work. The strawberries are used in company cafeterias, and in the future we plan to increase the number of cultivation houses and hire more people with disabilities. We are also considering ways to promote the employment of people with disabilities in each

department, and with a view to expanding operations at our head office, we will continue to promote the creation of workplaces and employment opportunities where people with disabilities can work with pride and enjoyment.

Efforts to Improve Workplace Culture and Motivation

Next Forum Initiatives

Next Forum is a company meeting for employees and management to directly discuss, exchange opinions, and make proposals on company-wide issues with the aim of becoming a better company. Meetings are held twice a year, and forum members (total of 110 persons) selected from each department gather opinions from the workplace and directly communicate with management. The opinions of employees are fed back into company-wide activities, and



we are implementing better measures so that everyone can work energetically.

In 2019, meetings were held in February and July to discuss ways to improve work efficiency, including the results of an employee engagement survey and the many comments received from forum members, as well as factors that impede the improvement of work efficiency, such as work structures and workplace culture.



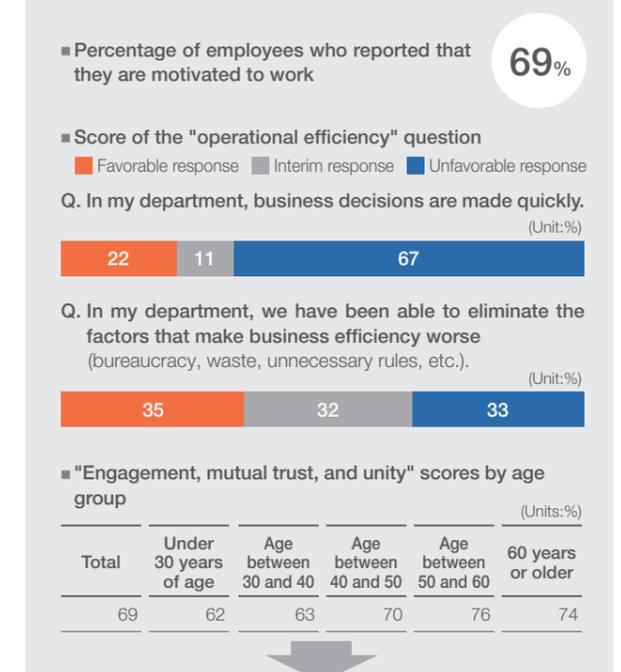
PDCA Cycle Based on an Employee Engagement Survey

We conduct an employees engagement survey once a year to quantitatively and continuously analyze employees' engagement, mutual trust, and unity.

The first survey after the business integration was conducted from late July to early August, covering a total of 10,344 people in our company and affiliated companies (27 companies), with 9,970 people (96.4% of total) responding. 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.



■ Results of the 2019 Employee Engagement Survey



Based on the results of the above survey, we will promote company-wide work flow reforms through the creation of a flat organization and DTK (Dattara Ko Shiyō) project (=Business Process Redesign).

The results of these efforts will be confirmed in the following year's survey.



Social and Relationship Capital

Sustainable Procurement

Concept of Sustainable Procurement

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 have established internal rules "General rules concerning procurement activities."

We aim to contribute to the realization of a sustainable society throughout the supply chain by establishing a policy for selecting suppliers when purchasing or borrowing the materials, construction, and services necessary for our company's business operations, and by having suppliers understand the policy on our procurement activities.

About Guidelines

The business environment is diversifying, and in order to achieve sustainable development, it is expected that each company will make active efforts to fulfill its social responsibility not only for one company but also for the entire supply chain. In order to fulfill this responsibility, we are formulating our own sustainable procurement guidelines based on ISO 26000 (Guidance on social responsibility) issued in November 2010, ISO 20400 (Guide to Sustainable Procurement) issued subsequently, SDGs (Sustainable Development Goals) adopted at the United Nations Summit in September 2015, and the 10 principles of the United Nations Global Compact.

Conduct Self-Assessment of Sustainable Procurement for Suppliers

In order to promote sustainable procurement throughout the entire supply chain, in 2019 we began an independent survey of the degree to which our major suppliers are adopting sustainable procurement. Specifically, 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, including "organizational governance," "human rights," "labor practice," "environment," "fair business practices," "consumer issues," and "social contribution" to approximately 300 major suppliers and asked them to perform self-evaluations. In addition to providing feedback on the results of these assessments, if there are any concerns, we work with suppliers to improve and solve these 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 society, suppliers, and we are working to achieve a triple win.

Collaboration with Dealers and Distributors

Idemitsu operates its businesses through a powerful network of 1,217 dealers and distributors and 6,395 SS (service stations) nationwide. Branches serve as contact points to provide fine-tuned support for the business management and SS management of dealers and distributors. In May and June 2019, Owners' Meetings were held at 10 locations across the country for the first time, bringing together dealers and distributors to interact to promote and practice their sales strategies with customers as our top priority.

In cooperation with "Idemitsu Association" an organization of dealers, and "National Showa Shell Association" an organization of distributors, we are also working together in the field of social contribution by contributing to the community and revitalizing the community. We have also established our own certification and training systems to enhance the knowledge and skills of its staff in order to increase customer trust in its technologies and services, as well as to continue generating new added value by sensitively identifying customer needs.

In order to provide a stable supply of energy, service stations, which are strong in times of disaster, are expected to play a role as disaster prevention centers. We are demonstrating a system that combines solar panels and power storage functions at four service stations in the Tokyo metropolitan area.

In addition to providing a constant refueling function in the event of a power failure, it 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 an emergency power supply.

* The figures in this section refer to the number of dealers and distributors as of the end of June 2019 and the number of service stations as of the end of September 2019.



Joint owners' meeting of dealers and distributors (2019)

Major independent certification programs

Idemitsu Technical Master Program

A qualification program for the purpose of developing human resources who can make comprehensive energy proposals that meet customer needs in the field of industrial petroleum and lubricants sales.

(Number of certified persons in the petroleum division Grade1: 21, Grade2: 76, Grade3: 224 *Number of certified persons in FY2018)

(Number of certified persons in the lubricants division Grade1: 48, Grade2: 155, Grade3: 240 *Number of certified persons in FY2018)

Zepromeister Program

A certification program to train service station oil leaders through acquisition of basic knowledge and product knowledge of oil, as well as exchange techniques that will become increasingly complex in the future.

(Number of certified person Grade1: 411, Grade2: 2,357, and Grade3: 3,923 *The number of incumbents as of the end of March 2019)

Showa Shell Royal Manager (SRM) Program

A qualification program launched in 1979 to further develop the human resources of active store managers, with the aim of improving service station management capabilities that match the times and management capabilities that overcome changes.

(Number of certified persons Grade1: 276, Grade2: 2,014, and Grade3: 7,280 *The number of incumbents as of April 2019)

Showa Shell Oil Meister Program

A qualification program for training service station lubricants sales leaders who have a high level of both technique and sales

(Number of certified person 1,342 *The number of incumbents as of April 2019)

Showa Shell Car Life Advisor Program

A qualification program to train service station personnel who have advanced knowledge of vehicles in general and who are capable of giving appropriate advice to customers

(Number of certified persons 442 *The number of incumbents as of April 2019)

Shell Lubricants Japan Lubricants Expert Program

A qualification program started in 1970 to develop human resources capable of responding to the diverse needs of customers concerning lubricants and grease

(Number of certified persons Grade1: 335, Grade2: 1,761 *Cumulative number of person since 1970 as of April 2019, excluding those who passed in 2019)

Collaboration with Subcontractors

Refineries and plants outsource plant maintenance, overland shipping, and marine transport to subcontractors. At all of our business sites, we have organized three cooperative associations, one for construction and maintenance, one for land transportation, and the other for maritime transportation. We are promoting safe and stable operations and environmental conservation at its refineries and plants in cooperation with these associations.

Collaboration with Transport Companies and Maritime Shipping Companies

Idemitsu outsources the transportation of petroleum products to transport companies and maritime shipping companies. The con-signed company has organized a council to promote safety and strengthen cooperation among companies. We are a special member of the council.

The council of land transport companies holds safety campaigns, training sessions for operation managers, and awards for crew members with no accidents and no violations. The council of maritime shipping companies carries out safety campaigns, thorough implementation of safety activity policies and specific measures, and horizontal development of good and dangerous examples.

In addition to calling attention to the "Safety, environment and quality" aspect through the two councils, we are also working to build a high-quality, competitive logistics system, while emphasizing safety activities rooted in the workplace, through direct dialogues with crews of land lorries, the masters of coastal tankers, and the crew.

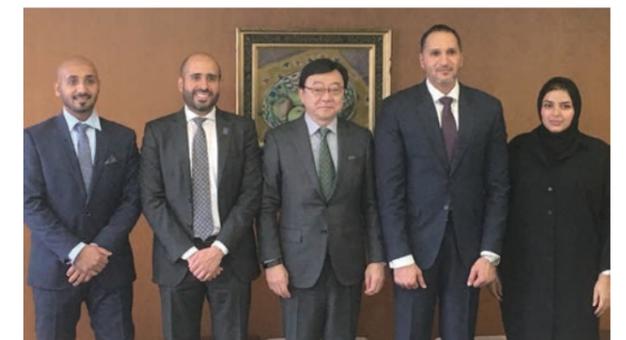
Exchanges and Dialogues with Oil-Producing Countries

Idemitsu has established a representative office to promote exchanges and dialogue with oil-producing countries in the Middle East and other regions in order to build strong relationships of trust. In recent years, we have strengthened our relationship of trust with oil-producing countries through joint ventures with capital participation. In addition, Japan supports the development of human resources and technical support in oil-producing countries by dispatching experts to these countries with the support of the JCCP (Japan Cooperation Center Petroleum) and by accepting senior officials and engineers in Japan. We also participate in the Joint Project for Infrastructure Development in Oil-producing Countries (FY2018), which is implemented by the JCCP.

Saudi Aramco, the national oil company of the Kingdom of Saudi Arabia, one of the world's largest oil-producing countries, has also deepened cooperation in crude oil procurement, and is flexibly selecting and procuring crude oil whose refinery performance is optimal in light of market trends. Because it is possible to supply a wide variety of crude oil, multiple types of oil that we want are loaded into tankers and transported at one port of call.

Receiving Training Performance (FY2018)

Accepting 48 trainees from the United Arab Emirates, Qatar, Oman, Mexico, Myanmar, and Vietnam



Acceptance of executive candidates

Intellectual Capital

Idemitsu group will continue to create innovations that contribute to solving social problems such as climate change through the development of leading-edge technologies in various fields that has been

cultivated over the years through the development of petroleum products.

Our Research and Development System

Our R&D system is comprised of "Advanced Technology Research Laboratories", which supervises corporate R&D, and research laboratories in each department. Each of them carries out specialized development. In addition, we established "Research and Develop-

ment Committee" as the company-wide organization to not only examine the direction of company-wide research and development, strategies, and issues, but also to deepen cooperation among laboratories and to strengthen technological capabilities.

Segment and name of laboratory		Outline of Initiatives
Corporate R&D	Environment & Energy Research Laboratory	■ Research on climate change measures (Biofuels and Biochemicals), development of biological materials and high performance materials
	Frontier Materials Development Laboratory	■ Development of advanced functional materials
	Advanced Battery Materials Research Laboratory	■ Development of advanced battery materials related with all-solid-state lithium ion battery and lithium recovery technology
	Atsugi Research Center	■ Research on climate change measures (Artificial photosynthesis and biomass conversion technology) ■ Development of high-performance inorganic thin film semiconductors and devices
Petroleum segment	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
	Functional materials segment	Lubricants Research Laboratory
Lubricants		■ Local-based research and development of lubricants ■ Global development of lubricants products and technologies with the Lubricants Research Laboratory (Japan) as the mother research center ■ Rapid product development and provision of technical services to meet local needs in overseas
Nippon Grease Co., Ltd. Technical Research Laboratory		■ Research and development of grease, rust prevention oil, cutting oil, etc.
Performance Materials Laboratories		■ Development of advanced materials through high-value-added petrochemical raw materials
Advanced materials & Performance chemicals		■ Research and development for resin processing product
Lion Idemitsu Composites Co., Ltd. Composite Materials Research Laboratory		■ Design, development and analysis of customer grades of composite materials that meet customer needs
Electronic Materials Development Center		■ Research and development of OLED materials
Electronic materials		■ Research and development of special polycarbonate resins and functional coating agents
Inorganic Materials Development Group		■ Research and development of oxide semiconductor materials
Asphalt		■ Basic 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
Power and renewable energy segment	Lithium-ion battery material	■ Development of sulfide-based solid electrolytes for practical application of all-solid-state lithium ion batteries
	Photovoltaic power generation	■ Research and development of CIS solar cells
Resources segment	Coal	■ Only private research institute specializing in coal ■ Provision of technology services that anticipate needs and development of clean coal technologies to meet the needs of a low-carbon society

Utilization of Intellectual Property

We have established the Intellectual Property Department to supervise intellectual property. The Intellectual Property Department supports our business development and activities to increase the brand value of its products by collaborating with its business department and R&D departments to apply for, secure, maintain and utilize intellectual property rights, such as patents and trademarks.

