

NEC Innovation Day 2022 Q&A

Date/Time: November 30, 2022 14:00-15:00 JST
Location: NEC Tamagawa Office
Presenters: Motoo Nishihara, Executive Vice President, CTO
(Chief Technology Officer) and Member of the Board
Akio Yamada, Senior Vice President
Masamitsu Kitase, Senior Vice President
Teruyuki Nakajima, Corporate Executive

Questioner A

Q: Could you please give us a breakdown of the ¥80.0 billion in business value expected from new business development in the current fiscal year? Also, what kind of fields will be increased to achieve the target of ¥300.0 billion in business value set for FY2025?

A: Healthcare and Life Science and dotData account for a large proportion of the ¥80.0 billion in business value expected for the current fiscal year. To achieve the target of ¥300.0 billion in business value set for FY2025, in Healthcare and Life Science, for example, the drug discovery business is expected to increase business value as the clinical trial phase progresses. In addition, dotData and data-driven DX related businesses are also expected to grow steadily. The target figures include the amount by which invested businesses will increase business value in return for equity.

Q: Could you please tell us the outlook for "Gateless biometrics," which was announced today in a press release?

A: Gateless biometrics can authenticate many people at once in crowded areas without installing a gate, which makes it an effective system for places such as amusement parks. As the system can be introduced with only a single, ordinary camera, it can be set up in places such as the turnstiles of large corporations, factories, and stations, where previously it had been difficult to introduce due to the authentication speed. In mission-critical areas, such as making payments, it has taken a long time for the system to be put into practical use, but the combination of iris and facial recognition is expected to increase the accuracy of authentication and expand its applications.

Questioner B

Q: According to P17 of the briefing materials, research speed and the number of practical applications have increased from the previous year by 20% and 18%, respectively. What are some specific steps you are taking to boost the productivity and efficiency of each researcher while expanding the number of personnel assigned to target areas?

A: Although it is difficult to show the improvements in productivity and efficiency during the research phase, there has been continuous improvement since 2020. One of the reasons for this is that the division that had previously been solely a research laboratory has now been integrated with business development, which has provided a clearer sense of direction in terms of which markets to target for technology. Additionally, by integrating the functions for business creation and combining the specialized skills for building business models, we are now able to collaborate within the same department, which is a significant development. We are not only conducting research, but have also integrated the business planning function for the creation of new businesses. By working closely together, we have improved our success rate.

Questioner C

Q: Regarding business efficiency, you explained at last year's NEC Innovation Day that you would stop projects that had no prospect of commercialization. To what extent has the cancellation of projects in the past year aided efficiency?

A: Some projects were stopped at the R&D stage, while others were stopped in the process of developing new businesses. In the R&D stage, we are able to proceed more efficiently by having early-stage discussions with those in charge regarding the kind of business the technology will be used for and changing directions when necessary. We make such changes at a rate of about 20 to 30% each year. During the business development stage, we assess two factors: whether the project aligns with the company's overall major themes and concepts, and whether it exceeds the initial progress targets. If the project does not meet the requirements, it is stopped. Since the beginning of this fiscal year, we have decided to stop about one-third of projects.

For long-term research, the percentage is limited to around 15% of all projects, as it is more difficult to evaluate. For other research, we make decisions based on whether or not we can produce results during the mid-term management plan period. Furthermore, these past few

years, we have been looking closely at return on investment (ROI). This allows us to directly evaluate how much we are investing in research and how much sales and profit we are generating. Although it takes time for R&D to generate revenue, we are continuously managing and evaluating the numbers, making them more clearly visible in figures.

Questioner D

Q: Do all of the 100 employees listed as "NEX DX Innovators 100" on P50 of the briefing materials belong to the R&D Division?

A: We have selected 100 employees not only from the R&D Division but from throughout NEC, including from operating segments. Nearly half are from the Global Innovation Unit (GIU), as it has many consultants with sharp skills in technology such as AI, personnel with expertise in business models, and technology developers. In operating segments, we are aware that many were chosen from the team providing DX-based consulting services in the field. However, this ratio changes every year.

Questioner E

Q: AI drug discovery is an area in which business value will increase in the future. Could you please tell us your vision for the commercialization of a cancer vaccine?

A: Before a vaccine can be sold, it must first be approved, and that will take some time. However, as the clinical trial stage progresses, there are various possibilities, such as licensing the value created there, and we expect it will contribute to sales during the period of the Mid-term Management Plan 2025. However, we are proceeding cautiously, as this will be greatly affected by the outcome of the clinical trials. It is not reasonable for us to compete with pharmaceutical companies for all cancers. Nevertheless, we believe that we can take the initiative in advancing the project if, for example, it is a rare type of cancer. We are working on constructing hypotheses and modeling based on the clinical results and the type of cancer.

Questioner F

Q: Have you been able to obtain the required personnel through the Highly Skilled Professionals System described on page 50 of the briefing materials? Also, are you making progress in creating an environment in which personnel can be fully active after being hired under this system?

A: In Japan, we started the Selective Compensation Program in FY2019. Some of our new recruits have been selected for this program and are very active. Many of the world's No. 1 technologies that NEC offers have been developed mainly by those selected for this program. In some cases, they are immediately promoted to management positions, and they are provided with compensation according to their market value.

Overseas, where approximately 40% of NEC's R&D divisions are located, human resource management is completely merit-based. In North America, for example, NEC has developed a salary structure tailored to the region and has been able to attract a satisfactory level of human resources. Some have already been promoted to team leaders, and several of today's exhibits are being led by personnel who have been nurtured under this system and are producing results.