

# Plants & Infrastructure Systems

CO<sub>2</sub> Capture Plant (U.S.)

## Current Status Assessment

<b>Strengths</b> <span style="font-size: 2em; font-weight: bold;">S</span>	<b>Commercial Ships</b>	<ul style="list-style-type: none"> <li>• Unparalleled environmental and energy-saving technologies</li> <li>• Gas-handling technologies cultivated on LNG/ LPG carriers</li> </ul>
	<b>Engineering</b>	<ul style="list-style-type: none"> <li>• Unique CO<sub>2</sub> capture technology with abundant commercial records around the world</li> <li>• Engineering capabilities that respond to the decarbonization business (Ammonia, Methanol, CO<sub>2</sub> capture technology, etc.) applying abundant experience</li> <li>• Advanced project management and system integration capabilities for chemical plants and transportation systems</li> <li>• Integrated response capabilities for transportation systems spanning from planning to design, manufacturing, construction, testing, operation and maintenance</li> </ul>
	<b>Environmental Systems</b>	<ul style="list-style-type: none"> <li>• Comprehensive engineering capabilities for waste-treatment plants spanning entire project phase, from EPC to O&amp;M</li> <li>• Plant provided with after-sales service based on extensive track record as a plant contractor</li> </ul>
	<b>Metals Machinery</b>	<ul style="list-style-type: none"> <li>• Full line from upstream to downstream with global footprints</li> <li>• Differentiated technologies in particular in combining automation and implementation of AI</li> <li>• Utilization and integration of MHI Group technologies particularly in the area of decarbonization</li> </ul>
	<b>Machinery Systems</b>	<ul style="list-style-type: none"> <li>• Broad scope of business fields and wide-ranging mechatronics technical capabilities</li> </ul>

<b>Weaknesses</b> <span style="font-size: 2em; font-weight: bold;">W</span>	<b>Commercial Ships</b>	<ul style="list-style-type: none"> <li>• Relative cost competitiveness of large hull ratio ships (e.g., cargo ships)</li> </ul>
	<b>Engineering</b>	<ul style="list-style-type: none"> <li>• Volatility in orders and profit</li> </ul>
	<b>Environmental Systems</b>	<ul style="list-style-type: none"> <li>• Cost competitiveness due to build-to-order manufacturing structure</li> </ul>
	<b>Metals Machinery</b>	<ul style="list-style-type: none"> <li>• Resource flexibility</li> </ul>
	<b>Machinery Systems</b>	<ul style="list-style-type: none"> <li>• Predominantly mature businesses, largely in Japan</li> </ul>

<b>Opportunities</b> <span style="font-size: 2em; font-weight: bold;">O</span>	<b>Commercial Ships</b>	<ul style="list-style-type: none"> <li>• Environmental regulations aimed at low-carbon and carbon-free initiatives in marine transportation</li> <li>• Growing demand for improved vessel safety/efficiency</li> </ul>
	<b>Engineering</b>	<ul style="list-style-type: none"> <li>• Global acceleration of decarbonization in all industrial sectors</li> <li>• Growth in demand for O&amp;M*1 / service business</li> </ul>
	<b>Environmental Systems</b>	<ul style="list-style-type: none"> <li>• Growing commitment to decarbonization and environmental impact mitigation</li> <li>• Digital automation of plant operations</li> </ul>
	<b>Metals Machinery</b>	<ul style="list-style-type: none"> <li>• Growing demand from governments to steel producers to decarbonize and mitigate the environmental impact of steel production, growing demand for high-value-added products such as magnetic steel sheets and high tensile strength steel sheets</li> </ul>
	<b>Machinery Systems</b>	<ul style="list-style-type: none"> <li>• Extension of new (mobility) businesses in response to electrification and smartification (IoT, AI, CASE*2) of society</li> </ul>

\*1 O&M: Operation & Maintenance \*2 CASE: Connected, Autonomous, Shared & Service, Electric

