



Dialogue

Understanding Global Trends in Climate Change and the Risks and Opportunities for NEC

To help achieve the global goal of a carbon-free society, NEC aims for carbon neutrality, not only for itself as a company and its supply chain, but also for its customers and society.

External experts shared the latest global trends in climate change, then discussed how to reduce risks and maximize opportunities as the Company works toward carbon neutrality.

In addition to the members of the Sustainability Advisory Committee, Tomoo Machiba, a Partner at ERM Japan Ltd., joined the discussion as an external expert.

Note: This dialogue was held online.

Tomoo Machiba

Partner, ERM Japan Ltd. (in charge of Low-Carbon and Economic Transition)

Headquartered in London, ERM is one of the largest consulting firms in the world specializing in the environment and sustainability. Machiba has been a partner at ERM in charge of Low-Carbon and Economic Transition since 2021. After working as a newspaper reporter and obtaining a master's degree in international development at the University of Sussex, he worked at the Sustainability, which is now a part of ERM, in the U.K. and at the Global Reporting Initiative (GRI). He now advises companies on decarbonization pathways and ESG matters. He has been involved in initiatives to develop government policy for creating a sustainable society through innovation with the Organisation for Economic Co-operation and Development (OECD), the International Renewable Energy Agency (IRENA), and the United Arab Emirates (UAE) federal government. Lately, he served as Deputy Director of the UN Climate Technology Centre & Network (CTCN), which coordinates projects for transferring the technologies needed to address climate change to developing countries.

Trends Related to Climate Change in Specialized Fields

Pedersen (Chair) Last year, we conducted a survey of organizational structure by industry and found that IT services and software services have made the greatest leap forward compared to five years ago, with employees recognizing that IT contributes to social value and making considerable efforts in open innovation.

Considering the environmental constraints, it is impossible to achieve growth in markets and services in the same way as before. In the global market of the future, there is a 100% probability that large new markets, businesses, technologies, products, and services will emerge that will lead to a reduction in the environmental burden. **Society and markets will be characterized by a major division between areas of population growth and areas of population decline.** If climate change is not resolved, the global middle class, the middle income earners, will be facing severe food security and natural disaster related issues, and they may well be pushed back towards poverty. This is the situation in which NEC finds itself, and it will be important to shift management in light of these changes.

Arai ESG investment has entered its third phase, which is having a major impact on companies and is speeding up the integration of information disclosure standards. Now, ESG investment is expanding rapidly, from stocks to other



Peter David Pedersen
Co-Founder, Next Leaders' Initiative for Sustainability (NELIS)

financial assets. We are also seeing the ongoing integration of what was once an excessive number of standards, and the establishment of the ISSB* by the IFRS Foundation will integrate financial and non-financial disclosure as well. In addition, the Corporate Governance Code has been revised to include specific issues related to climate change and human rights. Investment funds are also moving toward net zero greenhouse gas emissions. **For companies to raise funds in the future, they will need to take measures based on these developments in the financial world.**



Asako Nagai
Managing Director BSR
(Business for Social Responsibility)

Nagai There is also a global discussion regarding human rights under themes such as “climate justice” and “social justice.” Our perspective on human rights expands with each passing year. Climate change, at its core, is a human rights issue, as it is the most vulnerable that will bear the brunt of the impact. The declaration by the United Nations and outcomes of decisions made by overseas courts reflect the idea that future generations of young people should not be deprived of the right to health and an environment free of climate change. Companies and ESG have a close-knit relationship, and we should take an integrated approach to them.

Machiba If companies are to get on the road toward “net zero,” they need to make sure that their efforts to reduce greenhouse gas emissions cover their entire value chain. The first thing to do is to set goals that do not simply fall in step with those of the government. The pathway toward the goals should be drawn in line with the management and investment cycles of the company. In the future, we will be better able to visualize and quantify climate change, and this data will be integrated into new business models, such as electrification and provision of local heating over time. **However, more than just reducing CO₂ emissions, we need to activate the various gears of innovation, working in tandem, in order to create changes in behavior.** An eco-friendly lifestyle is not necessarily an austere one. Rather, it should be able to improve the quality of life of consumers. To realize such lifestyle, companies should design their services in the ways consumers welcome them.

