

Dialogue Sessions on Materiality with Experts

Incorporating the Voices of Stakeholders into Materiality

Aiming to define materiality, NEC has held dialogue sessions based on the following themes with experts from fields such as sustainable management, civil society, and medium- to long-term investment as part of our initiative for promoting stakeholder communication—one of the basic principles of sustainable management at NEC. Members of NEC’s corporate staff and relevant business departments participated in these dialogue sessions.

These dialogue sessions enabled us to obtain wide-ranging insights from external experts on how non-financial (ESG) activities can be linked with business and management, as well as on how NEC’s business activities impact society. To ensure participants received a general overview of materiality, we invited Mr. Peter David Pedersen, co-founder of Next Leaders’ Initiative for Sustainability (NELIS), to attend each of the sessions.

| Theme of Dialogue Session | Experts | |
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| Materiality | <p>Masaru Arai, Chair, Japan Sustainable Investment Forum (JSIF)</p>  | <p>Kaori Kuroda, Executive Director, CSO Network Japan</p>  <p>Peter David Pedersen, Co-Founder, Next Leaders’ Initiative for Sustainability (NELIS)</p>  |
| Sustainably and socially literate human resources | <p>Mika Kumahira, CEO, A-TEC Co., Ltd.</p>  | <p>Peter David Pedersen, Co-Founder, Next Leaders’ Initiative for Sustainability (NELIS)</p> |
| Privacy policies and measures aligned with societal expectations | <p>Yukiko Furuya, President, Consumer Conference for Sustainability</p>  | <p>Peter David Pedersen, Co-Founder, Next Leaders’ Initiative for Sustainability (NELIS)</p> <p>Harumichi Yuasa, Professor, Institute of Information Security</p>  |
| Environmental action with a particular focus on climate change | <p>Yoshinao Kozuma, Professor, Faculty of Economics, Sophia University</p>  | <p>Peter David Pedersen, Co-Founder, Next Leaders’ Initiative for Sustainability (NELIS)</p> |

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Materiality

As part of NEC's ongoing efforts since last fiscal year to reexamine materiality, a dialogue session was held in May 2018 to provide an opportunity to receive insights from experts in the fields of sustainable management, civil society, and medium- to long-term investment.



Participants from NEC included our Chief Strategy Officer (CSO), Chief Human Resources Officer (CHRO) in charge of management planning, Chief Marketing Officer (CMO), department managers in charge of management planning, marketing, communications and the environment, as well as executives and directors responsible for social and public solutions.

The experts who attended provided comments on materiality and non-financial indicators for measuring its progress from the perspectives of their respective fields of speciality.

Selecting Themes That Will Generate Value

Pedersen

Materiality is originally an approach used for determining where to focus and allocate management resources. When utilizing this approach, you must not only consider the impact it will have on your company and society but also your corporate intentions. I therefore believe NEC should select themes that will generate value. NEC should also focus on creating names for these themes that express its strong determination to be a social value innovator.



Kunikazu Amemiya,
Vice President,
Public Solutions
Business Unit, NEC

Amemiya

I strongly agree with the idea that our intentions are important. I believe this will enable us to overcome the hurdles to business expansion.

Kuroda

Of the themes identified as being fundamental to Social Value Creation,

I believe "privacy protection" and dealing with "climate change" will inherently lead to the creation of social value.



Makoto Enomoto,
Senior Vice President
and CMO, NEC

Enomoto

I think you're absolutely right about these fundamental themes leading to business opportunities. Having said that, however, lofty goals like reducing the crime rate to zero cannot be achieved by NEC alone. Looking at this from a marketing perspective,

I feel the challenge will be for us to determine how to raise funds and cultivate partnerships to resolve such social challenges.

I have high expectations for the spread of social impact bonds, which represent a social investment model based on a public-private sector partnership.

