

EBARA CORPORATION ESG Meeting 2023 Q&A

Q&A during ESG Meeting 2023 held November 27, 2023

**Speakers**

Masao Asami	Director, President, Representative Executive Officer, CEO & COO
Hiroshi Oeda	Independent Director, Chairman of the Board of Directors
Shugo Hosoda	Executive Officer, Division Executive of Corporate Strategic Planning, Finance and Accounting Division & CFO
Norihisa Miyoshi	Executive Officer, Division Executive, Technologies, R&D & Intellectual Property Division & CTO
Akihiro Osaki	Division Executive of Corporate Strategic Planning Division

**Participant 1:** First, I would like to ask you a question about intellectual property. In terms of the content of this presentation, you discussed the new form of ROIC and the organizational structure. My questions are to confirm some of the contents and to discuss future moves.

In terms of the intellectual property ROIC, I would like to know your thoughts on the number of important patents and the number of applications and registrations. Sending applications in as an indicator of activity is important and registration numbers means that there was a guarantee of quality. However, I also think the number of citations is important. What are your thoughts on the matter?

In terms of the decomposition factor in the numerator of this profit margin increase, I would be interested to know what you think now. I understand that there is generally a time lag when it comes to manifesting profits leveraging intellectual property. I think it is quite a challenging task to visualize or confirm this point, but I would like to know how your company is looking at this area.

**Asami:** Your first question in regard to the term "IP ROIC," and you were saying the number of patents registered alone is inadequate, as there are different ways of counting of those numbers, and you asked about our approach to address these differences. For the second question, I understood that you would like to know if we have any thoughts on how we plan to monitor tangible contribution of IP in terms of monetary profitability.

Well then, I would like Mr. Miyoshi to take your question.

**Miyoshi:** Thank you for your question.

Regarding your first question, as you said, simply the number of applications is not enough, but it is necessary to evaluate the effectiveness of the patents, so we use an index of the strength of patents against competition by market, which we are operating internally. Therefore, we believe that we can make a quantitative evaluation by considering not simply numbers, but also by thoroughly indexing the degree of effectiveness.

And the second question is how to measure the ratio of contribution to profit, and I think there is indeed a time lag. However, I believe that by monitoring the strength of patents noted earlier, as well as the strength of competitors' patents and sales of related products over the long term, we may be able to make some kind of connection. We are still in the process of exploring this approach, but we are hoping to quantify it somehow.

**Participant 1:** My next question is I would like to know your current thoughts on avoided emissions. I think you mentioned somewhere in the beginning of this ESG presentation that you were thinking of making some changes to the evaluation items or target values for E. I understand that you were talking about the WBCSD's Guidance on Avoided Emissions and the GHG Protocol.

If so, I understand that you will use those targets to evaluate how much your upcoming products can contribute to reductions compared to older products. If so, I would like to know to what aspect of your products I should pay attention.

**Asami:** Let me give you a brief answer. Our calculations show that the amount of carbon dioxide, Scope 3 emissions, or the amount of carbon dioxide generated to generate the electricity needed to run Ebara products after shipment, is more than 1,000 times greater or three-digit orders greater than our Scope 1 and Scope 2 emissions. We have proceeded with the idea that reducing Scope 3 emissions of carbon dioxide and greenhouse gases is the best way to contribute to the total reduction of emissions.

More specifically, what we can do is to reduce consumption by upgrading the efficiency of products. The Precision Machinery Company is engaged in the treatment of exhaust gas from semiconductor manufacturing processes, which emit chlorofluorocarbons, a gas with a greenhouse effect several thousand times greater than that of carbon dioxide. We intend to contribute to the reduction of greenhouse gas emissions by providing products with added value

in performance so that customers are more likely to recognize that, buy them, and adopt the added values. That is Scope 3 for us, and we have advocated for that over time.

However, according to the February policy and new definitions, it has been clarified that this part is defined as the amount of contribution, not the actual reduction in Scope 3 emissions, but the amount of contribution that will lead to a reduction in emissions. In other words, the target of Scope 3 is not the actual reduction of emissions, rather it's the amount of contribution that will bring about a reduction in emissions. Then, after internal discussions we concluded that the Scope 3 reductions we have been talking about so far are in fact contributions, and we have decided to do what is necessary to reduce emissions in this area.