Promotion of Intellectual Property Activity Plans

We use the PDCA cycle to formulate IP Activity Plans based on the "Intellectual Property Strategy Council" headed by the general managers of each department. The departments, research laboratories, and the Intellectual Property Department work together to promote to solve priority issues. We have also introduced the "Unit Structure" which efficiently solves problems in a wide range of business fields, from petroleum to functional materials, in accordance with the characteristics and strategies of each business. By doing so, each unit can smoothly carry out intellectual property activities such as search and analysis of patent information, patent prosecution, negotiations, planning, and administration.

In the petroleum field, we have entered into a cross-licensing agreement and are working to strengthen our competitiveness by reducing costs by making available patents from both parties. In the lubricants field, we have a large share of the global market for refrigerating machine oil, which is one of our strengths, and we have established global patent portfolios.

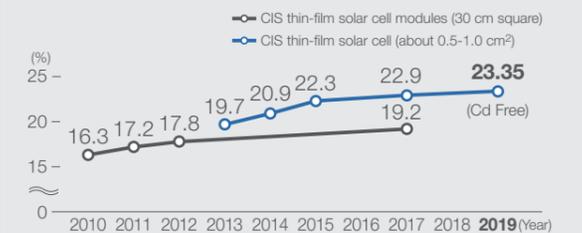
Because market growth is expected in OLED business, the core field of the electronic materials business, we have entered into alliance agreements with companies in Japan and overseas that hold useful patents related to OLED materials, enabling the mutual use of patents in specific fields. Through these and other measures, we are working to create and expand businesses while expanding the areas in which development is possible.

TOPICS 2

Development of CIS solar cell technology

At the Atsugi Research Center of Solar Frontier K.K., we are engaged in leading-edge research and development related to CIS solar cells, aiming to improve energy conversion efficiency at both the research and commercial production levels, as well as developing new applications and developing advanced next-generation products with market development potential. In January 2019, a joint research project with the NEDO (New Energy and Industrial Technology Development Organization) led to the achievement of a world record energy conversion efficiency of 23.35% for the cadmium-free CIS solar cell (Cd-Free CIS solar cell)'s cell (about 1 cm²). This record is approximately 0.4 percentage points higher than the highest conversion efficiency of 22.9% (Achieved by our company in November 2017) for cadmium-containing CIS solar cells, and represents the highest conversion efficiency in the world for all CIS solar cells. By applying basic technologies, we are working to lower costs by increasing the output of panels and to deliver environmentally friendly and economical products to customers.

History of Solar Frontier's Renewal of the World's Highest Conversion Efficiency

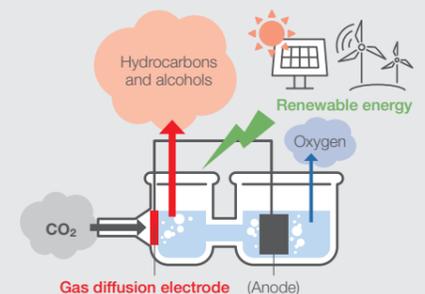


TOPICS 3

Artificial photosynthesis

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.

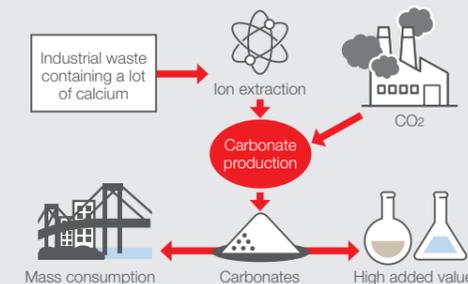
We will continue developing the gas diffusion electrode to advance research on artificial photosynthesis. By 2030, we will establish technology to produce valuable materials such as hydrocarbons and alcohols from water and CO₂ using renewable energy sources with high efficiency. Through the reuse of CO₂, we will contribute to realizing a sustainable society.



TOPICS 1

Carbonate production

Our company, with the participation of Ube Industries, Ltd., JGC Corporation, and several universities, established "CCSU (Carbon dioxide Capture and Storage with Utilization) Study Group" as an industry-university collaboration to develop new technologies that convert CO₂ emitted from thermal power plants and factories into resources by utilizing industrial waste containing a large amount of calcium. As the Japanese government promotes the development of technologies for CO₂ recovery and other measures to combat global warming, we are working on the development of new technologies that utilize industrial waste containing high levels of calcium and other substances to react with CO₂ for production of carbonate and added-value materials.





Manufactured Capital

Idemitsu group produces petroleum, lubricants, asphalt, basic chemicals, advanced materials & performance chemicals, solar panels, electronic materials, and agri-bio products. In addition, a

Petroleum Refining

As a result of the business integration of Idemitsu and Showa Shell, we have achieved an even more efficient supply of petroleum products than in the past. These efforts include the interchange of products and semi-products to optimize production, the development of best practices for energy conservation and improvement of refining margins, and the reduction of procurement costs through the promotion of joint procurement. In addition to implementing optimal area-specific strategies in Hokkaido, Keihin/Keiyo, Chukyo, and West Japan, we will implement management strategies to further strengthen our competitiveness by complying with the IMO (International Maritime Organization) regulations on the sulfur content of marine fuel oil, expanding the use of fuel oil fractions in petrochemical products, and increasing export capacity. The entire Group is also working together to reform the way people who support the workplace work.



Chiba Complex

Manufacture of Petrochemical Products

Basic chemicals

We are working to strengthen our cost competitiveness by strengthening cooperation with other companies and diversifying raw materials at our industrial complexes in Chiba and Shunan. We are working to improve the efficiency of equipment operation and profitability by promoting Fuel & Chemical in conjunction with the fuel oil business. Overseas, while responding to the strengthening of plastic-related regulations, we will gather information on needs around the world and explore new business possibilities.

Advanced materials & Performance chemicals

As for advanced materials such as engineering plastics and adhesives materials and as for performance chemicals such as derivatives and solvents, we have positioned the automobile, information and communications, daily necessities, and intermediates for durable consumer products as growth markets, and will expand our business by providing solutions based on our own technologies. We will accelerate business growth by creating product synergies with other functional materials in the Group, such as lubricants, and by aggressively acquiring resources through collaboration with other fields and M&A.

variety of power plants, including solar, geothermal, biomass, wind, and LNG thermal power plants, have a total generating capacity of 1GW and generate electricity.

■ Group refineries (As of March 31, 2019)

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



Yokkaichi Refinery

■ Petrochemical plant (As of March 31, 2019)

Name	Address	Ethylene production capacity (thousand tons/year)
Chiba Complex	Ichihara City, Chiba Prefecture	374
Tokuyama Complex	Shunan City, Yamaguchi Prefecture	623
Total		997



Tokuyama Complex

Manufacture of Solar Panels

Research and development of the solar power generation business in our group started in 1978, and it has a history of 40 years. In 2007, we began commercial production of CIS solar cell modules using copper, indium, and selenium as the main components. The CIS solar cell modules are now being produced at the Kunitomi Plant of Solar Frontier K.K., which has one of the largest production capacities in the world.



Kunitomi Plant

TOPICS 2

Development of decentralized energy

In order to realize environmental conservation and a sustainable and stable supply of energy that supports people's lives, the spread of a local production and local consumption model using renewable energy (a decentralized power source that provides electricity by installing small power plants near customers to meet their needs) is considered to be an effective technology that not only leads to low carbon energy and improved energy efficiency, but also balances economic development with the environment and society. In particular, Japan is a land prone to natural disasters, and decentralized power sources are expected to strengthen the energy supply-demand structure to reduce the risk of power outages in times of emergency. In addition, since forests cover about 70% of the national land, the utilization of unused wood produced by thinning will lead to the proper maintenance and management of forests and the creation of local communities through economic circulation within the region.

In order to ensure a sustainable and stable supply of energy in all regions, we will utilize our resources, and the knowledge and know-how it has acquired through its business activities to develop businesses that make use of decentralized energy resources that suit the characteristics of regions in Japan and overseas.

■ Development of a model for local production and consumption of energy

We are working on the development of a model for local production and consumption of energy within the region from power generation to consumption. Specifically, in June 2019, we decided to commercialize biomass power generation at the Tokuyama Complex, with the aim of starting commercial operation within FY2022. A large power plant with a generating capacity of 50 MW that utilizes the former refinery site and existing infrastructure uses approximately 230,000 tons of biomass fuel annually. In the medium to long term, we will also contribute to environmental conservation,

TOPICS 1

Reinforcement of earthquake resistance of existing facilities

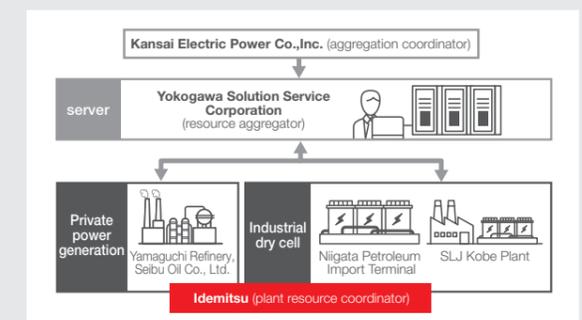
The Group's refineries and complexes have worked to strengthen its measures for natural disasters. As for earthquakes, we have constantly assessed the earthquake resistance of our equipment based on the standards required by laws against the expected earthquake magnitudes, and strengthen them, if necessary. In addition, having learned lessons from the Tokachi-oki Earthquake in 2003 and others, we have assessed and enhanced the earthquake resistance of our facilities against expected earthquake magnitudes that exceed the standards required by laws.

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 that store LPG at the Group's refineries and complexes in order to improve the earthquake resistance of their support structures. In addition, Yokkaichi Refinery of Showa Yokkaichi Oil Co., Ltd. reinforced its marine jetty with a view to strengthening disaster response capabilities. Going forward, we will consider further enhancing the earthquake resistance of the the Group's refineries and complexes.

sustainable forest development, and the promotion of forestry by using domestic thinned wood and sawmill ends as fuels. In October, we also invested in Kesenuma Green Energy INC. (Iwate Prefecture), one of the regional new power companies promoting the model for local production and consumption. We are supporting the improvement of regional economic circulation by making use of our connections with the local economy through our oil distributors and dealers as well as our experience and knowledge gained through our business in our company.

■ Participation in the VPP (Virtual Power Plant) construction demonstration project

We are participating in a demonstration project for the construction of VPP, an energy system that uses advanced energy management technology to remotely control and integrate the energy resources of factories and homes so that they function as if they were one power plant. We are participating as a plan resource coordinator, and in 2018 started verification tests utilizing the in-house power generation facilities of the Yamaguchi Refinery of Seibu Oil Co., Ltd. In 2019, we installed large storage batteries at the Niigata Petroleum Import Terminal (Niigata Prefecture), which is an oil tank facility, and at the Kobe Plant (Hyogo Prefecture) of Shell Lubricants Japan K.K., which is a lubricating oil production base, and are expanding verification tests.



Natural Capital

Concept of Natural Capital

Idemitsu group is committed to creating new values while maintaining harmony with the environment and society. In order to realize a sustainable society, we will improve our business value while considering various natural capital (air, water, land, etc.). As a company that handles fossil fuels, we are particularly focused on climate change, setting CO2 reduction targets, and working to reduce environmental impact.

Environmental Protection Policy

1. Make an effort to prevent leaks and contamination and contribute to environmental protection.
2. Actively contribute to preventing global warming and make an effort 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 diffuse technologies and products that create a better environment.
7. Set environmental objectives based on the annual basic policies, and gather power from within and outside the organization to achieve those objectives.
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 the reliability of our company and improve corporate value.

Safety & Environmental Protection Headquarters

We have positioned "Safety, Health and the Environment" as the foundation of its management, and has established the "Safety & Environmental Protection Headquarters" to promote initiatives to secure and preserve them. It is comprised of the General Manager and the Deputy General Manager of the Safety & Environmental Protection Headquarters, general managers of executive departments that manage business sites, other managers appointed by the General Manager of the Safety & Environmental Protection Headquarters and the secretariat. The executive officer in charge of safety assurance and environmental protection issues (director), who is delegated by the President and Representative Director, serves as the General Manager of the Safety & Environmental Protection Headquarters, overseeing the headquarters as the person in charge of safety, health, and environment, and the Safety, Environment (HSSE) & Quality Assurance Department serves as the secretariat.

The role of the Headquarters is to determine the Medium-term Management plan, the annual basic policies and priority issues on HSSE, to assess and evaluate performance through audits, to maintain, review, and improve the Safety Management System and the Environmental Management System (Idemitsu Sustainability Report 2019 P. 16), and to

We are also working to protect the global environment through the appropriate resource allocation and the proactive promotion of advanced initiatives to solve global warming and other environmental problems. In order to achieve this goal, we have established a policy regarding environmental conservation that positions global and regional environmental conservation as an important value in all our business activities.

instruct all executive departments and major group companies to secure management resources necessary to establish, implement, maintain, and continually improve the Management Systems. As a general rule, the Safety & Environmental Protection Headquarters Meeting shall be held once a year in December to decide on our annual basic policies for the next fiscal year.

