

# Titanium Division

Promote a strategic shift from quantity to quality amid intensifying global competition with Chinese manufacturers and others

Challenges to be resolved and growth strategies

Compete in a field that demands high quality in the face of intensifying global competition

In FY2024, profitability of the Titanium Business improved significantly from the previous fiscal year due to supply chain changes caused by the conflict in Ukraine, the correction of sales prices, and the depreciation of the yen. Sales for aircraft were firm, but sales for general industrial applications were sluggish due to the distribution of cheap products in the market stemming from overproduction by Chinese sponge manufacturers in the second half of the fiscal year. On the other hand, demand for high-purity titanium for semiconductors was on a recovery trend.

The main measures set forth in the Medium-term Management Plan are generally proceeding as planned. However, in the aircraft industry, the impact of strikes and quality issues at major aircraft manufacturers has protracted adjustments in the supply chain, and the recovery of demand for titanium sponge has been delayed. The short-term challenge now is how to secure and grow earnings. We also need to keep an eye on developments by Chinese manufacturers. In the general industrial sector, our Group's domestic customers have become noticeably less competitive as a result of too many expanded material manufacturers in China underselling their products, and the future recovery of demand is uncertain. Also, in the aircraft industry, there are concerns about the growing use of inexpensive Chinese-made titanium sponge for airframe applications. Under these circumstances, our Group recognizes the importance of shifting its focus to expanding its market share of titanium sponge for aircraft engines, which requires high quality.



Strengthening production functions and improving quality

Urgent need to replace aging facilities; Also focusing on eliminating “polarization” of production personnel

The main measure of the Medium-term Management Plan, namely, to increase the production capacity of titanium sponge at the Chigasaki and Wakamatsu Plants (3,000 tons per year), is scheduled to be completed by the end of FY2025 as planned.

One of the current challenges facing production is the ongoing polarization of skills among production personnel at plants. Although the required number of workers has been secured, the aging of skilled employees is progressing, while the ratio of unskilled workers is increasing due to the increase in new hires, leading to a widening gap in skill levels. Therefore, there is an urgent need to enhance the education of young employees and improve the working environment to reduce turnover. In addition, drastic measures must be taken for the titanium sponge manufacturing facility at the Chigasaki Plant, which is particularly aging. Regarding the new titanium sponge plant construction plan, which had been under consideration with a target completion in FY2027, it has become difficult to make a decision on the plan at this time. This is due to the current market softening, coupled with the failure to reach an agreement with customers regarding the transfer of costs to the sales price, which was a prerequisite for the plan.

As for future measures to improve productivity, given the current market softening, it is necessary to focus on improving “quality over quantity.” Specifically, we need to devise ways to increase the production ratio of titanium sponge for aircraft engines, which requires high quality. We are currently working to review the manufacturing process to remove a bottleneck in achieving this.



Strengthening sales and marketing capabilities

Strengthen the rotation of sales representatives Focus on developing human resources capable of proposal-based sales

Given the current titanium market conditions, we expect to fall short of the sales targets set in the Medium-term Management Plan for both titanium sponge and titanium ingots. Meanwhile, in order to secure sales in the subsequent FY2026, we are focusing on gathering information about the titanium market to actively communicate with customers. This enables us to develop tailored sales strategies that meet each customer's specific conditions.

We recognize that enhancing personnel's capabilities is also a key to resolving challenges in sales operations. We recognize that the recent practice of assigning dedicated sales representatives to each customer has become problematic. We are therefore strengthening sales representative rotation, incorporating sales staff from other business divisions. By region, there is a shortage of U.S. expatriate candidates, and there is an urgent need to expand the pool of candidates.

The key to strengthening the sales force is to enhance manpower. Given that the Titanium Division operates upstream in the supply chain, our sales activities tend to focus on accommodating customers' stringent demands, which often results in a passive stance. Responding to customer demands is certainly important, but relying solely on that makes it difficult to survive in a fiercely competitive environment.

To better convey the value of our products to customers and deepen their understanding of our Company's philosophy, we must strengthen our proposal capabilities by consciously adopting a more proactive sales approach. To achieve this, having human resources capable of proposal-based sales is essential. We will therefore dedicate greater effort than ever before to developing and securing such talent.