Arai

While I think social impact bonds will become increasingly prevalent going forward, the current reality is that they cost more than regular bonds. I would recommend focusing more on clearly stating that your SDGs, ESG and other sustainability efforts are intertwined with your company's governance and strategies.

The theme of climate change is attracting attention from not only investors but also various national governments. Even if you are not developing this into a business for the sake of the environment, addressing climate change can bring major business advantages to ICT companies. It is essential to demonstrate a clear sense of corporate mission in this regard, expressing your determination to tackle this domain as a priority area.

Setting Indicators That Can Be Used to Measure Changes in Initiatives

Arai

Even in the case of indicators for non-financial matters, it is best to set numerical indicators whenever possible. Since investors observe the changes in a company year by year, I would also like to see indicators that show the amount of change rather than absolute quantities.

Pedersen

I think economic indicators could also be used as indicators to show the progress of your initiatives in growth areas within the Mid-term Management Plan. For the processes of "co-creation/dialogue" and "innovation management," which will serve as engines for transformation, I believe that making really thorough efforts in capacity-building and network creation could also serve as targets. For themes NEC will engage in over the long term as part of the foundation of its management, NEC could adopt process-based targets indicating what should be done by what point in time.

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Adopting SDGs as Targets for Initiatives Engaged in by Management as a Whole

Kuroda

SDGs are not merely targets for value creation—they can also serve as targets for management base initiatives. If you confine yourself exclusively to value-creation aspects and then just plaster the SDGs targets on top of this, it can result in a sense of incongruity. Transformative change and innovation are crucial for the attainment of SDGs. Rather than simply looking at 17 individual goals, I think it would be best to explain NEC's approach by utilizing the concepts of the SDGs.

Arai

SDGs are garnering attention from investors and governments as a common language for measuring ESG initiatives undertaken by companies. Some companies have narrowed down the scope of the goals on which they would like to focus. However, narrowing down the scope of SDGs to be addressed brings with it the risk that the company will also narrow the potential scope of its initiatives and business opportunities. This is why I think it's better not to focus too much on specific SDGs. If NEC wants to narrow its focus in this way, I would like to see it do so after having discussed all the objectives and targets explicitly.



Noritaka Taguma,
Senior Vice
President, NEC

Taguma

The targets of the SDGs are all closely related. NEC's Public Safety business is capable of contributing to "Sustainable cities and communities," Goal 11 of the SDGs, by reducing crime rates through the use of biometric technology—one of NEC's greatest strengths. On the other hand, if we turn our attention to Goal 1, "No poverty," eliminating crime alone will not eradicate poverty despite the fact that poverty could be described as a breeding ground for crime. If poverty originates from disparities in education levels, unique identification in these regions through the use of biometric technology will allow us to contribute to Goal 4, "Quality education," which will in turn allow us to contribute to Goal 1 as well. Social issues vary depending on the country, region and culture, and there will be case studies that have proved successful in Japan but are not accepted in other regions. I hope to

develop businesses that are tailored to different regions and cultures.

Listening to Comments from Participating Experts

When we set out to define materiality, I was determined to incorporate the philosophy of how we connect the non-financial (ESG) activities that we have cultivated since NEC's establishment in 1899 with our business and management.



Hajime Matsukura,
Executive Vice
President and Member
of the Board,
CSO (Chief Strategy
Officer) and CHRO
(Chief Human
Resources Officer)

For new definition of materiality, we decided to add themes such as the growth areas included in our Mid-term Management Plan 2020. These themes not only have the potential to positively impact our management and business but also provide social value.

To fully incorporate ESG perspectives into our management, the next step will be to set non-financial indicators and manage their progress. At the moment, however, this is still in the discussion stage. At today's dialogue session, the experts told us that economic indicators and process-based indicators can also serve as non-financial indicators. We would like to use this as a reference point when implementing the PDCA cycle for initiatives related to non-financial domains under future mid-term management plans.