When establishing and reviewing the Medium-term Management Plan, the annual basic policies and priority issues on HSSE, the secretariat creates a draft proposal putting into consideration of the social environment surrounding HSSE. The secretariat holds deliberations on the draft at the Safety and Environmental Managers Meeting, and get approval at Safety and Environmental Protection Headquarters Meeting. After approval by the General Manager of the Safety & Environmental Protection Headquarters, the secretariat reports them to the Management Committee. If the instructions or opinions from the Management Committee are to be reflected, the General Manager of the Safety & Environmental Protection Headquarters approves the final version again.

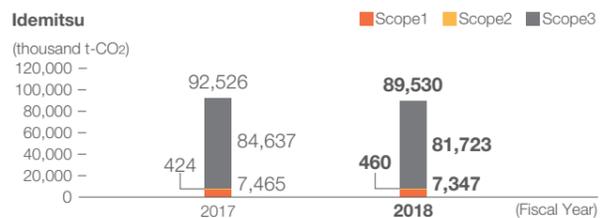
Environmental issues, including climate change, are reported to the Board of Directors as necessary and can be oversights by the Board of Directors.

sions not only our Scope 1 and 2 emissions, but also throughout the value chain including Scope 3, because emissions from the con-

Concept of Climate Change Mitigation

We believe it is important to reduce GHG (greenhouse gas) emis-

Our group's CO2 Emissions by Scope



* Idemitsu's results for FY2017 do not include S3 -6 (Business Travel) and S3 -7 (Employee commuting).

sumption of our products (Scope3) are overwhelmingly larger than those from direct emissions (Scope1) of refineries, plants, and factories or emissions from electricity use (Scope2). (Refer to the figure

below left). In particular, we place top priority on reducing CO2, which accounts for more than 90% of Japan's GHG emissions.

CO2 Reduction Targets and Monitoring Indicators

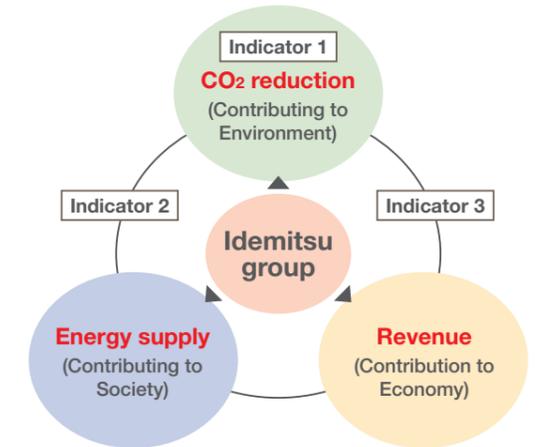
We recognize that environmental contribution by reducing own CO2 emissions is not enough in the light of corporate sustainability. At the same time, we believe it is important to contribute to society by providing low-carbon energy with a view to the transition to a low-carbon society in the future, and to contribute to the economy by continuing to generate profits while transforming our business portfolio.

In addition to its fossil fuel business, we conduct business related to the development of renewable energy and environmentally friendly products, as well as research aimed at solving social issues. These activities contribute to the reduction of CO2 emissions on a global scale throughout our value chain. We recognize that this concept will become even more important in the future along with the reduction of CO2 emissions by the Group.

Based on this recognition, our group will accelerate its efforts to reduce CO2 emissions by establishing 3 indices.

The CO2 reduction targets in Indicator 1 are set in Japan's 2030 Nationally Determined Contribution of GHG reduction targets in a way that greatly surpasses the targets of industry associations to which we belong. Indicator 2 is based on the assumption that energy demands of customers are stably supplied. At present, indicator level is set in a manner that is consistent with the levels required by society as outlined in our company's scenario "Prism." However, we will revise the indicator level as needed while monitoring trends in low carbon energy demand by society.

To achieve the following target and indicator level, we will work to develop renewable energy using abiotic services derived from natural capital, such as solar, geothermal, and wind power. We aim to contrib-



Specific areas of action

- Promotion of energy conservation and zero emission of power consumption
- Provision of environmentally friendly products and services
- Expansion of renewable energy power generation
- Expanding supply of biomass fuels
- Development and social implementation of innovative technologies

ute to the reduction of CO2 emissions through the supply of low-carbon energy.

Target value

Indicator 1 **Scope1 + 2 Reduction of Our group**
 (An indicator of the extent to which "Scope1 + 2 emissions" has been reduced through promotion of energy conservation activities at refineries, plants, and factories, etc.)

2030 Target (compared to 2017 levels): 2 million ton-CO2 (▲15%)

Calculation formula = $\frac{\text{CO}_2 \text{ emissions in target year (Scope1 + 2)} - \text{CO}_2 \text{ emissions in base year (Scope 1 + 2)}}{\text{CO}_2 \text{ emissions in base year (Scope 1 + 2)}}$

Monitoring indicator

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 (compared to 2017 level):▲30%

Calculation formula = $\frac{\text{CO}_2 \text{ emissions (Scope1 + 2 + 3)} - \text{CO}_2 \text{ avoided emissions}^*}{\text{Amount of energy supplied to society}}$

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 = $\frac{\text{Revenue}}{\text{CO}_2 \text{ emissions (Scope1 + 2 + 3)} - \text{CO}_2 \text{ avoided emissions}^*}$

* CO2 reduction contribution through the entire value chain

Message from Outside Directors



Increasing diversity within employees and the board of directors to "stronger and more agile global company."

Outside Director
Mackenzie Clugston



"I would like to provide support for development of next-generation leaders and success of female leaders."

Outside Director
Yuko Yasuda

How do you recognize your expected role as an outside director? Please tell us what role you currently play?

The role expected as an outside director is to provide diversity to the Board of Directors when considering corporate strategies, monitoring executive departments and making decisions on important management issues, in other words, to give opinions from a perspective different from that of internal directors. At the Board of Directors, I actively express constructive opinions from the perspective of a foreign national and former diplomat. I hope to continue contributing to the enhancement of our company's corporate value.

What are the characteristics of Idemitsu Kosan's governance?

After the business integration, the number of independent outside directors increased to five, and several experienced corporate managers joined the board, creating a diverse and powerful structure. I believe that a broad approach from business perspective has revitalized the deliberations of the Board of Directors. The chairman oversees the deliberations of the Board of Directors and leads discussions from a broad perspective even on difficult issues.

Other notable changes following the business integration include internal rules enhancement and Nomination and Compensation Advisory Committee reorganization.

In addition, outside directors are provided with detailed prior explanations of the Board of Directors meetings and given opportunities to visit business sites in Japan and overseas. Through these efforts, we gain a better understanding of the company's business operations and enhance the effectiveness of its governance to support board discussions.

What are your expectations for the Idemitsu Group?

I believe that the business integration is proceeding very smoothly. I think this is because employees at any level of the two companies are actively working toward the integration. I expect to see significant synergies, both financially and non-financial.

Since its founding, our company has been unique among Japanese companies, demonstrating boldness and distinctive corporate culture. I hope Idemitsu Group will make the most of both companies' legacies and use its excellent knowledge in business expansion overseas as well as cutting-edge research as leverage to become one of the world's top energy companies. I believe that by improving the diversity of our workforce, our company can become a "stronger and more agile global company."

Also, I expect that we will anticipate the changes caused by global climate change and take appropriate measures, which at the same time will lead to the resolution of various social issues.

How do you recognize your expected role as an outside director? Please tell us what role you currently play?

I believe that the most important role of outside directors is to supervise and support executive management which formulates strategy and translates it into action. By engaging in such activities in an objective manner, I hope to contribute to the company to attain sustainable growth. Although I lack actual management experience at large listed companies or knowledge of the oil industry, I believe I am expected to contribute with knowledge of corporate governance, leadership development and succession in terms of global standards as well as diversity. In particular, for the new integrated company, I hope to contribute to the company to implement a transparent leadership succession and development program.

I strongly believe the female talent at this company to be a very important asset for our energy industry in Japan and want to see their further success in this market. As the Chair of the Compensation Advisory Committee of the new integrated company, my mission will be to supervise the development of transparent, performance-based compensation system.

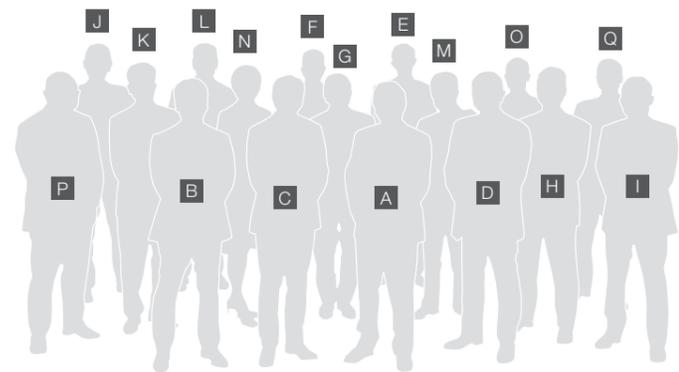
What are the characteristics of Idemitsu's governance?

I've observed that the new integrated company aims for a highly effective corporate governance structure that takes advantage of the strengths of both companies. The board consists of diverse background including management, foreign nationals, academics and women which encourages very active and robust discussions to enhance the quality of the board.

In order to deepen the knowledge and the understanding of business, there are a number of training programs or onsite visiting options available to outside directors, and they provide well-considered explanations of each agenda item just before the actual board meetings. The board spends relatively enough time discussing forward-looking topics such as medium-term management plan and actual action plans to implement the strategy, which I believe to be the most important mission of the board. For example, the board discussed how they could become a resilient energy company to supply energy infrastructure to society, under such high pressure needs as balancing ESG and SDGs issues.

In my observation, one of the challenges of most of Japanese company boards is less active internal directors, compared to the active participation of outside directors. However, at our company, internal directors actively express their opinions to participate in board discussions, which I believe to be a gift of the history and culture of Idemitsu's DNA.

Directors and Audit & Supervisory Board Members



Directors and Audit & Supervisory Board Members (June 29, 2109)

Name	Position	Numbers of shares held	Experience
A Takashi Tsukioka	Chairman and Representative Director	44,535	April 1975 Joined Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan") June 2007 Executive Officer and General Manager of Supply & Logistics Department, Idemitsu Kosan June 2008 Managing Executive Officer and General Manager of Supply & Logistics Department, Idemitsu Kosan June 2009 Director and General Manager of Supply & Logistics Department, Idemitsu Kosan June 2010 Managing Director and Managing Executive Officer and General Manager of Corporate Planning Department, Idemitsu Kosan April 2011 Managing Director, Idemitsu Kosan June 2012 Executive Vice President and Representative Director, Idemitsu Kosan June 2013 Representative Director & Chief Executive Officer, Idemitsu Kosan April 2018 Chairman and Representative Director, Idemitsu Kosan (to date) May 2018 President, Petroleum Association of Japan (to date)
B Tsuyoshi Kameoka	Vice Chairman and Representative Director, Vice Chairman and Executive Officer	11,080	April 1979 Joined Shell Sekiyu K.K. March 2006 Executive Officer, Showa Shell Sekiyu K.K. ("Showa Shell") March 2009 Corporate Executive Officer, Showa Shell March 2013 Executive Officer Vice President, Oil Business COO, Showa Shell March 2014 Executive Officer, Oil Business COO, Showa Shell March 2015 President & Representative Director, Group CEO, Energy Solution Business COO, Showa Shell March 2016 President & Representative Director, Group CEO, Showa Shell March 2018 Representative Director, President, Executive Officer, CEO, Showa Shell April 2019 Vice Chairman and Representative Director, and Vice Chairman and Executive Officer, Idemitsu Kosan Co.,Ltd. (to date)
C Shunichi Kito	President and Representative Director, Chief Executive Officer	18,408	April 1980 Joined Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan") June 2011 Executive Officer and General Manager of Treasury Department, Idemitsu Kosan June 2013 Director, Managing Executive Officer and General Manager of Treasury Department, Idemitsu Kosan June 2014 Managing Director, Idemitsu Kosan June 2017 Executive Vice President and Director, Idemitsu Kosan April 2018 Representative Director & Chief Executive Officer, Idemitsu Kosan April 2019 President and Representative Director, and Chief Executive Officer, Idemitsu Kosan (to date)
D Tomonori Okada	Representative Director, Executive Vice President and Executive Officer	9,036	April 1980 Joined Showa Sekiyu K.K. March 2011 Corporate Executive Officer, Showa Shell Sekiyu K.K. ("Showa Shell") June 2013 Senior Corporate Executive Officer, Showa Shell June 2014 Director & Vice President, Seibu Oil Co., Ltd. ("Seibu Oil") June 2015 Representative Director & President, Seibu Oil March 2016 Representative Director, Vice President, Showa Shell March 2018 Representative Director, Vice President, Executive Officer and Oil Business COO, Showa Shell April 2019 Representative Director, Executive Vice President and Executive Officer, Idemitsu Kosan Co.,Ltd. (to date)
E Takashi Matsushita	Director, Executive Vice President and Executive Officer	17,502	April 1979 Joined Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan") April 2010 Executive Officer and General Manager of Tokuyama Refinery and General Manager of Tokuyama Plant, Idemitsu Kosan April 2013 Executive Officer and General Manager of Manufacturing & Technology Department, Idemitsu Kosan June 2013 Director, Managing Executive Officer and General Manager of Manufacturing & Technology Department, Idemitsu Kosan June 2014 Managing Director, Idemitsu Kosan June 2017 Executive Vice President and Director, Idemitsu Kosan April 2018 Executive Vice President and Representative Director, Idemitsu Kosan April 2019 Director, and Executive Vice President and Executive Officer, Idemitsu Kosan (to date) Director, Showa Shell Sekiyu K.K. (to date)
F Katsuaki Shindome	Director, Senior Managing Executive Officer	3,429	April 1980 Joined Shell Sekiyu K.K. March 2009 Executive Officer, Showa Shell Sekiyu K.K. ("Showa Shell") March 2013 Corporate Executive Officer, Showa Shell April 2019 Director and Senior Managing Executive Officer, Idemitsu Kosan Co.,Ltd. (to date) President & Representative Director, Showa Shell (to date)
G Masakazu Idemitsu	Director	2,422,030	April 2010 Councilor, Public Interest Incorporated Foundation Idemitsu Museum of Arts Dec. 2015 Councilor, Public Interest Incorporated Foundation Idemitsu Culture and Welfare Foundation April 2016 Director and Vice President, Nissho Kosan Co., Ltd. ("Nissho Kosan") April 2019 Representative Director and President, Nissho Kosan (to date) Director, Idemitsu Kosan Co.,Ltd. (to date)
H Kazunari Kubohara	Director	—	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. (to date) July 2017 Auditor, Medical Corporation Hakueikai Miyake Dental Clinic (to date) March 2018 Delegate, Japan Federation of Bar Associations (to date) April 2018 Vice Chairperson of the Legal Services Obstruction Countermeasures Committee, Dai-ichi Tokyo Bar Association (to date) April 2019 Director, Idemitsu Kosan Co.,Ltd. (to date)
I Toshiyuki Tanida	Audit & Supervisory Board Member	5,364	April 1984 Joined Idemitsu Kosan Co.,Ltd. ("Idemitsu Kosan") July 2013 Executive Officer and General Manager of Logistics Department, Idemitsu Kosan June 2018 Audit & Supervisory Board Member, Idemitsu Kosan (to date) April 2019 Auditor, Showa Shell Sekiyu K.K. (to date)
J Kenji Takahashi	Audit & Supervisory Board Member	1,639	April 1984 Joined Shell Sekiyu K.K. March 2016 Audit & Supervisory Board Member, Showa Shell Sekiyu K.K. ("Showa Shell") April 2019 Audit & Supervisory Board Member, Idemitsu Kosan Co.,Ltd. (to date) Auditor, Showa Shell (to date)

