



INTEGRATED REPORT 2023

**TOHO TITANIUM
CHANGES THE WORLD**

Management Philosophy

The Toho Titanium Group pursues the infinite possibility of titanium and related technologies, and contributes to building a sustainable society by continuously supplying excellent products and services.

Fundamental Code of Conduct

To put our Management Philosophy into practice, we adhere to the following three Fundamental Policies.

1. We give the highest priority to safety and compliance and operate a healthy and fair business.
2. We practice innovation and creativity to achieve continuous growth for our employees and organization.
3. We enhance communication with all stakeholders including customers, local communities, and shareholders, to develop relationships of mutual trust and symbiosis.

Editorial Policy

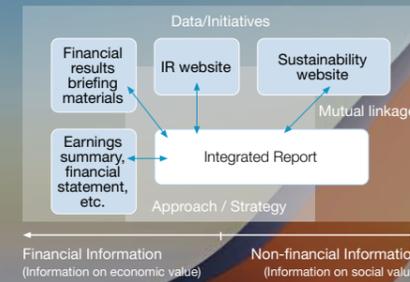
Readership

This Integrated Report has been compiled with the following stakeholders in mind: shareholders and investors, customers, business partners, employees and their families, students and job applicants, and members of local communities and society.

Our Stance on Information Disclosure

This Integrated Report emphasizes the Toho Titanium Group's approach to and strategy for value creation in the form of stories, and is positioned as a communication tool to help our stakeholders understand our growth potential and our contribution to a sustainable society.

For detailed performance information and ESG-related data, please refer to the latest information on the "Investor Relations" and "Sustainability" pages of our website, as well as the Integrated Report.



Period Covered

In general, this Integrated Report includes the results for FY2022 (April 1, 2022 to March 31, 2023). However, some information regarding past initiatives, as well as some information for FY2023 are also included, as necessary. The figures for FY2023 (forecast) in the table and graph are included in the external announcement made on May 8, 2023.

Scope of Coverage

In principle, all domestic and overseas business sites of the Toho Titanium Group are covered.
 Toho Titanium Co., Ltd.: Headquarters, Chigasaki Plant, Hitachi Plant, Kurobe Plant, Wakamatsu Plant, and Yahata Plant
 Group Companies: Toho Technical Service Co., Ltd.
 Toho Material Co., Ltd.
 Toho Titanium Europe Co., Ltd. (UK)
 Toho Titanium America Co., Ltd. (US)

Future Outlook

The information published in this Integrated Report may include the company's future strategies, forecasts, and opinions. However, please be aware that actual results may differ from these forecasts due to external factors such as various environmental changes at the time.

Note:

Disclosure Policy and Disclaimer

www.toho-titanium.co.jp/en/ir/disclosure/

Process of Deepening Dialogue Using Integrated Reports

Through this report, we will enhance our dialogue with stakeholders and continue to discuss how our Group should disclose information in order to improve our corporate value.

1) Establishing the purpose of this publication · In preparing the Integrated Report 2023, we endeavored to provide more comprehensive information about how our company creates value, the business environment in which we operate, and our initiatives.

2) Reference to guidelines · IFRS Foundation "International Integrated Reporting Framework"
 · Ministry of Economy, Trade and Industry "Guidance for Collaborative Value Creation"

· The Corporate Planning Department was in charge of publication development. The report was edited by the ESG Promotion Department, Technology Strategy Headquarters, each Business Division, Environment and Safety Department, Quality Assurance Department, General Affairs and Human Resources Department, and other related departments.
 · It was produced with the corporate management's commitment while under the supervision and evaluation of the board of directors.

3) Editorial system



4) Dialogue with stakeholders

· When communicating with shareholders and investors, we will augment the content of our dialogue by using this report in conjunction with briefing sessions and IR interviews.
 · We will use the opinions we receive from our stakeholders as internal feedback and use them for improving management.
 · We place great importance on dialogue with our employees and strive to improve the accuracy of the contents of the report.

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We will launch a new "fourth pillar" and promote ESG management with a business portfolio that is resilient to change.

Reaffirming the strength of business development based on the "Three Pillars"

As the COVID-19 infection has been moved to Category 5 and economic activities continue to be normalized, the business environment surrounding the Toho Titanium Group remains uncertain, with factors such as heightened geopolitical risks associated with the conflict in Ukraine and the rising cost of global energy and raw materials. However, given the rapidly changing business environment, we believe that FY2022 was a good opportunity to examine the foundations for our Group to demonstrate resilience, such as reevaluating country risks and rebuilding our procurement network.

In our Titanium Metal Business, in which we possess the manufacturing technology for titanium sponges that only a few companies in the world have, sales volume to the aircraft industry is steadily turning bullish as the number of airline passengers recovers. Also, in response to the Ukraine conflict, the world's two largest aircraft manufacturers have announced plans to suspend or reduce purchases from Russia's VSMPO-AVISMA, which holds the largest share of titanium sponge production for aircrafts. As a result, the demand for substitute providers has surged. That is why our three production sites in Chigasaki, Wakamatsu, and Saudi Arabia are in full operation. Under this tight supply and demand situation, we are implementing recovery measures, such as passing on the increase in costs due to soaring prices of imported raw materials and electricity, to the sales price, as we ask for the understanding of our customers in order to improve profitability. Against this backdrop, we plan to improve the facilities at our domestic production sites and increase capacity by approximately 3,000 tons per year by FY2025. Demand for aircrafts is expected to continue to grow at an annual rate of 4%, so we are considering further investment to increase capacity, assuming a reliable return on investment.

On the other hand, the market environment for the Catalyst Business and Chemicals Business is currently sluggish due to the slowing economic growth rate of China, the largest consumer country. Given that both businesses have a structure in which the profits are influenced by the ups

and downs of the Chinese economy, as well as geopolitical risks, we believe it is time to reconsider our strategies. We can say that now is the time to set our sights on India and other Southeast Asian countries, where high growth is expected in the future, and consider whether to invest management resources for market development.

The Medium-term Management Plan over the past three years (FY2020-2022) have been a period of continuous change that far exceeded our expectations. First, the COVID-19 pandemic caused a significant drop in aircraft demand, leading to a slump in the Titanium Business. However, this significant decline in sales was offset by the Catalyst Business, which responded to increased demand for medical and sanitary products such as masks, as well as the Chemicals Business, which responded to increased demand for PCs and other items from consumers staying at home. Next, in 2022, special demand for titanium stemming from the conflict in Ukraine covered the slump in the Catalyst and Chemicals Businesses due to the slowdown of the Chinese economy. As a result, net sales and operating profit for the three-year cumulative period were 122% and 155% of the planned figures, respectively, resulting in significant increases in income and profit. We were also able to clear all of the issues regarding the "Five Basic Strategies" set forth in the previous medium-term plan, with the exception of early profitability of the joint venture in Saudi Arabia (ATTM). ATTM will be fully operational by the end of this year, and I feel that the time is approaching when we can contribute to profitability.

Looking back on these results, we are reminded once again of the utmost importance for our company to develop our business based on the "Three Pillars" of Titanium, Catalyst, and Chemicals. The proof that management based on these Three Pillars is functioning is the fact that the financial stability of the Group as a whole is ensured, in that if one business faces difficulties, another business can compensate. Moving forward, our theme will be conglomerate premium, which means increasing the synergistic effects obtained through the collaboration of multiple businesses, and linking this to further improvements in competitiveness and resilience.



山尾康二

Yasuji Yamao

President and Representative Director

Rebuilding "Vision for 2030"

In 2022, our company has set the "promotion of ESG management" as a basic policy. The aim of formulating this policy is for the entire company to share the will to contribute to the creation of a sustainable society while solving social issues by leveraging our unique business characteristics. As we celebrate our 70th anniversary in August 2023, we would like to pursue sustainability by working on corporate management and contributing to society from a longer-term perspective.

As a milestone for the future, we have decided to update the long-term vision we announced in 2020, "Vision for 2030". First, we convened young and mid-career employees who will be responsible for our company in the 2030s, and held training camps where they freely exchanged opinions about what their ideal future self would be like. The resulting vision for 2030 is to "create advanced materials and technologies, become a highly profitable company that is flexible to environmental changes, and contribute to the development of a highly recycling-oriented society." (p.13). With regards to the "Promotion of ESG Management" basic policy, we have established quantitative and qualitative targets and measures with 2030 to 2040 as the goal period in order to unify the entire Group's vector and promote it while fostering a sense of unity.

For "E = Environment," we will not only accelerate the development of existing products, but also the development of new materials and technological improvements that reduce environmental impact. In the production process, we are developing a new titanium smelting technology that saves resources and energy, as well as promoting the introduction of CO₂-free electricity and carbon-neutral LNG, with the aim of quickly achieving decarbonized management.

With regards to "S = Society", we have begun activities in line with our policy to improve our contribution to society and create an attractive workplace. "Aim to become a company that is compassionate and kind to people by promoting new values within the organization that are directly linked to productivity, diversity and inclusion, and a pleasant work environment" -- Based on this goal, we will promote

various measures while being conscious of our contribution to society as we strive to create a more attractive workplace. In June 2023, we became the first company to be selected as a constituent of the FTSE Blossom Japan Index, a representative ESG index. Receiving this kind of evaluation gives us confidence and pride in our employees who provide support to the workplace on a daily basis.

Major measures of the FY2023-2025 Medium-term Management Plan

Moving towards "Vision for 2030", we have identified the gaps between our goal and the current situation and have devised a catch-up strategy to fill them. The 2023-2025 Medium-term Management Plan we have recently formulated is positioned as an action plan to be implemented over the first three years to achieve this strategy (p.15).

Under the new Medium-term Management Plan, we will promote carbon neutrality in the production processes of our three existing business divisions, and polish our functions and quality that will further contribute to our customers' businesses. We will also make timely investment decisions and aim to expand production capabilities in order to fulfill our responsibility to supply to markets that are expected to grow, such as ultrafine nickel powder, which we have already started investing in to increase capacity, as well as titanium sponge and polypropylene.

In the future business environment, we will need to anticipate the emergence of more volatile changes and uncertainties than we have experienced in the past. Based on this assumption, we would like to further diversify our business items by developing and applying our proprietary technologies in order to further increase the potential for business continuity. During this medium-term plan period, we are drawing up a strategy to add one new pillar to the current Three Pillars and establish it as a new business.

I will also touch on the main policies for each business segment. First, in the Titanium Metal Business, we will increase production at our sponge production joint venture in Saudi Arabia towards full operation, in order to respond to the strong demand for titanium which is mainly used in aircrafts.

At our domestic Wakamatsu and Chigasaki plants, we aim to increase production capacity by a total of approximately 3,000 tons per year. We will also continue to work to achieve appropriate sales prices that reflect these factors, amid a situation where the prices of raw materials remain high, and electricity and fuel prices continue to soar. We are aiming to capture the world's top share in global sales of titanium sponge for aircrafts by 2030.

With regards to the Catalyst Business, we will improve the efficiency of catalyst production by improving production technology at our Kurobe and Chigasaki plants, and increase production through capital investment in the medium to long term, since demand for polypropylene, which is the main application field for our products, is expected to increase. At the same time, we will begin considering the next capacity expansion plan with a focus on future sales expansion. In 2030, we aim to be in the top 3 global market share of catalysts for polypropylene production.

In the Chemicals Business, we will deploy measures in anticipation of a recovery and subsequent expansion in the demand for multilayer ceramic capacitors (MLCC), which is the application of our main product, ultra-fine nickel powder. During the three-year period of the new medium-term business plan, we expect that telecommunication equipment and telecommunication base station applications, as well as automotive applications that use MLCC, will return to a growth trajectory. In particular, automotive applications are expected to see high growth as the global market accelerates the shift towards the use of electronics in equipment. Currently, the demand for MLCC is expected to grow at an annual rate of about 7%. However, we are aiming for growth that exceeds this level. We will be building a nickel powder supply system that can support small, large-capacity MLCC that meet the technical requirements of next-generation telecommunications and next-generation EV. Based on this goal, we have begun construction of the fifth plant at the Wakamatsu Plant, which is scheduled to be completed in FY2025. Through these capital investments, we will increase our current production capacity by approximately 20% over the next three years, aiming to become the top company in the domestic market share of nickel powder by 2030. Since it is necessary to decentralize our production bases from a BCP perspective, we will flesh out plans for a sixth plant during this medium-term plan period.

In addition to the above Three Pillars, we will establish a New Materials Division with the aim of commercializing porous titanium materials (WEBTi) and other products, in order to make this the Fourth Pillar during the medium-term plan period from FY2023 to 2025, to strengthen our organizational foundation (p.22). Porous titanium is a material used in water electrolysis hydrogen generators, an essential element for building a hydrogen energy based society, which is expected to be a means of reducing CO₂ emissions. Up until now, our Technical Development Center has been playing a central role in promoting R&D of porous titanium materials and handling



samples for our customers. However, in recent years, as we have been receiving increasing requests for mass production, we have decided to establish and operate a new divisional organization with sales and management functions. We predict that the market for water electrolysis hydrogen generators will expand significantly in the future, starting with Europe, which is an advanced carbon-neutral region. By 2030, which is the goal of "Our Vision", we have envisioned a scenario in which the market for porous titanium materials will grow to around 50 billion yen. Based on this assumption, we have set the sales target for the New Materials Division at 10 billion yen for 2030. We also have plans to commercialize several new materials by FY2030 using our group's advanced powder manufacturing technology, such as ultra-fine nickel powder and high-purity titanium dioxide.

Financial strategy that considers the balance between medium- to long-term growth and risk management

Needless to say, our Group's business performance is affected by the market environment of a given year. The impact may be even greater due to the gap between current market conditions and the contract details negotiated with customers, such as sales prices.

Using titanium sponge for aircrafts as an example,

	FY2020-2022 Medium-term Management Plan			FY2023-2025 Medium-term Management Plan			
	FY2020 (results)	FY2021 (results)	FY2022 (results)	FY2023 (forecast)	FY2024 (target)	FY2025 (target)	FY2030 (target)
Net sales	36.2 billion yen	55.5 billion yen	80.4 billion yen	83.2 billion yen	107 billion yen	120 billion yen	170 billion yen
Operating profit	3.1 billion yen	5.2 billion yen	10.7 billion yen	4.6 billion yen	10 billion yen	13 billion yen	25 billion yen
ROS	(1.2%)	9.3%	13.1%	5%	9%	11%	15% or more
ROE	(6.8%)	8.1%	15.0%	5%	11%	13%	10% or more
D/E ratio	0.9	0.9	0.8	1.0	0.9	0.8	Less than 1.0 times



we adjust costs by taking into account factors such as fluctuations in titanium ore prices in the relevant year and the actual unit price of electricity in Japan, based on long-term contracts signed with customers, to determine the annual sales price for the next fiscal year. In other words, the time when manufacturing costs are reflected in sales prices is delayed by one year, resulting in a temporary decrease in profits when costs rise, while on the contrary, there may be an increase in profits during periods when costs go down.

As mentioned above, the supply and demand situation has recently become tighter and the unit price of electricity has increased, so in 2023 the price increased beyond the range stipulated in the long-term contract. Moving forward, we will continue to engage in negotiations to make it easier to reflect cost fluctuations in sales prices, and aim to achieve the ordinary profit to net sales ratio set for each business.

In 2021, we took a decisive step toward company-wide

risk management and strengthened our organization. First, with nickel powder raw materials, fluctuations in the nickel LME price have the greatest impact on our profit and loss, so we engaged in hedging through futures trading. In contrast to the increasing trends in FY2021, there was a downturn in FY2022 when we started futures trading. However, by establishing a hedging system at that time, we were able to minimize the decrease in margin by subtracting the cost of raw materials from the sales price. For currency, we have been using futures transactions for hedging, and we will continue to strive to secure reasonable margins by combining them with commodity futures.

Furthermore, with regards to borrowing interest rates, we are striving to make timely and appropriate judgments, including the timing and method of financing arrangements, while maintaining financial soundness (D/E ratio of less than 1.0). With regards to risk management on the balance sheet, we will individually quantify financial risks due to changes in the business environment for all assets such as accounts receivables, inventories, and fixed assets. We control this by setting quantitative indicators so that the total amount is less than 70% of the total net assets, which is the company's dissolution value.

In order to make a leap forward in 2030, we will need to invest in our Fourth Pillar, the New Materials Business. The scale of investment in each business division will be determined based on the ROIC (return on invested capital) for each business. In order to achieve management that is conscious of capital costs and stock prices, we will accurately understand capital costs and capital returns, and proceed with business operations that promote those improvements.

With regards to shareholder returns, we will continue our previous policy and set the dividend payout ratio at 30% of the current net income. Also, given that our PBR is currently more than double and our PER is more than 40 times, we feel that our shareholders have high expectations regarding the growth of our Titanium Metal Business, Catalyst Business, and Chemicals Business, as well as the potential of our New Materials Business. We will continue to strive to achieve the optimal balance between growth investments and shareholder returns, facilitate improvements in corporate value, and meet the expectations of our shareholders.

Creating a structure that maximizes the ability and value of human resources

Among the companies listed on the TSE Prime Market, our company has a small but elite workforce of around 1,000 employees, and each employee is a driving force behind our growth. Based on the assumption that Japan's declining birthrate and aging population will continue to be an issue, we are promoting work style reforms that will lead to the acquisition of new human resources and improved employee satisfaction.

Nonetheless, there is considerable hard labor in high-temperature environments at our titanium smelting sites, which is the core of our business. All the employees working in the field are doing their best. As the number of older employees increases, we are actively pushing for automation of tasks that can be automated and mechanized with robots and automated equipment in order to reduce the risk of occupational accidents. However, when it comes to handing down expertise and know-how that are difficult to replace digitally, we believe that it is necessary to take sufficient time to provide thorough education for knowledge transfer between personnel. For example, for seasoned employees who have become concerned about their physical strength as they age, we have them take on a new role as advisors, in an effort to raise the level of technology and safety at the workplace, rather than having them leave the workplace.

Furthermore, the major benefits of automation and mechanization are that they can improve the plant's utilization rate and make our operations more efficient by accumulating and analyzing digital data acquired on-site. We are aiming to increase employee labor productivity by around 30%. We are also advancing DX initiatives starting this fiscal year by utilizing digital data obtained from each site.

In order to accelerate these new initiatives that differ from conventional practices, it is important to not only foster a mindset, but also to create a system to increase motivation. In addition to running existing human resource development programs, we have also started implementing an awards system that provides impactful incentives to members working on-site, to increase their motivation for improvement.

It is essential that we swiftly move forward to resolve these current issues while steadily developing the human resources who will lead the future in 2030 and beyond. Based on the succession plan formulated in 2022, we are implementing a training program for executives and core human resources starting this fiscal year. On the other hand, we recognize that there are still many issues to be addressed in terms of diversity and inclusion, which are included in the measures of the medium-term plan. Aside from proactively promoting foreign and female employees to managerial positions, we will also actively recruit and promote digital talent, facility engineers, and other specialized technicians in the future. If such human resources participate in decision-making in the workplace, it will be an opportunity to change the mindset of other members, and it can be expected to have a revitalizing effect on the entire organization. We hope that each and every one of us will change our mindset, graciously let go of the negative practices common to old-fashioned manufacturers, such as a "male-dominated society" and "seniority by length of service", and most of all, promote agile and effective utilization of human resources, with an emphasis on accelerating innovation.

Grow into a company that can deliver value to all stakeholders

In this medium-term plan, we have also launched measures to strengthen the foundation of our management, "G = Corporate Governance", as well as compliance and risk management. Over the next three years, we will solidify our drive and operational structure in line with each measure, starting with appropriate responses to disclosure requests.

