



Through Groupwide technology and knowledge sharing, we will realize conglomerate synergies.

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## Realization of Conglomerate Synergies

Under our “Shared Technology Framework,”\* MHI Group is striving to strengthen its technological and marketing infrastructures, optimize the value chain across the Group (including procurement), and reinforce the competitiveness of its businesses in the medium-to-long term. MHI Group handles a greater variety of products than its competitors, and in order to turn this product diversity into competitiveness, we are promoting Groupwide technology and knowledge sharing in product development. Applying cutting-edge technology from gas turbine development to numerous other products such as compressors, centrifugal chillers, and turbochargers is one example of what we are doing to realize conglomerate synergies by technology and knowledge sharing.

## Promotion of MHI FUTURE STREAM

Today’s business environment surrounding MHI Group is both complex and uncertain owing to changes in social needs arising from climate change, urbanization, population aging, and other serious issues. In the energy field, for example, as the supply/consumption structure changes, use of renewable energies will expand and consumers will increasingly adopt electricity over other energy sources. Accordingly, MHI Group today is required to achieve continuous growth while responding to society’s evolving needs with agility and flexibility, and simultaneously contributing to realization of a sustainable planet. To achieve those multiple aims, MHI Group is now implementing a program known as “MHI FUTURE STREAM.”

\* The Shared Technology Framework encompasses the Technology Strategy Office, Research & Innovation Center, ICT Solution Headquarters, Value Chain Headquarters, and Marketing & Innovation Headquarters.

Under this program, we are scanning for both new business opportunities and potential business threats based on social mapping long into the future, to enable us to create measures for medium- to long-term shifts of our existing businesses. Specifically, we will pursue innovations in mobility and logistics, a clean recycling-oriented society, robotics, and other areas that will enable the achievement of a low-carbon and then carbon-free society, and resolve urban problems. To realize these shifts, today we are scouting for and investing in cutting-edge technology in a quest for new products, services and businesses. In implementing MHI FUTURE STREAM, we will make active use of the Shared Technology Framework's multifaceted market and technology sensing capabilities, and also pursue synergies by introducing and actively using innovative outside knowledge and technology through open innovation together with Innovation Accelerator LLC, established in April 2018, and centers of excellence.

### Active Use of AI

Today MHI Group is actively applying artificial intelligence (AI) technology to diverse products and production facilities. Areas of application include work navigation systems, operation monitoring, malfunction detection and diagnosis, operation optimization, product inspection, automated welding, and scheduling.

In areas relating to business processes, we have begun applying a "contract risk reduction system" jointly developed with IBM to actual projects, as a way of enhancing our risk management. Furthermore, we are also applying AI to design work and to analysis of big data such as information on our business partners and expenditures, as a way of making our procurement operations more advanced and efficient. We will continue focusing on these initiatives going forward.