Directors and Audit & Supervisory Board Members (June 29, 2109)

Name	Position	Numbers of shares held	Experience	Reason for appointment	Committee		Attendance at Board of Directors Meetings in FY2018	Attendance at Audit & Supervisory Board in FY2018	
					Nominating Advisory Committee	Compensation Advisory Committee			
K Takeo Kikkawa	Outside Director	—	<p>April 1987 Assistant Professor, Aoyama Gakuin University School of Business</p> <p>April 1996 Professor, Institute of Social Science, University of Tokyo</p> <p>April 2007 Professor, Hitotsubashi University Graduate School of Commerce and Management</p> <p>Jan. 2013 President, Business History Society of Japan</p> <p>June 2013 Outside Director, Mitsubishi Chemical Holdings Corporation</p> <p>June 2015 Professor, Graduate School of Innovation Studies, Tokyo University of Science (currently, Graduate School of Management, Tokyo University of Science) (to date)</p> <p>June 2017 Director, Idemitsu Kosan Co.,Ltd. (to date)</p>	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.	Chairman		15 of 15 (100%)	—	
L Mackenzie Clugston	Outside Director	—	<p>June 1982 Joined Department of Foreign Affairs and International Trade of the Canadian Government</p> <p>Nov. 2012 Ambassador of Canada to Japan</p> <p>June 2016 Outside Director, Kameda Seika Co., Ltd. (to date)</p> <p>Sep. 2016 Advisor, Sapporo Holdings Limited Professor, Kwansai Gakuin University (to date)</p> <p>June 2017 Director, Idemitsu Kosan Co.,Ltd. (to date)</p> <p>March 2018 Outside Director, Sapporo Holdings Limited (to date)</p> <p>June 2019 Outside Director, NGK SPARK PLUG CO., LTD.(to date)</p>	Mr. Mackenzie Clugston 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 is familiar with business, administration, and international affairs as a former diplomat and a university professor, has full knowledge about corporate management, and satisfies the "Requirements for Independence of Outside Officers" of the Company.		○	15 of 15 (100%)	—	
M Norio Otsuka	Outside Director	664	<p>April 1973 Joined NSK Ltd. ("NSK")</p> <p>June 2009 President and Chief Executive Officer, Chairperson of the Nomination Committee, NSK</p> <p>June 2015 Director, Chairman, NSK</p> <p>June 2016 Chairman, the Japan Bearing Industry Association</p> <p>March 2017 Outside Director, Showa Shell Sekiyu K.K.</p> <p>June 2017 Honorary Chairman, NSK</p> <p>June 2018 Outside Director, Sojitz Corporation (to date)</p> <p>April 2019 Advisor, NSK (to date)</p> <p>June 2019 Director, Idemitsu Kosan Co.,Ltd. (to date)</p> <p>June 2019 Outside Director, Taisei Corporation (to date)</p>	Management has judged that Mr. Norio Otsuka will be able to perform his duties as an Outside Director properly as he served as President and Chief Executive Officer, and Director, Chairman of NSK, has promoted its global growth strategy, enhanced its corporate governance, and accumulated wide experience and advanced insight regarding corporate management, and satisfies the "Requirements for Independence of Outside Officers" of the Company.		○	Appointed in April 2019	—	
N Yuko Yasuda	Outside Director	199	<p>April 1985 Joined IBM Japan, Ltd.</p> <p>Sep 1991 Joined Booz Allen Hamilton Inc.</p> <p>Sep 1993 Joined Russell Reynolds Associates Japan Inc. ("Russell Reynolds Associates Japan")</p> <p>June 1996 Managing Director, Russell Reynolds Associates Japan (to date)</p> <p>April 2003 Representative in Japan, Russell Reynolds Associates Japan</p> <p>Member of Executive Committee, Russell Reynolds Associates Inc. (resigned in March 2006)</p> <p>April 2013 Member of Executive Committee, Russell Reynolds Associates Inc. (reappointed, until March 2016)</p> <p>June 2015 Outside Director, SCSK Corporation</p> <p>March 2017 Outside Director, Showa Shell Sekiyu K.K.</p> <p>June 2018 Outside Director, Murata Manufacturing Co., Ltd.(to date)</p> <p>April 2019 Director, Idemitsu Kosan Co.,Ltd. (to date)</p>	Management has judged that Ms. Yuko Yasuda will be able to perform her duties as an Outside Director properly as she served as Representative in Japan of Russell Reynolds Association Japan, and engaged in the executive assessment of a corporation and in the training of CEO successors, has accumulated wide experience as a business manager and broad knowledge about the training of global leaders, and satisfies the "Requirements for Independence of Outside Officers" of the Company.			Chairman	Appointed in June 2019	—
O Mitsunobu Koshiba	Outside Director	—	<p>Oct. 1981 Joined Japan Synthetic Rubber Co., Ltd. (currently, JSR Corporation)</p> <p>June 2002 Officer and General Manager of Electronic Materials Department I, Electronic Materials Division, JSR Corporation ("JSR")</p> <p>June 2003 Officer, General Manager of Electronic Materials Division, and General Manager of Electronic Materials Department, JSR</p> <p>June 2004 Director, General Manager of Electronic Materials Division, JSR</p> <p>June 2005 Senior Officer, General Manager of Electronic Materials Division and Assistant in charge of Fine Chemicals Business, JSR</p> <p>June 2006 Managing Director, General Manager of Electronic Materials Division, JSR</p> <p>June 2007 Managing Director, JSR</p> <p>June 2008 Senior Managing Director, JSR</p> <p>April 2009 Representative Director and President, JSR</p> <p>June 2019 Representative Director and Chairman,JSR (to date)</p> <p>Director, Idemitsu Kosan Co.,Ltd. (to date)</p>	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 of JSR since 2009. Management has judged that Mr. Mitsunobu Koshiba will be able to perform his duties as an Outside Director properly as he has expertise in the 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.				Appointed in June 2019	—
P Taigi Ito	Outside Audit & Supervisory Board Member	4,656	<p>May 1973 Registered as Certified Public Accountant (Registration No.5095)</p> <p>July 2004 Deputy Chairman, The Japanese Institute of Certified Public Accountants</p> <p>Jan. 2012 Chairman of the Disciplinary Committee, The Japanese Institute of Certified Public Accountants</p> <p>June 2012 Outside Audit & Supervisory Board Member, Idemitsu Kosan Co.,Ltd. (to date)</p> <p>June 2014 Outside Audit & Supervisory Board Member, IT Holdings Corporation (currently, TIS INC.) (to date)</p> <p>June 2014 Outside Audit & Supervisory Board Member, Mitsubishi Chemical Holdings Corporation</p> <p>June 2015 Outside Director, Mitsubishi Chemical Holdings Corporation (to date)</p> <p>Sep. 2018 Outside Director, Koa Shoji Holdings Co., Ltd (to date)</p>	Mr. Taigi Ito 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 Audit & Supervisory Board Members properly as he is familiar with corporate accounting as a certified public accountant and a university professor, has full knowledge about corporate management, and satisfies the "Requirements for Independence of Outside Officers" of the Company.		○	14 of 15 (93%)	16 of 16 (100%)	
Q Kenji Yamagishi	Outside Audit & Supervisory Board Member	—	<p>April 1973 Registered as an attorney</p> <p>April 1997 Vice President, Tokyo Bar Association</p> <p>April 2004 Secretary General, Japan Federation of Bar Associations</p> <p>July 2007 Committee Member, Central Third-Party Committee to Check Pension Records, Ministry of Internal Affairs and Communications</p> <p>March 2008 Outside Audit & Supervisory Board Member, Showa Shell Sekiyu K.K.</p> <p>April 2009 President, Tokyo Bar Association</p> <p>Vice President, the Japan Federation of Bar Associations</p> <p>May 2012 President, the Japan Federation of Bar Associations</p> <p>April 2019 Outside Audit & Supervisory Board Member, Idemitsu Kosan Co.,Ltd. (to date)</p>	Mr. Kenji Yamagishi 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 Audit & Supervisory Board Members properly as he is familiar with corporate legal affairs as an attorney, has full knowledge about corporate management, and satisfies the "Requirements for Independence of Outside Officers" of the Company.		○	Appointed in April 2019	Appointed in April 2019	

Corporate Governance

Basic Concept of Corporate Governance

The Company, a company originating in Japan which co-creates energy, will continue to strive to create new values together with its customers and stakeholders, while aiming to harmonize with the environment and society in the spirit of diversity and inclusiveness.

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 through Dialogue with Shareholders. The Company which strives to become a socially respected and highly trusted company believes that it must comply with the code in principle.

The Company attaches great importance to be self-governing, thinking by ourselves and judge ourselves in accordance with the Company's vision. In addition, the Company openly discusses its business status and management circumstances with Independent Outside Directors and Independent Outside Audit & Supervisory Board Member with a wide range of knowledge and backgrounds and sincerely absorbs their unrestricted views, thereby endeavoring to continue operating in a transparent and fair manner.