In order to do that, we must set particularly clear science-based targets and also make it clear to everyone what we consider contribution to reducing Scope 3 emissions. And then we became aware, without making a strong claim related to Scope 3, we will be unable to demonstrate or communicate the amount of contribution we make.

Therefore, once we have clarified Scope 3 for each business and product and clarified how much to reduce emissions on a science-based basis, we will also determine the amount of energy, carbon dioxide, and greenhouse gas emissions that Ebara products emit and contribute to the reduction. We are also trying to clearly show the amount of contribution that exhaust gas treatment equipment such as those handled by Precision Machinery can make to reducing the emission of greenhouse gases. I hope you understand that we are trying to take action to achieve this.

**Participant 1:** My last question is about recent deliberations of the Board of Directors. I believe that you mentioned at last year's ESG meeting you had established a new agenda for discussion for the purpose of debate in 2015 and beyond, and that discussions were being held on medium to long-term issues. I assume many of the discussions were held last year when the medium-term management plan was revisited.

In terms of the current fiscal year, I know that you have been talking about various issues in the presentation materials you shared today, but what do you think are the most critical issues discussed and debated?

**Asami:** Regarding this matter, I would like to start with the Chairman of the Board, Mr. Oeda, who decides the topics for decision, including the meeting agendas and what should be discussed among the Board, in his capacity as the Chairman.

**Oeda:** Regarding deliberation and what we are doing at the Board of Directors meetings, as you mentioned, last year 2022 was the preparation of E-Plan 2025, so we discussed the essentials of E-Plan 2025 as a matter for deliberation almost every month.

It is now 2023 and this year we have been conducting regular deliberations on sustainability. Specifically, one discussion we had covered ESG's "S," specifically diversity. We also held two discussions at the Independent Directors' Meeting prior to the Board meeting. We also discussed carbon neutrality efforts for ESG's "E." We will continue to do this on a regular basis in our deliberative agenda for sustainability-related issues, and we will continue to work on this.

**Asami:** I would like to add something. As you mentioned, we launched E-Plan 2025 in February of this year and changed to a target market-based organizational structure, which means that we have steered the company in the direction of value creation and corporatization from the customer's perspective. We made our direction clear.

At the Board of Directors' meetings, we have been reporting on the progress the organization has made, the situation after eight months, and if any real effects have been felt yet. Or for example, if the Energy Company has specifically had any benefits from incorporating custom pumps and compressor/turbines together, and others. Each in-house company has been reporting to the Board of Directors, and we have been discussing the progress.

**Participant 2:** I have two questions.

The first is, I guess a combination of E and G. I would like to know about your efforts regarding the TNFD, the final report and framework of which was issued in September of this year. In particular, I would like to know what you think of the five materialities and what your view on how natural capital, in addition to climate change, will impact your business and if this is included in the sustainability agenda currently or will be included in 2024.

**Asami:** The relationship between Ebara and nature, or biodiversity, will depend on the specific products we provide and the markets we serve, and what kind of social and environmental value we can add there.

Our business does not directly face nature in that sense. With global warming comes disasters and floods, with overheating comes droughts, lack of water and wildfires, and so on. Indirectly, we can contribute to reducing the impact of those things by reducing carbon dioxide emissions through changes to our products or by focusing on the maintenance of drainage pump stations

to prevent flooding. I believe that we will contribute to the natural environment and biodiversity through utilizing our strengths.

**Participant 2:** I would like to ask about the S and G approach to this as well. In the human capital section, Mr. Asami touched on KPIs for non-Japanese employees. I would like to know if there are any items to be considered for strengthening the S of the Board of Directors' Governance to Value, including the recruitment of Independent Directors, especially those with overseas experience or Directors who were born outside of Japan.

**Asami:** Thank you. I understood that you were asking how Ebara evaluates working with non-Japanese or overseas nationals as members of the Board of Directors.

Speaking of the executive members lineup, two years ago, we had an American Executive Director of the compressor and turbine business. Currently as Mr. Miyaki joined us as the Executive Director and Energy Company President, we have no non-Japanese executives or Directors. As for what we should do in future, as Mr. Oeda mentioned earlier, the Board of Directors has been discussing diversity in numerous ways, including regarding executives.

Mr. Oeda is a member of the Nomination Committee. I would like to welcome him to share his thoughts.

