Summary Translation of Question & Answer Session at
Fujitsu Technology Update Briefing for Media, Analysts and Investors

Date: December 2, 2025
Location: Fujitsu Technology Park
Presenters: Vivek Mahajan, Corporate Executive Officer, Corporate Vice President, CTO, in charge of System Platform
Seishi Okamoto, Corporate Executive Officer, EVP, Head of Fujitsu Research

Questioner A

Q1: For the NPUs and CPUs used in the next-generation FUJITSU-MONAKA-X, what level of performance are you seeking to achieve for each of them? If you can specify your answer in quantitative terms, please let us know.

A1 (Okamoto): At the present time, we are not disclosing quantitative measures of performance.

Q2: Regarding the quantization of AI, you explained that you achieved 1-bit quantization, but I do not think that the CPUs or GPUs currently exist that can carry out such operations. Does the open-source software for the 1-bit quantization technology you announced today rely on software processing through CPUs, or is it somehow using GPUs?

A2 (Okamoto): This technology is software technology.

Questioner B

Q1: I would like to ask about the Frontria international consortium you announced today. As a way of making it into a revenue-producing opportunity, you talked about developing applications, but in what direction do you seek to advance? Will you create applications or tools and seek to sell them?

A1 (Okamoto): We will create a technology IP pool and will combine a variety of intellectual property to launch applications globally. As we listed participating corporations and organizations, we have the participation of groups across many different types of industries. In addition to having Frontia roll out and use the technology that we developed, we also want to incorporate IP from other participants through Frontia. In terms of business, by launching the consortium, we want to make the starting point initiatives with other participating corporations and organizations to address the significantly major societal and economic risks.

Q2: If you have any updates about the collaboration with Nvidia you announced in October, please tell us about them.

A2 (Mahajan): The October announcement was about a strategic collaboration between Fujitsu, NVIDIA, and Yasukawa Electric to create a physical AI platform. Since then, there have been new developments in that, in addition to Yasukawa Electric, we are promoting partnerships with other customers. In terms of technology, an extremely important point is that, within Fujitsu Kozuchi, we will be incorporating NVIDIA’s software stack. Currently, engineers from Fujitsu and NVIDIA are in close contact with each other to fully bring together this technology. The collaboration in GPUs with Nvidia in FUJITSU-MONAKA will also be enhanced as we use NVLink Fusion. In addition, the AI-RAN initiative is also coming together, and has reached the testing phase at NVIDIA's headquarters. I think Softbank will be entering the deployment phase in different regions, including Japan.

Questioner C

Q1: I would like to ask about the spatial world model. My understanding is that this is an area in which competition is very concentrated in the AI world, so will you develop the world model itself? If so, amid severe competition in data collection, please tell us, to the extent you can, about your prospects for success, and how you plan to do this.

A1 (Okamoto): To create a world model, access to the front lines of a business is necessary, but where we are putting our greatest efforts is in methods outside of directly getting data from the front lines, such as Sim-to-Real or Real-to-Sim. This is extremely important in terms of R&D and technology development. We have also conducted a lot of research into digital twin technology. We have created many environments that enable simulations on the front lines, and we think it is important to take the simulations back to the real front lines, or to take the data from the real front lines and feed it back into the next simulation environments. Our objective is to take an integrated approach and create a spatial world model that is globally competitive.

Questioner D

Q1: I would like to ask about the field of manufacturing. You talked about applying such technologies as AI-RAN, Takane, and Fujitsu Kozuchi to the field of manufacturing, but what kind of challenges do you think you face in the manufacturing field, and what technologies do you intend to use to resolve them? If you can give specific examples, it would be appreciated.

A1 (Okamoto): I think the field of manufacturing is a field in which Japan really excels. An extremely important point is to take the data used within a corporation or the data used in its work in the manufacturing field, incorporate it to the fullest extent into generative AI, and build sovereign AI. Today I gave the example of applying knowledge graph enhanced RAG technology to the field of manufacturing, and this could apply to data that, for example, is tailored to a customer's particular field of work or industry field, such as lists of product components. In that sense, by combining RAG with knowledge graphs, our objective is to create generative AI that can be fully leveraged in the work of Japan's manufacturers.

(Mahajan): In the field of manufacturing, such as manufacturing automobiles or electric appliances, competition will only increase in the future. The field of manufacturing is in the process of shifting from a process of making things to a software-dominated approach. This also applies to heavy industry. Through AI and computing technologies, amid increasing global competition with the US and China, we want to support Japan's manufacturing prowess with "Made in Japan" technology so that it continues to lead the world.