Outline of Corporate Governance System

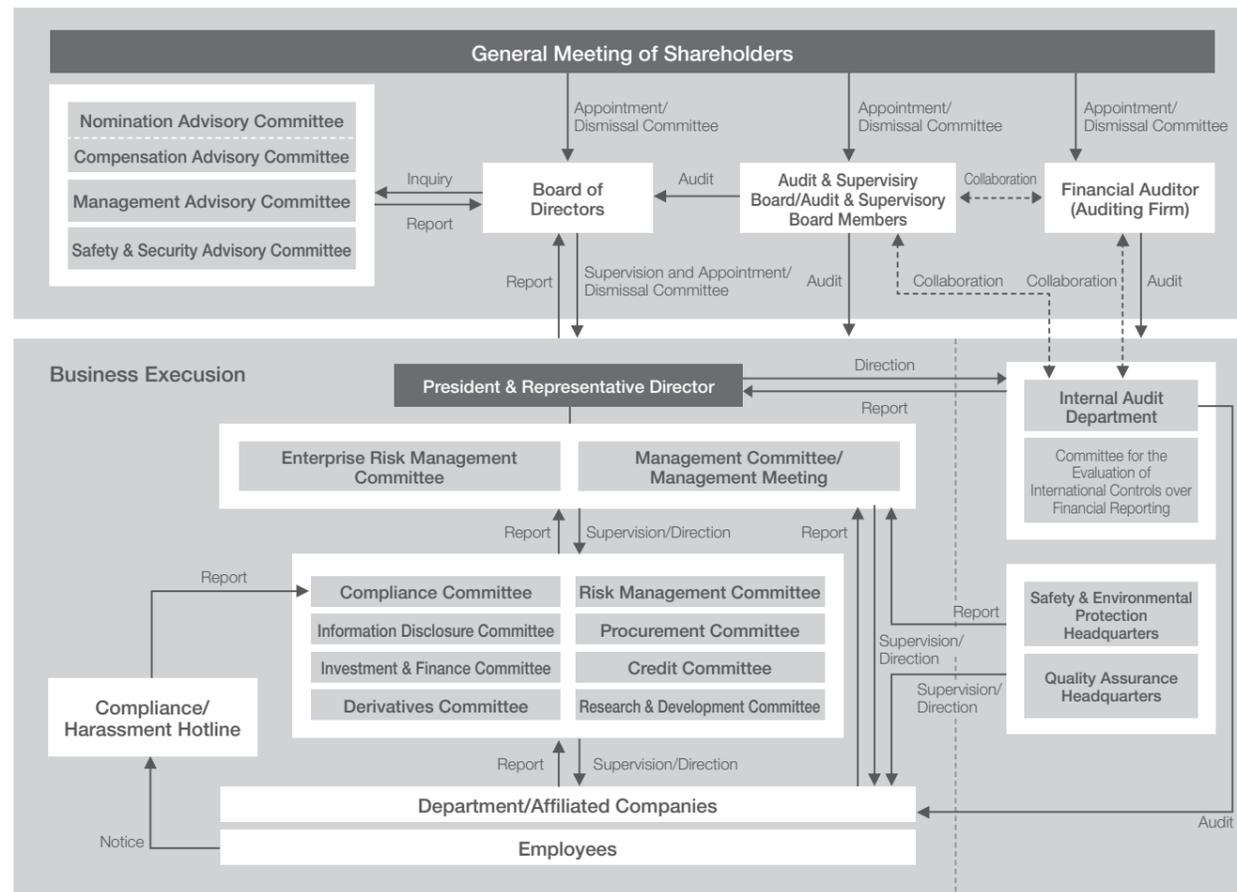
While the Board of Directors of the Company shall make important business decisions and supervise the execution of business, the Company, as a company with Audit & Supervisory Board, shall ensure that Audit & Supervisory Board Members and the Audit & Supervisory Board that are independent of the Board of Directors shall audit the execution of duties by officers and employees.

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 by revising a clause in the Articles of Incorporation stipulating that the CEO will serve as the chairperson of the Board of Directors to read that the chairperson will be determined by the Board of Directors.

With regard to matters other than those mentioned above, the Company shall delegate authority for business execution to the Representative Director and CEO, Management Meeting, Directors who also serve as Executive Officers, Executive Officers and General Managers, with a view to facilitating decision making on the execution of business. The Management Meeting, which has the Representative Director and some Executive Officers as its members, decides on business execution based on the Authority Rules.

Corporate Governance Structure



Each Committee

Management Advisory Committee and Safety and Security Advisory Committee

To maintain management transparency and soundness, our company has established two committees as advisory bodies to the Board of Directors, the "Management Advisory Committee" and the "Safety and Security Advisory Committee." Both committees receive frank opinions on our company from a third-party perspective and reflect them in management improvements.

The "Management Advisory Committee" is positioned as a body that advises on issues related to overall management reform. In principle, it meets once every six months and receives recommendations from 2 outside advisors.

The "Safety and Security Advisory Committee" has consulted on security issues, particularly technical issues, to prevent large-scale disasters at refineries and plants. Recent changes in the business environment have increased the importance of ensuring safety 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 the business development and receive recommendations from outside experts each time.

Nominating Advisory Committee and Compensation Advisory Committee

To enhance the transparency and objectivity of its nomination and compensation functions, as advisory bodies to the Board of Directors, our company has established the "Nominating Advisory Committee" and "Compensation Advisory Committee" which are comprised of Independent Outside Directors and independent outside auditors, and chaired by Independent Outside Directors.

The "Nominating Advisory Committee" reports on the president's proposal submitted to a general meeting of shareholders, for the election of candidates for Directors and Audit & Supervisory Board Members, as well as the election of the President and Representative Director and Executive Officers. "Compensation Advisory Committee" also reports on matters related to the remuneration of Directors and Executive Officers.

Changes in Corporate Governance Structure

There are 13 Directors, 5 of whom are Independent Outside Directors with diverse backgrounds, including women and non-Japanese nationals. The term of Directors shall continue until the conclusion of the annual shareholders meeting for the last business year which ends within one year from the time of their election pursuant to the provisions of the Articles of Incorporation.

In FY2018, the Board of Directors met 15 times.

There are four Audit & Supervisory Board Members, two of

Management Committee, Enterprise Risk Management Committee, and Other Committees

In addition to examining management issues such as the Group's strategy and governance, the "Management Committee" has been established to deliberate on important business execution issues. In addition, the "Enterprise Risk Management Committee" has been established as an organization to discuss and decide matters related to the Group's risk management and to monitor them as necessary.

At the bottom of the "Management Committee" are 5 specialized committees to discuss specialized risks in business execution: "Investment and Finance Committee," "Derivatives Committee," "Procurement Committee," "Credit Committee," and "Research & Development Committee." In addition, we have established the "Risk Management Committee" and the "Compliance Committee" under the "Enterprise Risk Management Committee" in order to strengthen our response to business risk cases and develop a framework for reviewing and drafting risk management policies. In addition, we have established the "Committee for the Evaluation of International Controls over Financial Reporting" to strengthen J-SOX compliance and the "Information Disclosure Committee" to provide timely and appropriate information disclosure based on the Group's information disclosure policy.

For an overview of each committee, please refer to page 53 of the Idemitsu Sustainability Report 2019.

whom are Independent Outside Audit & Supervisory Board Members, and we have established a system that allows them to fully perform management oversight functions from outside. The Audit & Supervisory Board works to improve the level of auditing by sharing issues and information among Audit & Supervisory Board Members and, when necessary, requesting information from the Directors and departments. In FY2018, the Audit & Supervisory Board met 16 times.

Fiscal Year	Form of Organization	Number of Directors	of Which, Number of Independent Outside Directors	Number of Audit & Supervisory Board Members	of Which, Number of Independent Outside Audit & Supervisory Board Members
FY2015	Company with Audit & Supervisory Board	10 people	2 (One woman)	5 people	3 people
FY2016	Company with Audit & Supervisory Board	10 people	2 (One woman)	5 people	3 people
FY2017	Company with Audit & Supervisory Board	12 people	4 (One woman and one foreigner)	4 people	2 people
FY2018	Company with Audit & Supervisory Board	11 people	4 (One woman and one foreigner)	4 people	2 people
FY2019	Company with Audit & Supervisory Board	13 people	5 (One woman and one foreigner)	4 people	2 people

Policy for Nominating Candidates for Directors and Audit & Supervisory Board Members by Board of Directors

Nomination of Candidates for Directors

Our company has adopted human resource standards for Directors that take into account the composition of the Board of Directors.

Our company believes that it is important for the Board of Directors to have a certain number of people who are familiar with our company's business and its issues as a member of the Board of Directors, to ensure the independence and objectivity of the Board of Directors, and to ensure diversity in the knowledge, experience, and capabilities of the Directors, in order for the Board to fulfill its roles and responsibilities and to strategically direct our group, and has prepared a Skill Matrix as one of the criteria for selection.

Based on this, the Board of Directors receives recommendations from the Nominating Advisory Committee and appoints a certain number of candidates who are familiar with our company's business and its issues, and who are capable of carrying out our company's management appropriately, fairly and efficiently.

In the election of Director candidates, after discussions among representative directors, the CEO shall submit a draft to the Nomination Advisory Committee on 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 make a decision based on a report submitted by the Nomination Advisory Committee.

The Nomination Advisory Committee, when it deems it necessary, deliberates on the dismissal of directors and reports the results to the Board of Directors.

Nomination of Candidates for Audit & Supervisory Board Members

Our company determines the standards for the personnel of Audit & Supervisory Board Members based on the structure of the Audit & Supervisory Board, after obtaining the prior consent of the Audit & Supervisory Board.

Candidates for Audit & Supervisory Board Members are selected based on the prior consent of the Audit & Supervisory Board, provided that they have appropriate experience and abilities as well as the necessary knowledge of finance, accounting or legal affairs. Candidates for internal Audit & Supervisory Board Members are selected based on their full knowledge of our company's business and its issues, and are able to conduct audits and supervision of our company appropriately, fairly and efficiently.

In the selection of candidates for Audit & Supervisory Board Members, the President and Representative Director discusses this with all representative directors and, based on the recommendations of the Nominating Advisory Committee, submits to the Board of Directors a draft which sufficiently evaluates the abilities, knowledge and performance of each candidate, as for both inside and outside the company, with the consent of the Audit & Supervisory Board.

Independence Requirements for Outside Officers

In order for the Board of Directors to fulfill its supervisory functions, our company's basic policy is to appoint more than 1/3 of its Directors and half of its Audit & Supervisory Board Members as Independent Outside Directors and auditors, respectively, who have the knowledge and experience to provide useful advice for the management of our company, from among persons who sat-

isfy the "Independence Requirements for Outside Officers " by taking into consideration a variety of knowledge and backgrounds.

Please refer to page 53 of the 2019 Idemitsu Sustainability Report for the independence . Requirements for Outside Officers

Training

Our company provides training to its Directors and Audit & Supervisory Board Members on the roles, responsibilities, and compliance that are expected of them when they become Directors or Audit & Supervisory Board Members of listed companies.

In addition, we explain our company's business, finance, and organization to newly appointed Independent Outside Directors and auditors of our company, so that they can fulfill their roles and responsibilities.

In addition, our company encourages Directors and Audit & Supervisory Board Members to improve their skills and provides them with training opportunities tailored to their needs, while at the same time providing a broad range of support for necessary expenses.

Assessment of the Effectiveness of the Board of Directors

At least once a year, all the directors and Audit & Supervisory Board Members assess the effectiveness of the Board of Directors, and the Company disclose an overview of the results. The first effectiveness evaluation of the integrated new company, which was established in April 2019, will be conducted in the second half of FY2019.

Compensation for Executives

Basic Policy on Executive Compensation

Our company's basic policies regarding remuneration for its Directors and Executive Officers (Directors, etc.) are twofold: 1) to increase corporate performance and corporate value over the medium to long term to realize its management vision; 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, our company's executive compensation system is as follows.

Compensation Standard

Compensation levels for Directors and others shall be reviewed as appropriate in light of changes in the business environment and external survey data.

Compensation Structure

Our company and Showa Shell Sekiyu K.K. merged on April 1, 2019. Starting in FY2019, the compensation structures for the Directors (excluding Outside Directors) and Executive Officers will be based on new arrangements, with the emphasis being placed on contributing to the maximization of synergy creation, business portfolio rearrangement, and enhancement of initiatives for the environment, society and governance, which in turn will lead to further improvement of corporate value, and will consist of (1) fixed compensation, (2) performance-based bonuses (shift from performance-linked monetary compensation (periodic equal pay) to performance-based bonuses for the purpose of clarifying the incentive structure), and (3) performance-linked stock compensation.

The ratios of fixed compensation, performance-based bonuses, and performance-linked stock compensation at the

time of standard payment are set at approximately 70%, 15%, and 15%. 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.

1. Fixed compensation

Fixed compensation shall be paid on a monthly basis in an amount determined according to the role.

2. Performance-based bonus

Performance-based bonuses are designed to fluctuate within a range of 0 - 200% according to achievement levels (such as roles and company performance (hereinafter "net income") and consolidated operating income attributable to shareholders of the parent company).

3. Performance-linked stock compensation

From the perspective of sharing value with shareholders, performance-linked stock compensation is designed to fluctuate within the range of 0 - 200% in accordance with the achievement of corporate performance (net income and consolidated operating income) for all executives. This is a medium- to long-term incentive in which the value of assets fluctuates due to stock price fluctuations during the term of office as stock is given to Directors, etc., after their resignation.

Our company uses net income and consolidated operating income as indicators to share value with shareholders and investors, and believes that they are appropriate indicators to strengthen profitability and increase our corporate value.

The weight of each indicator is determined in accordance with the duties of each director.

The Date of Resolution at the Shareholders General Meeting Concerning remuneration, etc. for Executives and the Details of Such Resolution

At the 91th Ordinary General Meeting of Shareholders held on June 27, 2006, the amount of compensation for Directors and Audit & Supervisory Board Members was set at 1.2 billion yen or less per year for Directors and 120 million yen or less per year for Audit & Supervisory Board Members. At the time of the resolution, there were 12 Directors and 5 Audit & Supervisory Board Members.

At the 104th Ordinary General Meeting of Shareholders held on June 27, 2019, it was resolved that in addition to the above compensation limits, our company would contribute up to 1.9 billion yen (provided, however, that in the case of a trust that has already commenced in FY2018, the total amount of 2.3 billion yen shall be calculated for the four business years from FY2018 to FY2021.) in total to a trust that would be covered by the performance-linked stock compensation system for Directors and others during the 3 consecutive fiscal years. At the time of resolution, the number of Directors (excluding Outside Directors) covered by this system is 6 and the number of Executive Officers who do not concurrently serve as Directors is 31.

