

## 2021 IR DAY: Q&amp;A

Date and Time: 10:00 a.m. to 11:20 a.m., Monday, November 29, 2021

No	Item	Q	A
1	R&D	How will you enhance your overseas R&D activities? In particular, how will you secure the resources for such activities?	<p>First of all, we will seek and enhance business synergy with OVALO and adcos, including their expertise in the Predictive Active Suspension System, so that we can develop more systematized products across the fields in which we conduct business.</p> <p>We are also planning to build new business relationships and utilize overseas human resources through open innovation. We have already formed partnerships with some universities in Europe and will also find partners in other regions, including the United States and Southeast Asia.</p> <p>Moreover, we will consider further enhancing the relationships with our open innovation partners in line with progress in the development activities conducted with them.</p>
2	R&D	Do you feel that you have increased your development capabilities during the past five to 10 years?	<p>Compared to five or six years ago, we have far more technological resources in the electric, electronic and AI fields, which we can utilize for the development of systematized products. We have also been continuously increasing our mechanical technologies.</p> <p>In the future, we will face difficulties in securing human resources, and in response we will further foster open innovation toward boosting our development capabilities. In fact, we acquired OVALO and adcos to enhance our ability to develop systems.</p>
3	R&D	You seem to be focusing on developing new businesses and technologies, whereas you are enjoying a large share of existing markets as well. What is the background for your taking this approach?	<p>For a company to achieve further growth, it is not enough for it to maintain the status quo. In order to achieve growth on a continuous basis, we need to take on the challenge of developing new businesses and products. Even though we have intellectual property that gives us a competitive edge, we cannot be blindly optimistic, thinking that we will continue to hold such an advantage toward the future. Although we are not in a critical situation now, we need to implement measures to launch new businesses.</p>
4	R&D	How are you collecting data to foster the use of AI? How long will it take you to make practical use of the collected data, and which of your businesses will utilize the data?	<p>Sensing is the key for data collection. Regarding sensing, we are taking a different approach with each of our businesses, and we have already commercialized the Condition Monitoring system with Fail-safe (CMFS) for wind turbines. We are developing AI algorithms fitted for each of the businesses and will continue to do so toward achieving our long-term vision.</p> <p>We have found that AI is much more compatible with our products than we expected. We will be able to use edge computing technology for a range of our existing products. For cloud AI, we think we can mainly use the technology for our MRO service.</p>
5	R&D	You will probably incorporate sensors in more of the components that you will develop in the future. Which components have you already incorporated them in?	<p>We are now developing sensor-incorporated components but have not yet commercialized any such products. Our customers are very interested in the use of sensors, and we think that the use of edge computing technology might also help our customers increase their competitiveness.</p>
6	R&D	As for the CMFS, bearing manufacturers are also starting to implement strategies similar to yours. How will you differentiate your product from competitors?	<p>Our CMFS can directly control reduction gears to prevent the failure of yaw drive units in which gears are used, in addition to monitoring their operational status. It is up to power generators and wind turbine manufacturers to decide which system to use and whether to adopt the system of their choice for all their turbines or only for turbines operated under certain conditions.</p>
7	R&D	Digital twins are said to contribute to increasing the value of your products. How will you utilize the simulation model and what benefit can you gain from such use?	<p>Digital twins represent a technology to make high-precision predictions, including predicting the level of product degradation. By making simulations using this technology, we can detect problems earlier at the design stage, which helps us to identify points to be improved at an earlier stage.</p>
8	R&D	If there are any cases in which your development efforts using AI have led to an increase in the number of your MRO service users in the TRS business, please describe them specifically. If there are, can the same thing happen in other businesses?	<p>We are using AI technology to develop new products for the future, as we have outlined today, and so there are still no such cases. But we would like to use cloud AI for our MRO service going forward, although we cannot show you any quantitative data regarding this plan today. As for edge AI technology, it will mainly help us to increase the value of our components rather than contribute toward improving our MRO service.</p>
9	Intellectual property strategies	Regarding your intellectual property strategies, could you give an example strategy in the precision reduction gear business? How can you make it difficult for competitors to enter the market by implementing the strategies? Please also list the points that you need to strengthen concerning the strategies, if any.	<p>We adopt the same basic strategy for all our businesses, including the precision reduction gear business. In this business, particularly for medium and large sized precision reduction gears, we will work to identify customer needs and predict changes in these needs to eventually build the IP portfolio to make it even more difficult for competitors to enter the market. We believe it is also important to strictly maintain the confidentiality of our core know-how to keep our current market position. Moreover, it is necessary to eliminate imitation products, thereby reducing the speed of technological development for imitation manufacturers .</p>
10	Intellectual property strategies	Policies of each national government might have an impact on your businesses, such as the railroad vehicle equipment business. In response, what measures will you implement?	<p>For example, against a policy on promoting domestic manufacturing, which will have a great impact on our businesses, we might implement measures including giving a technological license to our subsidiary in the affected country as part of our intellectual property strategies. However, even when giving such a license to the subsidiary, we need to manage our secret information management to prevent our core know-how from being transferred to it.</p>

11	Intellectual property strategies	In China, are you implementing any intellectual property strategies that are different from those you are adopting in other countries?	We are adopting the same basic strategy for all countries, including China, to increase our core value. However, because we tend to find a greater number of counterfeit products in China, we are implementing additional measures to protect our intellectual property rights and execute the rights to prevent our products from being copied.
12	Intellectual property strategies	In which business are you considering implementing an M&A project for the acquisition of patent rights?	We now include all our business fields in the target for our M&A projects, although we cannot disclose any specific examples today. In the technological fields that we did not focus in the past, the number of our patents is small compared with the number of patents owned by companies that can be included in our M&A target. Now, due to recent market changes, we need to focus also on these fields, for which we will conduct IP landscape analyses to decide whether to develop technologies on our own or acquire them from the outside through M&A and other measures.
13	Intellectual property strategies	As for intellectual property, there has been a general tendency toward enhancing governance. Have you considered adding someone who is versed in intellectual property issues to your Board of Directors as an independent director or appointing an external expert to be a member of your intellectual property innovation committee?	For our intellectual property strategies, our executive officers as well as our business departments and headquarters are mainly holding the necessary discussions. However, in response to the revision of the Corporate Governance Code, we need to expand our intellectual property governance system, for which we have already been implementing measures.
14	Intellectual property strategies	To what extent do you discuss (and evaluate) the financial effect brought about by your intellectual property?	We have been evaluating the nonfinancial effect of our intellectual property strategies and now think that it is necessary to conduct examinations to evaluate the financial effect as well, although it would not be easy to meet this requirement.