

Technical Review Special Edition: Industry & Infrastructure

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Welcome to this special edition of our technical review featuring Industry & Infrastructure (I&I) Domain.

During the 2018 FIFA World Cup, which ended with France being crowned as champions, Japan put up an impressive performance. The well-organized team featuring a mix of experienced veterans and talented young players showed tremendous growth by working as one. This approach is also essential for a business organization, and we at MHI continue to incorporate new and innovative ideas in our long-cultivated expertise in the technology field by way of digitalization and other changes.

Business requires three essential resources: human, products, and capital. Whereas products and capital may be more easily carried forward, the sustainability of human resources is inevitably subject to disruptions due to factors such as retirement age. As organizational expertise relies heavily on individual professionals, it is therefore critical for a business entity to seek ways to maintain the continuity of this expertise and to facilitate ongoing enhancements from one generation to the next. Here at our I&I domain, we pursue these ends through the re-organization and identification of new applications for our core technologies. By digging deeper and breaking down such technologies into their individual elements, we are able to utilize them in many different products. As well, veterans and new professionals from the Integrated Defense & Space Systems segment and the I&I domain are engaged in cross-department knowledge sharing, which is expected to result in plans for more sophisticated products and services through the integration of technologies from the Integrated Defense & Space Systems in the current fiscal year. By making the most of MHI's comprehensive and integrated capabilities, we believe there is significant potential for further product enhancement.

This edition introduces examples of recent developments at the I&I domain in areas such as shipbuilding and ocean development, transportation systems, environmental systems, and industrial machinery. It also provides overviews of our new companies.

In shipbuilding & ocean development and various systems for transportation, we feature a pilot testing system to excavate and raise ore for development of seabed polymetallic sulfide deposits a new SkyConnect automated people mover (APM) system at Tampa International Airport, a two-lift Mitsubishi Cell Park system designed for a 50-to-100-vehicle capacity with improved usability and safety, a barrier-free passenger boarding bridge for air terminals, and a train platform screen door system designed for multi-door use, the first model of which has already been put into service as part of an existing door system.

Featured in the environmental plants and equipment and industrial machinery segments are a

high-efficiency waste power generation/energy recovery system with low life cycle cost and stable income potential from surplus power for a small-scale waste treatment plant, the Acoustic Expert audio sensor diagnostic system for optimal operation of plant machinery and system components, a high-speed dual-slotted corrugated box making machine designed to meet an increasing demand for smaller shipping boxes for Internet shopping, a high-precision and high-performance hybrid metal-based additive manufacturing system and machining capabilities, and gear manufacturing technology for high accuracy and precision designed to support fuel efficiency regulations and electric vehicles.

Finally, we include overviews of several new companies started in January 2018: Mitsubishi Shipbuilding Co., Ltd. and Mitsubishi Heavy Industries Marine Structure Co., Ltd., both formed through the restructuring of MHI's shipbuilding businesses; Mitsubishi Heavy Industries Engineering, Ltd., formed to take charge of MHI's chemical plant and transportation system businesses; and MHI Plant Engineering & Construction, Ltd., consisting of civil engineering and construction businesses. Also highlighted are various products offered by Mitsubishi Heavy Industries Thermal Systems, Ltd., which absorbed Mitsubishi Heavy Industries Automotive Thermal Systems Co., Ltd. in January 2018, and a full crawler tractor designed for superb mobility at large-scale farms offered by Mitsubishi Mahindra Agricultural Machinery Co., Ltd.

We deeply appreciate your ongoing support and guidance.