I was also very inspired by the experts who said NEC needs to make more of an effort to address the SDGs. ICT has the potential to contribute to all kinds of SDGs-related goals and targets if we focus on engaging in co-creation with our stakeholders.

Even before the UN's adoption of the SDGs, NEC publicly proclaimed its intention to create social value based on seven themes in response to megatrends in society, and has been working to resolve social issues ever since. We take pride in this, and hope to contribute to the SDGs as well.

Sustainably and Socially Literate Human Resources

In April 2018, NEC invited a range of external experts who hold various perspectives on human resources development and sustainable management to take part in a dialogue session based on the theme of “Sustainably and socially literate human resources.” Members of NEC who work in the Human Resources Department which promotes the development of human resources, and members who have been studying in human resources development programs aimed at developing a higher level of social consciousness and who work in the Business Department promoting actual business attended the talks. We received the following comments from all the participating experts.

Developing Human Resources That Can Take Action Based on Their Own Ideas

Kumahira

I think that the leadership development program is a good response to the vision of NEC’s “People Philosophy.” However, I did feel that the program was perhaps a little lacking with regard to the idea of independent learning. I would really like to see NEC cultivating human resources who are capable of taking responsibility for what they have done, and reflecting independently on the learning cycle (personal reflection, in other words).



Hideaki Sato,
Department
General Manager,
Human Resources
Development
Division, NEC

Sato

The “People Philosophy” is about “thinking for yourself.” I believe that the process of taking on risks by taking action based on thinking for yourself is an opportunity for learning. However, I felt that the idea of making efforts to learn independently was perhaps not yet sufficiently developed.

Don’t Fear Failure

Pedersen

Is there a culture where people can take up new challenges without fearing failure? Innovation does not come about through coercion. It is essential to boost the

personal transformation power of each individual employee.

Amie

I think that very often, when we are getting ready to take on some new challenge, we are told to eliminate all possible risks at the outset. At NEC, a company which has supplied mission-critical solutions that support social infrastructure, I feel at times that there is a culture which does not tolerate any failure. However, I think that the corporate culture has started to change in recent times, with those in top management beginning to talk more about the dreams and milestones that they hope to achieve.



Takahiko Amie,
Senior Vice
President, NEC

Kumahira

Failure comes in many different forms. They play an important role in the early stages of a project. It’s important to work towards becoming “a learning organization” by creating the sort of corporate culture where people can learn from failures and share them with one another. The biggest issue is that we forget to reflect on failures made in the past. I hope to see NEC reflecting and learning like this.

Diversity is Not a Goal in Itself

Pedersen

Promoting diversity in a way that develops naturally takes time. For example, we need to tackle this in a conscious way, such as through the inclusion of women as board members.

Iketani

In my group at NEC Central Laboratory, consciously trying to push diversity is something we have never once considered. Rather, we take the approach that the human resources we require may sometimes happen to be a woman or someone with a foreign nationality. Diversity is not a goal in itself; it is merely a means to an end.



Akihiko Iketani,
Senior Manager,
Value Co-Creation
Center,
NEC Central Research
Laboratories

Kumahira

Right now, we are living in a world where everyone can reach their full potential by constantly learning about who they are and respecting each other. We need to be aware of and mutually respect the fact that each individual is different. That is what “diversity” really means.

“Training” Does Not End with the Training Process Itself

Konishi

Based on the hypothesis that unless the top management of a company changes its mindset, the company as a whole will not change either, our program aiming at developing human resources with a higher level of social consciousness is being started from the executives and top managers downwards.



Katsumi Konishi,
Senior Expert,
Human Resources
Development
Division, NEC

Iketani

When young people return from training programs with a new mindset, they often struggle with the gap between what they have learned in the programs and their daily work. It is essential for leaders like us to create an environment where people can develop higher level of social consciousness in real-life workplaces.