**Oeda:** In our company, the Nomination Committee handles all the succession planning for Directors. I sit on this committee while also acting as Chair of the Board of Directors, so I would like to share my thoughts regarding this matter.

The term of our Directors is one year, so each year we have reappointments or new appointments. We strongly consider diversity when it comes to Director succession. We are in the process of creating a long list and searching for new Director candidates in several ways, and we recognize the need for non-Japanese and overseas candidates in addition to women and will continue to select new Directors from this perspective.

Unfortunately, we have not yet achieved a non-Japanese Director, but we believe it is necessary, and we will continue to approach the issue with that in mind.

**Participant 3:** I think it was the first half, but I would like to ask about internal resources and the Strategic Table of Technological Capabilities. You discussed how there was a reorganization of the technologies in line with the newly established five in-house company system and introducing the shared technologies within the company.

What I would like to know is what effect the reorganization has had both internally and externally, as well as the significance and effect of the reorganization. You also mentioned that you will fill in technology and human resources that will likely to be in short supply. Specifically, what areas of technology and human resources do you see as likely to be in short supply, and where do you intend to start replenishing them?

**Asami:** For this question I would like to turn to Mr. Miyoshi, CTO, for the answer.

**Miyoshi:** If you look at the Strategic Table of Technological Capabilities in your first question, for example, please find "Am," in blue font, located in the fourth from the left and the fourth from the top. You can find the same symbol in the bottom row. This is Additive Manufacturing and is in the Energy Company and in the common basic technologies.

We have many technologies that are the same but in different companies. Although indicated by the same symbols, there are some technologies that are actually slightly different. By separating out these categories, it becomes clear that for such-and-such technology, it would be better to ask the Energy Company or the corporate department, or wherever it is located.

People are transferred and may be rotated, so we are in the process of constructing a system that links the organization and people well, so that when people want to know about such-and-such technology, they can reliably access in-house resources to find the correct person to talk to.

As for your second question, in terms of people or what skills tend to be in short supply, considering our start as a pump business, we have a robust number of personnel specialized in mechanical technologies. On the other hand, the ratio of personnel with expertise in chemical products is relatively low, and I think we need to strengthen this area in the future. We are looking for experienced talent hires, new graduate hires, as well as collaborations with other companies that specialize in chemistry.

**Participant 4:** I would like to know more about the technologies, R&D, and intellectual property organizational structure you are presenting here. Would you expand upon the relationship between the CTO office and the Research and Development Strategy Formulation Committee. Could you talk about roles and members?

It is generally said that effectiveness depends on the characteristics of members. In other words, who the members are and how many are there, because I have some concerns about the

reporting line, I mean, in relation to the number of processes and time consumed in decision making. I was wondering what your thoughts are.

You explained that the R&D Strategy Formulation Committee will filter themes through some requirements and the “EBARA Way,” and raise that up to the Management Meeting, however I think that in the general intellectual property aspect, what technologies and trends need to be plotted out, like in an IP landscape or organized internally, is also being done by in this organizational structure. If you do not mind, could you please tell me what kind of axes and ideas you are organizing around, or if you have any more specific, individualized ideas on these axes?

**Asami:** I would like to turn to Mr. Miyoshi, CTO, for the answer.

**Miyoshi:** As you say, we must make sure that the role of CTO does not overlap with the role of R&D Strategy Formulation Committee, and we must ensure we simply do not increase the number of steps to be taken. At present, the R&D Strategy Formulation Committee is made up of people from the Technologies, R&D, and Intellectual Property Division, which is under my supervision, along with people from the Marketing Division. This is something we started this year, so we are exploring what steps we should take in this approach, how long it will take, and whether we will be able to produce something effective.

As I mentioned earlier in my report, this is something we will repeat next year and every year. This fiscal year was the first year we were acting based on the establishment of this system. Therefore, we will be changing our members slightly next term to take diversity into consideration.

As for the overlap with the CTO office, there are about two people who belong to both parties, but basically, the CTO Office reviews what is proposed by the R&D Strategy Formulation Committee and gives feedback on it. We do this once a year. The R&D Strategy Formulation Committee extracts themes with this in mind and after approval by the CTO Office these themes are raised to the Management Meeting.

The Research and Development Committee is made up of about 10 members that are high-level technical division executives from the CTO Office. The CTO Office totals a little more than 40 people. Research themes and plans approved by the R&D Committee, go up to the Management Meeting.

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