**Takeshi Sannohe**  
Executive Managing Officer  
General Manager,  
Titanium Division





# Catalyst Division

Challenging progress toward the targets of the Medium-term Management Plan;  
Current focus on expanding our share with major customers;  
Aim to develop high-performance catalysts and strengthen human resources over the medium to long term



**Takeshi Nakashima**  
Executive Managing Officer  
General Manager,  
Catalyst Division

## Challenges to be resolved and growth strategies

**Current focus on improving productivity and reducing costs**  
**The key to medium- to long-term growth is the development of high-performance catalysts**

In FY2024, demand for catalysts was sluggish due to the impact of new entries by Chinese polypropylene manufacturers and increased production capacity. This was due to delays in the launch of new production lines by our customers as a result of a significant increase in the volume of low-priced Chinese polypropylene exports, and a sharp decline in demand from our customers in countries surrounding China. In other regions, however, catalyst consumption showed signs of recovery, and sales in the Catalyst Business were higher than in the previous fiscal year. Although the results fall far short of the targets we set in our Medium-term Management Plan at the time of planning thereof, demand for catalysts is currently on the road to recovery. For the time being, there are plans to launch new lines for major customers, and we intend to increase sales by thoroughly following up with those customers.

The current issues for our division are productivity improvement and cost reduction. We are carefully addressing these issues and continuing our efforts to drive improvements. In addition to solving short-term problems, we recognize the need to develop high-performance catalysts and increase production capacity over the medium to long term.

As part of our future growth strategy, it is important for us to maintain the share of our products with each customer in the short term, and to capture the demand arising from the launch of new production lines planned by our customers. Our medium- to long-term vision is to become one of the world's top three producers in terms of the sales share of polypropylene polymerization catalysts. The key to growth is the development of high-performance catalysts. It is important to increase profitability by increasing the added value of products, and we will increase production capacity to meet the subsequent increase in demand.

## Strengthening production functions and improving quality

**Speed up capacity recovery of the new catalyst plant at the Chigasaki Plant and facility expansion at the Kurobe Plant**

The new catalyst plant (C4 Plant) at the Chigasaki Plant has been in operation since FY2023, but production capacity is currently lower than originally planned, partly because the items targeted for production have changed from what was assumed at the time of design. At the same time, we are planning to conclude catalyst supply contracts with new customers by the end of FY2025, so we believe there is an urgent need to increase production capacity in the future. For this reason, we plan to restore capacity at the C4 Plant and reinforce facilities at the Kurobe Plant at the same time.

In the short term, the most urgent task in the production department of our division is to establish optimal manufacturing conditions to restore production capacity at the C4 Plant. Aiming to ensure the stable operation of facilities and the consistency of quality, we are currently conducting technical verification, including a review of raw material characteristics and process conditions, and are stepping up efforts to quickly restore capacity.

On the other hand, from a medium- to long-term perspective, we recognize that improving productivity through strengthening management of manufacturing conditions is an important issue. This includes stabilizing and improving the quality of raw materials, automating work processes through digital transformation (DX), and optimizing processes through real-time data collection and analysis.

Through these measures, we will reduce dependence on personnel, stabilize quality, and improve production efficiency in order to achieve both short-term stable operations and medium- to long-term competitiveness.



## Strengthening sales and marketing capabilities

**Strengthen sales capabilities for major customers;**  
**Strengthening our sales structure and developing human resources are key challenges in the medium to long term**

With regard to sales in FY2025, we expect to increase our division's sales share with new customers, following the conclusion of the catalyst supply contracts that were previously mentioned. In the future, we intend to strengthen sales to major customers by clearly defining the target customers, and further expand sales, mainly of new high-performance catalysts. We recognize that strengthening our sales structure and developing human resources are key challenges in the medium to long term, not only for our division but for all divisions.

In order to strengthen our sales capabilities, it is important for us to first clarify our current sales issues and targets, and for each of our sales representatives to tackle them with a high level of awareness. Cultivating this mindset and consistently taking action will form the foundation for improving our sales capabilities. On top of that, we believe it is important to visualize the progress of targets and issues and to ensure thorough management. In the medium to long term, it is necessary to establish a routine process for mid-career hiring in addition to active personnel rotation involving other divisions.

Personnel rotation broadens employees' view, deepens their understanding of operations, and also contributes to strengthening cooperation between departments. Establishing a routine process for mid-career hiring enables our organization to incorporate external knowledge and experience and create synergies with existing human resources. We believe these measures will enhance the flexibility and responsiveness of our organization, and help us maintain and improve our competitiveness even in a rapidly changing business environment.

We think it is also important for our Company as a whole to build a human resource portfolio in a systematic manner and establish a cycle of development and recruitment through these measures.

