Activities to Foster Medium- to Long-Term Growth

As current megatrends revolve around macrodynamic changes such as the rapid advancement of digital technology, the heightened momentum of environmental conservation, and the labor shortages and increased lifespans occurring in developed countries, the keywords to address these changes are 5G, AI, the IoT, CASE, Industry 4.0, automation, and labor and energy savings.

These keywords drive demand for the various solutions THK offers. The Company is promoting various initiatives in both its industrial machinery and automotive and transportation businesses to realize this growth potential.

Industrial Machinery Business

IOT Innovation Division Activities for Industrial Machinery

OMNI edge: An IoT Service for Manufacturing—Capable of Being Added to Machine Components Currently in Use

OMNI edge is an IoT service that diagnoses the status of a machine component and performs predictive failure detection. Using the THK SENSING SYSTEM, a sensor attached to the component collects data, which is then quantified and analyzed by an original algorithm and transmitted through a secure network. The package combines

Activities to Foster Medium- to Long-Term Growth

the sensor and other hardware with a communication device, and communication fees are included, which makes the service simple, secure, and available for a reasonable price. This service can be added to machine components already in use, so an enormous level of demand is anticipated as automation and robotization advance.





communications, the optimal service provider is selected for each country.

Developments through 2021



Rotary Components Added to OMNI edge Lineup— Introducing Predictive Failure Detection to Rotary Components in Addition to Linear Motion Parts

Among customers who have currently installed OMNI edge, one commonality is that they have actively introduced predictive failure detection to rotary components such as pumps, fans, and motors in addition to linear motion components, and the benefits of a unified integration of the predictive failure detection system are evident. This success led to rotary components being added to the official lineup. In this manner, THK will expand the service in a way that best suits customer needs and will help their manufacturing operations achieve continuous productivity improvements.



The THK DX Project: Advancing Omni THK

Based on the THK DX Project, the Company is working to reduce time spent on routine tasks and shift employees toward work with higher added value as well as developing measures to expand sales.





In order to achieve this, THK is striving to further promote Omni THK, introduce various ICT tools and systems, and develop digital talent that will be at the core of these efforts.

The THK DX Project: Developing Digital Talent

Activities to Foster Medium- to Long-Term Growth

Since 2019, THK has been conducting data utilization training for staff to gain knowledge and learn about data utilization techniques in order to drive further DX-related activities through a company-wide increase in skill level. Furthermore, conducting the types of training shown on the right has engendered a culture based on digital technology, the extent of which is steadily expanding.



Expanding THK's Global Production Structure

In order to support top-line expansion over the medium to long term, the industrial machinery business is promoting automation and robotization, and a new factory in India began operating in November 2021. Other efforts have also been made to further increase our production capabilities, such as moving forward with the construction of new facilities at THK NIIGATA in Japan. In China, where demand is expected to increase over the medium to long term, both THK Changzhou and THK Liaoning are adding facilities on their sites as well.



companies whose fiscal years ended in December





New manufacturers in the automotive industry

Capitalizing on CASE

The automotive industry is said to be undergoing a once-in-a-century revolution, and "CASE" is the keyword that exemplifies this new era. CASE is an acronym combining the words "Connected," "Autonomous," "Shared," and "Electric." Together, these elements have given birth to revolutionary technologies and services and are creating ripples of change that intersect with other industries. In the midst of this trend, the THK Group has capitalized on its core linear motion product technology and has been developing and mass-producing new linear motion products for self-driving cars, as well as working to

Activities to Improve Profitability

The automotive and transportation business experienced an operating loss of ¥4.8 billion during the 2021 fiscal year. This was primarily due to an increase in steel prices and a decrease in automobile production caused by shortages in semiconductors and other components. Going forward, the Company will increase its revenue and continue

Accelerating the Development and Proposal of Linear Motion Products for Automobiles

As THK makes improvements in profitability, in response to the CASE-driven shift towards electric automobiles, the Company has utilized new production methods to introduce aluminum products to the market in order to expand sales and meet customer needs for more lightweight components. THK has also developed aluminum hot forging technology in-house in North America, and products manufactured with this technology have been adopted by both American and Japanese-owned businesses looking to procure items locally. Furthermore, as a second pillar in addition to its linkage and suspension business, the Company is also developing and mass-producing ball

Automotive and Transportation Business



expand the use of such products in various automotive mechanisms. While the adoption of electric vehicles is expected to change the configuration of existing L&S (linkage and suspension) components, THK will advance proposals for new offerings in the belief that a collaboration with the linear motion products under development can lead to a new generation of L&S components. The Group will further accelerate its development and sales activities in anticipation of expanded use of such products spurred by CASE.

efforts to improve its profitability, including sustaining the recovery plan that went into effect in 2020 and reevaluating its product portfolio. In doing so, it aims to achieve a profit for automotive and transportation equipment overall.

screws for use in CASE-related automatic braking systems. These products are officially being adopted for new suspension-related components, and THK is working to serialize these items and expand sales. Furthermore, as a third pillar, the THK Group is promoting the development of next-generation products incorporating multiple technologies in development departments in Japan and overseas by looking forward five or ten years and anticipating needs customers might not be aware of yet while also working to expand the Company's product lineup to meet current customer needs.