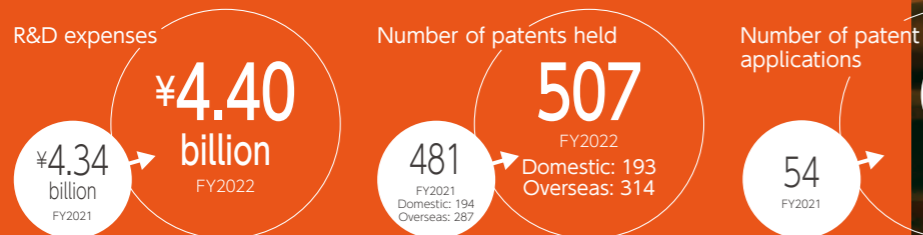




Capital to create value

## Intellectual Capital

To achieve the Vision 2030 management guideline of "Creation of a prosperous society through business reform," Aichi Steel believes that conducting research and development in line with our business strategy, and helping to address social issues by reforming existing businesses and creating new businesses, will lead to sustainable growth for the company. For this reason, we are focusing on development in the five priority areas stipulated in Vision 2030 while implementing initiatives for effective utilization of our intellectual property.

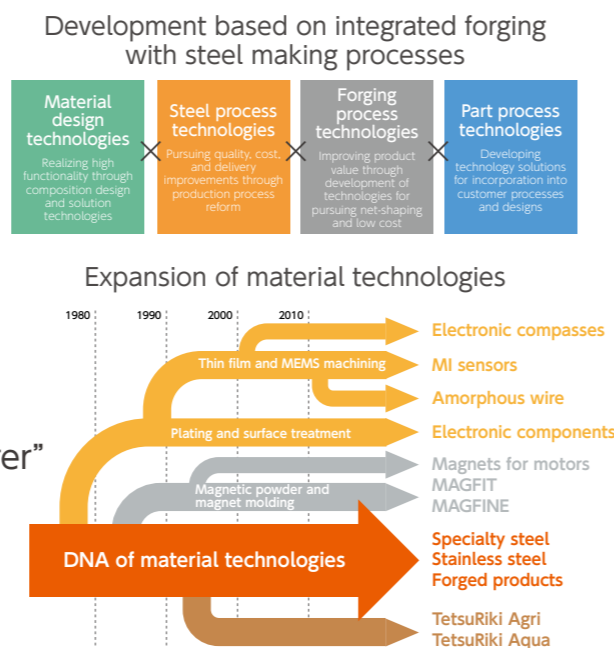


### I Areas of contribution through research and development

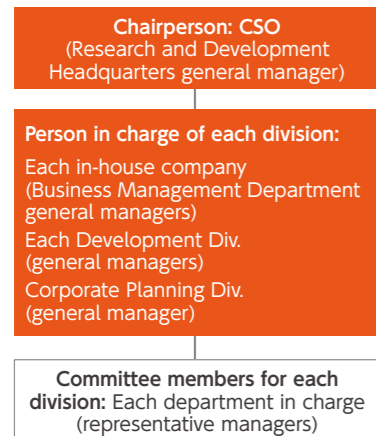
Based on Vision 2030, Aichi Steel is committed to developing functional products for the next generation to contribute to renewable energy, healthy living, food security, and safe public and transportation systems, with the aim of solving social issues through its business. In our development vision 2030, we have designated autonomous driving, electrification of automobiles, energy, food, and health and safety as our five priority areas, and we are focusing on the development of next-generation mobility and development that enriches people's lives.

### I Strengths of "integrated forging with steel making processes" and "materials manufacturer"

Aichi Steel utilizes the strengths of its integrated forging with steel making processes, in which a wide variety of components are added to raw steel scrap to create specialty steel with properties and functions such as strength and heat resistance, and then finished into forged products, and the knowledge it has accumulated as a materials manufacturer since its founding, to develop products that address to changes in society and meet the needs of society.



#### Standardization Promotion Committee



### I Initiatives in standardization activities

Aichi Steel is focusing on standardization activities as efforts to widely share the results of research and development with society. Establishing standards and specifications for new products and technologies is essential for ensuring quality and reliability, leading to greater customer satisfaction and smoother market introduction. We have established internal structures to promote standardization activities.

### I Promotion structures for standardization

Aichi Steel is promoting standardization activities through the Standardization Promotion Committee. The committee is chaired by the Research and Development Headquarters general manager, who is in charge of research and development, as the chief standardization officer (CSO), with general managers of the Business Management Departments of each in-house company and general managers of each Development Division as persons in charge of each division, and the representative managers of each department in charge as members of the committee. Going forward, the committee will focus on promoting strategic standardization activities, as well as raising awareness within the company and fostering standardization personnel.