The most significant feature of our capital relationships is our parent-subsidiary listing with the ENEOS Group. Regarding this point, from the perspective of protecting minority shareholders, the Group Company Supervisory Committee for Conflicts of Interest, which is comprised of all independent outside directors, meets regularly to check the details of transactions with the parent company group. In light of future risk concerns and the mandatory disclosure of information on human capital, we are also asking our outside directors to attend risk management meetings and various internal meetings as much as possible, for us to receive appropriate advice from them. As a result, discussions at the Board of Directors' Meeting have clearly become more active, with more substantive discussions from the perspective of risk management and compliance inspections. We believe that corporate governance that is conscious of transparency and effectiveness is directly linked to protecting the interests of shareholders and investors, so we would like to continue to work hard to further improve our functionality.

When updating "Vision for 2030", we coined the catchphrase "Beyond Expectations 2030", to help make this a reality. This represents the Toho Titanium Group's determination to "Beyond the Expectations" of all stakeholders. We believe that we have a duty to thoroughly explain BE2030 to everyone for their understanding, and work toward becoming a "100-year Company" 30 years from now.

What I envision as a 100-year company in the future is one in which our technology contributes to the establishment of a completely carbon-neutral world, and in which we flexibly change in response to the changing needs of the world, and I envision a corporate entity with a deep-rooted corporate culture that allows employees of various nationalities to live a secure life with their families while also taking on new challenges. We will continue to aim to maximize corporate value and practice management that is focused on constantly moving quickly and producing results. I hope you will look forward to the further evolution of the Toho Titanium Group.

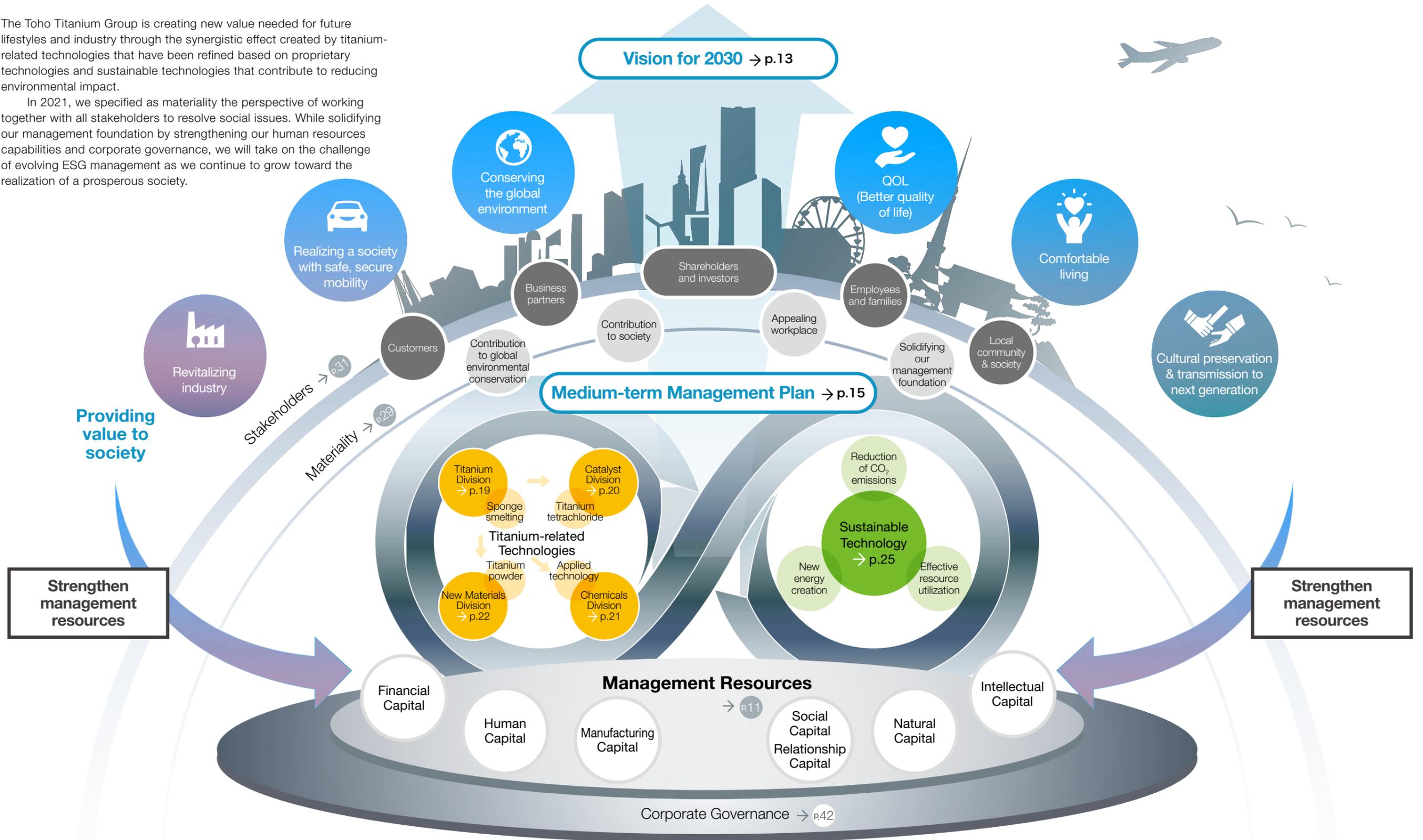
The Toho Titanium Value Creation Process

The Toho Titanium Group is creating new value needed for future lifestyles and industry through the synergistic effect created by titanium-related technologies that have been refined based on proprietary technologies and sustainable technologies that contribute to reducing environmental impact.

In 2021, we specified as materiality the perspective of working together with all stakeholders to resolve social issues. While solidifying our management foundation by strengthening our human resources capabilities and corporate governance, we will take on the challenge of evolving ESG management as we continue to grow toward the realization of a prosperous society.

Management Philosophy

The Toho Titanium Group pursues the infinite possibility of titanium and related technologies, and contributes to building a sustainable society by continuously supplying excellent products and services.



Accelerating Value Creation

Toho Titanium's Management Resources as of the end of March 2023

For 70 years, The Toho Titanium Group has steadily strengthened its management resources through the power of people and technology. This capital, which forms the basis of growth, is the source of our group's competitive advantage and enables us to achieve sustainable improvements in corporate value.

External Evaluation



Selected as a constituent of the ESG investment index, "FTSE Blossom Japan Index", for the first time

For the first time, we have been selected as a constituent of the FTSE Blossom Japan Index, a representative ESG index adopted by Japan's Government Pension Investment Fund (GPIF), one of the world's largest institutional investors. (June 2023)



FTSE Blossom Japan Index



FTSE Blossom Japan Sector Relative Index

A "Gold" rating in the EcoVadis Sustainability Survey

Our company was given a "Gold" rating in the sustainability evaluation conducted by EcoVadis (HQ: France). (July 2021)

Financial Capital



Total Assets
111.429 billion yen

Net income-to-equity ratio (share capital)
47.7 %

Market Capitalization
End of FY2021 → End of FY2022
51.5 %UP

Net sales
End of FY2021 → End of FY2022
44.7 %UP

Financial foundation supporting our business
Our Group is constantly reviewing its financial portfolio to optimize it for each business area, and strives to maintain a sound financial structure. We aim to achieve our medium-term goals for 2025 (ROS of 11% or more, ROE of 13% or more, ROIC of 7% or more, and dividend payout ratio of 25-30%) and improve shareholder returns.

Human Capital



Number of employees (consolidated)
1,127

Female Recruitment Rate
22 %

New University Graduate Retention Rate (past 5 years)
96 %

Human resource foundation with diverse attributes that implements solutions to social issues
We strive to ensure security, safety, and health in the work environment. We also take steps to ensure that employees can work with fairness and motivation. We will also increase the number of female managers and foreign managers, and create a work environment that places importance on diversity and inclusion.

Manufacturing Capital



Number of Production Sites
6

Domestic: 5 / Overseas: 1
Chigasaki/Wakamatsu/Yahata/Hitachi/Kurobe/Saudi Arabia

Amount of Capital Investment (annual)
6.496 billion yen

High-quality manufacturing and production sites expanding domestically and internationally
Our Group strives to manufacture products with a constant focus on stable production of quality products. By operating multiple production sites, including those overseas, we have established a system that meets the needs of all regions. In FY2023, we are beginning to consider factors including location, in order to proceed with the next capital investment plans for each business division.

Social Capital Relationship Capital



Years since Establishment
70 years as of August 20, 2023

Number of Countries for Overseas Sales
Titanium Division / Catalyst Division / Chemicals Division
8 / 9 / 6

Number of Countries from which Raw Materials are Procured
7 and above

Stability and trust from stakeholders and building a sustainable supply chain
The stability and trust that come from continuous operations make it possible to expand our business globally. We have built a supply chain based on relationships of trust with a diversity of customers and suppliers. We will also aim to coexist and co-create with external partners in developing new markets.

Natural Capital



Energy Usage (electricity/annual)
473,570 MWh/year

Water Usage (Annual)
2.343 million m³

Reducing environmental impact through efficient use of resources
Recognizing that all resources are limited, we strive to reduce our use of resources by promoting resource conservation, reuse, and recycling. In addition, we are promoting the introduction of CO₂-free electricity and carbon-neutral city gas, while setting targets for reducing GHG emissions through titanium smelting and working to reduce environmental impact throughout the value chain.

Intellectual Capital



Number of Patents Held
Domestic: **336**
Overseas: **364**

Research and Development Expenses (annual)
2.3 billion yen

Proprietary technology and technological foundations that lead to new business creation and expansion
As part of our business strategy, we are promoting our proprietary technology and research. We will establish a New Materials Division in FY2023. WEBTI, a porous titanium material, is a revolutionary new material that combines the characteristics of porous metal materials with titanium, which has advantages such as high corrosion resistance. Following this, we are also focusing on developing new materials.

Rebuilding "Vision for 2030"

Beyond Expectations! "BE2030"

In May 2023, The Toho Titanium Group formulated "Vision for 2030" and the "FY2023-2025 Three-Year Medium-term Management Plan." This year marks the 70th anniversary of our founding, and with the aim of becoming a 100-year company, the next major milestone, we are committed to sustainable corporate management and social contribution from a long-term perspective.

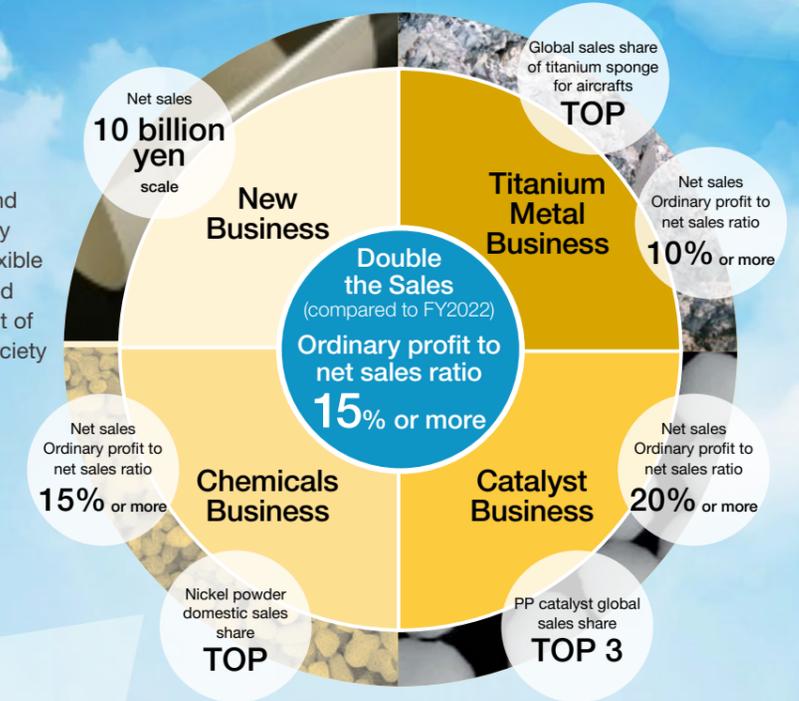
With this concept in mind, we announced our vision of creating advanced materials and technologies, becoming a highly profitable company that is flexible to environmental changes, and contributing to the development of a highly recycling-oriented society.

Under the slogan of "Beyond Expectations" of all stakeholders surrounding our group, including employees and their families, customers, business partners, shareholders and investors, corporate management and all employees will work together as one, by aligning our vectors.

Create advanced materials and technologies, become a highly profitable company that is flexible to environmental changes, and contribute to the development of a highly recycling-oriented society

Catchphrase
**Beyond Expectations!
"BE2030"**

Vision for 2030



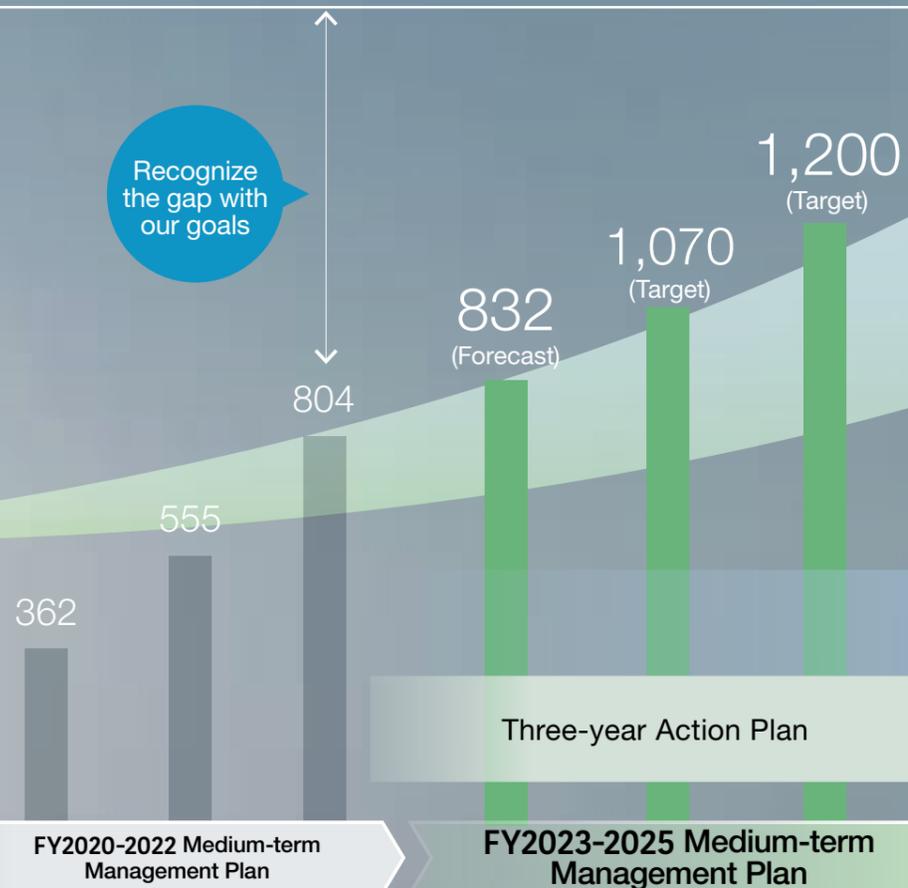
Net sales progression (in hundreds of millions of yen)

1,700 (target)

Planning Perspective

1. Clarify and quantify our goals
2. Recognize the gap between the current status and the 2030 target
3. Develop a catch-up strategy to close the gap
4. Incorporate the three-year action plan into the FY2023-2025 Medium-term Management Plan

Recognize the gap with our goals



Net sales (compared to FY2022)	Approximately 2 times	Ordinary profit to net sales ratio (ROS)	15% or more
			FY2030
Net sales		Ordinary profit	25 billion yen
Ordinary profit		ROS	15% or more
ROS		ROE	10% or more
ROE		ROIC	10% or more
ROIC		D/E ratio	Less than 1.0 times

FY2023-2025 Medium-term Management Plan

Recognize the gap between the current situation and "Vision for 2030" and develop a catch-up strategy to fill that gap. The first three-year action plan is positioned as the "FY2023-2025 Medium-term Management Plan".

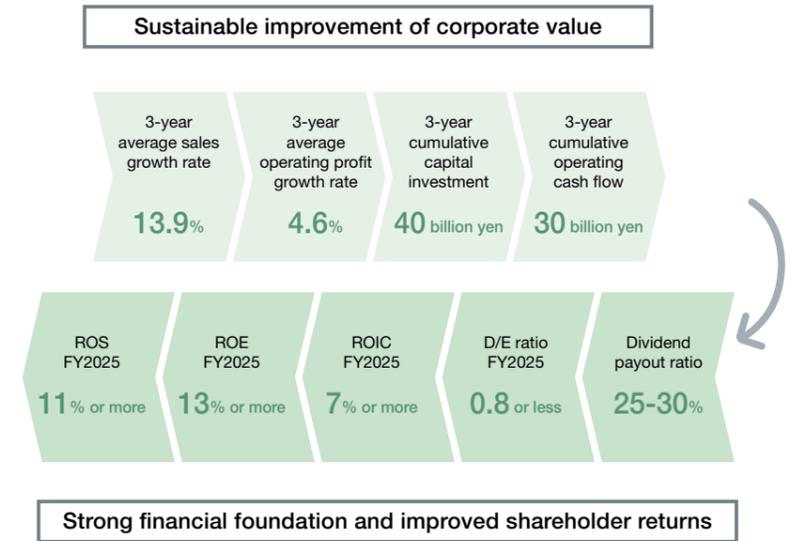
Net sales and Operating Profit Targets

	FY2022 (results)	FY2023 (forecast)	FY2024 (target)	FY2025 (target)
Sales (Unit: ¥100 million)	804	832	1,070	1,200
Titanium Metal Business	544	587	670	720
Catalyst Business	88	98	130	150
Chemicals Business	172	139	260	300
New Business	-	8	10	30
Operating profit (in hundreds of millions of yen)	107	46	100	130
Titanium Metal Business	65	23	50	60
Catalyst Business	29	28	33	40
Chemicals Business	26	11	29	35
New Business	-	(1)	2	10
Company-wide Expenses	(13)	(15)	(14)	(15)
ROS	13%	5%	9%	11%
ROE	15%	5%	11%	13%
D/E ratio	0.8	1.0	0.9	0.8

Financial Indicators / Shareholder Returns

In order to improve production efficiency and ensure a steady supply to the growing market, we will proactively increase the capacity of our production sites and update our facilities. To this end, we plan to invest a total of 40 billion yen over the three years of our Medium-term Management Plan.

We will steadily implement our "catch-up strategies" (see diagram below) set for each business. In addition to gaining further growth potential, we will position return on equity (ROE) as the most important management indicator from the perspective of improving capital efficiency, and aim to improve it to above 13%. We will strive to continuously improve corporate value by establishing a resilient financial foundation and enhancing returns to shareholders and investors.



