CSO Dialogue

The core of our growth strategy is developing high added value products and solutions that help to solve some of the world's biggest issues.

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We will deliver value by enabling development in the world, also contributing to achieving the SDGs

Kaguchi: Thank you for joining me today to examine the ways in which MHI Group can help to solve some of the world's most pressing issues. I eagerly invite your frank opinions.

Miyanaga: Thank you for inviting me. There are two main topics I wish to discuss with you today. The first is how MHI Group intends to approach solving these global issues and, more broadly, contribute to society. Secondly, is to examine how MHI Group, a company that helped enable Japan's industrialization, plans to itself grow and drive economic growth going forward against the background of a 30-year period of economic stagnation. Kaguchi: I believe these two topics are interconnected. I see them as two sides of the same coin: how MHI Group contributes to economic development by solving far-reaching issues affects not only Japan but the world as a whole; and how we ourselves–as a result of those contributions–will grow. At MHI Group, we view our mission as supporting fundamental infrastructure, such as energy, transportation, logistics, etc. Our foremost responsibility, we believe, is to solve issues facing our society and provide value, in order to support sustainable development. By fulfilling that responsibility, we ourselves will achieve long-term growth. Among the various SDGs^{*1} we believe there are three where we should make specific contributions: goal 7 (affordable and clean energy); goal 9 (industry, innovation, and infrastructure); and goal 13 (climate action).

*1 SDGs: a set of 17 goals to be shared by the global community in a common quest for a better, sustainable world by the year 2030. The 17 goals, relating to issues such as poverty, economic growth and the environment, are appended by 169 specific targets to enable their achievement.

Miyanaga: To contribute to the SDGs you cite, it's necessary to provide value not just to Japan but to the whole world, isn't it?

Kaguchi: Exactly. Today, MHI Group is taking steps to combat global warming by delivering power generation systems worldwide that run on renewables– offshore wind power and geothermal power, for example–and environmental systems that capture carbon dioxide.

Miyanaga: To encourage the world to achieve the SDGs, MHI must emphasize its contributions towards the environmental; and it needs to set clear targets to reduce carbon dioxide emissions and curb global warming.

Kaguchi: I hope to increase MHI Group's value to society by analyzing the relationships between our businesses and the issues the world is facing, and then determining in what directions we should proceed to respond to these issues. To do this, in fiscal 2020 we are identifying social issues of high importance to both MHI Group and our stakeholders (Materiality) and setting medium-term targets for each issue.

Miyanaga: I believe having diverse management resources is a great strength when considering future strategies. Among those resources, I think technology plays a significant role. Kaguchi: Yes, technology is definitely important. MHI Group has accumulated numerous technologies in various areas over the years, and although many have not yet been transformed into marketed products, the breadth of our technologies is one of our strengths. In areas such as power generation, defense, and space systems in particular, complex, high-performance machinery systems are required to operate with outstanding precision and reliability under extremely harsh conditions. Only very few companies worldwide have the technologies to satisfy all of those demands.

Miyanaga: I think passing on technologies to the next generation is also extremely important. What approach is MHI Group taking in this regard?

Kaguchi: We are developing various ways for technologies to be passed on in the workplace. We have taken technological information that used to be implicit knowledge and converted it into explicit knowledge in the form of data so employees who need it can now access it using shared IT systems. However, some technological information can't be conveyed completely as explicit knowledge, so we are continuously recruiting new employees whom we assign to strategic projects so that we can pass these technologies down. In other words, technologies that can be expressed as explicit knowledge are converted into explicit knowledge, and implicit knowledge not suited to conversion is successively passed on by employees, across generations, at their workplaces. This is how we maintain and improve technologies in a way other companies can't imitate.

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Miyanaga: I think it must be difficult achieving good technological cooperation between SBUs*². What does MHI Group do in that respect?

Kaguchi: Traditionally, there used to be lots of occasions where engineers affiliated with different strategic business units (SBUs) gathered and engaged in discussions at information sharing meetings and the like. But now, partly as a result of creating separate companies within each SBU, links between engineers have weakened. Going forward, we have to revitalize technology exchanges within groups again. I think it's important to proactively create venues for exchange, for example task forces consisting of young employees and liaison meetings between the heads of the various manufacturing segments.

With this issue in mind, in 2015 we undertook a review of our research center structure. Up until then, separate research facilities were operated in each region: Nagasaki Research & Development Center, Takasago Research & Development Center, and so on. But in 2015 these were consolidated into a comprehensive Research & Development Center, an arrangement that I believe has proven very successful. For example, by reorganizing the earlier research facilities in a way that aligns closely related technologies, it became possible to pursue synergies between technologies and to implement measures for strengthening cross-domain human resources development. This was a major reform, but one that has vitalized our organization and enhanced our technological capability.



^{*2} Strategic business unit: a business unit under the strategic business evaluation system.

Availing of our diverse human resources and outstanding technological strength, we will explore new businesses and drive development

Miyanaga: You took up the post of Senior General Manager of the Growth Strategy Office in April 2020. I will be interested in seeing how the company's business portfolio will change as a result of implementing your growth strategy.