(Okamoto): We did not touch upon it in our presentation, but there is also an exhibit on solid-state batteries in today's exhibits. I think this also gets to the core essence of manufacturing, and it is another example of how new innovations are being generated by combining the power of computing with AI. More recently, in particular, the field called AI for Science is attracting a tremendous amount of attention. We think this is another field in which the combination of AI with computing will generate new breakthroughs.

Questioner E

Q1. I would like to ask you about the market size, competitive environment, and positioning of FUJITSU-MONAKA or FUJITSU-MONAKA-X. You mentioned that your aim is to create a sovereign AI platform. On the other hand, historically, when the US establishes global standards and a technology becomes commodified, even if highly competitive products were to be developed in Japan, technology from outside of Japan could permeate the market and force Japanese companies to withdraw from it. In this context, please explain if Fujitsu's technology, while being labeled as sovereign, can become an international standard that is capable of competing globally, and what our understanding should be of this.

A1 (Mahajan): As you said, most of the computing platforms to date have come from the US. In such a situation, the only advanced CPU that was made outside of the US was made by Fujitsu. It was made centered on the supercomputer Fugaku, which was an incredibly narrow field, and was not very versatile. FUJITSU-MONAKA, on the other hand, is a completely different concept. Although FUJITSU-MONAKA is an Arm-based processor like Fugaku, it has completely open-sourced software stacks. In the world of AI, one does not only need GPU power, but CPU power as well. This means that there are not many options available, so we believe that this is a significant opportunity for Fujitsu. We are considering two targets for FUJITSU-MONAKA. One is data centers, for which power consumption has become a major issue. The other is sovereign fields, such as data security and defense. Looking at the current global political environment, interest in FUJITSU-MONAKA is growing significantly, not only in Japan, but also in various countries in Europe and Asia as well. Seeing this trend, we formed a partnership with Supermicro to provide versatile servers. In addition, in August, we announced Fugaku NEXT with NVIDIA and RIKEN. Fugaku NEXT will be one target for FUJITSU-MONAKA-X, but we believe that FUJITSU-MONAKA-X will be used for other purposes as well. We believe that the demand for NPU inference will significantly increase going forward. For that, there are few options besides hyperscalers creating chips that are specialized for their own use, so we anticipate that there will be ample business opportunities for FUJITSU-MONAKA there. First, we will aim to succeed in achieving this in Japan, in areas with incredibly sensitive data, including defense, government, and healthcare.

Questioner F

Q1: I would like to ask about your countermeasures for digital fakes. I believe that you are developing an integrated platform that you aim to complete by March of 2026. Through what organizations and in what ways will you bring about the platform's societal implementation? Please tell us if this has been decided at the current stage.

A1 (Okamoto): The future pathway for the Key and Advanced Technology R&D through Cross Community Collaboration Program is not currently at a stage at which I am able to provide you with a clear answer of where it will be rolled out. We do, however, believe that it will start with the development of technologies and a suite of applications, including deepfake detection, social media fact checking, verification of document integrity evidence, and cross-modal contradiction detection. In addition, we also believe that this field will not solely consist of technology, but also incorporate a “human-in-the-loop” mechanism for endorsement by humans to devise countermeasures.

Q2: Will you have fact-checking groups conduct a trial implementation of it?

A2 (Okamoto): Various organizations, such as the Fact Check Initiative, are also involved in the Key and Advanced Technology R&D through Cross Community Collaboration Program. So, we are also carrying out such activities alongside them in the program.

Questioner G

Q1: I would like to ask you about the manufacturing contractor for the FUJITSU-MONAKA 2nm-generation and FUJITSU-MONAKA-X 1.4nm-generation semiconductors. As the processor technology will be made in Japan, I presume that you are also reviewing contracting with Rapidus, but could you please comment on the manufacturing of the semiconductors?

A1 (Mahajan): As you said, the processor technology will be made in Japan. We are forming various partnerships as we move forward with this. For FUJITSU-MONAKA, the 2nm semiconductors will tape out next year. Due to this, Rapidus would be unable to meet the deadline, so TSMC is handling the manufacturing. As for FUJITSU-MONAKA-X, we are currently coordinating with the assumption that we will ask Rapidus to handle the manufacturing. However, there is the issue of when Rapidus would be able to provide us with the 1.4nm semiconductors, so we have not yet made a final decision. We would prefer to use Japanese foundries as much as possible for the contract work. We do, however, have a target of releasing these products in 2029. In order to do this, we must start designing them now, so we will assess the situation and then come to a decision.