Strategy by Business

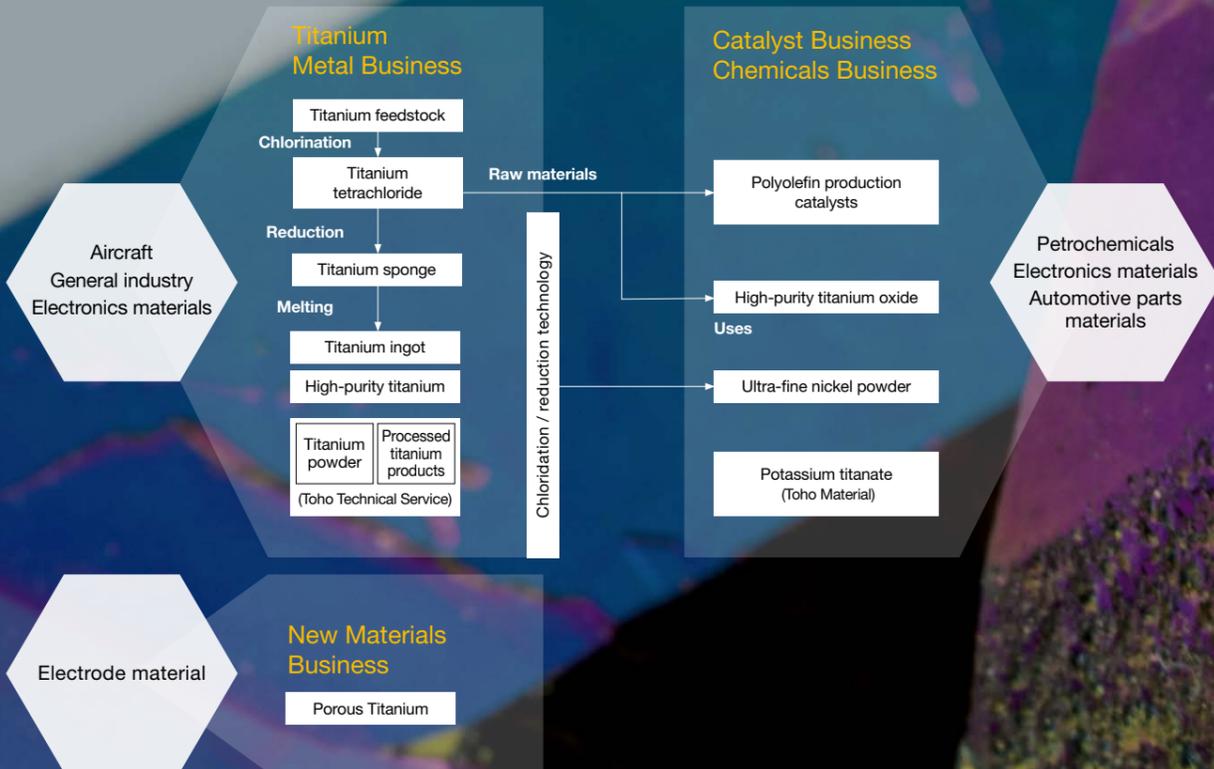
Recognition of the Current Situation	FY2023-2025 Medium-term Management Plan	Catch-up Strategy	Vision for 2030
Titanium Metal Business <ul style="list-style-type: none"> Top 3 in global sales share of titanium sponge Ordinary profit to net sales ratio is zero excluding the influence of inventory in the previous period 	<ul style="list-style-type: none"> Apply a price formula linked to cost fluctuations Increase titanium sponge production capacity at the Wakamatsu/Chigasaki Plants (3 kt/year) Full operation of the Saudi Arabia Sponge Plant (ATTM) Improve titanium ingot production efficiency 	<ul style="list-style-type: none"> Optimization of titanium sponge price levels Increase processing margin due to increased production of titanium ingots Increase capacity through partial improvement of titanium sponge equipment (Wakamatsu/Chigasaki Plants) Consider construction of a new plant that can ensure profitability 30% improvement in labor productivity 	<p>The top company in global sales share of titanium sponge for aircrafts with an ordinary profit to net sales ratio of 10% or more</p>
Catalyst Business <ul style="list-style-type: none"> Top 5 in global sales share of PP catalysts Ordinary profit to net sales ratio of 33% 	<ul style="list-style-type: none"> Increase production capacity through improvements in production technology and other areas (approximately 60% increase compared to the current production capacity) Formulate a plan to increase capacity by constructing a new factory 	<ul style="list-style-type: none"> Improvement of production technology at the Kurobe/Chigasaki Plants (approximately 40% increase compared to the current production capacity) Increase production capacity by constructing a new plant (approximately 30% increase compared to the current production capacity) Aggressive market development by improving catalyst performance 30% improvement in labor productivity 	<p>A top 3 company in global sales share of PP catalysts with an ordinary profit to net sales ratio of 20% or more</p>
Chemicals Business <ul style="list-style-type: none"> Top 3 in domestic sales share of nickel powder Ordinary profit to net sales ratio of 12% excluding inventory valuation profit and loss 	<ul style="list-style-type: none"> Increase production capacity by operating the fifth plant (scheduled for FY2025) (approximately 20% increase compared to the current production capacity) 	<ul style="list-style-type: none"> Increase production capacity by operating the fifth plant (approximately 40% increase compared to the current production capacity, upon completion) Create concrete plans for the next expansion investment (approximately 30% increase compared to the current production capacity) 30% improvement in labor productivity 	<p>The top company in domestic sales share of nickel powder with an ordinary profit to net sales ratio of 15% or more</p>
New Business <ul style="list-style-type: none"> Currently promoting the commercialization of porous titanium material (WEBTi) Currently considering new business projects as a follow-through 	<ul style="list-style-type: none"> Commercialization of WEBTi via the New Materials Division Increase production capacity in line with business expansion Plan and develop new business themes at the Technology Strategy Department and Technology Development Center 	<ul style="list-style-type: none"> Expansion of the WEBTi business Creation of more new businesses 	<p>Net sales of around 10 billion yen</p>
<p>Promotion of ESG Management →p.29</p>			<p>Toward solving materialities</p>

Titanium-related Technologies

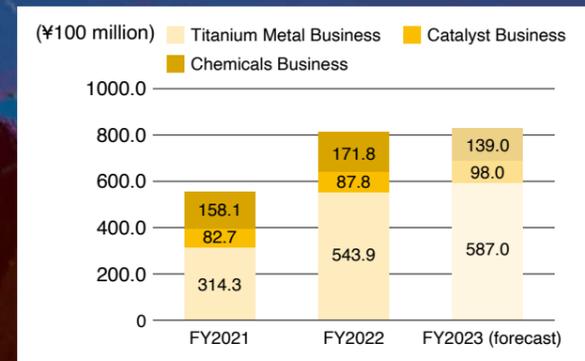
Business overview

As one of the world's leading titanium manufacturers, the Toho Titanium Group operates 4 businesses: the Titanium Metal Business that manufactures and sells titanium metal; the Catalyst Business and the Chemicals Business based on the Titanium Metal Business; and the New Materials Business

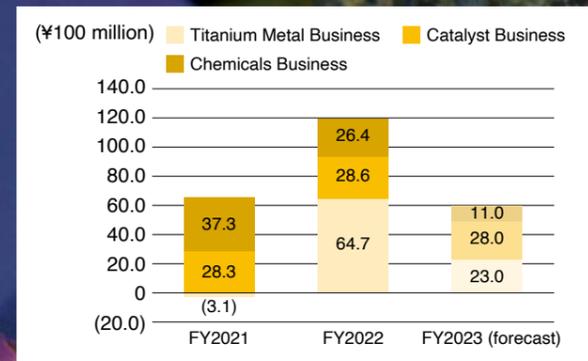
which opens up new possibilities for titanium. By accurately identifying market needs and pursuing the unlimited potential of titanium products and related technologies, we will contribute to our customers' product and business development, thereby achieving sustainable growth for our Group.



Sales by business segment



Operating profit by business segment



Messages from the Division Managers



Takeshi Shiraki

Accelerating transformation for future leaps

Our advanced titanium sponge smelting technology and ingot melting technology have been highly praised by our many customers. However, given the steady growth in demand in the aviation industry and tight global supply due to the impact of the conflict in Ukraine, we recognize that stably providing the quantities required by our customers is presently an important issue. Against this backdrop, the Titanium Division has set its "Vision for 2030" for the company to "capture the top position in global sales share of titanium sponge for aircrafts" and "obtain an ordinary profit to net sales ratio of 10%". We are focusing on expanding production capacity and improving productivity. In this period of major change, we believe that the progress made in our Medium-term Management Plan up to FY2025 will have a major impact on future development. We will work with a sense of speed to solidify our footing at our manufacturing sites, increase production capacity, and improve our profit structure. Also, by taking advantage of titanium's excellent properties and further expanding its use in fields such as aircraft, general industry, and semiconductors, we will contribute to the realization of a sustainable society.



Hideo Funabashi

Building a strong business with even higher added value

The strength of our catalysts is that they can be applied not only to a specific polypropylene (PP) manufacturing process, but also to several different processes. We also have a PP rating technology that other catalyst manufacturers do not have. Our ability to discuss technology from the same perspective as our customers also gives us a market advantage. In 2022, we have established "strengthening cost competitiveness", "product differentiation," and "new business acquisition" as the pillars of our business strategy. We have already established a method that significantly reduces manufacturing costs, and have successfully produced prototypes using commercial equipment. Going forward, in addition to accelerating the development of higher-performance PP catalysts through joint research with PP manufacturers and universities, we will promote our three pillars by strengthening our sales capabilities. The PP market is growing at an annual rate of 4%, but price competition is intensifying, especially in the Asian market. In order to lead our current research to success and establish a strong business with high added value and high profits, we would like to first ensure that we achieve our Medium-term Management Plan by FY2025.



Takashi Fujii

Business, research, and engineering are unified to demonstrate competitiveness

In FY2022, we were largely able to carry out our main tasks of increasing the operating rate of the fourth nickel powder plant, making investment decisions for a fifth nickel powder plant, and promoting new development, as planned. Although sales were sluggish due to the effects of China's economic slump, we believe that we were able to strengthen initiatives that will lead to medium- to long-term business growth. Going forward, we recognize that the market will continue to grow over the medium to long term, with demand for electronic components, such as Multilayer Ceramic Capacitors (MLCC), expected to increase. We believe it is important to steadily capture new demand while taking into account the trends of emerging competitors such as Chinese manufacturers. All of our products are based on our proprietary technology, and the high appraisal we receive from our customers is the source of our competitiveness. We will continue to improve our R&D capabilities for newly developed products and maintain and expand our supply capacity to reliably meet increasing demand. Sales, research, and manufacturing will come together to accelerate problem-solving toward "Vision for 2030".



Kenichi Yamaguchi

Aiming to establish the "Fourth Pillar" by accelerating commercialization

The New Materials Division was launched in April 2023. The mission of this division is to develop into a business, items that have reached the commercialization stage through development projects carried out by the Technology Strategy Headquarters (formerly the Technical Development Center). Through the promotion of this commercialization, it is also an important mission to contribute to achieving an annual sales of 10 billion yen for new businesses envisioned in "Vision for 2030". The first product that our division will work on commercializing is porous titanium material (WEBTi), which is primarily used as a component for PEM water electrolysis generators for hydrogen production. The water electrolysis generator market is expected to expand significantly as we move toward the realization of a carbon-neutral society. We will establish communication channels with customers and expand the sales base by developing and improving products that meet market needs. At the same time, we will expand our production scale by establishing a stable mass production process and improving productivity. We will also work to improve the functions of our business management, such as building quality control systems and risk management systems. We will expand our human resources through active recruitment of new graduates and mid-career employees, as well as enhance our business promotion capabilities.

Titanium Division

Expanding domains of application with stable quality metallic titanium

In our Titanium Division, in addition to titanium sponges and titanium ingots made by melting and casting the sponges, we have a wide range of products such as DC Slab and titanium powder, each with high added value, and their own superior features as a raw material.

With high quality and reliable supply, we provide titanium products that satisfy our customers.

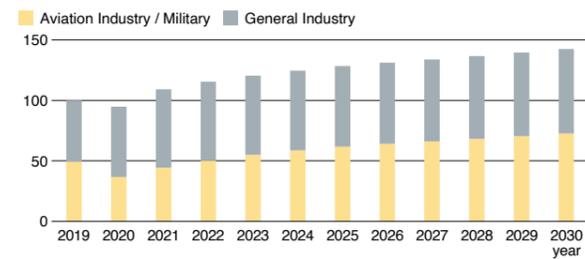
Main Products



Market Environment and Overview of the Current Fiscal Year

The demand for aircraft and general industrial applications has continued to be strong since FY2022. In addition to increased demand for new aircraft due to recovery in passenger demand from the COVID-19 pandemic, supply and demand became tight, especially for titanium sponge, a major raw material, due to the demand for substitutes caused by the avoidance of Russian-made wrought products due to the invasion of Ukraine. Our domestic Chigasaki and Wakamatsu plants continue to operate at full capacity, and our plant in Saudi Arabia has also prepared for full operation. The tight situation for titanium is expected to continue for several years, so we are increasing production capacity through facility and process improvements, as well as considering the construction of a new plant that can ensure profitability.

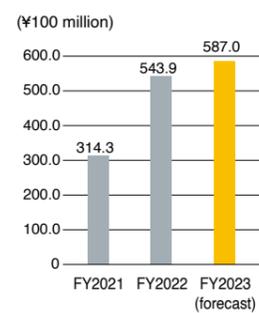
Titanium sponge demand forecast (our estimate) *2019 is set to 100



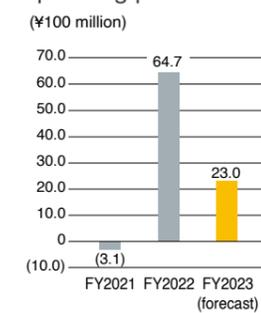
Outlook on the business environment

Short term FY2023	<ul style="list-style-type: none"> Demand for aircraft remains strong due to recovery from the COVID-19 pandemic and avoidance of procurement from Russia General industrial demand also recovers, mainly for high-end products For titanium ore, demand for titanium oxide is currently on the decline, but is expected to recover by the end of the year, and prices are expected to rise from the second half of the year.
Medium term to 2025	<ul style="list-style-type: none"> The demand and supply gap in the aviation industry is expected to continue to exist Customers place importance on securing quantity Titanium ore prices continue to rise
Long term to 2030	<ul style="list-style-type: none"> The aircraft industry is growing at an annual rate of about 4% Continued avoidance of procurement from Russia is expected

Net sales



Operating profit



Growth Strategy

- 1 Apply a price formula linked to cost fluctuations**
Aim to optimize prices by linking sales prices to fluctuations in energy costs such as raw materials, secondary materials, and electricity related to products.
- 2 Increase titanium sponge production capacity at Wakamatsu/Chigasaki (3 kt/year)**
Aim to increase capacity by 3 kt/year at the two domestic plants combined by increasing capacity through facility improvements at each plant.
- 3 Full operation of the Saudi Arabia Sponge Plant**
Start full operation within 2023 in order to respond to the strong increase in demand.
- 4 Improve titanium ingot production efficiency**
Aim to improve productivity by improving operations and optimizing personnel allocation.

Catalyst Division

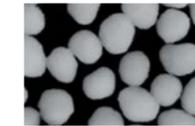
Contributing to Value-added Polyolefins

Taking advantage of our ability to internally procure titanium tetrachloride and magnesium chloride, which are raw materials for catalysts from the titanium manufacturing process, we develop, manufacture (including outsourced manufacturing), and sell catalysts for the production of polyolefins (PO) such as polypropylene (PP), a plastic product, and polyethylene (PE). We also process and sell magnesium chloride for applications such as catalyst raw material and raw material for pharmaceutical intermediates.

Main Products

Polyolefin catalysts

- For PP manufacturing
- For PE manufacturing
- For other olefin polymerization



THC catalyst

Raw materials for catalyst supports and pharmaceutical intermediates

- Magnesium chloride powder
- Magnesium chloride lump
- Magnesium chloride powder/titanium trichloride mixture



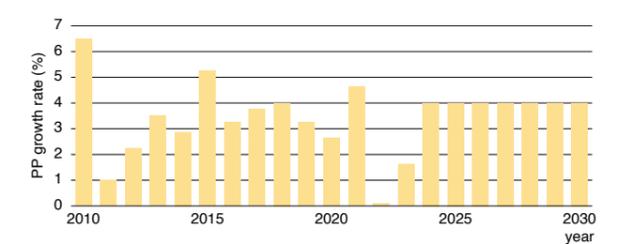
Catalyst raw materials

External donor for PP production

Market Environment and Overview of the Current Fiscal Year

Demand for polyolefin catalysts in Asia continues to weaken, mainly due to the economic downturn in China. Due to weak demand in the first half of FY2023, sales volume is below the level of the same period in FY2022, but we expect it to gradually recover from the second half of FY2023 and return to a growth trajectory. Due in part to the effects of a weaker yen, tight supply and demand is expected to continue. Global demand for PP is expected to grow at an annual rate of 4%. In response to this growth, we are working on further product improvements, providing catalysts with reduced environmental impact, and developing new products.

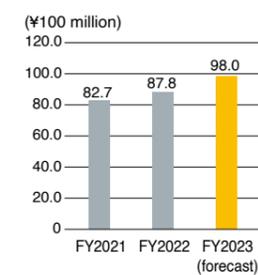
Global PP growth rate (our YoY estimate)



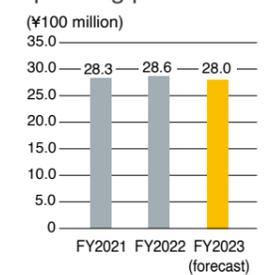
Outlook on the business environment

Short term FY2023	<ul style="list-style-type: none"> The polypropylene market weakens due to soaring raw material prices and China's Zero-COVID policy, and catalyst usage declines among customers in Asia, Europe, America, and Japan. Demand bottoms out and gradually recovers in the second half of FY2023
Medium term to 2025	<ul style="list-style-type: none"> Polypropylene demand returns to a growth trajectory from FY2024 onwards
Long term to 2030	<ul style="list-style-type: none"> Polypropylene demand is expected to grow at an annual rate of around 4%

Net sales



Operating profit



Growth Strategy

- 1 Increase production capacity through improvements in production technology and other areas (approximately 60% increase compared to the current production capacity)**
Aim to expand production capacity by fundamentally reviewing issues in the production process.
- 2 Formulate a plan to increase capacity by constructing a new plant**
Start by considering the location of the new plant in anticipation of future demand.

Chemicals Division

Powder manufacturing technologies supporting the evolution of electronic component materials

In our Chemicals Division, we manufacture and sell high-purity titanium oxide, ultra-fine nickel powder, and other electronic component materials used in multilayer ceramic capacitors (MLCC), PTC thermistors (positive temperature coefficient thermistors), and dielectric resonators. In particular, ultra-fine nickel powder is used for the internal electrodes of MLCC, taking advantage of its ability to control particle size and surface condition. We will further refine our powder manufacturing technology with high levels of quality stability to meet growing demand in the markets for telecommunications equipment, in-vehicle electrical components, and electronic equipment.

Main Products



High-purity titanium oxide Ultra-fine nickel powder

Market Environment and Overview of the Current Fiscal Year

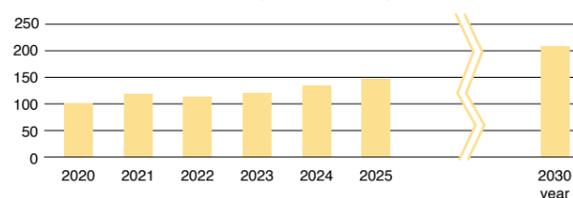
In FY2022, while MLCC, the main application for our main product, ultra-fine nickel powder, was on the road to recovery from the decline in demand caused by the COVID-19 pandemic, we entered an adjustment phase once again due to the impact of China's economic stagnation, and demand recovery for both communication and automotive applications was delayed. The slump in demand continued into the first half of FY2023, and as a result, the liquidation of distribution inventories is also being protracted. Although a full-fledged recovery in demand is expected to occur in the second half of FY2023, sales volume and profits are expected to decline in FY2023.

In the long term, demand for electronic components is expected to further expand due to faster communications, higher functionality of electronic devices, and automobile electrification. In order to meet this growing demand, we have decided to build a new nickel powder plant to strengthen our supply system.