Individual compensation for Directors is determined by the Board of Directors based on the recommendations of the Nomination and Compensation Advisory Committee, which is composed of Independent Outside Directors and Independent Outside Audit & Supervisory Board Members. Individual compensation for Audit & Supervisory Board Members is determined through discussions between Audit & Supervisory Board Members. The Nomination and Compensation Advisory Committee met a total of 11 times in FY2018, including deliberation on executive compensation.

Total Amount of Compensation, etc. by Executive Category

In FY2018, Directors' and Audit & Supervisory Board Members' salaries totaled 1.19 billion yen and 100 million yen, respectively.

Category	People (number)	Fixed Compensation (1 million yen)	Performance-linked compensation (1 million yen)		Other Compensation (Response to the transition to the new company system) (1 million yen)	Total compensation (1 million yen)
			Cash Compensation (periodic equal pay)	Stock compensation		
Directors (excluding Outside Directors)	7	393	136	132	472	1,135
Audit & Supervisory Board Members (excluding Independent Outside Audit & Supervisory Board Members)	3	59	4	—	12	77
Outside Directors and Independent Outside Audit & Supervisory Board Members	6	69	—	—	9	78
Total	16	522	141	132	494	1,290

* Our company's current executive compensation plan consists of fixed compensation as well as performance-linked cash compensation (periodic equal payment) and performance-linked stock compensation. In FY2019, to clarify the composition of incentives, we shifted from performance-linked cash compensation (periodic equal payment) to bonus payments. "Other Compensation" refers to the extraordinary payment of the portion corresponding to the transition to bonus payments and the adjustment of executive compensation accompanying the management integration.

Management Monitoring System

Our company's internal control system is based on the supervision by the Board of Directors, audits by Outside Directors and Independent Outside Audit & Supervisory Board Members, and accounting audits, as well as the effective functioning of the 3 defense lines under the direction of execution (under President and Representative Director). (1) Each department controls risks by incorporating self-management into daily operations, and ensures the legality of operations. (2) The management division supports the division in each specialized field and monitors the status of self-management. (3) We have established an "Internal Audit Department" under the direct control of the President and Representative Director, and its staff implement "Internal Audits" and "Assessment of Internal Control over Financial Reporting (J-SOX)" from an independent and objective standpoint. The Internal Audit Department conducts internal audits of domestic and overseas offices and affiliated companies. In this way, the effectiveness of internal controls in each division is evaluated, and the results are reported to the President and Representative Director, Audit & Supervisory Board Members, division heads, and relevant executives. The departments that receive advice and proposals for improvement systematically make improvements, and the Internal Audit Department conducts follow-up audits as necessary.

Audits by Audit & Supervisory Board Members

Audit & Supervisory Board Members (4 people) 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 department heads, overseas store managers, and the presidents of subsidiaries. Part-time Audit & Supervisory Board Members strive to enhance auditing by visiting key departments. As a general rule, we hold quarterly meetings with the representative director to discuss issues.

Compliance

Concept of to Compliance

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 to practice actions based on this. We will act with a compliance-first attitude based on the common concept of "Compliance Code of Conduct."

Compliance Code of Conduct

In accordance with the "high 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.

Assignment of Compliance Promotion Officers in Departments and Subsidiaries

The heads of our group's divisions and the presidents of its subsidiaries appoint officers in charge of compliance promotion and are responsible for promoting compliance at each division.

Establishment of Consultation Center

Domestic Consultation Center

We have established the "Compliance Consultation Center (cp-sodan)" (Reception of Internal Control Promotion Department) to receive compliance-related consultations and internal reports. We have also established "Harassment Consultation Center" (Reception of Human Resources Department) as contact points for all forms of harassment, including sexual and power harassment. The consultation center have been set up on the company-wide internal information portal and are also displayed on posters so that anyone can recognize its existence.



- The counters are for employees (including part-time employees, temporary employees, employees on loan, and contract employees) of our company, our company subsidiaries and others.
- Each of these consultation center has an "External third party contact" (reception of a lawyer's office). In order to ensure anonymity, a lawyer in charge acts as a liaison with the in-house consultant staff. In addition to ensuring the confidentiality of the content of consultations, we have also established a ban on disadvantageous treatment of those who report or consult with us.

■ Consultation center for cases of compliance and harassment concerns

Internal Contacts (real name consultation in principle)	Compliance Contacts (fraud, misconduct, and other compliance issues)
	Harassment Contacts (sexual harassment, power harassment, and other forms of harassment)
External Contacts (anonymous consultation available)	Common External Contact for Compliance and Harassment Consultation

Overseas Consultation Hotline

In order to respond to reports from overseas offices, we established the "Idemitsu Global Hotline (IGHL)" in FY2018 and operating. (Applicable to all languages of local subsidiaries)

■ Number of consultations received in FY2018 *1		(Unit: cases)
Idemitsu Group	Number of Compliance Consultation received	11
	Number of Harassment Consultation received	5
Showa Shell Sekiyu K.K.	Number of VOP *2 received	22
	Number of Harassment Consultation received	1

*1 Both companies disclose their results in accordance with their respective regulations.
*2 VOP (Voice of People): Showa Shell Sekiyu Group's employee consultation center

Compliance Promotion Activities

Raising Employee Awareness

■ Compliance Room

In July 2019, we established the "Compliance Room" on our internal information portal to raise compliance awareness. We post violation cases, four-frame comics, and blogs, and update the latest internal and external cases and disseminate them throughout the Group.

■ Compliance Web Learning

In November 2019, the "Compliance Web Learning" was held for our group employees to help them acquire knowledge about compliance and to identify problems in the workplace. More than 10,000 employees in the Group took the course.

■ Compliance Book

In accordance with the "Compliance Code of Conduct" newly established in November 2019, we published the latest version of our Compliance Book at the end of January 2020, which describes specific compliance standards.

Bribery and Corruption Prevention

Our group's Compliance Code of Conduct stipulates that all forms of corruption must be prevented in Japan and overseas. Furthermore, we have established basic rules and systems to be observed in the prevention of bribery, and in FY2019 we established the "Rules for the Prevention of Bribery" with the aim of preventing violations of laws and regulations in each country that prohibit bribery, such as the OECD convention and the FCPA (Foreign Corrupt Practices Act). We regard anticorruption as a particularly important issue for compliance at overseas sites, and are raising awareness of the importance of specific preventive measures.

Tax Compliance Initiatives

Our group fulfills its corporate social responsibility by paying taxes in a proper manner and complying with all applicable tax laws of each country and international rules, as stipulated in the "Group Tax Regulations" "Group Tax Practices Guide."

■ Major Compliance Violations in FY2018

	(Unit: cases)
Significant compliance violations at Idemitsu Group*	0
Significant compliance violations at the Showa Shell Sekiyu Group*	0

* Violations disclosed as having a serious impact on our group's management

Risk Management

Policy of Risk Management

Our 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.

Risk Management Promotion Structure

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 a risk of impeding business execution and causing only losses, as typified by accidents, disasters, non-compliance, business errors, product defects, claims, environmental pollution, system failures, terrorism, and labor problems. The term "Business Strategy Risk" refers to risks associated with business activities that exclude business risk and cause 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. The Risk Management Committee is responsible for responding to "Operational Risk." The Enterprise Risk Management Committee is responsible not only for "Operational Risk" but for "Business Strategy Risk."

Managing Operational Risk

Our group has established the "Risk Management Committee" and is promoting company-wide risk management related to operational risks by taking necessary measures in a timely and prompt manner. Chaired by a Director or Executive Officer appointed by the Management Committee, the committee selects major risks common to the Group, discusses countermeasures, and manages the progress of these risks at quarterly meetings.

Group's Risk Management

The "Enterprise Risk Management Committee" supervised by the Board of Directors determines risk management policies related to Group management and monitors the status of management. Please refer to page 52 for details on the Enterprise Risk Management Committee.

Ensuring Safety

Policy for Ensuring Safety

"To ensure the safety of people as our highest priority, 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 to eliminate accidents and injuries while also making efforts to cultivate our safety culture" is the policy for ensuring safety. The ensuring of safety based on this policy is the result of management efforts and realizing zero accidents and disasters is the foremost achievement of these efforts. Based on this recognition, the following specific policies are established as the most important standard to be prioritized to ensure safety for the various criteria for determining value in each scene and stage in all our business activities including production, logistics, sales and research and development, in all our operations and all our activities.

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

System for Promoting HSSE Initiatives

Our group has traditionally positioned "Safety, Health and the Environment" as the foundation of its management, and has established the "Safety & Environmental Protection Headquarters" to promote initiatives to secure and preserve them. The executive in charge of safety and environment (director), who is delegated by the President and Representative Director, serves as the General Manager of the Safety & Environmental Protection Headquarters, overseeing the headquarters as the person in charge of safety, health, and environment.

The role of the Headquarters is to determine the Medium-term Management Plan, the annual basic policies and priority issues on HSSE, to assess and evaluate performance through audits, to maintain, review, and improve the Safety Management System and the Environmental Management System (Idemitsu Sustainability Report 2019 p. 16), and to instruct all executive departments and major group companies to secure management resources necessary to establish, implement, maintain, and continually improve the Management Systems. As a general rule, we have the Safety & Environmental Protection Headquarters Meeting once a year in December to decide on our group's annual basic policies for the next fiscal year.

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

In addition, in order to confirm and promote the HSSE activities of each executive department, the General Manager of the Safety & Environmental Protection Headquarters or top management visits business sites to provide Safety and Environment-related instructions or safety patrols, or the Safety & Environmental Protection Headquarters secretariat conducts Safety and Environment audits at business sites. In particular, at our company's refineries and plants, the General Manager of the Safety & Environmental Protection Headquarters provides Safety and Environment-related instruction and safety patrol once a year, while the Safety & Environmental Protection Headquarters secretariat conducts Safety and Environment audit once a year.

Furthermore, in order to prevent large-scale disasters at our business sites, we have established the Safety and Safety Assurance

Advisory Committee, which consists of members, including 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.

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

Activities and Results Based on the Annual Basic Policies on HSSE

Annual Basic Policies on HSSE in FY2018

Continue to take on the challenge of zero accidents, and aim for "Zero serious accidents", "Zero fatal and lost time injuries," and "Zero environmental anomalies." In particular, continue to promote "Strict adherence to livesaving rules" and "Caring for and encouraging peers."

Idemitsu Group's Safety, Health and Environmental Performance in 2018 (including partner companies) (Unit: cases)

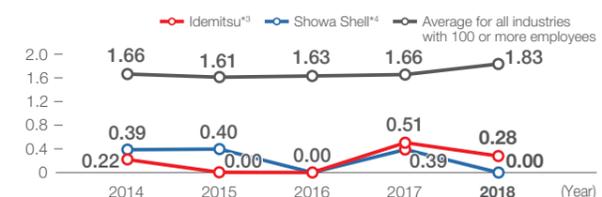
Serious accidents	1	In February 2018, an explosion and fire occurred at the Yokohama Plant of SDS Biotech K.K., including a fatality in the partner company (There were no serious accidents at refineries or plants)
Fatalities	1	(Including the above serious accidents)
Lost time injuries	16	
Environmental anomalies	0	

Showa Shell Group's Safety, Health and Environmental Performance in 2018 (including partner companies) (Unit: cases)

Serious accidents	0	
Fatalities	1	In April 2018, a fatality in the partner company by falling into the sea while moving 2 container ships that were berthing.
Lost time injuries	7	
Environmental anomalies	0	

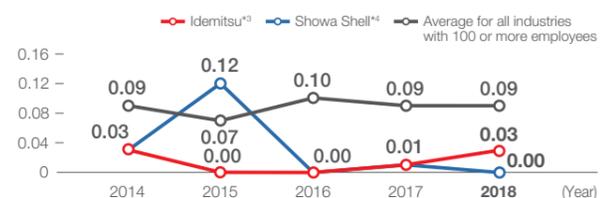
Frequency rate*1 (Frequency of occurrence of accidents)

*Excluding employees of partner companies



Severity rate*2 (Degree of severity of accident)

*Excluding employees of partner companies



*1 Number of fatalities and injuries due to work-related accidents per 1 million hours of actual work

*2 Number of lost working days per 1,000 hours of actual work

*3 Idemitsu's data covers Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, Prime Polymer Co., Ltd. Anesaki Works, BASF Idemitsu Co., Ltd.

*4 Showa Shell's data covers Showa Yokkaichi Sekiyu Co., Ltd., TOA Oil Co., Ltd., and Seibu Oil Co., Ltd.

The annual basic policies for FY2019 will follow the annual basic policies for FY2018. Based on the results described above, we are working to prevent accidents by adding the following items to our priority issues.