## Intellectual Property-related Initiatives

### I Basic policy

Aichi Steel has established proactive intellectual property (business expansion and challenges), defensive intellectual property (business stability), and basic activities (human resources development and structure building) as its priority policies, setting targets for each and working to promote intellectual property activities that lead to steady growth.

### I Promotion structures

Aichi Steel has established an Intellectual Property Committee to promote intellectual property activities. The committee is chaired by the Research and Development Headquarters general manager, with general managers of each in-house company, headquarters, and technology division as members.

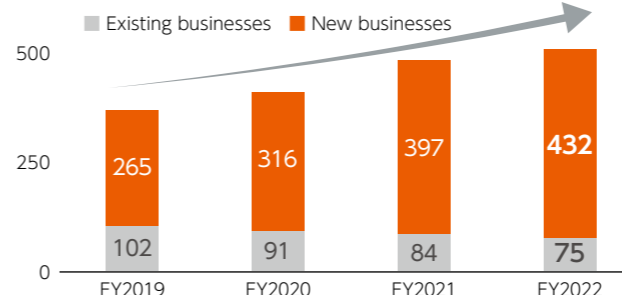
#### Intellectual Property Committee



### I Enhancement of new business patents

In the past, Aichi Steel focused on protecting intellectual property that is the result of research and development. In recent years, however, our development and intellectual property divisions have also been strengthening their collaboration and working to improve the quality of our patent applications through strategic patent applications that lead to the creation of new value. In particular, we are focusing on new business-related fields and increasing the number of high-quality patents we hold. We will continue to promote activities aimed at building a patent portfolio that helps us to secure our superiority as a company and expand new businesses.

#### Changes in the number of patents held



#### Person in charge of promotion



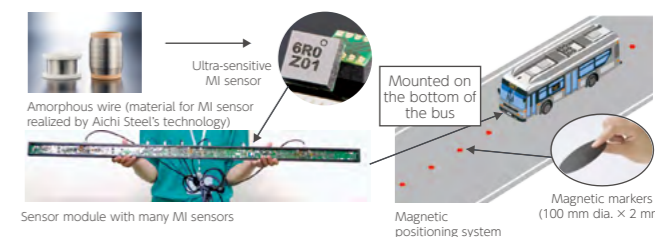
**Ryota Takatsu**  
Intellectual Property Department, Development Planning Division

We work daily based on the belief that the utilization of intellectual property is indispensable for the steady growth of a company. In particular, because patented intellectual property is more important for new businesses than for existing businesses, we are working to strengthen collaboration with development divisions to ensure that the results of our development efforts are granted rights and utilized to the fullest extent possible. We will continue to focus on encouraging inventions and other fundamental activities to further foster intellectual property activities within the company.

## New Business Creation Initiatives

### I Autonomous driving made possible by GMPS

Aichi Steel is working toward the development and early commercialization of the Global Magnetic Positioning System (GMPS), an autonomous driving support system that uses our proprietary magneto-impedance (MI) sensors to detect magnetic markers placed on roads, enabling the estimation of automotive positions with high accuracy on the millimeter scale even in harsh environments. Since 2017, we have conducted verification trials in various locations and environments with national and local governments, private companies, and organizations, and have received high ratings in terms of performance and reliability. In December 2022, as the first example of social implementation, GMPS was adopted for use in an autonomous driving bus operating between Yanaizu Station and Rikuzen-Yokoyama Station on JR East's Kesennuma Line bus rapid transit (BRT). Other applications include the autonomous driving of towing vehicles on plant premises, and many more are expected in the future. We will continue our efforts to realize a safe and secure mobility society by taking advantage of our advanced technical capabilities that have realized ultra-sensitive MI sensors, high-quality and low-cost magnetic markers with the weak magnetic force, and our unique magnetic field noise elimination system.



### I Next-generation iron fertilizer PDMA to increase food production in poor soil

One solution that is attracting attention is to increase food production in poor alkaline soils, which account for about one-third of the world's land area. Aichi Steel has succeeded in developing a next-generation biodegradable iron fertilizer, PDMA, that makes it possible. PDMA has been shown to be effective in promoting the growth of gramineous plants such as corn and rice, as well as non-gramineous plants such as pumpkins and beans. Currently, artificial chelated iron materials are commonly used, but there are concerns about their environmental impact because they remain in the soil. On the other hand, our next-generation iron fertilizer PDMA is biodegradable and decomposes in the soil, resulting in a smaller environmental impact. We are currently conducting cultivation experiments in North America and other parts of the world with the aim of commercialization, as well as working on process development for commercialization.



Experiments on outdoor cultivation of rice in poor alkaline soil (left: without PDMA; right: with PDMA)