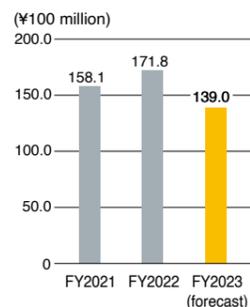
Applications



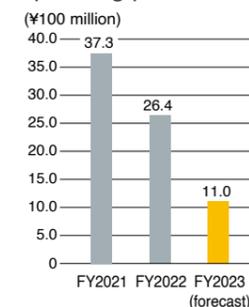
MLCC demand forecast (our estimate) *2020 is set at 100



Net sales



Operating profit



Outlook on the business environment

Short term FY2023	<ul style="list-style-type: none"> Although there is an impression that the decline in MLCC demand has bottomed out, recovery in demand for both communication and automotive applications is delayed, mainly due to the prolonged economic slump in China. Considering the elimination of excess inventory in distribution, it is estimated that demand for MLCC materials will recover from the second half of FY2023 onwards.
Medium term to 2025	<ul style="list-style-type: none"> Under the assumption that the Chinese economy will be stabilized, once MLCC demand recovers, both communication and automotive applications will return to a growth trajectory. In particular, automotive applications are expected to grow as the speed of automobile electrification accelerates.
Long term to 2030	<ul style="list-style-type: none"> There will be no change in the trends in the improvement of communication functionality, automobile electrification, and driving automation. MLCC demand is expected to grow at an annual rate of approximately 7%.

Growth Strategy

- Increase production capacity by operating the fifth nickel powder plant (scheduled for FY2025) (approximately 20% increase compared to the current production capacity)**

In line with the growth in MLCC demand, the company will build a new plant to increase the supply capacity for ultra-fine nickel powder, which is a raw material for components.

TOPIC

Start of construction of the Nickel Powder Plant No. 5 within the Wakamatsu Plant (September 2023)

Ultrafine nickel powder, the main product of the Chemicals Division, is used as the internal electrode in MLCC. MLCC is an electronic component with functions such as assisting and stabilizing power supply, and suppressing noise. It is installed in most electronic devices such as mobile and home appliances, automobiles, IT, and infrastructure equipment. The market is expected to continue to grow significantly in the future as communication equipment becomes more sophisticated and 6G (6th generation mobile communication systems) become more practical.

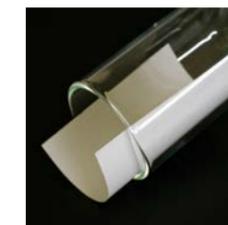
In the past, we constructed a nickel powder plant in the Wakamatsu Plant to enhance our production capacity, and now we decided to construct a new plant in order to strengthen the supply system of nickel powder that can respond to compact MLCC with large capacities. Moving forward, we will continue to invest in expansion in line with the growth of the MLCC market.

New Materials Division

Full-scale start towards mass production of WEBTi as need increases

In recent years, hydrogen has been attracting attention as a next-generation energy source. That is why the porous titanium material (WEBTi) we developed is expected to be used in solid polymer electrolyte membrane (PEM) water electrolysis generators, a type of hydrogen generator. Our division will work towards early commercialization of WEBTi, including establishing a supply system. We will also move forward with initiatives to commercialize other new business projects as well.

Main Products



WEBTi-K (development product)

FOCUS Achieving a Carbon-neutral Society with the Power of WEBTi Materials → p.23

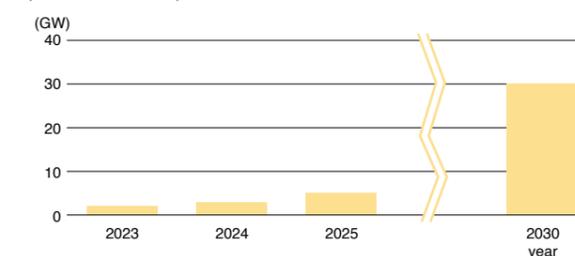
Market Environment and Overview of the Current Fiscal Year

WEBTi, which has been under development since the early 2000s, has grown into a developed product that receives many inquiries as a material for PEM water electrolysis generators.

We will establish an initial mass production system in FY2023-2024, and aim to fully commercialize it in FY2025.

We are also progressing with planning and development projects other than WEBTi, and will continue their commercialization as well.

PEM electrolytic tank installation capacity forecast (our estimate)



Outlook on the business environment

Short term FY2023	<ul style="list-style-type: none"> Requests for samples of porous titanium material WEBTi for PEM water electrolysis generators are increasing.
Medium term to 2025	<ul style="list-style-type: none"> We aim to start mass production of WEBTi in 2024 Proceed with new planning and development projects simultaneously
Long term to 2030	<ul style="list-style-type: none"> The porous titanium material market for PEM water electrolysis generators has the potential to become a megamarket. Commercializing new projects other than WEBTi

"Vision for 2030"

- New Business Sales of 10 billion yen/year**
- Ordinary profit Achievement of 3 billion yen/year (target)**

Growth Strategy

- Commercialization of WEBTi via the New Materials Division**
Solve issues in the production process and establish a mass production system.
- Increased capacity in line with business expansion**
The porous titanium material market for PEM water electrolysis generators has the potential to become a megamarket. Continue to increase capacity while paying close attention to market trends.
- Plan and develop new business themes at the Technology Strategy Department and Technology Development Center**
Simultaneously plan new planning and development projects that come after WEBTi.

FOCUS

Start of the New Materials Division and a new structure

We started with a total of 51 people, mainly development project members, but also new personnel. In order to make this the Fourth Pillar of our business, we will work diligently to resolve issues and expand our organization and personnel.



Social Value Created by Toho Titanium's Technological Capabilities



Achieving a Carbon-neutral Society with the Power of WEBTi Materials

Our company has developed the "WEBTi" porous titanium sheet, a metallic titanium sheet with numerous microporous. WEBTi is a new material that combines the characteristics of porous metals, such as liquid permeability and conductivity, and the advantages of titanium having high corrosion resistance and strength. It is intended for use in electrode materials, diffusion layers, and filters in highly corrosive environments.

Particularly in recent years, it has been expected to be used as the anode side diffusion layer of a PEM (solid polymer electrolyte membrane) water electrolysis generator, which is a type of hydrogen generator. Hydrogen generators are essential to building a hydrogen-based society, which is expected to be one of the major solutions for reducing CO₂ emissions. We will quickly conduct the implementation of WEBTi into PEM water electrolysis generators and contribute to CO₂ reduction.

from Sales

We will fulfill our mission of creating the "Fourth Pillar" and develop it into a business that leads to increasing corporate value.

As a company at the top of the commercial chain for material manufacturers, we see WEBTi as a great opportunity to showcase our advanced technological capabilities to the market. We are confident that this product will not only generate profits, but will also allow us to lead the way in decarbonization, which is an urgent social issue. We are also confident that this product will lead the way in increasing our corporate value by contributing to energy innovation for the next generation.

Hydrogen is highly important from the perspective of energy security, so we predict that demand for WEBTi will increase more than 100 times its current level. However, as this is a developing market, each customer has their own requirements, so there is currently no "correct answer" to all issues. Establishing a stable supply system is also an issue. As a salesperson with a technical background, I will coordinate the launch of new businesses from both technology and marketing aspects, and strive to carry out negotiations with European and US customers quickly and with a high level of understanding. We will establish the "Fourth Pillar" and contribute to our leap forward as a sustainable company.



Ryo Ishizuka
New Materials Division
New Materials Planning & Sales Group

from Developer

We will work as a team to establish "high quality" and "stable production."

About three years ago, inquiries about WEBTi for PEM water electrolysis applications increased rapidly, and the required size and number of sheets expanded, leading to the start of production at a pilot facility. Currently, we are working on developing technologies and creating systems to improve production capacity and stabilize quality, as well as developing next-generation porous titanium materials and cost-reducing technologies.

Since this is a product made using a new manufacturing method, we have to work very hard to maintain delivery dates, quality, and production safety, while there are unexpected facility problems, and with productivity and yield not improving as expected. In addition, creating a quality/production control and facility maintenance scheme is also a major mission toward commercialization.

Moving forward, we will focus on building a team to overcome the mounting challenges. For our members and cooperating departments who are working hard under a lot of uncertainty, we would like to achieve profitability as soon as possible and grow our division into a profit center.



Yosuke Inoue
New Materials Division
Porous Titanium Sheet Production & Development Group

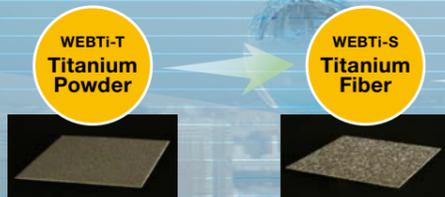
2004 Development of Seeds

We have begun development aimed at creating new business areas by combining the wide range of possibilities for the application of porous metal materials and the excellent properties of titanium.

Porous metal materials	Titanium
1) Ventilation/liquid permeability 2) Electrical/thermal conductivity 3) Impact energy absorbency 4) Large specific surface area 5) Unique texture	1) High corrosion resistance 2) High strength 3) Anodic oxidation color formation

2008 Market Exploration

We started development of the product as an electrode material. We developed several prototypes. We tried sample work but we were having a hard time getting a feel for moving on to the next step.



2018 Towards water electrolysis applications

As the transition to hydrogen energy and the development of water electrolysis generators progress, WEBTi has begun to attract attention as one of the equipment materials. Considering the environmental impact during hydrogen production, there are high expectations for WEBTi's potential as the material is titanium, and high porosity is needed.



2023 Development Stage



WEBTi-K (smoothness)
A porous titanium sheet made from titanium powder paste. It is characterized by its thin film thickness and small pore diameter, making it a product with excellent flexibility and smoothness.



Mass Production Stage



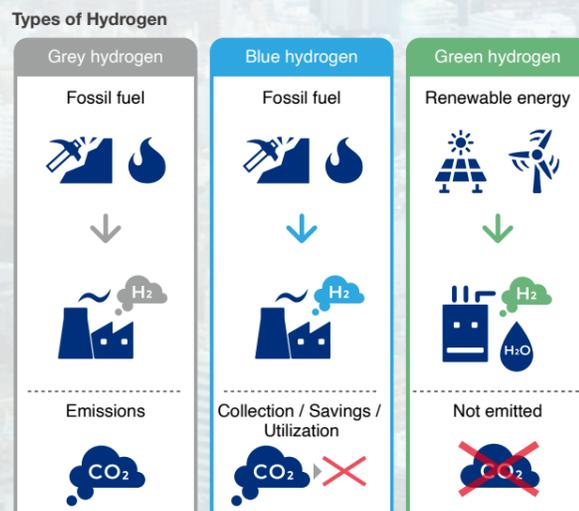
2030 Realization of a carbon-neutral society

Supporting "green hydrogen" production technology

Carbon neutrality is a rapidly accelerating movement mainly in Europe and the United States. There is no doubt that hydrogen, the next generation energy source, is essential to achieving this goal. What is particularly sought after now is called "green hydrogen."

Green hydrogen refers to completely carbon-free (no CO₂ emissions) hydrogen produced through water electrolysis using renewable energy such as solar and wind power. Among the water electrolysis methods, the PEM water electrolysis method is said to be the most compatible with renewable energy. It is an essential technology for green hydrogen production, and various countries are moving forward with many projects to popularize this water electrolysis method. Replacing existing energy sources with hydrogen requires a large amount of water electrolysis capacity, so demand for WEBTi, which is used for this purpose, is expected to increase exponentially.

In order to capitalize on this trend, we have set the goal of quickly launching the mass production of WEBTi, so our development, manufacturing, and sales teams are working together to contribute to the realization of a carbon-neutral society.



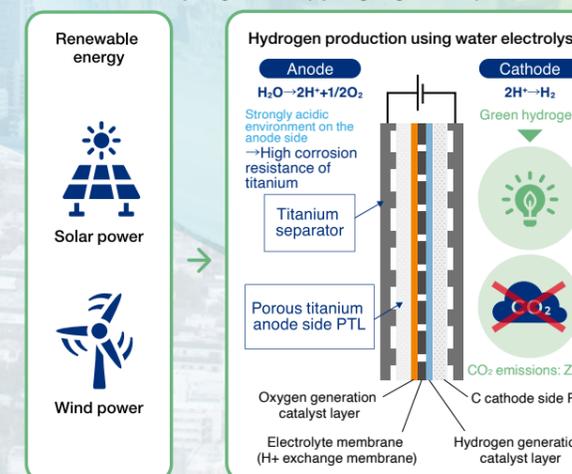
Taking advantage of the unique properties of titanium

WEBTi was born in 2004 by combining the characteristics of titanium, such as light weight, high strength, and high corrosion resistance, with the characteristics of porous materials, such as high air permeability, high specific surface area, and electrical/thermal conductivity.

Originally, we decided to develop it because of its potential as an electrode material, and we were considering expanding it to various specifications such as large voids and high strength, but unfortunately, it was discontinued. However, now more than 10 years have passed, it has attracted attention as a material for water electrolysis generators that produce the next-generation energy source, "hydrogen", and especially as a material for PEM water electrolysis methods.

In the PEM water electrolysis method, which has the opposite mechanism to a fuel cell, the environment inside the equipment has a large acidic load that ordinary metals cannot withstand. However, it became clear that WEBTi is a unique material that combines titanium's high corrosion resistance with high air permeability, making it ideal for water electrolysis generators, and that it cannot be replaced by other metals.

PEM water electrolysis generator (hydrogen generator)



Technologies that Contribute to Sustainability

R&D Enhancing the Value of Titanium, the Metal of the Future

The Toho Titanium Group have expanded its business areas by readily responding to the emerging needs of our customers, and steadily accumulating technological development that increases the value of titanium, which has various properties such as it being lightweight, strong, and gentle to the human

body. Furthermore, we are now promoting the development of new products that contribute to resource utilization, the spread of clean energy, and reduction of environmental impact, thereby contributing to the development of a sustainable society.

Advantages of Titanium



Titanium Challenges

High manufacturing costs and environmental impact

The current titanium smelting technique (Kroll method) uses batch production, a complex process that consumes large amounts of electricity, resulting in high production costs. In addition, the burning of coke produces large amounts of CO₂.

Difficult to process

Titanium has high strength, which makes it difficult to cut, press, and weld. In addition, because its thermal conductivity is low, heat does not escape during machining, causing cutting heat to build up, thus making tools more prone to wear, and metal fires more likely to occur. Processing methods and advanced technologies suited to the characteristics of the material are therefore required.

Toho Titanium Takes Pride in Sustainable Technology

- New energy-saving titanium production process enabled by introducing new technology
- Reduce CO₂ emissions in our customers' value chains by providing titanium and products using related technologies

Effective resource utilization

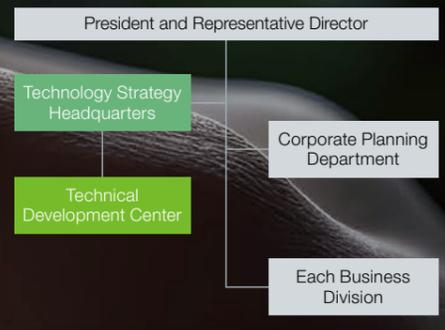
- Reduction of material loss through improvement of existing processes and products, and development of new processes and products
- Promote reuse of titanium scrap

New energy creation

- Support the creation of next-generation energy sources such as renewable energy and hydrogen energy

R&D Organization

We conduct our research and development work under a policy of strengthening and building a management foundation through the pursuit of quality. In collaboration with engineers from each Business Division, the Technology Strategy Headquarters leads the development of new technologies and products in line with business strategies.



R&D Case Studies

CASE 1

Reduction of CO₂ emissions

Establishing a new smelting technology with low energy and high efficiency

New titanium smelting method

Use of titanium, a metal characterized by its light weight, high strength, and high corrosion resistance, is expanding and getting more diversified year by year. Titanium feedstock is widely available around the world, but the smelting process currently being used to convert it into titanium metal is a complex technique based on a particular method called the Kroll method.

However, since this method consumes a large amount of electricity, combining the CO₂ emitted from the process and the CO₂ derived from electricity emits approximately 9 tons of CO₂ to produce 1 ton of titanium. Various alternatives to the Kroll smelting method have been studied, but none has yet been put into use. In order to build a low-carbon society, there is an urgent need to reduce CO₂ emissions from the smelting process.

The new smelting technology that Toho Titanium is developing in collaboration with Universal Achemetal Titanium, LLC (UAT, LLC.) of the United States is a smelting process that has the potential to reduce CO₂ emissions virtually to zero. We also aim at reducing electric power consumption by approximately 75%.

In this development, it is necessary to utilize knowledge

of basis sciences such as thermodynamics, electrochemistry, mechanical engineering, and electrical engineering to solve highly challenging technical issues of high-temperature smelting reactions and molten salt electrolysis, and to design processes and facilities suitable for actual implementation. We aim to implement the new smelting technology by the end of FY2025 by making full use of our advanced technologies and putting all our efforts into development. Furthermore, through measures centered on the new smelting technology, the Group as a whole aims to reduce CO₂ emissions by 40% from 2018 levels by 2030, and to achieve carbon neutrality (net zero CO₂ emissions) by 2050.

Anticipated Results

- We will reduce direct CO₂ emissions from the titanium smelting process to zero.
- A major energy conservation effect is anticipated, as the introduction of this new smelting method has the potential to reduce the domestic power consumption required for the production of metallic titanium by up to 75%.
- Titanium products manufactured with this newly developed technology can help create products with low environmental impact in both name and reality, including the materials used.

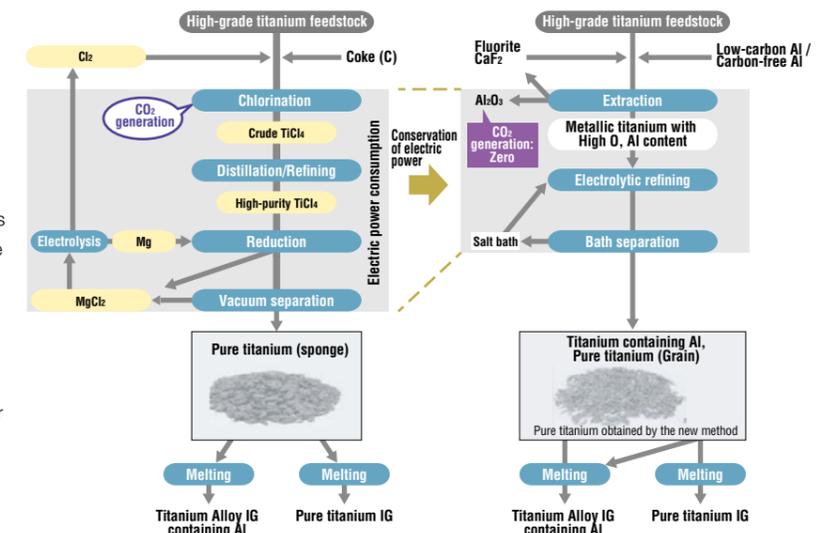
Technical details of the new process

This process is expected to be an excellent smelting method since it is a simpler process than the current method, uses almost no hazardous materials, consumes about a fourth of the electricity, and produces no CO₂.

This technology consists of two major processes: In the first process, titanium feedstock is converted into an electrically conductive material, and in the second process, it is electrolytically purified. Finally, residual salt is removed to finish the product.

- 1 As an example, by first mixing granular titanium ore, calcium fluoride (fluorite), and metallic aluminum and reacting at high temperatures, a conductive titanium alloy containing oxygen and aluminum is produced. Slag consisting of the byproducts aluminum oxide and calcium fluoride is separated by flotation, so the titanium alloy can be easily recovered in isolation.
- 2 We use a proprietary electro-refining process, in which titanium ions are mainly dissolved from the titanium alloy into the salt bath, and deposited as dendritic solid metal titanium on the cathode. After vacuum separation or rinsing, we obtain metallic titanium with few impurities, equivalent to current commercially pure titanium sponge.