Kaguchi: In the near term, I don't think the business breakdown will change greatly within the overall framework. What we are attaching importance to is improving profitability. Our target is double-digit profit from our businesses. And to achieve that, it's absolutely necessary to expand those fields in which we supply technology-driven products and solutions of high added value. We have to grow our various businesses by increasing added value, achieving this through electrification of machine systems in pursuit of decarbonization, as well as through automation, labor savings, and ever more advanced artificial intelligence.

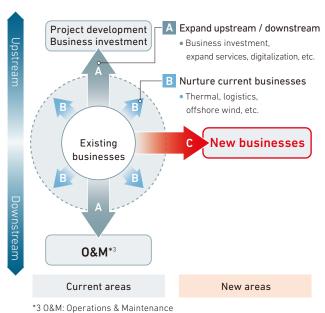
Miyanaga: What initiatives will the newly established Growth Strategy Office implement going forward?

Kaguchi: To advance and accelerate our growth strategy, we will take steps to "exploit" existing businesses and to "explore" for new businesses. In doing so, the Growth Strategy Office will work flexibly to search for new business areas that individual business segments can't accommodate, and develop new businesses by combining existing businesses.

Miyanaga: Your growth strategy points in three directions: A expand upstream / downstream;
B nurture current businesses; and C develop new businesses. I imagine good results will be achieved when the three are pursued in parallel.



Growth Areas



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Kaguchi: We will implement these initiatives in parallel, and to begin we will start with A: expanding upstream and downstream. Up until now, we have focused on making things; now, we will expand downstream, including after-sale services. Specifically, we will consider a project not merely as the construction of a plant, for example, but as the entire business area from entry to exit, starting from proposing services that will respond to the customer's needs and also encompassing post-delivery operations and maintenance.

Regarding **B**, nurturing of current businesses, we are targeting region-based expansion across the globe. In our logistics business, for example, we acquired an independent sales company in the United States. And we may pursue further acquisitions of this kind in the years ahead.

Miyanaga: In terms of region-based expansion, it seems Japanese companies in many cases have faced greater challenges in global organizations compared with American or British companies. What points need to be addressed when pursuing global business expansion?

Kaguchi: I think management should be conducted in ways that better use the abilities of local managers and staff. Especially with sales and after-sales services, authority should be transferred to local managers, who know their regional situations well, and the Group's Head Office, for its part, should set appropriate targets. This would achieve a higher level of overall management, as needed.

Miyanaga: Now that we have covered A expand upstream / downstream and B nurture current businesses, I'd like to ask you about C develop new businesses. In terms of sales revenue, what scale do you envision for new businesses, and also what timeline?

Kaguchi: What I think everyone is expecting of us is to create new businesses that leverage technologies in fields where our Group has strengths. As a final target for the scale of new businesses, I see ¥100 billion (approximately U.S.\$1 billion) as one barometer. It takes a while before a new business can reach ¥100 billion in sales, so initially I would like to target a scale of ¥10 billion (approximately U.S.\$100 million) within a short time span of around three years. After that, I want to see a number of new businesses develop to a scale of ¥100 billion over time. Among our current businesses, I see between 10 and 20 candidate areas whose scale we are not satisfied with today but I would like to nurture them into significant new businesses for the future. Miyanaga: To achieve that will also require making use of open innovation, I believe.

Kaguchi: Yes, precisely. Up until now we have frequently conducted joint research with universities and research institutes both within Japan and overseas. Recently, to explore new technologies further, we have invested in venture capital funds based in California-a move that has led to collaboration with individual companies and to evaluation studies for application of technologies of startups based in Silicon Valley, for example, to be incorporated into our Group products or services. Also, rather than insisting on doing everything ourselves in-house, we will continue pursuing M&A's and technical cooperation with companies that have promising technologies. To do this, after the Growth Strategy Office was created, we undertook simplification of how we internally deliberate potential investments into venture companies.

Miyanaga: I agree that putting such mechanisms in place is important. In terms of creating new businesses, which of your resources–people, physical assets, or money–do you think is most important?

Kaguchi: Our most important resource, I believe, is our people.

Miyanaga: In that case, I would like to see young people, people who can think out of the box and act boldly and independently, play active roles.

Kaguchi: I think we have many outstanding people within MHI Group who are eager to work in new businesses. Up until now, even if they had ideas to suggest, they didn't know where they could take them. Now, I hope they will use the Growth Strategy Office



as the place where they can take their ideas. From now on, making use of our Groupwide job posting system and the like, we will assemble highly motivated people and accelerate our growth strategy in an enjoyable way.

Miyanaga: For MHI Group to contribute simultaneously to both its own growth and our collective sustainability, the two keywords are "technology" and "people," and I now see that the head of the Growth Strategy Office will shoulder the heavy responsibility of achieving this. I have great hopes and high expectations that targets will be set that are aligned with this great mission, and that those targets will be achieved.

Kaguchi: Thank you for taking time out of your busy schedule today.