<b>Threats</b> <span style="font-size: 2em; font-weight: bold;">T</span>	<b>Commercial Ships</b>	<ul style="list-style-type: none"> <li>• Intensified competition with competitors</li> <li>• High prices of materials, equipment and supplies</li> </ul>
	<b>Engineering</b>	<ul style="list-style-type: none"> <li>• Increase in new entrants</li> <li>• Accelerated development of new decarbonization technologies by competitors</li> </ul>
	<b>Environmental Systems</b>	<ul style="list-style-type: none"> <li>• Intensified competition with competitors</li> <li>• Long-term domestic market shrinkage</li> </ul>
	<b>Metals Machinery</b>	<ul style="list-style-type: none"> <li>• Competitive market</li> </ul>
	<b>Machinery Systems</b>	<ul style="list-style-type: none"> <li>• Shrinking domestic market for existing businesses and intensifying competition for development in the new fields of electrification and smartification</li> </ul>

## Overview of FY2021 and Priority Strategies in the 2021 Medium-Term Business Plan

Due to global increases in steel demand, orders in metals machinery are expanding, and the commercial ships and engineering markets are also trending toward recovery, resulting in consolidated orders received rising year on year to ¥890.9 billion. Revenue rose year on year to ¥651.8 billion, driven mainly by increases in metals machinery and environmental systems. Despite some additional expenses in overseas construction work, the effects of structural reforms and other factors led to increases in engineering and metals machinery, resulting in profit from business activities recording improvement over the previous year, to ¥23.6 billion.

Under the 2021 Medium-Term Business Plan, we are pursuing initiatives tailored to each business's characteristics and market environment in the aim of stabilizing and enhancing its earning capacity. In addition, in our domain as a solutions provider for environment-friendly products that contribute to the realization of a decarbonized society, we are expanding business opportunities by internal flexible mobilization of human resources and by sharing technology across the businesses. We will continue to strengthen service businesses leveraging digitalization and expand life-cycle businesses that support customers throughout entire life cycles of facilities and plants.

## Business Initiatives in the 2021 Medium-Term Business Plan

<b>General</b>	<ul style="list-style-type: none"> <li>● Pursue initiatives tailored to each business's characteristics and market environment in the aim of stabilizing and increasing its earning capacity</li> <li>● Expand business opportunities by internal flexible mobilization of human resources and by sharing technology across businesses as a solutions provider for environment-friendly products that contribute to the realization of a decarbonized society</li> <li>● Strengthen service businesses leveraging digitalization</li> <li>● Expand life-cycle businesses that support customers throughout entire life cycles of facilities and plants</li> </ul>
<b>Commercial Ships</b>	<ul style="list-style-type: none"> <li>● Build high-density, outfitted ships like government vessels and ferries</li> <li>● Extend engineering businesses in response to environmental regulations, etc.</li> </ul>
<b>Engineering</b>	<ul style="list-style-type: none"> <li>● Strengthen initiatives in the clean-fuel business (Ammonia, Methanol, Hydrogen)</li> <li>● Expand applications in industrial areas through expansion of the lineup of CO<sub>2</sub> capture systems (large to small)</li> <li>● Expand O&amp;M and service business through proprietary remote monitoring and operational support services using the developed digitized platforms</li> </ul>
<b>Environmental Systems</b>	<ul style="list-style-type: none"> <li>● Strengthen ability to provide best solution and cost competitiveness to win orders for new construction projects</li> <li>● Upgrade engineering capabilities to drive sustained profit growth</li> </ul>
<b>Metals Machinery</b>	<ul style="list-style-type: none"> <li>● Focus R&amp;D on strengthening decarbonization and other environmental initiatives centered on collaboration within MHI Group</li> <li>● Expand life-cycle businesses (expand maintenance service businesses, roll out advanced services that leverage digitalization)</li> <li>● Improve cost competitiveness and diversify our supply chains</li> </ul>
<b>Machinery Systems</b>	<ul style="list-style-type: none"> <li>● Enhance management efficiency through internal resource sharing and flexible mobilization of human resources</li> <li>● Strengthen sale of products and expand services focusing on adding value to customers' needs through the utilization of DX</li> <li>● Accelerate development of new products and new businesses combining technologies</li> </ul>