	Current process based on Kroll method	→	New process
Number of steps	6	→	4
Electricity consumption	High	→	1/5 to 1/4 of the current process (Note: electric power used to produce ore, aluminum, salt baths and other substances is not taken into account.)
Use of hazardous substances	Yes (Cl ₂ gas, molten Mg, TiCl ₄ , etc.)	→	No
CO ₂ generation	Yes	→	Zero



CASE 2



Greatly Simplified Titanium Foil Manufacturing Process Direct Titanium Foil Production with Smooth Electrodeposition

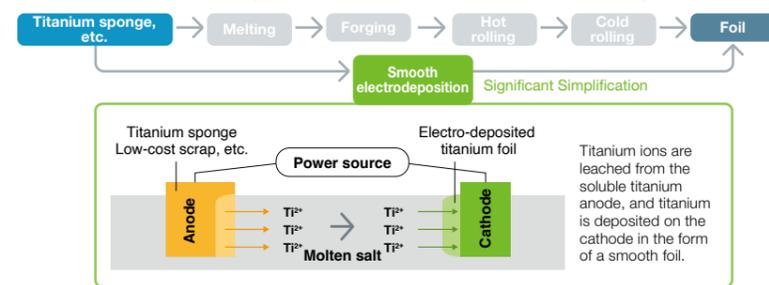
In general, titanium foil is manufactured by melting and forging raw materials such as titanium sponge, followed by a number of processing steps such as hot and cold rolling.

The smooth electrodeposition method that we are currently developing is a manufacturing process that can significantly eliminate steps of fabrication by electrodepositing the raw material in foil form through molten salt electrolysis. As a result, reduction in CO₂ emissions can be expected through energy-saving manufacturing process. Furthermore, since the electrodeposition also has a refining effect, low-cost titanium scrap can be used as raw material, leading

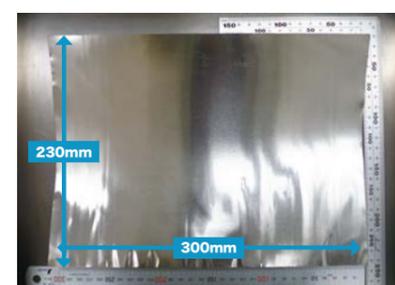
to resource conservation.

We have established the technology for manufacturing titanium foil of A4 paper size and approximately 100 μm thickness using this process, and will continue to develop the technology with the aim of commercializing it. Taking advantage of titanium's high corrosion resistance, it is expected to be used in bipolar plates for PEM water electrolysis hydrogen production equipment and anti-corrosion films for steel structural buildings, thereby contributing to the maintenance and preservation of social infrastructure.

Smooth Electrodeposition Significantly Simplifies Titanium Foil Manufacturing Process



Electro-deposited titanium foil with A4 dimensions



CASE 3



All-Solid-State Batteries Promote Clean Energy LLTO™ Technology Improves Performance of Lithium-ion Batteries

High-capacity, high-performance, safe batteries are essential in expanding the deployment of clean energy, electricity generated from renewable energy sources, as called for in SDG No. 7: "Affordable and Clean Energy." The lithium-ion batteries that have been widely used in the past have used liquid as the electrolyte, which has presented challenges in terms of capacity and safety. All-solid-state batteries using solid electrolyte are attracting the most attention as the next-generation battery.

We have focused our development work on lanthanum lithium titanate (LLTO™), an oxide-based solid-state electrolyte. It is chemically very stable, and is expected to be used in multilayer (chip-type) all-solid-state batteries and large batteries for automotive use in the future.

LLTO™, currently achieves ionic conductivity of $5 \times 10^{-4} \text{Scm}^{-1}$ at 27°C in plate form, demonstrating the characteristics of high ionic conductivity among oxide-based solid electrolytes. We will continue to develop all-solid-state batteries for practical use.

Structure of an all-solid-state battery with LLTO™

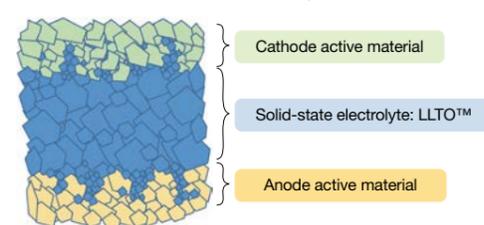
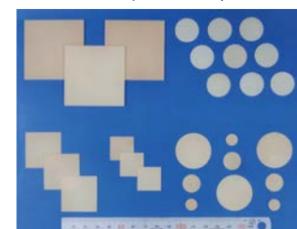


Plate LLTO™ (LLTO™ in plate form)



INTELLECTUAL PROPERTY STRATEGY

IP Strategy



Masakatsu Ikisawa
General Manager,
Intellectual Property Department,
Technology Strategy Headquarters

We aim to be aggressive with our intellectual property, which is the core of our competitive strength.

For our company, whose core competency is advanced titanium-related technology, securing and utilizing intellectual property is an important initiative that can be called the core of our competitiveness. The Intellectual Property Department continuously files strategic patent applications, provides IP education for engineers, and steadily performs invention discovery activities.

There are two main roles that the Intellectual Property Department plays. The first is establishing an appropriate patent network for the inventions we have developed to ensure our business dominance. The second is making full use of the IP landscape to contribute to the exploration and planning of new businesses from promising business areas. In these cases, it is also extremely important to consider sustainable materials and their manufacturing methods that contribute to reducing environmental impact. In order to turn the results of research and development into a competitive advantage for our company, we will lead the strategic use of intellectual property, with an emphasis on medium- to long-term business growth.

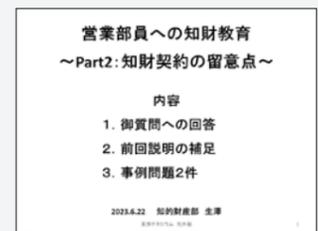
Setting quantitative and qualitative goals

With regard to patent applications, we set annual targets for the number of applications and for acquisition of know-how based on the progress of our business strategy and development themes. In FY2022, we acquired 42 patents in Japan. When determining whether or not to obtain patents internationally, we use a checklist to check whether competitors have manufacturing and sales bases in a particular country, as well as the level of competition, and make comprehensive decisions from the perspective of cost performance.

IP education

In FY2022, we conducted four IP training sessions for engineers. Until now, the only people eligible for in-house IP training were engineers who could become inventors. However, starting in FY2023, we will begin providing IP training to sales personnel.

In addition to basic knowledge of patent law and copyright law, the training content is related to situations that frequently occur in sales activities, such as during sample shipping, sales promotion operations, and signing patent guarantee contracts. We also provide explanations of related knowledge along with hypothetical examples.



IP education materials for sales staff

Leveraging the IP landscape

For existing products, we use the IP landscape to compare the intellectual property capabilities of our competitors and to specify the content of patents that should be obtained in the future.

We also share information about the current status of our IP capabilities and changes in our IP capabilities over time during monthly reporting meetings of the Technology Strategy Headquarters as well as in the reporting meetings with management. With our enthusiasm to "create business with intellectual property", we will contribute to management by proactively making proposals to our business divisions regarding patent acquisition and the exploration and narrowing down of new businesses.

Promoting open innovation

When it comes to technology development, we place the highest priority on promoting development and early commercialization of the results. To this end, we are proactively considering and introducing external technologies that we lack, rather than relying on in-house development. For example, we not only exchange technology with our parent company, JX Metals, through technology presentations, but also conduct joint research on multiple individual themes. In addition, we are collaborating with an overseas start-up company to develop metallic materials, and joint research with several universities is underway.

Digital utilization in research and development

We aim to speed up R&D and improve the quality of R&D results by introducing appropriate digital tools that match the content and stages of our R&D. Specifically, we are actively introducing various simulation software, through which we have achieved results such as narrowing down the appropriate experimental conditions and clarifying the causal relationship between conditions and characteristics.

We are working to further achieve labor saving, speed improvement, and functionality enhancement in intellectual property work. For example, when searching for past papers and documents, it used to take time and effort to check a huge amount of documents, one by one. Therefore, by introducing an AI tool that collects and displays articles in the order of their relevance to the target keyword being searched, we are now able to obtain the necessary documents extremely quickly, significantly reducing work time, and improving the quality of our staff's work.

Promotion of ESG Management

The Toho Titanium Group will contribute to the development of a sustainable society by strengthening ESG initiatives and realizing solutions to various social issues through corporate activities.

Materialities

In line with our defined materialities, we will work to resolve important issues surrounding our company and our stakeholders, contribute to the sustainable development of society, and aim to enhance our corporate value over the long term.

	Materiality	Related SDGs	Item	Target (2030 - 2040)	Catch-up Strategy and Major Measures for FY2023-2025
E	Contribution to global environmental conservation	7 AFFORDABLE AND CLEAN ENERGY, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	To realize a decarbonized society	Reduce CO ₂ emissions by 40% from the 2018 level by 2030 and achieve carbon neutrality by 2050	<ul style="list-style-type: none"> Development of new titanium smelting technology, CO₂-free electricity, introduction of carbon-neutral LNG, etc. *2025 CO₂ emissions: 190,000 t/y (-25% compared to 2018)
		11 SUSTAINABLE CITIES AND COMMUNITIES, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Development of environmentally safe products	Develop new materials, technological improvements, and new applications for multiple products with consideration for the environment and safety	<ul style="list-style-type: none"> Commercialization of WEBTi Consider commercialization of new materials other than WEBTi
		13 CLIMATE ACTION	Sustainable resource utilization	Reduce final waste disposal volume by 50% by 2040 compared to FY2020. Reuse waste materials throughout the supply chain	<ul style="list-style-type: none"> Reuse waste throughout the supply chain Promote recycling of raw materials and effective use of waste
S	Contribution to society	3 GOOD HEALTH AND WELL-BEING, 4 QUALITY EDUCATION	Respect for human rights in the supply chain	Respect the human rights of all those involved in the supply chain	<ul style="list-style-type: none"> Survey and audit suppliers' human rights initiatives Raise awareness of human rights among all employees
		5 GENDER EQUALITY, 8 DECENT WORK AND ECONOMIC GROWTH	Coexisting with local communities	Support social contribution and community revitalization in each region	<ul style="list-style-type: none"> Support social contributions and regional revitalization at each business site (supporting local sports and cultural activities, joint volunteer activities with nearby schools, and accepting plant tours)
	Appealing workplace	10 GENDER EQUALITY	Improving occupational health and safety in the workplace	Eliminate serious industrial accidents Create healthy work environments	<ul style="list-style-type: none"> Maintain JIS Q 45100 Develop various activities related to industrial health and safety based on JIS Q 45100
		8 DECENT WORK AND ECONOMIC GROWTH	Diversity and inclusion	Ensure a diverse and inclusive workplace	<ul style="list-style-type: none"> Set the ratio of women in management positions to 20% or more Maintain a ratio of women at 20% or more among new graduates and mid-career hires
		10 GENDER EQUALITY	Creating comfortable work environments	Realize vibrant work environments	<ul style="list-style-type: none"> Establishing a personnel system suitable for work style reforms Improve treatment conditions Identification and implementation of areas for improvement through continuous implementation of employee satisfaction surveys
			Next-generation human resource development	Create a foundation to encourage personal growth of all employees and establishing education	<ul style="list-style-type: none"> Actively recruit highly-skilled human resources with specialized skills Develop executive and core human resources through reshuffling based on succession plans
G	Solidifying our management foundation	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Strengthening corporate governance	Resolutely apply the CG Code	<ul style="list-style-type: none"> Formulate and disclose transition plans for decarbonization Respond appropriately to disclosure requests
			Ensuring thorough compliance	Achieve zero compliance complaints	<ul style="list-style-type: none"> Raise employee compliance awareness Identify and recognize workplace-specific issues
			Risk management promotion	Establish and appropriately implement the company-wide risk management system	<ul style="list-style-type: none"> Establish and implement company-wide risk management PDCA through the Risk Management Committee Optimize asset efficiency

Basic Policy

Based on our Group's Management Philosophy, our basic policy on management is to work toward solving social issues involving the company and our stakeholders by engaging in business activities from the perspectives of the environment (E), society (S) and governance (G), so that we can contribute to the sustainable development of society and enhance our corporate value over the long term.

Promotion Structure



ESG dissemination activities

In FY2022, we provided an opportunity to directly explain to the general managers of each department and GM class based on the materials created by the ESG Promotion Department. The contents of the materials include the concept of ESG and SDGs, the background and necessity of ESG proliferation, our company's materiality and initiatives, and our organizational structure. In FY2023, we will make a video of this content and disseminate it throughout the company.



FY2023 materials for ESG dissemination activities for all employees

STAKEHOLDER ENGAGEMENT

At the Toho Titanium Group, we believe that building relationships of trust with stakeholders through dialogue is indispensable for our company's survival and sustainable development. We are committed to understanding the expectations and desires of our stakeholders and reflecting them in our corporate activities.

- Shareholders and Investors (p.33)
- Customers
- Business partners (p.37)
- Local community & society (p.39)
- Employees and families (p.42)

STAKEHOLDER ENGAGEMENT



Shareholders and Investors

We aim to be a company that is trusted by all stakeholders, including shareholders and investors, and strive to disclose information promptly, appropriately, and fairly, and to proactively disseminate information.

Stakeholder Expectations/ Interests (Examples)

- Improvement of corporate value
- Suitable stock price
- Stability of financial foundation
- Increase in ROE and ROIC
- Profit improvements
- Safe operations
- Promotion of ESG, SDGs
- Providing timely information

Opportunities for Communication

- Holding a regular general meeting of shareholders
 - Holding a briefing session for investors
 - Conducting individual IR meetings
 - Publication of business reports, Integrated Reports / CSR reports
 - Publication of company introduction pamphlets
 - Distribution of information via website, etc.
 - Distribution of news releases through mass media
- Disclosure Policy**

Important Value Co-created with Stakeholders (examples of value provided)

- Stock price improvement
- Stable dividend



Customers

Our Group strives to provide products and services that prioritize quality in order to continue receiving the trust of our customers. We also strive to improve customer satisfaction by accurately understanding customer needs and continually improving our products and processes.

- Providing high quality products and services
- Stable supply, thorough supply chain management, legal compliance
- Promotion of environmental load reduction
- Safe operations
- BCP compliance
- Fair price
- Capital investment

- Daily communication through Sales Department
 - Display at exhibitions
 - Explanation through company introduction videos and pamphlets
 - Distribution of information via website, etc.
 - Distribution of news releases through mass media
 - Contributing to reducing environmental impact and CO₂ emissions
- Quality Standard - ISO9001/JIS Q 9100**

- Improving trust through regular engagements with customers through sales activities
- Increasing awareness through exhibitions of our products and technical information
- Improving customer satisfaction by transferring the maximum possible load during product delivery
- Ensuring quality by conducting quality audits of raw material suppliers
- Stable operations through thorough process and logistics management
- Expansion of the fourth catalyst plant
- Start of construction of the Nickel Powder Plant No. 5



Business partners

In order to achieve the procurement of purchased goods that meet the standards of "quality", "cost", and "delivery time", our Group conducts material procurement activities with the aim of building relationships of mutual trust with our business partners and building better partnerships.

- Fair, just, and transparent transactions
- Thorough supply chain management and legal compliance
- Safe operations
- Business continuity
- Promotion of environmental load reduction

- Procurement of product materials, supplies, etc.
 - Implementation of quality audits, process audits, etc.
 - Initiatives to reduce environmental impact and CO₂ emissions
- Green procurement guidelines, responsible mineral sourcing**

- Fair business transactions through the execution of sales contracts, specifications, etc.
- Avoiding procurement risks by purchasing multiple raw materials
- Stabilizing business through sustainable transactions
- Continuing to conduct regular supplier quality audits
- CO₂ reduction during product delivery
- Optimization of prices commensurate with manufacturing costs



Local community & society

At the business sites of our Group in various locations, we are working to revitalize local communities and support the generations who will lead the future, so that we are able to develop together with society as corporate citizens, while striving for harmony with everyone as members of the local community.

- Co-existence and co-prosperity with the local community
- Contribution to regional development
- Safe operations
- Promotion of environmental load reduction
- Disaster prevention response

- Dialogue with local residents
- Interacting with local citizens through plant tours and soccer clinics
- Distribution of information through news releases
- Notifications and reports to government agencies
- Contributing to reducing environmental impact and CO₂ emissions
- Building a response manual for accidents and disasters

- Improving trust from local communities
- Promoting understanding of safety and security through plant tours for local residents
- CO₂ reduction during product delivery
- Ensuring safety and security and business continuity in the event of an accident or disaster



Employees and families

Our Group respects the individuality of each employee and strives to develop their abilities. At the same time, in order to create an attractive work environment, we are implementing various human resources systems, including support for work-life balance and promotion of women empowerment, as well as measures to actively develop human resources who will pave the way for the future of our company.

- Safety first
- A work environment where one can work energetically (health, respect for human rights, equal opportunities, ensuring rights to working conditions based on laws and regulations)
- Utilizing a wide range of human resources (diversity & inclusion)
- Promotion of environmental load reduction
- Improvement of education, welfare, and other various systems

- Delivering the President's message during New Year's ceremonies, and other events
- Distribution of information through company newsletters and intranet
- Holding Group management meetings
- Consultations with labor unions
- Operation of compliance hotlines
- Maintaining the work environment
- Ensuring welfare benefits
- Health management

- Improving the work environment under the policy of putting safety first
- Employee health management through medical checkups and mental health care at least once a year
- Sharing Group intentions by disseminating business status and policies to all employees
- Negotiations and discussions held every month on various management topics and employee working conditions
- Improving the ratio of women in management positions and the rate of men taking childcare leave
- Improving communication through dormitories, company housing, various events, recreation, etc.

Identifying Materiality



Contribution to global environmental conservation

To realize a decarbonized society

We recognize that climate change represents both risks and an important management mission for the Toho Titanium Group to gain new profit opportunities. We will work to mitigate and adapt to climate change through our business, actively contribute to decarbonization through technological innovation, and work proactively in good collaboration with stakeholders to achieve both medium- to long-term improvements in the Group's corporate value and sustainable development of society as a whole.

Through the reduction of GHG emissions across the whole value chain, we will also help achieve the goals set forth in the

SDGs and the Paris Agreement. Our Group supports the Japanese government's decision to lead the country toward decarbonization, and will comply with all laws and regulations related to climate change. We also recognize the importance of climate-related financial disclosures, support the TCFD, and disclose information in line with the TCFD.



Information disclosure consistent with the four TCFD themes

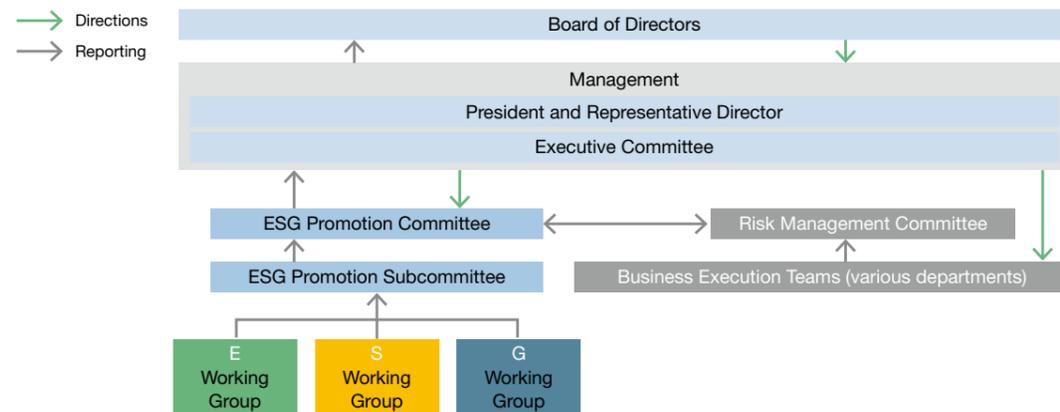
Governance

The ESG Promotion Subcommittee, which is made up of three working groups of the ESG Promotion Committee, serves as the parent body responsible for formulating specific response plans and targets for climate change issues and managing the progress of countermeasures, while also playing a liaison role with the business divisions.