Pedersen

It is vital to build workplaces that are ready to take on the employees who come back from these training sessions. The continued support of those who undergo such training will also be essential. Learning and innovation are connected, so it is essential to look at how people’s perceptions change over time. As changing attitudes among the top management become evident, this will generate increased motivation at the shop-floor level too.

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Privacy Policies and Measures Aligned with Societal Expectations

In April 2018, NEC invited a range of experts who view management from the perspectives of academia, civic society and sustainable management to take part in a dialogue session based on the theme of “Privacy-related challenges for business.”

Members of NEC who are in charge of proposing overall strategies relating to data distribution, R&D, service development and sales attended the talks, and exchanged opinions with all the experts as set out below, centering on the importance of clearly specifying policies relating to privacy.

Transforming “Human Rights by Design” into a Competitive Strength

Yuasa

We see the three following trends in relation to the distribution and handling of personal data. These are: (1) Moves towards the development of cross-border distribution regulations, as seen in the case of the General Data Protection Regulation (GDPR); (2) Moves towards localizing data, as seen in China’s Cybersecurity Law; (3) Increasingly close links between personal data and national security. Amid such trends, companies must be aware that there will be instances of handling of data that will not be considered acceptable by consumers, even though such handling may be lawful; this means that clearly specifying what initiatives you are adopting in management and what stance you are taking is of great importance.

Furuya

It is essential to thoroughly investigate what companies should do by taking the unease that consumers are feeling as a starting point. Companies need to incorporate processes into their management guidelines which clarify that the company in question will disclose information to consumers and ensure accountability.

Wakameda

At the Data Distribution Strategy Office which was set up in April 2017, we are now proposing and pushing forward strategies relating to data distribution, based on all-encompassing perspectives which include legal system

aspects, ethics and acceptability among ordinary people. We are hoping that the “Human Rights by Design” concept, in which the approach of respecting human rights (privacy, fairness and so on) is incorporated into various processes along the value chain, can also be used as a slogan by NEC, where this idea can be developed as a competitive strength for the company.

Human Rights Issues Are the Flipside That Technology Brings

Tani

We are conscious of the importance of taking privacy and ethics into account from the R&D stage, and are working on research concerning social acceptability through open innovation processes with universities and external research institutes.

However, while the honing of specific technologies is of course important, the central laboratory as a whole should discuss the impact that technologies could have on privacy and consider possible countermeasures.

Yuasa

The flipside of technology is that it raises human rights issues and advanced ethical issues. It is likely that awareness of this has not yet fully penetrated to reach everyone involved right to the ends of the supply chain.

Hashitani

We have long promoted activities which think about Quality, Cost, Delivery (QCD); however, one more factor in ensuring quality is the concept that we are also required to protect privacy in the services we provide. It is likely that we will experience incidents when privacy issues develop as a result of the way the products and services we handle are made use of. I’ve become aware that we need to ensure that issues that could potentially develop are shared across the value chain as a whole, and that we need to create



Mitsuo Wakameda,
Office Director, Data
Distribution Strategy
Office, NEC



Mikiya Tani,
General Manager,
Security Research
Laboratories



Naoki Hashitani,
Senior Vice
President, NEC

guiding principles that consolidate what we need to do in order to respond to such issues, and develop a consensus with our stakeholders about such guiding principles.

Becoming a Company That Users Choose Because of the Policies It Has Set Out

Onoda

My impression is that the questions of how to ensure quality—which includes privacy aspects—and how to transform data into a source of value, have recently started to become issues of major importance in the settings where business negotiations are held. At times, I have sensed that the data services provided by overseas vendors are winning more acceptance among consumers than those provided by Japanese vendors.



Yuji Onoda,
General Manager,
Future City
Development
Division, NEC

Furuya

Companies from overseas are inviting consumers to choose them by clarifying their guidelines and making commitments on these issues. I believe that if Japanese companies, likewise, can disclose their own guidelines thoroughly and set out concrete examples of how these work, they will not only help consumers develop a deeper level of understanding, but ultimately ensure that they are the kind of companies that consumers will want to select.