Annual Basic Policies on HSSE in FY2019

- Standardization to create and keep safety cultures for "Strict adherence to livesaving rules" including partner companies
- Promotion of countermeasures through exhaustive identification of potential risks and implementation of appropriate risk assessment

Safety and Health Initiatives

Efforts for Zero Accidents

In 2018, a serious accident (dust explosion fire accident) occurred at an affiliated company of Idemitsu Kosan, resulting in a fatality in the partner company. This was due to insufficient identification of potential risks. As a member of the accident investigation committee, we worked to identify the cause of the accident and supported to make preventive measures. Urgent investigations were conducted at domestic and overseas business sites to confirm that there were no similar risks. We will continue to strengthen our efforts to prevent serious accidents in all executive departments.

The number of work-related accidents (lost-time injuries and medical treatment cases) in our group in 2018 was lower than in 2017. This is the result of our efforts to thoroughly implement "Strict adherence to livesaving rules" such as the use of fall prevention devices, in order to prevent the recurrence of accidents that might lead to fatalities by falling from a high place occurred in 2016 and 2017. In FY2019, with the aim of achieving "Challenge of zero accidents," each department is promoting the PDCA cycle for safety and environmental management on its own initiative, and is working to continue safe and stable operations by identifying potential risks, including processes and equipment, and implementing appropriate risk assessment measures.

Safety and Safety Assurance Advisory Committee

In the FY2018 Safety and Safety Assurance Advisory Committee, we consulted on the "Efforts to achieve advanced safety assurance equivalent to Super-certification" and received the reply that "Upgrading of risk assessment and strengthening of facility management and operation management by utilizing advanced technologies are important points." Based on this, the Tokuyama Plant obtained Super-certification in FY2019. The Chiba Plant also underwent an on-site inspection and applied.

In FY2019, we consulted the Committee as "Efforts to deal with increasingly severe natural disasters" and received the reply. We will consider and respond to it in the future.

* Super-certification: A system in which the Ministry of Economy, Trade and Industry certifies accredited manufactures that are engaged in advanced safety assurance, such as IoT, the use of big data, advanced risk assessment, and third-party evaluation of safety capabilities, as "Super-certification Manufactures (Specified Accredited Manufactures)" in response to diversifying disasters, aging of plants, and a decrease in the number of skilled employees.

Quality Control and Quality Assurance

Basic Approach to Quality

Our group has defined its basic stance on quality as "In order to ensure product safety and minimize the impact on people and the environment, we shall promote quality assurance activities that take into account the entire life cycle of our products and services, from development to consumption or disposal, and strive to improve customer satisfaction and protect consumers." In addition, the "basic quality assurance guidelines" which is the highest-level internal regulation on quality, sets forth the following quality assurance policy as the basic concept of quality.

1. We provide products and services of appropriate quality from the customer's perspective.
2. Develop environmentally conscious production activities and products.
3. Provide safe and secure products.
4. We will always ensure compliance and fulfill our social responsibilities.

Quality Control and Quality Assurance System

Our group's quality assurance system consists of 2 components: business units and affiliated companies, and a corporate-level system for overseeing these. In actual quality activities, these two 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

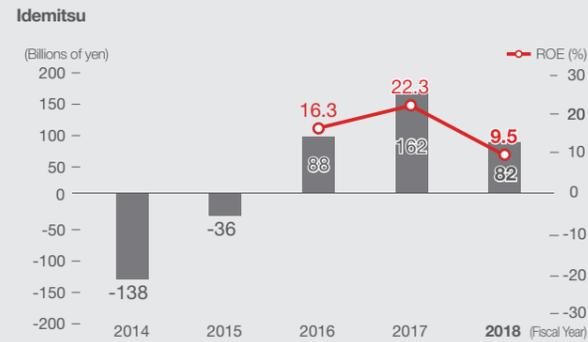
Our group's business divisions and affiliated companies conduct quality management activities at every stage of our operations, from product development to manufacturing and sales, that contribute to the maintenance and improvement of the quality of products and services that meet the needs of customers and society. In addition, each business division and affiliated company has introduced a quality assurance management system to ensure the quality of products and services provided to customers. A total of 39 business units and affiliates in our group have acquired ISO 9001 certification. (As of July 1, 2019)

Quality Assurance System at the Corporate Level

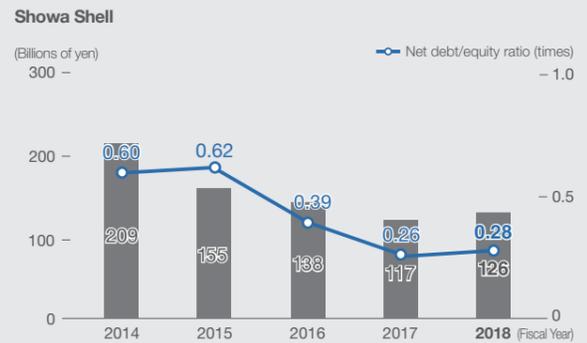
The Quality Assurance Headquarters has been established as a corporate quality assurance organization to strengthen governance of quality throughout our group. The Quality Assurance Headquarters is headed by the executive in charge of quality assurance (director) appointed by the Board of Directors, and is headed by the heads of quality-related business divisions and the presidents of affiliated companies. The Quality Assurance Department of the Health, Safety, Security and Environment (HSSE) serves as its secretariat. The Quality Assurance Headquarters formulates policies for company-wide quality assurance activities and promotes the important issues such as maintenance, review and improvement of the quality assurance management system. Each business division follows its own PDCA cycle (Idemitsu Sustainability Report 2019 p. 42) in accordance with these policies. As a general rule, the Quality Assurance Headquarters meets once a year to monitor progress and determine our group's basic policies for the next fiscal year. We also conduct regular quality audits to improve the activities of each division.

Financial Highlights

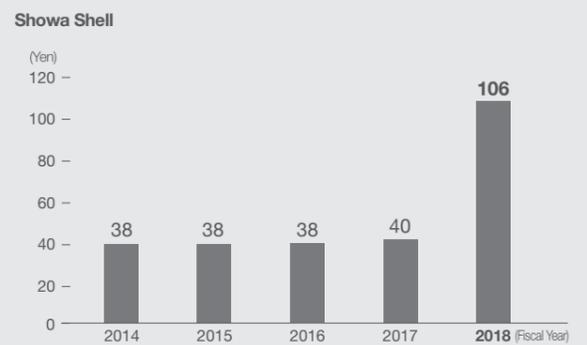
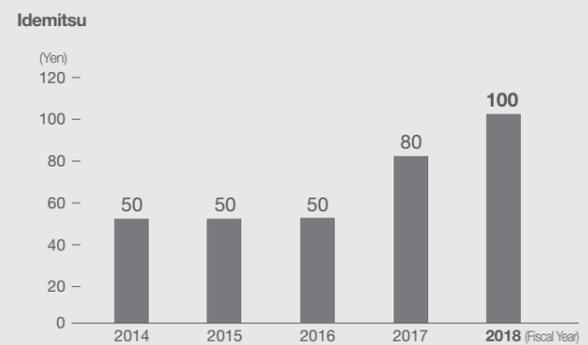
Net Income/ROE



Interest-Bearing Debt and Net Debt/Equity Ratio

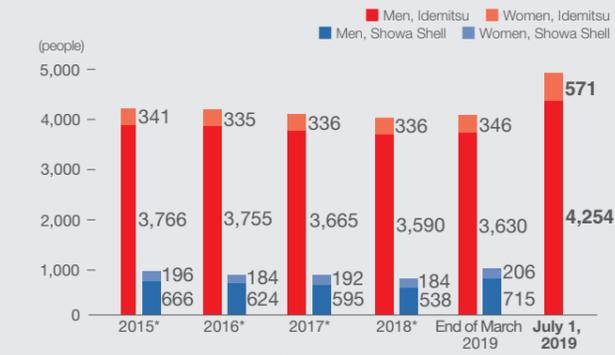


Cash Dividends per Share



Non-Financial Highlights

Trend of Employees by Gender



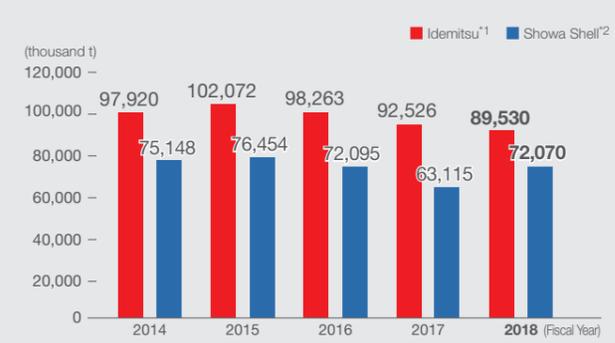
* Idemitsu's performance at the end of March
* Showa Shell's performance at the end of December

Trend of Average Years Employed



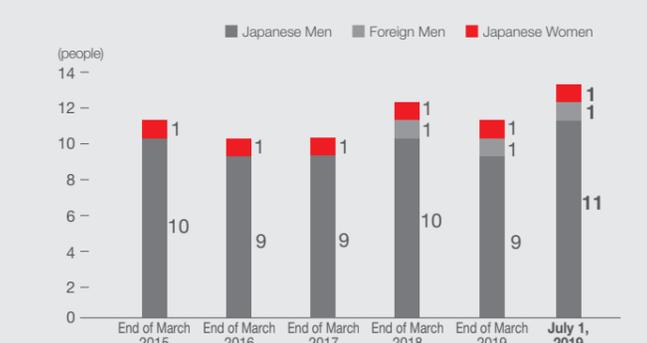
* The data for FY2019 is as of July 1, 2019 and cover Idemitsu's hiring (including employees seconded from Showa Shell and seconded to other companies).
* Idemitsu's data in FY2014 to 2018 are as of the end of March of each following year.
* Showa Shell's data in FY2014 to 2018 are as of the end of December.

Trend of CO2 emissions

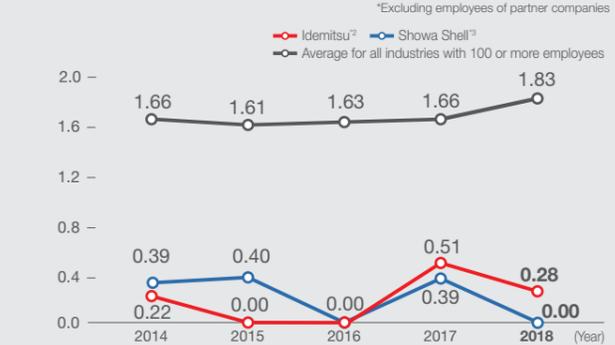


¹ Scope of Idemitsu data collection: extraction + crude oil procurement and import + domestic manufacturing + domestic transportation + domestic sales + consumption
² Scope of Showa Shell data collection: crude oil procurement and import + domestic manufacturing (petroleum refining and other production) + domestic transportation and storage + domestic sales + consumption

Trend of Diversity of Board of Directors (Idemitsu)

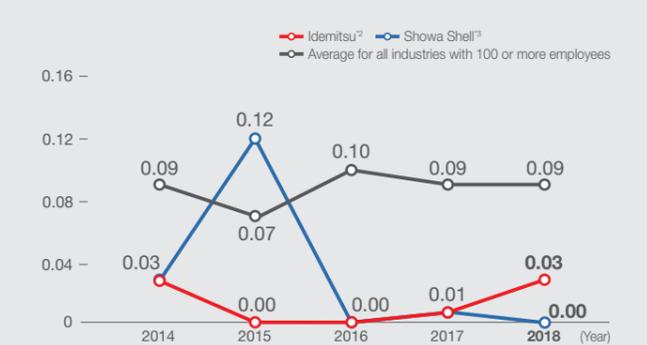


Trend of Frequency Rate¹ (Frequency of occurrence of accidents)



¹ Number of fatalities and injuries due to work-related accidents per 1 million hours of actual work
² Idemitsu's data collection covers the Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, Prime Polymer Co., Ltd. Anesaki Works, BASF Idemitsu Co., Ltd.
³ Showa Shell's data includes Showa Yokkaichi Sekiyu Co., Ltd., TOA Oil Co., Ltd., and Seibu Oil Co., Ltd.

Trend of Severity Rate¹ (Degree of severity of accidents)



¹ Number of lost working days per 1,000 hours of actual work
² Idemitsu's data collection covers the Hokkaido Refinery, Chiba Complex, Aichi Refinery, Tokuyama Complex, Prime Polymer Co., Ltd. Anesaki Works, BASF Idemitsu Co., Ltd.
³ Showa Shell's data includes Showa Yokkaichi Sekiyu Co., Ltd., TOA Oil Co., Ltd., and Seibu Oil Co., Ltd.