The status of the working groups is shared at the ESG Promotion Subcommittee Meeting, which is held regularly every month. Furthermore, at the ESG Promotion Committee Meeting

(chaired by the President and Representative Director), which meets twice a year, we discuss the status of activities from the Promotion Subcommittee, as well as activity policies related to materiality, important matters, plans for the next fiscal year, and other topics. These matters are then reported to the Executive Committee and the Board of Directors, and opinions and suggestions are fed back to the ESG Promotion Committee. This way the climate change issues are monitored from a secondary and company-wide perspective.

System for addressing materiality including decarbonization (ESG promotion system)



Strategy

The Group strives to understand the financial impact of climate change through scenario analysis. Based on the results of the scenario analysis, we are formulating a concrete transition plan to achieve a low-carbon society, which will be reflected in the three-year medium-term corporate management plan starting in FY2023.

Scenario Analysis

Selected Scenario	IEA STEPS IPCC RCP4.5				
Hypothetical Scenario	We selected the above scenario and assumed the following as our business environment. <ul style="list-style-type: none"> Each country's decarbonization policies continue to progress as they currently do, and the 1.5°C target set out in the Paris Agreement will not be achieved. There is little incentive to actively invest in the development of decarbonization technologies, including switching the electricity consumed in our main titanium smelting business to renewable energy electricity, and adopting new smelting technologies that reduce electricity consumption. Regarding weather conditions such as storms, floods, and rise in temperature, we assume that the frequency/intensity will increase slightly from the current level, and consider the impact on our main plants and production systems. 				
Identified Risks and Opportunities		Driver	Time horizon	Financial Impact	Countermeasures
Type	Overview				
Transition risk (market)	Under China's current energy consumption control policy through decarbonization policies, it is highly possible that the country will end up with restrictions on power supply to industries, and power supply to magnesium smelting is also expected to be restricted, assuming that the transition to renewable energy does not make significant progress. As a result, if magnesium production is delayed in China (China accounts for approximately 80% of the world's magnesium supply), there is a risk that the price of magnesium we use in titanium smelting may rise and it may become difficult to procure it.	Introduction of renewable energy in China	Short/medium/long term	Approximately 400 million yen/year	<ul style="list-style-type: none"> Diversify magnesium procurement sources and adjust inventory to stabilize procurement. We are considering reducing the amount of products imported from China. We will also respond to fluctuations in magnesium prices by shortening the contract period and stipulating automatic cost adjustment items in the contract for titanium sales.
Physical risk (acute)	We expect the frequency and intensity of storms and flooding to increase in the areas where our plants are located. In particular, plants that are at high risk of flooding, due to nearby rivers overflowing, are likely to suspend operations if occurrence of heavy rains increase in the future. Also, if the intensity of storms increases in the future, the scattering risk of roofs and walls of aging plant buildings also increases. The amount of damage to our company due to the suspension of plant operations will be significant, and we will also incur costs for repairs to the plant building.	Frequency of storms and floods	Short/medium/long term	Approximately 100 million yen/day	<ul style="list-style-type: none"> For plants that are at risk of flooding due to nearby rivers overflowing, we have implemented risk countermeasures to the point where the risk of plant shutdown is virtually non-existent under the hazard conditions assumed by the city where the plant is located (assuming rainfall once every 50 years). Going forward, we will continue to evaluate trends in changes in the frequency and intensity of abnormal weather events and consider whether additional measures are necessary. For plants with aging buildings and are in areas experiencing high levels of storm intensity, we have formed a risk countermeasure working group and are proceeding with storm countermeasure construction after conducting a risk level assessment. Of the 19 countermeasures taken at the Chigasaki Plant, 13 are completed, 4 are in progress, and 2 are planned. The Wakamatsu Plant is considering reinforcing the plant roof and installing a seawall at the central substation. Going forward, we will complete construction according to this countermeasure plan. We will also consider the need for additional measures by monitoring trends in typhoon and storm intensity across all sites.
Physical risk (chronic)	As summer temperature and humidity rise and the number of extremely hot days is expected to increase, it is possible that there will be an increase in the number of cases of employees suffering from heat stroke while at work.	Number of extremely hot days	Short/medium/long term	Not remarkable	<ul style="list-style-type: none"> In addition to activities that drive awareness of heatstroke via the Safety and Health Department, we are also taking measures to counter the heat by installing air conditioning equipment in departments where heatstrokes occurred. In workplaces where air conditioning measures is not expected to be very effective, such as large work areas, risks are avoided through measures such as work time management. We will continue to monitor changes in heat conditions and the number of heatstroke occurrences, and consider strengthening measures according to the situation. We will continue our effort to avoid a situation that would lead to a shutdown of operations due to the reason multiple people at the same work place suffer from heatstroke at the same time.

Selected Scenario	IEA NZE 2050				
Hypothetical Scenario	We selected the above scenario and assumed the following as our business environment. <ul style="list-style-type: none"> Decarbonization policies in each country will progress toward achieving the 1.5°C target set forth in the Paris Agreement. There will be increasing pressure on the titanium smelting business, an electricity-intensive business, to switch to renewable energy. Development of a new smelting technology that can significantly reduce power consumption is required. Competition in technology development will intensify in the field of decarbonization technology, which we have determined as having a significant impact on our business. As our technology develops in response to the acceleration of the shift to EV and the advent of a hydrogen society, new market expansion is expected. Regarding weather conditions such as storms, floods, and rise in temperature, we assume that the frequency/intensity will increase slightly from the current level, and consider the impact on our main plants and production systems. 				
Identified Risks and Opportunities		Driver	Time horizon	Financial Impact	Countermeasures
Type	Overview				
Transition risk (market)	We anticipate that demand for carbon-free materials will increase from aircraft manufacturers, plant manufacturers, and heat exchanger manufacturers, which are our major customers. The current titanium smelting method is a power-intensive manufacturing method, so there is the potential issue of high CO ₂ emissions. If we do not reduce these emissions, we will not be able to meet customer demands, and there is a possibility that our products will be replaced with other materials with lower emissions. Moreover, switching to carbon-free electricity in order to avoid this will result in higher costs.	Price of carbon-free electricity	Medium/long term	Approximately 600 million yen/year	<ul style="list-style-type: none"> We are progressing with the development and gradual commercialization of a new titanium smelting method that significantly reduces power consumption and CO₂ emissions to minimize the amount needed for switching to carbon-free electricity. Compress electricity cost increases through direct purchase of non-fossil fuel certificates Continue to proceed with energy conservation / waste heat recovery and utilization measures, and use carbon-free energy other than electricity. In the future, we will also consider participating in renewable energy power generation projects in collaboration with local communities and other companies.
Physical risk (acute)	*Same as physical risk (acute) in the table above				
Physical risk (chronic)	*Same as physical risk (chronic) in the table above				
Opportunity (Products/Services)	As efforts, such as decarbonization, are strengthened toward building a sustainable society, titanium, which is lightweight, has high strength, and excellent durability, is a useful material that can contribute to this goal. Thus, by establishing a new smelting technology that can produce CO ₂ -free titanium, we expect to create opportunities for our titanium business.	Customer demand for low carbon products	<ul style="list-style-type: none"> Mid-term: Start of dissemination of new smelting technology Long-term: Applicable to approximately 40% of titanium products, stabilizing the effect of the demonstration 	Not determined	<ul style="list-style-type: none"> We will complete studies on resolving issues facing industrialization by FY2024 based on the results obtained so far regarding CO₂-free titanium production technology. A company-wide steering organization will proceed with technology evaluation and investment decisions, with the aim of starting small-scale commercial production in 2025. Proceed with gradual scale expansion while incorporating improvements related to productivity and cost reduction. In conjunction with the application of other CO₂ emission reduction measures, the goal is to achieve substantial carbon neutrality in FY2040.
Opportunity (Products/Services)	The production and use of hydrogen is expected to play a major role in building a sustainable society centered on decarbonization. In addition, our company's business opportunities are expected to expand by developing titanium and titanium-containing compounds essential as hydrogen-related materials.	National hydrogen-related measures	<ul style="list-style-type: none"> Long-term: Emergence of markets for porous titanium, titanium foils, and FeTi hydrogen storage alloys as the creation of a hydrogen energy based society gains momentum Long-term: Promote in-house hydrogen utilization using the above technologies (ultra-fine nickel powder production, WEBTi Ti powder production, etc.) 	billions of yen / annual revenue increase (FY2030)	<ul style="list-style-type: none"> The WEBTi porous thin titanium sheet is expected to be applied to parts of water electrolysis hydrogen generators, which is expected to be put into practical use by around 2030. In order to be able to respond to the rapidly increasing number of inquiries on the WEBTi porous thin titanium sheet, we will establish an initial mass production system in 2024. Centered around the departments in charge of technology development and new businesses, we will accurately grasp technological seeds and market needs and trends, and aim for timely development and stage deployment. In addition to technological improvements, a company-wide steering organization will make investment decisions and technology evaluations in accordance with the progress of building a hydrogen energy based society, and aim to expand the scale. In FY2040, the above materials will become a large-scale market with the full-scale operation of a hydrogen energy based society.
Opportunity (Products/Services)	As decarbonization policies progress, EV are expected to account for more than 50% of new car sales by 2030. There is a strong need for reducing the weight of EV, and there is a need for lighter and thinner parts, so we expect increase in our Catalysts Business sales by providing high-performance catalysts that can produce these resins.	EV production volume	Medium/long term	Approx. ¥1 billion/year increase in revenue (FY2030) *Compared to FY2021	<ul style="list-style-type: none"> Development of high-performance catalysts began in 2020, and we plan to continue to improve their functionality. In order to respond to increasing demand, we have worked to expand our production sites for high-performance catalysts, and a new plant was completed in November 2022.

Contribution to global environmental conservation

Information disclosure consistent with the four TCFD themes

Risk Management

The Climate Change Risk Identification Process

The Risk Management Committee leads the identification of climate change risks. The results of ESG Promotion Committee deliberations are reported to the Executive Committee for final approval of the company's identified climate change risks. In assessing and determining the severity of climate change risk, we primarily consider the following factors:

Method of Determining Level of Severity

- Short-, medium-, and long-term time horizons
- Transition risks: Decarbonization trends, generation power mix, product demand trends, existing and new regulatory requirements (carbon pricing, plastics regulations, etc.)
- Physical risks: Frequency of occurrence, loss of life, impact on external parties, degree of loss
- Potential for risks to materialize

How We Respond to Risks

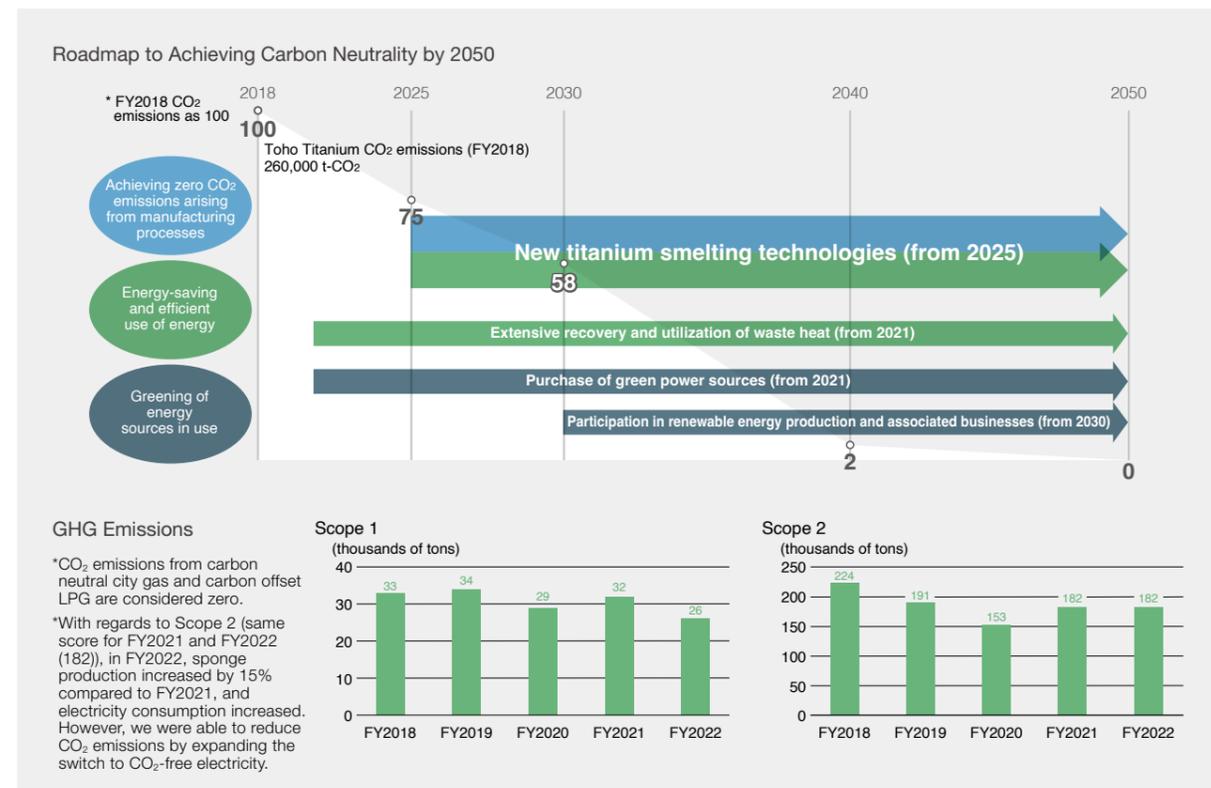
Identified climate change risks are assessed in accordance with the Risk Management Manual. They will be categorized by avoidance, mitigation, transfer, and retention, and measures will be considered for each. After deliberation by the Risk Management Committee, response policies are reported to and approved by the Executive Committee through the ESG Promotion Committee.

Integration into Company-Wide Risk Management

The Risk Management Committee is chaired by the Toho Titanium president, and consists of its executive officers, the presidents of affiliated companies, and other members appointed by the President. Climate change risk is also managed by the Risk Management Committee in the same manner as other risks, based on the system set forth in the Risk Management Manual.

Indicators and Targets

Our Group is committed to reducing GHG emissions by achieving zero-CO₂ emissions from manufacturing processes, conservation and effective use of energy, and moving to carbon-free sources for the energy we use. We have set targets of a 25% reduction by FY2025 and a 40% reduction by FY2030 (both compared to FY2018), with a final goal of reaching net zero by FY2050.



Adoption of CO₂-free electricity

From FY2021, we have introduced CO₂-free electricity to the Chigasaki Plant part of the Wakamatsu Plant, and the Hitachi Plant. In FY2022, we increased the amount of CO₂-free electricity introduced at the Chigasaki Plant. Moving forward, we will continue to introduce CO₂-free electricity to other processes to reduce CO₂ emissions.

Compensation Rules for Directors and Management

The Company's compensation system for Directors and management consists of fixed and performance-linked remuneration. In the future, we will consider reflecting the achievement of climate change-related goals in our compensation structure.

TOPIC

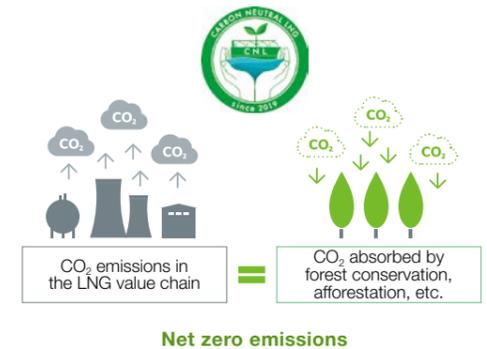
Initiatives to make fuel carbon-free

Carbon Neutral LNG Buyers Alliance

Toho Titanium joined 14 companies including Tokyo Gas Co., Ltd. in launching the Carbon Neutral LNG Buyers Alliance in March 2021. The alliance brings together Tokyo Gas and other companies that purchase carbon-neutral LNG (CNL) in an effort to realize a sustainable society, expand the use of CNL, and increase the value of its utilization. CNL is liquefied natural gas (LNG) that is regarded as producing no CO₂ emissions on a net global basis when burned, because the greenhouse gases produced in the process from the mining of CNL to its combustion are offset with CO₂ credits (carbon offsets). In the future, we aim to make CNL widely known worldwide, improve its reputation among investment institutions, and establish its position in various environment-related systems.

Introduction of carbon offset LPG

We are in the process of switching to carbon offset LPG at sites that use LPG in the manufacturing processes. Carbon offset LPG uses carbon credits to offset the greenhouse gas emissions that occur when it is burned. We started implementing it at one location in Japan in October 2022.



Providing Products Beneficial to the Environment and Safety

Our Group responds to the emerging demands of our customers and promotes the development of new processes and new products that contribute to reducing global environmental impact (p.25). We are also keenly aware of how we can help achieve the SDGs through the raw materials we use, our manufacturing processes, and our product applications, thereby contributing to the development

of a sustainable society. The introduction of pilot equipment for WEBTi, a new material that will contribute to building a hydrogen energy based society, is progressing as planned, and sample work is currently underway with the goal of full-scale commercialization within FY2025.

Sustainable resource utilization

Effective Use of Water Resources

Our Group is working to improve operations and promote water recycling, as well as identify regions with high water risks and reduce water intake. In addition to meeting the permit standards for water quality and quantity in each region and complying with laws and regulations, we have confirmed that there are no business sites

experiencing water stress as of FY2022 based on the water stress level survey results *1 in the "Aqueduct Water Risk Atlas *2".

*1 <https://www.toho-titanium.co.jp/csr/data/>
*2 A tool published by the World Resources Institute (WRI) for measuring water risks in various regions around the world.

Promotion of Waste Reduction and Reuse

While controlling amounts of waste generated at each business site as much as possible, we are also enhancing our sorting of waste to render it valuable and recyclable. When waste disposal is the only option left, we do so properly and in compliance with the Waste Disposal and Public Cleansing Act.

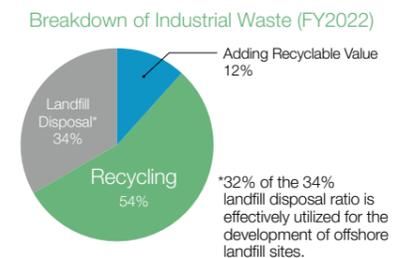


Investigating Where to Dispose of Sludge Generated at the Wakamatsu Plant

With regards to the sludge generated from the Wakamatsu Plant that is disposed of in landfills, we will continue to consider switching disposal contractors so that we can recycle waste, and plan to develop measures to reduce the chlorine concentration in the sludge.

Promotion of Waste Plastic Reuse

Continuing from the previous fiscal year, we are promoting initiatives to recycling waste by changing the outsourcing company for waste treatment and adopting a recycling process. This fiscal year, we are increasing the number of departments within the Chigasaki Plant that recycle waste plastic and carrying out activities that contribute to environmental conservation.





Contribution to society

Supply chain management

Respect for human rights in the supply chain

The Toho Titanium Group promotes respect for human rights in keeping with the United Nations (UN) Guiding Principles on Business and Human Rights. We also understand the human rights described in the International Bill of Human Rights and the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO) are an absolute minimum to be observed. We will

fulfill our social responsibility as the operator of an integrated supply chain by clearly stating respect for human rights and diversity in our Code of Conduct, and by requesting our business partners to give the same consideration to human rights and diversity.

Detailed information are listed in the Corporate Management Policy page on our website.
<https://www.toho-titanium.co.jp/en/company/principals/>

Strengthening linkage and collaboration with business partners

Based on the Guidelines for Business Conduct and Promise to Business Partners (Transaction Principles) within our Fundamental Purchasing Policy, the Group will strive to build relationships of trust with business partners through fair and equitable transactions as well as legal compliance and environmental conservation.

