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.



ivities to Foster Medium- to Long-Term Growth

Industrial Machinery Business

IOT Innovation Division Activities for Industrial Machinery

Launching OMNI edge Service for Ball Screws and Actuators

Phase-one sales of the "OMNI edge" IoT service for the manufacturing industry officially began for LM Guide applications in January 2020. During that year, OMNI edge was installed on around 300 pieces of primary equipment at user facilities and around 700 machines used for production at THK's own factories, achieving visualization for components while collecting and analyzing numerical data on a daily basis. Many users have expressed their praise of and hopes for the service, and THK is expanding

it into a solution that best suits the needs of many customers. Under these circumstances, THK added compatibility for ball screws, which are often used alongside the LM Guide, in November 2020. In March 2021, service was also expanded to actuators, which are widely used in automatic machines such as transfer and assembly equipment.

This makes it clear that the need for predictive failure detection is expanding to various types of components.



Conducting a Free OMNI edge Trial for Rotary Components

THK is conducting a free trial for rotary components. THK began recruiting participants in November 2020 and received greater interest than planned, so the original scope of thirty companies was expanded to involve more businesses.

Application period:

• Applications opened November 16, 2020.

careful consideration of the applications.

- They will close once the participants have been selected.
 * Companies will be chosen to participate based on
- Applicable Components
 Rotary components of pumps, motors, conveyors, fans, etc.
 (available with



Now Offering Overseas Compatibility: New Service Compatible with Global SIM

Customers who have installed OMNI edge include automotive component, food, and raw material manufacturers, and over half possess factories overseas. Those customers are looking to diagnose the status of components and predict machine failures in both their domestic and international factories. In addition, the coronavirus pandemic has made it difficult to travel abroad and check facilities in person, so many customers have expressed the desire to be able to check things remotely. To that end, THK began offering Global SIM compatibility for OMNI edge using international communications networks.



* Japanese, English, Chinese (Simplified)

Connecting to FANUC CORPORATION's FIELD system Open Platform for the Manufacturing Industry

THK will begin offering connectivity with FANUC CORPORATION's FIELD system industrial platform as the first step in expanding the scope of OMNI edge predictive failure detection beyond individual devices. For the next phase, THK is looking to develop an original





app that will heighten added value by utilizing FIELD system Apps, starting with the feature of monitoring components with OMNI edge installed. The Company will also work toward making the service compatible with other industrial platforms.



Achieving DX through Omni THK

ies to Foster Medium- to Long-Term Grow

Omni THK is a platform for communicating with customers, providing support in the form of inventory searches, fast delivery orders, product selection, CAD data, quotes, and more. In addition, it provides a new user experience through the ability to manage components by linking

customer product control information with THK product information. By constructing an internal system that automates every step from receiving to shipping the customer's order, THK hopes to drastically boost productivity and customer satisfaction.



Expanding THK's Global Production Structure

In an effort to support medium- to long-term top-line expansion, THK is strengthening the global production structure for its industrial machinery business. SAMICK THK (an affiliate in South Korea) began operating in November 2020, and the new THK India factory (India) is scheduled to begin production in summer 2021.



THK will continue to strengthen its production structure in order to steadily capture the anticipated medium- to long-term growth of demand.





Automotive and Transportation Business

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 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.

Activities to Improve Profitability

The automotive and transportation business experienced an operating loss of ¥16.1 billion during the 2020 fiscal year. The main causes were impairment losses and restructuring charges incurred as a result of the decrease in revenue due to market conditions worsened by the global spread of the coronavirus. An operating loss is also anticipated for the 2021 fiscal year in part due to revenue expected

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. As a second pillar, in addition to its linkage and suspension business, the Company is also developing and mass-producing ball screws for use



to be even lower than what was forecast before the pandemic. However, THK will continue to carry out the recovery plan executed in 2020 and work to achieve a profit in Q4 2021 for the automotive and transportation business as a whole by revising its product portfolio and other means.

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.