Eleven-Year Financial Data

Idemitsu

(Billions of yen)

(Fiscal Year)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Net sales	3,798	3,112	3,659	4,310	4,375	5,035	4,630	3,570	3,190	3,731	4,425
Operating income	102	44	129	138	111	78	▲105	▲20	135	201	179
Ordinary income	89	30	128	134	109	82	▲108	▲22	140	226	169
Net income attributable to owners of the parent	3	6	61	64	50	36	▲138	▲36	88	162	81
Total assets	2,290	2,476	2,518	2,682	2,728	2,995	2,731	2,402	2,642	2,920	2,890
Total equity	467	497	541	615	688	744	630	538	620	906	879
Depreciation and amortization	82	83	79	61	54	63	67	80	70	68	62
Interest-bearing debt	929	960	986	920	896	1,082	1,006	910	1,052	894	951

■ Cash flows

(Billions of yen)

Net cash provided by operating activities	235	▲63	87	160	51	50	173	216	54	137	151
Net cash provided by investing activities	▲86	▲139	▲75	▲59	▲71	▲180	▲131	▲98	▲215	▲90	▲122
Net cash provided by financing activities	61	24	13	▲79	▲46	161	▲98	▲106	136	▲52	▲20

■ Per share data

(Yen)

Net income per share	83.11	149.48	1,517.45	1,609.83	1,254.51	226.90	▲862.50	▲225.03	551.19	845.17	401.63
Net assets per share	11,079.25	11,741.64	12,864.75	14,668.18	16,343.31	4,391.46	3,671.39	3,129.93	3,649.83	4,177.40	4,267.21
Dividends per share	150	150	200	200	200	125	50	50	50	80	100

■ Management indicators

Return on equity (ROE)	%	0.7	1.3	12.3	11.7	8.1	5.4	-	-	16.3	22.3	9.5
Shareholders' equity ratio	%	19.3	19.0	20.4	21.9	24.0	23.5	21.5	20.8	22.1	29.7	29.1
Net debt/equity ratio	times	1.4	1.8	1.6	1.3	1.2	1.3	1.5	1.6	1.6	0.9	1.0

* Idemitsu conducted a 1:4 stock split on its common shares with the effective date of January 1, 2014.

Showa Shell

(Billions of yen)

(Fiscal Year)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Net sales	3,273	2,023	2,346	2,771	2,629	2,954	2,998	2,178	1,726	2,046	3,083
Operating income	▲12	▲57	37	60	15	75	▲18	▲12	46	78	95
Ordinary income	▲10	▲56	42	62	13	76	▲17	▲13	48	93	101
Net income attributable to owners of the parent	▲16	▲58	16	23	1	60	▲10	▲27	17	43	39
Total assets	1,210	1,173	1,193	1,208	1,233	1,296	1,176	958	976	1,039	1,041
Total equity	328	258	263	279	274	325	296	243	243	275	283
Depreciation and amortization	31	35	34	43	44	41	41	39	37	28	31
Interest-bearing debt	280	298	301	278	266	221	209	155	138	117	126

■ Cash flows

(Billions of yen)

Net cash provided by operating activities	27	▲7	90	51	42	95	73	75	81	47	75
Net cash provided by investing activities	▲43	▲48	▲83	▲25	▲18	▲28	▲28	▲44	▲17	▲10	▲51
Net cash provided by financing activities	72	4	▲9	▲31	▲21	▲57	▲28	▲56	▲34	▲38	▲22

■ Per share data

(Yen)

Net income per share	▲43.07	▲152.99	42.37	61.36	2.69	160.09	▲25.76	▲72.93	44.92	113.51	104.43
Net assets per share	814.63	625.33	637.78	679.37	663.33	798.17	722.33	591.10	587.56	672.71	704.93
Dividends per share	36	36	18	18	18	36	38	38	38	40	106

■ Management indicators

Return on equity (ROE)	%	-	-	6.7	9.3	0.4	21.9	-	-	7.6	18.0	15.2
Shareholders' equity ratio	%	25.4	20.1	20.1	21.2	20.3	23.2	23.1	23.2	22.7	24.4	25.2
Net debt/equity ratio	times	0.67	1.17	1.17	1.03	0.99	0.64	0.60	0.62	0.39	0.26	0.28

* Showa Shell's FY2018 data is January 1, 2018, through March 31, 2019 (15 months of data).

Stock Information (As of April 1, 2019)

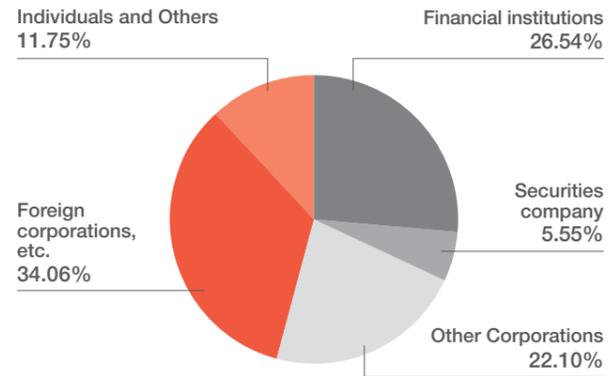
Securities code	5019 (First Section of Tokyo Stock Exchange)
Number of shares per unit	100 shares
Total number of authorized shares	436 million shares
Total number of shares issued	301,925,518 shares
Number of shareholders	52,585 people

Major shareholders (Top 10)

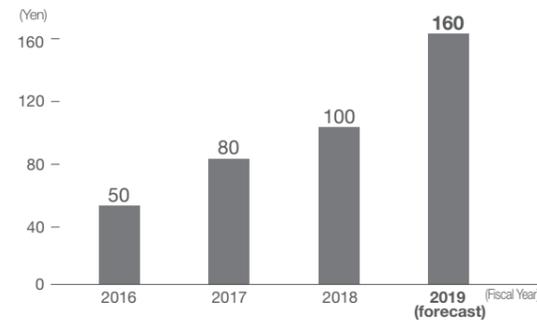
Shareholder's Name	Number of shares held (1,000 shares)	Ratio of shareholding (%)
Nissho Kosan Co., Ltd.	27,119	8.98
Aramco Overseas Company B.V.	23,115	7.65
The Master Trust Bank of Japan, Ltd. (trust account)	16,412	5.43
Idemitsu Culture and Welfare Foundation	12,392	4.10
Japan Trustee Services Bank, Ltd. (trust account)	10,967	3.63
Idemitsu Museum of Arts Foundation	8,000	2.64
MUFG Bank, Ltd.	5,142	1.70
Sumitomo Mitsui Banking Corporation	5,142	1.70
Sumitomo Mitsui Trust Bank, Limited	5,142	1.70
Munakata Godo Gaisha	4,974	1.64

* Shareholding ratio is calculated by subtracting treasury stock (2,844 shares) from the total number of issued shares. Fractions of the number of shareholding less than the display unit are rounded down.

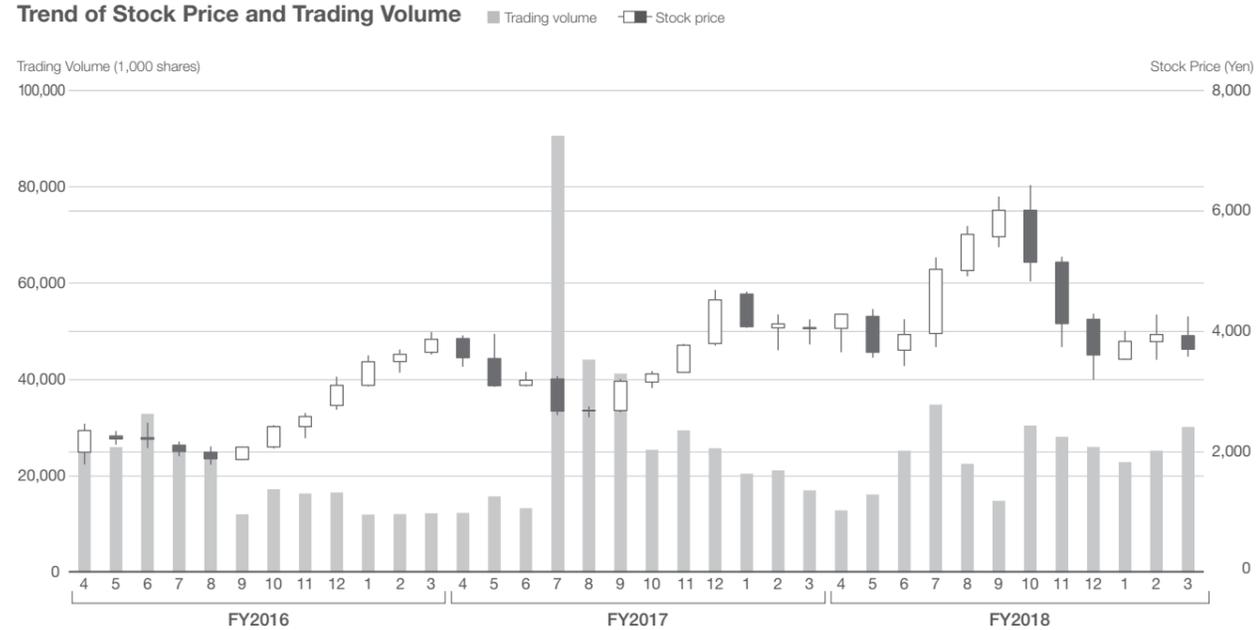
Distribution of Shares



Dividends per share



Trend of Stock Price and Trading Volume

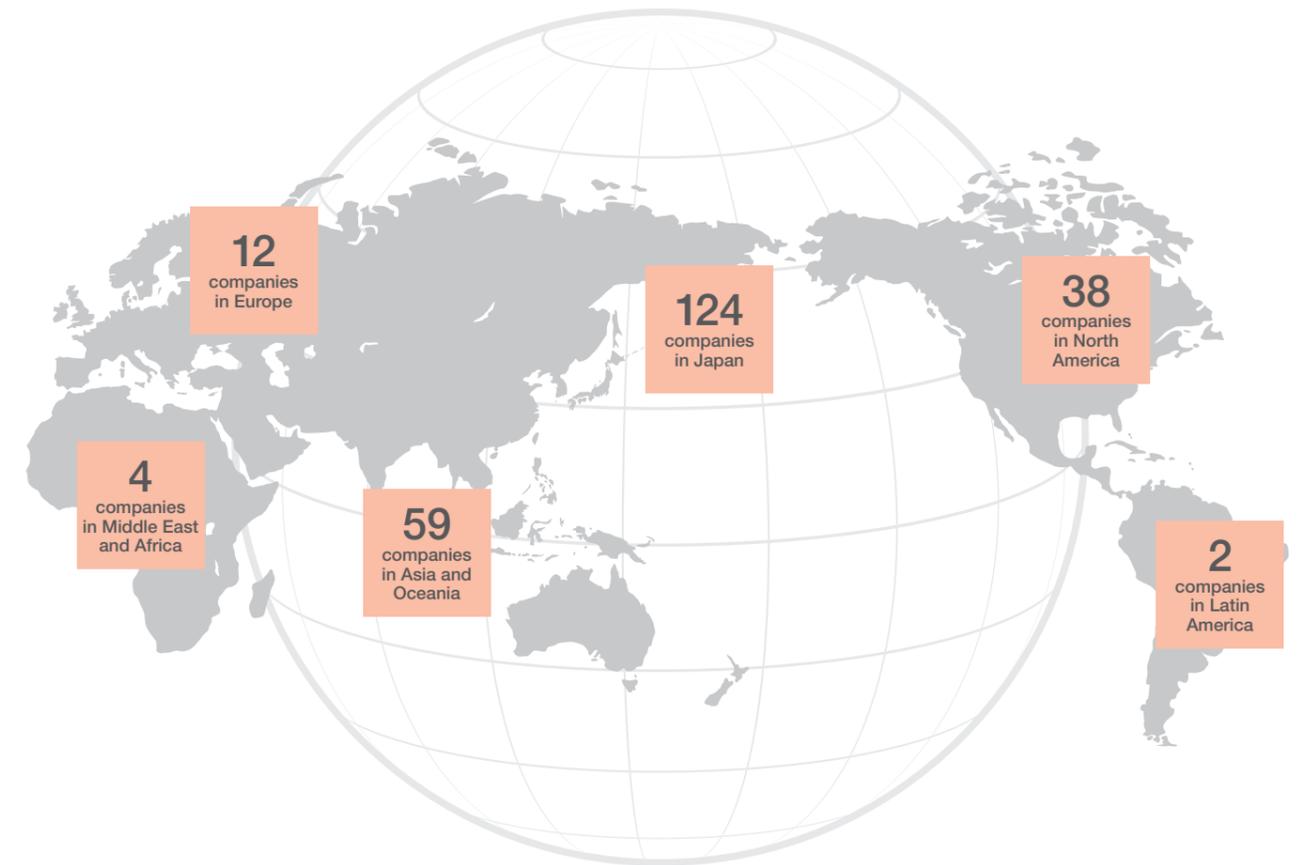


Corporate Profile

Company name	Idemitsu Kosan Co.,Ltd.
Address of Head Office:	1-1, Marunouchi 3-chome, Chiyoda-ku, Tokyo, Japan
Representative Director & Chief Executive Officer	Shunichi Kito
Establishment	March 30, 1940 (Founded June 20, 1911)
Capital Stock	168.3 billion yen

Group Network

239 group companies in total
124 domestic and 115 overseas



Status of inclusion in the ESG Index

In recognition of its efforts in the ESG (Environment, Society and Governance), Idemitsu has been selected as a "SNAM Sustainability Index" by Sompo Japan Nipponkoa Asset Management Co., Ltd., for 8 consecutive years since 2012.