Fundamental Purchasing Policy

Guidelines for Business Conduct		
Transparency		We will be open and transparent in our dealings.
Fairness		We will base our selection of suppliers on fair evaluation.
Legal compliance		We will comply with all applicable laws and regulations, and will conduct our business not only in accordance with the letter of individual provisions of laws and regulations, but also with a respect for the spirit of the law.
Environment conservation		We place importance on the environment and actively promote "Green Purchasing" practices.
Mutual trust		We will build relationships of trust with our business partners through transactions based on equal partnership.
Ethics		We will maintain appropriate relationships with business partners based on strict ethical viewpoint. We will sever all relationships with Antisocial Forces and conduct sound purchasing activities. We will not engage in any transactions that exploit an advantage of ours to the unfair advantage or disadvantage of others.
Promise to Business Partners (Transaction Principles)	Fair opportunity for entry	We will provide fair entry opportunities for those who wish to transact business, and we will respond sincerely to trade offers.
	Fair evaluation	Selection of suppliers will be based on fair evaluation of quality, price, delivery time, and performance.
	Confidential information management	We will strictly manage and maintain the confidentiality of information obtained for administrative purposes in the course of purchasing transactions.
	Clarity of reasons for selection	For business partners who were not selected for orders due to competing inquiries, etc., we will, upon request, clarify the fact that they were not selected and the reason for not being selected.

Green Procurement

As part of our efforts to protect the environment, we actively promote "Green Procurement" practices. We strive to do business with partners that are proactive in their environmental responses including reduction of the environmental impact related to the manufacture, use, and disposal of their products and the provision of services to our Group as well as purchasing of goods that have less environmental impact on the global environment.

Fair Trade

(Activities for compliance with the Subcontracting Law)
 The Group considers the deepening of relationships of trust with business partners to be extremely important, and we are particularly committed to strict compliance with the Subcontracting Law, engaging in ongoing measures to ensure the proper and smooth operation of subcontracting transactions.

Initiatives to eliminate Antisocial Forces

We are continuously working to eliminate Antisocial Forces. Our Code of Conduct emphasizes fair trade and the promotion of sound business practices. We also conduct surveys of business partners on the status of implementation of measures to prevent involvement with Antisocial Forces, and we follow up with them on an ongoing basis.

Procurement BCP Initiatives

We are working on procurement BCP to prepare for the risk of business shutdown due to natural disasters such as earthquakes, windstorms, and floods, as well as fire and power outages. We are advancing the diversification and multiple decentralization of procurement sources to minimize procurement risks.

Participation in the "White Logistics" Promotion Movement

In March 2022, we endorsed the objectives of the "White Logistics" promotion campaign developed by the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of Agriculture, Forestry and Fisheries, and submitted a Declaration of Voluntary Action.

The White Logistics campaign aims to address the growing shortage of truck drivers, secure stable logistics services necessary for people's daily lives and industrial activities, and contribute to the growth of the economy. Through the campaign, we are working to (1) improve productivity and efficiency of transportation, and (2) create labor environments that are comfortable for all workers including female and elderly (over 60) drivers. Participating companies are required to formulate, declare, and implement a "Declaration of

Voluntary Action," which includes itemized and detailed voluntary efforts to improve logistics. To date, approximately 1,658 companies have endorsed the campaign. We have declared the following eight points as our own initiatives.

(Excerpt)

- Proposals for and cooperation in logistics improvement
- Separation of work tasks other than driving
- Improvement of facilities on the part of shippers
- Modal shift to ships and railroads
- Introduction of fuel surcharges
- Consideration of legal compliance when selecting contract counterparts
- Proactive use of logistics companies that are involved in work-style reforms, etc.
- Safety measures during loading and unloading operations



Responsible Mineral Procurement

Our Group's basic policy entails never procuring or using minerals with OECD Annex II risk (i.e., [1] human rights abuses associated with the mining, transportation, and trade of minerals; [2] direct or indirect support for non-government armed groups; [3] illegal acts by public or private security forces; [4] bribery and misrepresentation of mineral origin; [5] money laundering; [6] non-payment of taxes, fees, and mining rights fees to the government) in conflict areas and high-

risk areas (CAHRAs), including tin, tantalum, tungsten, gold, cobalt, and mica. If any risks are found in the supply chain, corrective actions will be taken.

In order to comply with this policy, we request that our business partners understand the Group's thinking and commit to responsible mineral sourcing. We will also disclose appropriate information about these efforts to all stakeholders.

Coexisting with local communities

Our Group believes that, as a member of the local communities where our business sites are located, building relationships of trust while maintaining harmony and cooperation with local communities is essential for sustainable development. Based on this thinking,

we are making various social contributions and supporting local revitalization in each region so that we can continue to develop together with local communities as a corporate citizen.

Fostering a Toho Titanium Mindset

Toho Titanium Soccer Club

Established in 1955, the Toho Titanium Soccer Club has a long history and has players who have played in the professional J League and various other categories. Players work at either the Chigasaki Plant or the Yokohama Headquarters, and all are employees who balance work and soccer. Since 2002, we have planned and managed the boys' and girls' soccer tournament "Toho Southern Cup," and since 2016, we have continued to support the healthy growth and development of children through soccer by holding soccer clinics in the Chigasaki and Samukawa areas, and we are loved as a community-based team.



Contributing to the Local Community through Proactive Communication

In addition to inviting local elementary, middle school, and high school students to our company on plant tours, our employees also provide classes at local high schools. While contributing to children's education, the program provides an opportunity for children to deepen their understanding of our business and safety initiatives.

The Toho Titanium Soccer Club also promotes harmony with the local community by organizing monthly community cleanups by staff and players.



Appealing workplace

Message from a Human Resources and Labor Affairs Officer

We will enhance the competitiveness of our human resources and organization toward "Vision for 2030".

Akira Inokawa
Director and Executive Managing Officer
General Manager, Corporate Management Division



The Toho Titanium Group has envisioned a medium- to long-term growth strategy, setting goals for each division and implementing various measures described in "Vision for 2030" and "FY2023-2025 Medium-term Management Plan" formulated in May 2023. In order to achieve these medium- to long-term management goals, securing and developing human resources is a major key for all departments. Recognizing that our human resources are the source of the competitiveness of our business, we have been proceeding with our initiatives on each theme toward "creating an attractive workplace", which is one of our four materialities (important issues). The themes are: "Improving Industrial Health and Safety in the Workplace", "Diversity & Inclusion", "Creating a Comfortable Work Environment", and "Human Resource Development".

Moreover, in order to achieve sustainable growth, we are continually working to improve employee engagement. We have conducted an "Employee Satisfaction Survey" once a year since FY2022, with the aim of investigating and understanding what employees think about company management, their current work, the work environment, and other areas. By repeatedly performing identification of issues and implementing countermeasures through regular monitoring, we aim to make effective improvements and foster a culture of continuing to take on challenges without being bound by preconceived notions.

On the other hand, we will promote productivity improvements by reducing labor through automation and mechanization at manufacturing sites. The long-term goal of "Vision for 2030" is to improve labor productivity by 30%. We will accelerate the creation of innovation by improving the work environment and creating time for employees to take on more creative tasks. We will actively promote the development of DX human resources and aim to raise the level of DX literacy throughout the company.

As competition to acquire talent continues to intensify, we will focus on improving our work environment and human resource development system so that our employees can find their work attractive and rewarding. We hope to secure excellent human resources and support the expansion of human capital by proactively appealing to people who are interested in working for our Group.

Improving Occupational Health and Safety in the Workplace

Based on our basic policy of prioritizing safety, our group is engaged in a variety of activities to ensure a comfortable working environment and achieve zero work-related accidents.

We also believe that it is an important matter in management to create an environment in which all employees can maintain

good health at all times and work to the best of their abilities. We implement a variety of measures to maintain and improve the health of our employees, such as providing various types of health maintenance support and regular physical fitness tests.

Diversity and inclusion

Our Group aims to achieve diversity and inclusion in the workplace.

Training to Promote Active Participation by Women

Based on the Law Concerning the Promotion of Active Participation by Women in the Workplace, our Group has formulated a General Business Owner Action Plan to support the development of the next generation.

Senior Employees in Action

From April 2023, we have extended the retirement age from 60 to 65, to encourage senior employees with extensive work experience and specialized knowledge to continue working with high motivation beyond the age of 60. We will pay more attention to the health and physical strength of our senior employees than ever before, and create an environment where they can continue working for a long time with peace of mind.

Employment of People with Disabilities

Our company is working on recruitment activities and improving the work environment, targeting to achieve the nationally mandated legal employment rate of 2.3% with a view to responding to future increases in the legal employment rate.

TOPIC

Enhancing our abilities as a team using diversity as our strength

After spending 15 years in charge of various development tasks for material manufacturers in France and the United States, I spent 6 years in Japan in management work at a public agency. We are currently focusing on developing new materials with 3 members, including new graduates and mid-career hires.



David Lechevalier
Chief Engineer, Technology Strategy Department, Technology Strategy Headquarters

Although overcoming the language barrier is very challenging, I am very grateful to have been accepted by my colleagues just the way I am. Moving forward, I would like to make recommendations on areas that need improvement from a diversity perspective, such as information on organizational rules that is unique to Japan. I value communication by carefully conveying messages and receiving them well. I will be exploring the practical application of new technologies while increasing the capabilities of my team by collaborating with internal engineers and external partners.

Creating a supportive work environment

We have introduced a system that allows each employee to flexibly choose a wide range of work styles according to their individual life experiences and the stage of life they are in. A Parental / Nursing Care Leave System is also in place to help employees balance work and family life, as well as a Flex-Time System and an Accumulated Annual Leave system in case of illness, etc.

Development and Operation of Various Systems

System	Key Features
Limited-Area Employee	Work location can be restricted within a specified area.
Reemployment System	Reemployment is made available within a specified period of time in the event of unavoidable discontinuation due to childcare, nursing care, spouse's transfer, etc.
Accumulated Annual Leave (holidays)	Annual paid leave days which ordinarily lapse and are ineligible for carryover can be accumulated separately
Dormitories and Company Housing (including rentals)	Enables moving in with low out-of-pocket expenses (subject to occupancy conditions)
Recreation Subsidies	Provides semi-annual recreation subsidies to employees and others to promote fellowship in the workplace
Refreshment Bonus	Refreshment Bonus for employees completing 10 years and 20 years of service

to maintain good labor-management relations through dialogue between labor and management based on the labor agreement.

Mental Healthcare

Training is provided to employees and managers for early detection and prevention of mental health problems. In addition, we have established a mental and physical health consultation service, provide guidance on improving lifestyle habits, and focus effort on information dissemination and awareness-raising activities through various in-house media.

Better treatment

As a result of negotiations with the labor union, the following systems were mainly revised. In the FY2023 spring offensive, we raised the base salary and increased allowances to improve employee satisfaction and strengthen recruitment competitiveness.

System	Revision Details
Maternity nursing leave	Increase in number of days, relaxation of conditions for application
Unaccompanied assignment	Increase in the amount of allowance for unaccompanied assignment and transportation expenses for returning home
Relocation allowance	Increase in relocation allowance
Dormitory / company housing	Relaxation of conditions for dormitory entry and double loans
Accumulated Annual Leave (holidays)	Relaxation of conditions for application

Consultation with Labor Unions

The Group has a stable labor-management relationship with the JAM Toho Titanium Labor Union, and through dialogue about once a month, we negotiate and discuss various management topics and employee working conditions based on mutual trust. We will continue

Appealing workplace

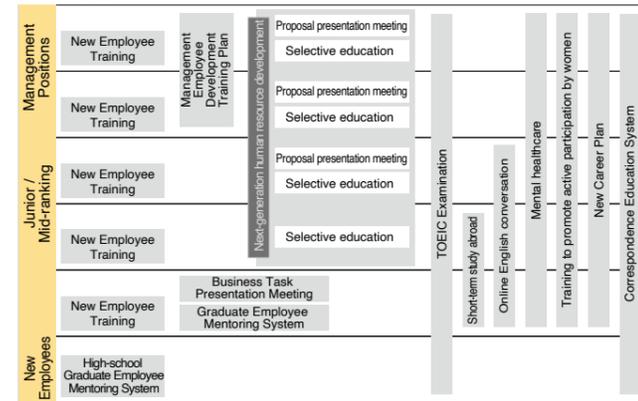
Human Resource Development

Our Group believes that human resources are the source of our competitiveness. We have formulated a human resource development plan to strengthen and establish a human resource base to support our medium- to long-term business strategies.

In addition to on-site skills training to pass on and acquire advanced technical skills, and individual theme training to acquire knowledge and foster awareness, we are engaged in systematic human resources development by assigning instructors to new employees and creating custom-made guidance and training plans. At the same time, we have introduced group education to inculcate the abilities and knowledge required for each position, as well as a short-term study-abroad program and selective education to foster global and innovative human resources from the earliest stages. In addition, various self-development programs are available to improve the skills of each and every employee.

We also carry out 360-degree evaluations in managerial positions with the objective that the person being evaluated becomes aware of the gap between their own perceptions and of those around them, which leads them to change their behavior and improve their management skills.

Medium- to Long-term Human Resource Development Plan (excerpt)



TOPIC

Supporting the career advancement of younger employees while improving my own expertise



Sinobu Kawano
Manager, Internal Audit Department

In 2021, I joined our company's Audit Department as a mid-career employee. I gained experience in secretarial work in my 20s, learned from management how important it was to understand the mechanics of numbers, and transitioned to an Accounting position. While gaining practical experience, I obtained the qualification of a US Certified Public Accountant. Since then, I have been engaged in internal control and audit work for over 10 years. Internal audits are carried out voluntarily by each company in accordance with the "International Standards for the Professional Practice of Internal Auditing", so as a professional, I strive to brush up on my knowledge every days.

When I just became a manager at my previous job, there weren't many female managers, and I remember working 24 hours straight, within and outside working hours, just to be physically "on par" with men. But working for this company, I feel that I can enjoy a good work-life balance. Also, I have never felt excluded due to gender and other forms of discrimination. I feel that there is a good openness in the workplace that respects experience and knowledge.

We are currently in a transition period within the company, as we are setting up a system that allows for various ways of working and building career plans. In order to advance in your career, I believe it is important to create your own "image of a manager" by getting in touch with the experiences and ideas of your predecessors, and discussing your concerns through continuous education for managerial candidates and opportunities to interact with managers from other departments. Moving forward, I would like to actively support young colleagues so that I can somehow give something back for the support I have received from so many people.

Approach to Recruitment

At Toho Titanium, we are striving to secure talented human resources who can play an active role globally, regardless of gender, nationality, or whether they are new graduates or in their mid-careers. We are particularly focusing on expanding internships that mainly include on-the-job trainings and observations of actual equipment at factories and research institutes. By providing work experience based on the job seeker's field of expertise and future career vision, we are able to prevent early post-recruitment job turnover that can result from ill-matched assignments. In addition, our 5-year retention rate for new university graduates is 96%.

In accordance with the Law Concerning the Promotion of Active Participation by Women in the Workplace, we have set a target of

hiring 20% or more female employees in order to steadily increase the number of female employees and quickly develop female managers. Over the past 5 years, the percentage was 22.4%.

Number of Employees Hired in the Past 5 Years (new graduates and careers)

	FY2018	FY2019	FY2020	FY2021	FY2022	For five years
Male	7	5	10	9	14	45
Female	1	3	3	2	4	13
Female ratio	12.5%	37.5%	23.1%	18.2%	22.2%	22.4%
Total	8	8	13	11	18	58



Solidifying our management foundation

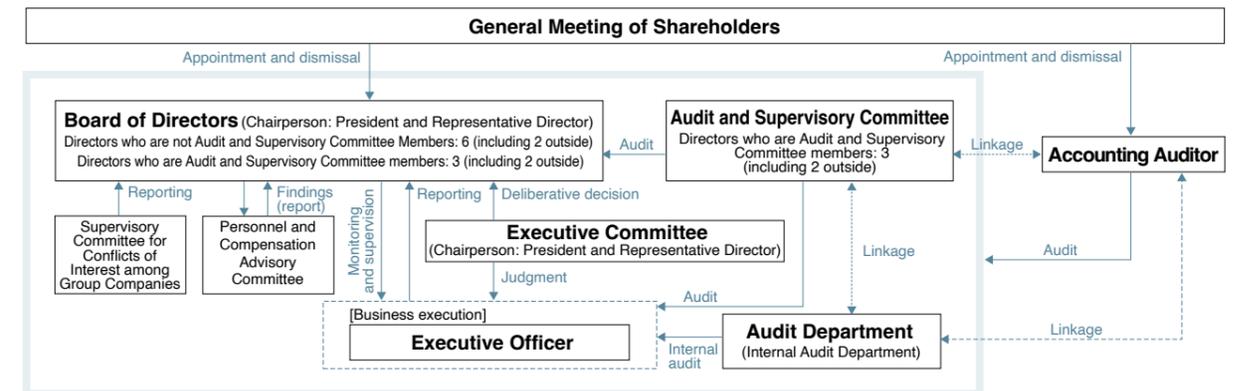
Strengthening Corporate Governance

Basic Thinking

Based on our Corporate Philosophy, the Company strives to enhance corporate governance in accordance with the following basic policies in order to achieve sustainable corporate growth and increase medium- to long-term corporate value, and to ensure transparent, fair, timely, and accurate decision-making and appropriate business execution in light of our business characteristics and the surrounding environment.

- 1 We will respect the rights of shareholders, ensure the substantial equality of shareholders, and strive to create an environment for the appropriate exercise of rights.
- 2 We strive to cooperate appropriately with all stakeholders.
- 3 In addition to disclosure in accordance with laws and regulations, we work proactively to provide information beyond that required by law in efforts to ensure transparency.
- 4 The Board of Directors and the Auditing Committee members will:
 - i Clearly articulate the major direction of corporate strategy, etc.
 - ii Create an environment that supports appropriate risk-taking by senior management
 - iii Effectively supervise management (including Executive Officers) and Directors etc. We will strive to appropriately fulfill our respective roles and responsibilities.
- 5 We strive to engage in constructive dialogue with shareholders to contribute to sustainable growth and medium- to long-term enhancement of corporate value.

Corporate Governance Structure (as of June 20, 2023)



Board of Directors

The Board of Directors deliberates and decides on growth strategies, management plans and other corporate strategies to ensure the Company's sustainable growth and increase its corporate value over the medium to long term. To monitor and control risk-taking, we have 4 Outside Directors (all 4 of whom are Independent Directors) in the 9-member Board of Directors. Each of them monitors the operation of Directors from a professional, independent, and objective standpoint. We maintain a system to ensure that internal controls and risk management are fully functional.

Personnel and Compensation Advisory Committee

The Committee consists of all Independent Outside Directors, as well as the Representative Director and other Directors appointed by the Representative Director, and is chaired by the President. The Personnel and Compensation Advisory Committee meets at least once a year to discuss and report to the Board of Directors on matters related to personnel and remuneration of Directors and senior management, as well as to evaluate the effectiveness of the Board of Directors.

Group Company Supervisory Committee for Conflicts of Interest

Regarding important transactions between the parent company group and our Group, deliberations and considerations are held once a year, and as necessary, from the perspective of protecting the interests of minority shareholders. The members of this committee are independent outside directors, and a summary of deliberations and results is reported to the Board of Directors.

Executive Committee

In order to clarify the structure of responsibility in the management organization and to speed the execution of business operations, we have introduced an Executive Committee system under which certain business execution authority is delegated to Executive Committee members. The Executive Committee consists of the President and Representative Director (President), Executive Officers and Full-time Auditing Committee members, and other persons appointed by the President.

Regular Executive Committee meetings are held several times a month, or as needed, at which the President instructs Executive Committee members and communicates policies and resolutions of the Board of Directors. Executive Committee members report to the President on the status of business execution.