Risks and Opportunities in Light of NEC's Current Issues

Shimizu Although NEC has a detailed action plan extending to 2025, the challenge is figuring out how to make a path beyond that time frame. This means that NEC needs to clarify its road map, laying out the areas where it intends to contribute while also moving forward with investments. **If the Company wants to aspire toward decarbonization for its customers and society as stated in the NEC 2030VISION, it is all the more important to “greenify” its existing businesses even further.** What perspectives should we take in light of its current issues?

Nagai To reduce risk, NEC needs to proactively set out to achieve its net zero target. The Company should also consider making the target year earlier. Since achieving these goals will require a corresponding investment, NEC also needs to verify whether these investments can be carried out reliably.

Creating and expanding opportunities requires initiatives aimed at raising awareness. These initiatives include getting the commitment of senior management and raising public awareness. The important point in this regard is understanding how to maximize the impact of products and services, and how to seize opportunities. There are many subtle signs of change that are difficult to pick up on from a company's perspective. This means that companies need to put out feelers far and wide, then determine if a change in the external environment will affect business, and if so, to what extent, and decide how to respond to such change now and in the future.

Machiba The current challenge seems that investment cannot keep up with the rapid pace of technological development. **To address this gap, NEC can attract more investment by plan for neutral carbon business.** When

companies spread their focus too evenly across multiple businesses, they run the risk of getting stuck in a quagmire. If focus matches need, as in the cases of the city OS and other information platforms provided by NEC, opportunity expands rapidly. NEC looks to focusing on its resource aggregation services, but its next step should be to incorporate these services into its main business. Seizing sustainability opportunities will help boost profits.



Tomoo Machiba
Partner, ERM Japan Ltd.

Pedersen The biggest threats to companies are a drop in information sensitivity and a lack of skills, so management should look out to the world and see what is on the cutting edge.

Some examples of opportunities are climate smart cities, and climate smart agriculture, which is essentially farming using ICT but which includes urbanized agriculture. Moreover, resource matching in the circular economy using ICT is an area where NEC can show its initiative. Additionally, **vigorous efforts should be made to promote a green transition to investors.**

Arai To reduce risk, companies should strive for internal knowledge sharing, which will increase understanding for both management and employees. There are also documents that summarize promising technologies and business areas in an easy-to-understand manner. These documents are aimed at addressing the need for achieving carbon neutrality worldwide. It is only when this kind of knowledge is shared that a company, from management to employees, can put forth a serious effort.

Fujikawa We can expand our business by following global rules. For that, we are currently looking into what steps to take going forward. Since business sectors like ICT and agriculture follow different timelines, we want to set a standard for continuing investments.

NEC has many opportunities because of its variety of technologies. In addition, we should also take advantage of the knowledge and efforts of KMD A/S,* which is highly regarded in Europe, and apply them in a variety of ways. I would like to reframe them from the perspective of climate change.

Shimizu Everyone, from management to employees, recognizes the importance of the environment, but we are still developing an understanding of what the negative impact will be if serious action is not taken. **We should take an integrated approach to ESG that goes beyond vertical efforts,** and I would like us to have a central focal point to help direct our efforts as a Group.

Another issue is figuring out how much we can contribute toward that goal when we put carbon neutrality on our business road map. It is not something we can achieve overnight, but I would like to create opportunities to realize it.

Pedersen We more or less know what the future has in store for us. Frankly speaking, NEC needs to face this future with more ambitious efforts. In the future, there can be no innovation devoid of green and sustainable aspects. I expect a serious shift in gears in light of the future that we know is on its way.

Once we have an outlook on what is coming, it is important that we not see constraints first—rich innovation is not born without rich imagination.

Fujikawa After listening to experts, we reconfirmed that we should assess the risks and opportunities from the financial side as well, and recognize the impact on the business, regarding the initiatives of the climate change related to the mid-term management plan. I would like to accelerate efforts through-out NEC and create more value.

*1 International Sustainability Standards Board, newly established under the International Financial Reporting Standards Foundation (IFRS Foundation)

*2 KMD Holding ApS, member of the NEC Group and Denmark's largest IT company



Masaru Arai
Chair, Japan Sustainable Investment Forum (JSIF)



Shigeki Shimizu
Senior Vice President and CSO
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Osamu Fujikawa
Executive Vice President, CFO and Member of the Board (Representative Director)
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