# Chemicals Division

Demand for ultra-fine nickel powder on a recovery trend;  
Concentrate management resources on expanding sales of ultra-fine nickel powder and increase production capacity and sales capabilities to drive business growth



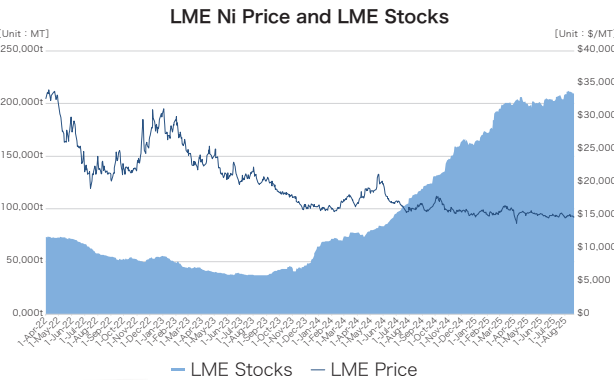
**Takeshi Nakashima**  
Executive Managing Officer  
General Manager,  
Chemicals Division

## Challenges to be resolved and growth strategies

**Respond to current demand growth by expanding sales of cutting-edge products; Shortening the development period and increasing production capacity are key challenges in the medium to long term**

Ultra-fine nickel powder, our division's major product, is mainly used for multilayer ceramic capacitors (MLCC). Regarding the business environment surrounding MLCC, we recognize that the Chinese economy, which has affected our Group, is showing signs of recovery, although it still lacks momentum. The outlook remains uncertain, but demand for ultra-fine nickel powder began to pick up in various fields, and net sales in FY2024 exceeded those of the previous fiscal year. On the other hand, in terms of market conditions, sales prices declined due to a drop in international nickel prices (LME prices).

At present, with demand expected to pick up in the telecommunications, automotive, and industrial equipment fields, we believe that the challenges that need to be addressed include improving productivity, reducing costs, and expanding sales of cutting-edge products. In the medium to long term, we expect further expansion in the MLCC market, but there are also concerns about intensified competition. Therefore, in addition to these short-term challenges, we need to increase our market share ahead of our competitors by expediting the market launch of developed products. As specific medium- to long-term measures, we believe it is necessary to focus on shortening development lead times and increasing production capacity to expand market share.



## Strengthening production functions and improving quality

**Focus on operation of Wakamatsu Plant No. 5; Aim to build a production system that can respond to changes in demand**

We are constructing a new plant (No. 5) at the Wakamatsu Plant to increase ultra-fine nickel powder production capacity. The plant is scheduled for completion in the first half of FY2025 and will enter the phase of trial operation and prototyping in the second half. It is expected to start operations in FY2026, six months later than the planned start of operations in the Medium-term Management Plan.

Commencing operations at this plant is expected to increase ultra-fine nickel powder production capacity by approximately 20%. As there is room for expansion of production capacity at this plant, we will assess the demand situation from customers and determine when to expand facilities accordingly. Demand in the electronic components industry fluctuates intensely, and the Chemicals Division must establish a production system that can respond flexibly to such changes in demand. The short-term challenge for the production department is to improve productivity. Currently, production varies by item, and we are working to improve the low-yield items. In the medium to long term, we need to evolve production technology. To enhance competitiveness in the market, we recognize that we need to improve the efficiency of each process through the sophistication of production technology while driving down costs. We are working to resolve the various challenges related these matters.



## Strengthening sales and marketing capabilities

**Concentrate management resources on expanding sales of ultra-fine nickel powder; Strengthening and expanding the sales structure is a medium- to long-term challenge**

While strengthening ties with our major customers, we aim to expand our business by introducing cutting-edge products to other customers. To this end, we will focus our efforts on proactive sales approaches targeting customers other than our key customers. To enhance the relationship of trust with our major customers, we intend to provide meticulous services, such as speeding up feedback to these customers by strengthening our development system.

In order to make the most of the current business opportunities, it is important to focus management resources on approaches to expand ultra-fine nickel powder sales, where commercial opportunities exist. Furthermore, we view strengthening collaboration with the technical department to rapidly bring new products to market as a critical short-term strategy.

The medium- to long-term challenge is to strengthen and expand our sales structure. Our division is continuing its efforts to develop human resources and strengthen its structure in order to raise the level of its sales force. Specifically, in addition to internal training, we are promoting the introduction of educational programs aimed at accelerating the development of young employees into productive contributors, as well as actively encouraging participation in external training such as seminars to support the skill enhancement of our current members. However, considering future changes in the market environment and business expansion, a group-wide human resources development strategy is essential, rather than implementing such initiatives at the division level. Therefore, by establishing and sharing a group-wide human resources development strategy, we will strengthen our sales capabilities and achieve sustainable growth and enhanced competitiveness.