Audit and Supervisory Committee

2 of the 3 Audit and Supervisory Committee members are Independent Outside Directors, who fulfill their responsibilities through monitoring and verification from an independent and objective standpoint. Audit and Supervisory Committee members include qualified accountants, who use their high level of expertise to conduct operational and accounting audits and provide active and appropriate opinions at Board of Directors meetings. Full-time Audit and Supervisory Committee members attend important meetings and have access to all information regarding internal proposals and reports. Audit and Supervisory Committee also conduct audits in full cooperation with the Accounting Auditor and the Internal Audit Department.

Messages from the Outside Directors

Focusing on risk management that supports the achievement of our ambitious goals

I believe that the role of outside directors is to monitor business execution from an independent, external perspective, and to provide useful advice and recommendations by leveraging their expertise. I am a lawyer by profession, so as a director, I pay the most attention to legal compliance. Modern corporate management requires aggressive management, but having solid safeguards in place makes it possible to carry out proactive execution of business. Therefore, I believe that my role is to solidify our safeguards so that we can manage our business aggressively.

In "Vision for 2030", we aim to significantly improve sales and profit margins by promoting ESG management, increasing production capacity in growth areas, and creating new business areas and technologies. In working towards these ambitious goals, I will utilize my knowledge and experience as a lawyer in this area to further enhance and strengthen our risk management system and contribute to the sustainable growth of our company and the improvement of its corporate value.



Yasuhiko Ikubo
Director

Supporting the development of management capital to grow into a comprehensive materials manufacturer

I have been using my long experience in business operations in the metal industry to make recommendations for setting goals for each division and for optimizing the company's overall business portfolio. I am also conscious of my active commitment to creating a structure for more advanced business operations, such as building management systems that include investment risk management and finance and accounting.

Our company has grown and expanded based on titanium, and expanded our business into the fields of chemicals and catalysts. Going forward, we are planning to become a comprehensive material manufacturer with four pillars, that include New Business. As we aim to diversify our business, I believe it is important to review our portfolio, as well as the portfolio of our affiliates, and share long-term goals and issues. I think this should be an ongoing discussion. On the other hand, the promotion of business diversification for the future seems attractive to employees, and I feel that it is bearing fruit in a corporate culture that is increasingly becoming open. I hope to deepen my understanding through regular on-site visits and communication with executives, as well as make more effective recommendations for developing the next generation of management personnel.



Kimiharu Okura
Director

Supporting the evolution of ESG management through monitoring via dialogue

Our company aims to create cutting-edge materials and technologies and become a highly profitable company that is flexible to environmental changes. From an ESG perspective, we are promoting ESG management that strives to resolve important issues through our business activities. I recognize that our ultimate goal is not only to increase corporate value, but also to contribute to building a highly recycling-oriented society and realizing the sustainability of society as a whole by leveraging our strength of having an abundance of enterprising technical experts.

As an outside director, I recognize that my important role is to oversee progress towards this goal and provide effective recommendations, such as sustainability disclosures. Also, as risks are identified and measures are taken in each business division, I would like to contribute to the continual strengthening of the monitoring function of the Board of Directors. As an Audit and Supervisory Committee Member, I will continue to focus on strengthening corporate governance by leveraging the knowledge I have acquired over my many years as a certified public accountant. I will also continue to engage in dialogue not only with management but also with on-site managers.



Shigeko Senzaki
Director,
Audit and Supervisory
Committee Member

Deepening discussions on governance that supports management reform and creation from multiple perspectives

It is essential to establish appropriate corporate governance, including appropriate risk management, in order to promote management based on our company's policy of practicing innovation and creation. So I will keep an eye on risk management, including financial management, while supporting our efforts to expand growth that is in line with our management policy, leveraging my experience in strategy formulation and execution, both domestically and internationally. I will also pay close attention to ensuring a compliance system that monitors and prevents events that could damage corporate value or the privileges of minority shareholders.

As the social demands increase for management to emphasize ESG, companies are expected to create a virtuous cycle in which they contribute to solving social issues through their business activities, which in turn leads to increased corporate value. In order to achieve this, I believe that board members need to be willing to provide advice and point out problems regarding future business strategies, human resource development, and diversity, based on objectivity and broad experience and knowledge. I will monitor whether a momentum within the company that is conscious of ESG is being built and taking root by conducting on-site inspections.



Naoki Harada
Director,
Audit and Supervisory
Committee Member

Our Group commitment to quality improvement

Initiatives to improve customer satisfaction

At the Toho Titanium Group, we work hard to provide products and services that place the highest priority on quality so that we can continue earning the trust of our customers. We aim to improve customer satisfaction by accurately identifying customer needs and continuously realizing product and process improvements. We also conduct environmental impact assessments considering the entire product lifecycle, including products under development, and when design specifications are changed, we evaluate whether or not any changes in environmental impact will result.

The Toho Titanium Group Fundamental Quality Policy

We recognize that we have a mission with respect to society, which is to continue providing superior products and services. We act in accordance with this Fundamental Quality Policy to help realize a sustainable society.

- | | |
|--|---|
| 1. Compliance | We will ensure compliance with legal requirements and act with high ethical standards. |
| 2. Meeting customer expectations | We will not only correctly identify customer needs and provide accurate information on quality, but also provide products and services that are trusted and satisfactory. |
| 3. Continuous improvement | We will promote continuous improvement of quality and service through our quality management system. |
| 4. Human resource development | In our efforts to develop human resources, we will foster a keen awareness and sense of responsibility for quality and service, developing personnel who take the initiative in pursuit of quality. |
| 5. Concern for safety and environment, and providing information | We will create products that reflect our concern for safety and environmental compatibility, and we will provide the appropriate information. |

Quality Control Initiatives

We have acquired ISO 9001 certification, an international standard for quality management systems, and have established a world-class quality management system that is appropriate for a global company supplying products that customers can use with confidence. In particular, we have obtained certification under JIS Q 9100, one of the international standards for quality control systems, for our titanium sponge and titanium ingots, enabling us to promise stable quality that meets the high quality control requirements of the aerospace industry and other industries.

ISO 9001 Certification

Starting with ISO 9002 certification of our Catalyst Division in 1996, we achieved ISO 9002 certification for all titanium divisions in 1998, and by 2001, we had expanded certification to ISO 9001 for our main titanium and electrical materials products, with certification for the scope of registration shown on the right.

We will continue to expand our quality management system, promote certification, and strive to further build trust and increase satisfaction among our customers.

Business sites certified under ISO 9001:2015

Headquarters, Chigasaki Plant, Hitachi Plant, Yahata Plant, Wakamatsu Plant, and Kurobe Plant



Scope of Certification

Design, development and manufacture, as well as liquification under contract of titanium tetrachloride, titanium sponge, high-purity titanium (sponge, ingot and billet), titanium ingot, high-purity titanium dioxide, propylene polymerization catalyst, ultra-fine nickel powder, magnesium chloride, titanium trichloride solution, and titanium tetrachloride solution.

Implementation of a quality management system for the aerospace industry

We received JIS Q 9100 certification one of the quality system standards for aerospace applications for titanium sponge in 2003, and in 2010, we expanded the scope of certification to include titanium ingots. We will continue our efforts to provide better quality and service.

Business sites that have obtained JIS Q 9100:2016 certification

Headquarters, Chigasaki Plant, Yahata Plant, and Wakamatsu Plant



Scope of Certification

Manufacture of titanium sponge and titanium ingot

Key Consolidated Financial Summary (11 years)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Operating results, etc. (Unit: ¥1 million)											
Net sales	40,081	30,430	33,702	43,424	31,212	37,256	43,648	45,509	36,159	55,515	80,351
Cost of goods sold	33,232	29,916	31,666	34,762	22,548	27,807	32,628	35,338	27,364	41,755	59,027
Selling, general and administrative expenses	6,047	5,220	4,674	4,771	4,937	5,518	5,746	6,102	5,660	8,531	10,629
Operating profit	801	(4,706)	(2,638)	3,891	3,726	3,930	5,274	4,068	3,135	5,228	10,693
Ordinary profit	485	(5,157)	(2,595)	3,541	3,874	3,493	5,269	3,716	(417)	5,177	10,532
Current net profit (-loss)	(2,151)	(5,498)	(2,633)	4,233	3,367	3,394	6,499	2,366	(3,156)	3,699	7,505
EBITDA (operating profit + depreciation costs)	7,849	2,153	4,004	10,009	9,275	9,000	10,251	9,333	8,639	11,283	17,500
R&D Costs	1,509	1,222	1,254	1,266	1,402	1,567	1,527	1,683	1,729	1,976	2,265
Capital expenditure	2,466	5,267	981	851	1,069	4,062	4,190	4,644	8,441	10,584	6,496
Depreciation expense	7,048	6,859	6,642	6,118	5,549	5,070	4,977	5,265	5,504	6,055	6,807
Financial position (Unit: ¥1 million)											
Net assets (at end of period)	39,732	34,620	32,207	36,192	39,156	42,037	47,730	48,262	44,459	47,166	53,281
Total assets (end of year)	101,900	95,752	88,497	83,033	83,439	83,945	87,645	87,118	91,149	98,095	111,429
Interest-bearing debt (end of year)	54,431	57,117	51,113	41,499	38,139	35,872	32,798	31,676	39,367	40,428	44,596
Cash flow (Unit: ¥1 million)											
Cash flow from business activity	1,093	4,392	7,307	12,945	5,889	6,394	8,316	7,953	1,402	9,790	5,294
Cash flow from investment activity	(4,158)	(5,421)	(1,100)	(3,954)	(1,443)	(4,048)	(4,114)	(4,482)	(8,390)	(10,433)	(6,765)
Cash flow from financial activity	3,002	1,758	(6,406)	(10,088)	(4,018)	(2,785)	(3,787)	(2,405)	6,835	206	2,732
Cash and cash equivalent year-end balance	1,531	2,528	2,368	1,226	1,620	1,184	1,600	2,641	2,534	2,128	3,416
Per-share information (¥)											
Net assets per share	556.8	484.7	450.9	506.8	548.4	588.9	668.8	676.2	622.8	660.8	746.7
Current net profit (-loss) per share	(30.9)	(77.3)	(37.0)	59.5	47.3	47.7	91.3	33.2	(44.4)	51.9	105.4
Dividend per share	3.0	-	-	5.0	7.0	10.0	12.0	12.0	12.0	15.0	30.0
Financial indicators											
Cost to sales ratio (%)	82.9	98.3	94.0	80.1	72.2	74.6	74.8	77.7	75.7	75.2	73.5
Selling, general and administrative expense ratio (%)	15.1	17.2	13.9	11.0	15.8	14.8	13.2	13.4	15.7	24.8	13.2
Net income-to-equity ratio (share capital) (%)	38.9	36.0	36.3	43.4	46.8	49.9	54.3	55.2	48.6	47.9	47.7
Operating return on assets (ROA) (%)	0.8	(4.8)	(2.9)	4.5	4.5	4.7	6.1	4.7	3.5	5.5	10.2
Ordinary return on assets (ROA) (%)	0.5	(5.2)	(2.8)	4.1	4.7	4.2	6.1	4.3	(0.5)	5.5	10.1
Net return on equity (ROE) (%)	(6.4)	(14.8)	(7.9)	12.4	9.0	8.4	14.5	4.9	(6.8)	8.1	15.0
D/E Ratio (times)	1.4	1.7	1.6	1.2	1.0	0.9	0.7	0.7	0.9	0.9	0.8
Dividend payout ratio (%)	-	-	-	8.3	14.6	18.2	14.6	26.9	-	28.1	27.6
Operating profit to net sales ratio (%)	2.0	(15.5)	(7.8)	9.0	11.9	10.5	12.1	8.9	8.7	9.4	13.3
Ordinary profit to net sales ratio (%)	1.2	(16.9)	(7.7)	8.2	12.4	9.4	12.1	8.2	(1.2)	9.3	13.1

Key Consolidated Non-Financial Summary (5 years)

Environment	FY2018	FY2019	FY2020	FY2021	FY2022
Water emissions (1,000m ³)	1,379	1,348	1,304	1,429	1,550
Atmospheric emissions					
SOx emissions (t)	0.1231	0.0758	0.0721	0.0728	0.0503
NOx emissions (t)	2.5722	2.1871	1.8969	2.4151	1.9953
Waste emissions (t)	23,203	21,115	21,772	25,025	28,290
Total energy consumption (PJ)*1,*2	4.5	4.6	3.7	4.3	4.8
CO ₂ emissions*1,*2					
Scope 1 (Unit: 1,000t CO ₂)	33	34	29	32	26
Scope 2 (Unit: 1,000t CO ₂)	224	191	153	182	182
Total of Scope 1 and 2 (Unit: 1,000t CO ₂)	257	225	182	214	208

*Items without notes comprise TOHO TITANIUM CO., LTD. and 1 domestic consolidated subsidiary.

*1 Scope of data: Toho Titanium Co. and its 4 subsidiaries in Japan and overseas

*2 Reporting period: FY2022 (Japan: April 1, 2022 to March 31, 2023; overseas: January 1 to December 31, 2022)

Society (human resources related)	FY2018	FY2019	FY2020	FY2021	FY2022
Number of employees at end of term	859	907	956	981	1,127
Ratio of employees with disabilities (%)	2.2	2.3	1.9	1.9	2.3
Ratio of females to all employees (%)	5.5	6.2	6.8	7.2	7.2
Permanent employee turnover rate (%)	3.4	2.1	2.5	3.0	3.7
Average annual training time per employee (hours)	-	-	11.0	11.4	15.1

Governance

Number of Directors	9	9	9	9	7
Number/ratio of Outside Directors(persons/%)	3/33	3/33	3/33	3/33	2/29
Number/ratio of female Directors(persons/%)	0/0	0/0	0/0	0/0	0/0
Number of Audit and Supervisor Committee members	3	3	3	3	3
Number/ratio of Outside Audit and Supervisor Committee members (persons/%)	2/67	2/67	2/67	2/67	2/67
Number/ratio of female Audit and Supervisor Committee members (persons/%)	0/0	1/33	1/33	1/33	1/33

Corporate Information as of March 31, 2023

Company Overview

Company Name	TOHO TITANIUM CO., LTD.
Headquarters Location	JR Yokohama Tower 22nd Floor, 1-1-1 Minamisaikai, Nishi-ku, Yokohama, Kanagawa 220-0005, Japan +81 45-394-5522 (General Affairs and Personnel Department)
Established	August 20, 1953
Capital	¥11.963 billion
Business Activities	Manufacture and sales of titanium Manufacture and sales of catalyst for polyolefin production Manufacture and sales of electronic component materials
Number of Employees	1,127 (consolidated)
Business Sites in Japan	Headquarters (Yokohama City, Kanagawa Prefecture) Chigasaki Plant (Chigasaki City, Kanagawa Prefecture) Wakamatsu Plant (Kitakyushu City, Fukuoka Prefecture) Yahata Plant (Kitakyushu City, Fukuoka Prefecture) Kurobe Plant (Kurobe City, Toyama Prefecture) Hitachi Plant (Hitachi City, Ibaraki Prefecture)
Consolidated Subsidiaries	2 domestic companies: Toho Technical Service Co., Ltd. Toho Material Co., Ltd. 2 overseas companies: Toho Titanium America Co., Ltd. (US) Toho Titanium Europe Co., Ltd. (UK)
Stock Exchange Listing	The Prime market of the Tokyo Stock Exchange (Securities Code: 5727)

Group Companies and Affiliates:

Toho Technical Service Co., Ltd.

Office Address	3-3-5 Chigasaki, Chigasaki, Kanagawa 253-0041
Principal Business	Manufacture and sales of welded, machined or forged titanium products, insoluble electrodes, titanium-based powders (titanium powder, titanium hydride powder, 64 alloy powder), and sales of various titanium materials and zirconium sponge https://www.tohotec.co.jp/english/
URL	

Toho Material Co., Ltd.

Office Address	692-1 Tokiguchi, Tokitsu-cho, Toki-shi, Gifu 509-5122
Principal Business	Manufacture and sales of automotive disc brake pad materials such as potassium titanate and other titanate acid compounds https://www.toho-titanium.co.jp/pdf/company/tohomaterial.pdf
URL	

Toho Titanium America Co., Ltd. (US)

Principal Business	Sales and market research of titanium and catalyst for polyolefin production, etc.
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Toho Titanium Europe Co., Ltd. (UK)

Principal Business	Sales and market research of titanium and catalyst for polyolefin production, etc.
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TOHO WORLD Corporation

Office Address	11-2 Otemachi, Kokurakita-ku, Kitakyushu-shi, Fukuoka 803-0814
Principal Business	Solutions in the field of technology and skills, dispatch of engineers and technicians, contract manufacturing, contract equipment maintenance, and handing down technology and skills
URL	https://towor.co.jp/

Advanced Metal Industries Cluster and Toho Titanium Metal Company Limited

Office Address	Yanbu, Kingdom of Saudi Arabia
Principal Business	Manufacture and sales of titanium sponge

WEBTi is a registered trademark of Toho Titanium Co., Ltd.

Stock Information

Basic Stock Information

Number of Shares Per Unit	100 shares
Total Shares Authorized for Issuance	160,000,000 shares
Shares Outstanding	71,270,910 shares
Number of Shareholders	26,431
Fiscal Year Closing Date	March 31
Ordinary General Meeting of Shareholders	June
Accounting Auditor	Ernst & Young ShinNihon LLC

Major Shareholders

Shareholder Name	Number of Shares (Unit: 1,000 shares)	Shareholding Ratio
JX Nippon Mining & Metals Corporation	35,859	50.38%
The Master Trust Bank of Japan (Trust Account)	4,289	6.03%
Nippon Steel Corporation	3,500	4.92%
Custody Bank of Japan (Trust Account)	1,349	1.90%
HAYAT (Standing Representative: Settlements Division, Mitsubishi UFJ Bank, Ltd.)	1,185	1.67%
Nomura Securities Co., Ltd. Self-transfer Account	900	1.26%
SICAV COVEA ACTIONS MONDE (Standing Representative: Custody Department, Tokyo Branch, Hong Kong and Shanghai Banking Corporation)	527	0.74%
Nomura Securities Co., Ltd.	511	0.72%
STATE STREET BANK WEST CLIENT- TREATY 505234 (Standing Representative: Settlement Sales Department, Mizuho Bank, Ltd.)	453	0.64%
STATE STREET BANK AND TRUST COMPANY FOR STATE STREET BANK INTERNATIONAL GMBH, LUXEMBOURG BRANCH ON BEHALF OF ITS CLIENTS: CLIENT OMNI OM25 (Standing Representative: Custody Department, Tokyo Branch, Hong Kong and Shanghai Banking Corporation)	426	0.60%

(Note) Of the number of shares held above, the number of shares related to fiduciary work is as follows.
Master Trust Bank of Japan, Ltd. (trust account) 4,289,000 shares
Japan Custody Bank, Ltd. (trust account) 1,349,000 shares

Shareholder Composition



Information Disclosure and Promotion of Dialogue with Shareholders and Investors

The Toho Titanium Group discloses necessary information to shareholders, investors and other stakeholders in a timely, appropriate, and proactive manner, while giving due consideration to fair disclosure. We are moving forward with initiatives to enhance corporate value and sustainable growth based on the feedback and other information we receive in these efforts.

Target readership	content
Analysts and domestic/foreign institutional investors	Briefings on financial results attended by the President twice a year (interim and year-end) Online conference calls and individual interviews by the IR Department
Individual shareholders and Investors	Delivery of business reports (interim and year-end), annual shareholders' meetings, responses to telephone inquiries, etc.
Posting of IR materials on website	Financial results briefing materials, quarterly financial results information and other news materials are posted in the "IR Library" section of the Company's website.