Pedersen

The “Human Rights by Design” approach is a robust concept, and one that should be debated at the top level of management. The era which we are now approaching is the era of QDCE—“Quality, Cost, Delivery, plus Ethics, or Ecology.” If we prioritize the earning of profits too much, do we risk putting the ethical perspective on the back-burner? Are we putting human aspects ahead of technology? I would like to see companies transforming “Ethics” and “Ecology” into value as they think about these questions.

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Environmental Action with a Particular Focus on Climate Change

In March 2018, NEC invited a range of external experts who hold various perspectives on the environment and sustainable management to take part in a dialogue session on “Environmental action with a particular focus on climate change.”

Members of NEC who are in charge of promoting environmental management and developing businesses originating in the environment attended the talks. We heard the following comments from the participating experts.

The Kind of Environmental Management That NEC Needs to Aim Towards

Kozuma

NEC’s Environmental Management Action Plan is extremely well put together. However, I wonder if it is perhaps a little lacking in executives’ perspectives. Right now, looking at environmental issues at the global level, managers constitute the core group carrying out business, and they are involved with company growth not business ethics. Companies need to evaluate the risks carefully and consider growth strategies that are linked up with management.

Pedersen

I also feel that NEC’s Environmental Management Action Plan is nicely put together. I hope to see NEC carrying out environmental management in a strategic manner, in terms of how to translate environmental issues into sales and into brand value, and what kinds of human resources need to be cultivated in order to make this happen.

Key Performance Indicators (KPIs) That Have Been Set with the Aim of Improving Initiatives

Kozuma

NEC has stated that it intends to reduce its CO₂ emissions to “effectively zero” by 2050, but I noticed that the scope of this target only covers Scope 1 and 2. What NEC needs to do first of all, I think, is to reduce CO₂ emissions in Category 11 of Scope 3 (“Use of sold products”), which is a major issue for NEC. However, I think the reality is that however much progress is made with energy-saving in products, ever-higher-level functions and services are being demanded, with the ultimate result that energy consumption (and CO₂ emissions) does not go down. In the face of such a situation, I would like to see NEC discussing environmental issues from broader perspectives in the future, such as generating innovations based on the starting assumption that there are limits to how much electric power can be used.

Pedersen

I think that NEC must tackle Scope 1 and 2. However, I feel that just identifying an all-encompassing list of challenges relating to the environment is not enough. When setting KPIs, NEC needs to carefully identify and consider the things that are values from society’s perspective and the things that are competitive strengths for NEC.

Kozuma

Looking to the future, it would be best for NEC to adopt KPIs that inspire a sense of purposefulness, in terms of showing that the environment is a theme that can make money for NEC.

So, regarding Eco Symbol Star Products, rather than looking at the “number of such products” that are registered, I think it would be more effective to adopt the “sales-boosting effect” of these as a KPI, and measure how much the symbol has contributed to sales.

Initiatives That Translate into Creating New Businesses

Kozuma

The things that we consider to be social values right now will constitute economic values five years from now. This means that when NEC is setting out its management plans, it needs to think about these social values. However, during actual business negotiations themselves, customers tend to be more concerned about streamlining working processes and expanding sales than they are about social values. It is difficult for social values alone to translate into sales in the short run.

Concluding the Dialog with the Experts

Horinouchi

I have become aware of the need to bring about a change in mindset—ensuring that the mindset that says “Environmental issues are economic issues” becomes embedded as a way of thinking right throughout the entire company.

Furthermore, the experts today have pointed out that when carrying out environmental management, it is crucial to maintain a balance, taking both long- and short-term perspectives into account. In particular, I have got the impression that, when looking from short-term perspectives, it is essential to analyze challenges in current management.



Tsuyoshi Horinouchi, then-Deputy Department Manager, Environment and Total Quality Management Division/Department Manager, Environmental Management Promotion Department, NEC