# New Materials Division

Focus on the early commercialization of WEBTi<sup>®</sup> and the establishment of its mass production system;  
In the medium to long term, improve quality and supply capacity in accordance with the expansion and development of the market



**Kenichi Yamaguchi**  
Executive Officer  
General Manager,  
New Materials Division

## Challenges to be resolved and growth strategies

Medium-term challenges include improving quality and promoting product development for next-generation water electrolysis generators

Aiming for the early commercialization of WEBTi<sup>®</sup> (porous titanium sheet), our division is steadily advancing preparations and responses, including the development of a supply system. WEBTi<sup>®</sup> has great potential as a diffusion layer on the anode side of PEM (polymer electrolyte membrane) water electrolyzer, which are expected to be widely used for the realization of a hydrogen society in the future. However, the market is starting up more slowly than initially expected, and actual business expansion is not expected until 2028.

The biggest challenge for now is the operation of WEBTi<sup>®</sup> Plant No. 1. Construction is scheduled to be completed in the fall of 2025, and the production base is being steadily prepared to begin commercial operations in FY2026. By establishing a mass production system and achieving a stable product supply, the Company will further enhance its presence in the PEM water electrolyzer market.

In the medium term, it is important to improve quality to meet market needs and to develop products with an eye toward application to next-generation water electrolyzer. At the same time, we will further strengthen our competitiveness by establishing production and evaluation technologies and increasing the added value of our products.

For future growth, we will strengthen our systems by focusing on both quality and supply in order to respond quickly to market expansion in the short term. In the medium to long term, the Company's policy is to secure sufficient supply capacity in anticipation of the global expansion and sustainable growth of the WEBTi<sup>®</sup> business.

## Strengthening production functions and improving quality

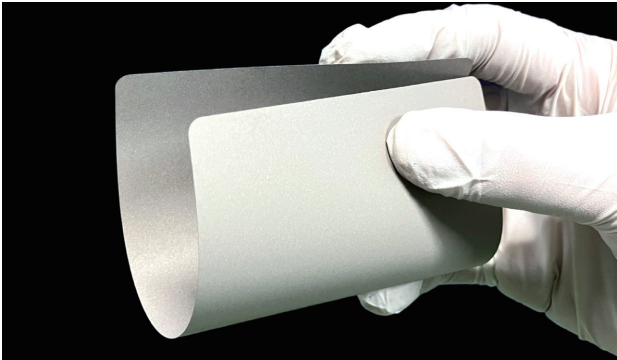
Focus on the operations of WEBTi<sup>®</sup> Plant No. 1 and securing supply capacity for a period of increased demand

Construction of WEBTi<sup>®</sup> Plant No. 1 is progressing as originally planned, and the installation of production facilities is progressing well. Our top priority right now is building a stable operating system. In order to achieve this, it is essential to improve the technical capabilities of on-site operators, and this will be an important key to ensuring stable operation and maintaining product quality.

We have already begun strategic preparations, including the development of a blueprint to strengthen our supply capacity in preparation for future demand growth.

To improve productivity, we are working to continuously improve our production processes and eliminate bottlenecks. Over the medium to long term, we plan to address the growing labor shortage in Japan by promoting process automation and labor-saving. To achieve this, we need to review the entire work process and build an efficient smart operation system.

As the first step in improving quality, we quickly identify the cause of defects occurring in the field and immediately implement corrective measures. In the medium to long term, we will also focus on improving the workplace environment to reduce the defect rate and establishing management methods to establish and maintain optimal operating conditions.



WEBTi<sup>®</sup>-K (developed product)

## Strengthening sales and marketing capabilities

The issue is to develop human resources who can respond to changes in the market environment and who is ready to work in the global market

Our division has been diligently preparing for the commercialization of WEBTi<sup>®</sup>, and we have now reached the final stage of putting it on the market. However, as the market for PEM water electrolyzer, which underpins demand for WEBTi<sup>®</sup>, is yet to thrive, we are forced to restructure our WEBTi<sup>®</sup> sales strategy. Accordingly, we plan to first revise our sales targets and focus on building a track record with existing customers where commercialization is already underway. In FY2025, the final year of the Medium-term Management Plan, leveraging the results we have accumulated so far, we plan to publicize the quality and performance of our products and services widely to attract new customers.

The biggest challenge facing the sales department is the development of a global sales system. Our division is working to strengthen its sales network in order to grasp trends in overseas markets in a timely manner. In particular, in the European market, which is regarded as a frontrunner in the realization of a hydrogen society, we plan to further enhance our information network and dispatch representatives to respond quickly and accurately to market changes. In Europe, there are companies that have already mass-produced materials with the same functions as WEBTi<sup>®</sup>, but we believe that there is plenty of room to expand sales of WEBTi<sup>®</sup> in anticipation of future market expansion.

In the medium to long term, it is an urgent issue to develop and secure human resources capable of responding flexibly to the rapidly changing market environment. To this end, we are determined to build a comprehensive training program that covers language skills, understanding of business practices, and technical skills, and develop human resources who are ready to work in global markets.