



**東北大学**  
TOHOKU UNIVERSITY



May 14, 2023  
Tohoku University  
Q-STAR

**High-Level Meeting: ‘Quantum Innovation for a Better Future’  
An Official Side Event of the G7 Science and Technology Ministers’ Meeting  
in Sendai**  
*Sharing a Vision for the Social Implementation of Quantum Technologies*

**Sendai, Japan** – On May 14, Tohoku University (President: Hideo Ohno) and the Japanese quantum industry consortium, Quantum Strategic Industry Alliance for Revolution (‘Q-STAR’, Chair: Taro Shimada), hosted ‘Quantum Innovation for a Better Future’, a High-Level Meeting and official side event of the G7 Science and Technology Minister’s Meeting in Sendai. The meeting was held on the three-day meeting’s final day at NanoTerasu, a 3GeV synchrotron radiation facility (\*1) on Tohoku University’s campus. The event took place with the support and cooperation of the Japanese Government’s Cabinet Office, the Ministry of Education, Culture, Sports, Science and Technology (MEXT), and the Ministry of Economy, Trade and Industry (METI).

The participants included Ms. Sanae Takaichi, Japan’s Minister of State for Science and Technology Policy, ministerial-level officials from G7 countries, and representatives of overseas industrial organizations. It was an opportunity for stakeholders from government, industry, and academia to share their initiatives and issues as well as exchange their opinions on a question that is generating interest around the world: how to accelerate the global implementation of quantum technologies.

Society’s digital transformation and waves of technological advances are generating huge volumes of highly diverse data. The world’s most advanced technologies, like those at NanoTerasu, are also providing access to previously inaccessible data. These data combined with current technologies and new, emerging technologies, such as quantum computing, are expected to accelerate the development of solutions for numerous social issues and create previously unseen levels of social value.

The meeting reconfirmed the growing need to expedite the development and practical implementation of quantum technologies through international collaboration, not only in industry but also between governments and within academia. The event closed with the shared recognition of the importance of building a quantum industrial ecosystem on a global scale, strengthening collaboration and cooperation of industrial organizations in activities aimed at the social implementation of quantum technologies, and enhancing support from national governments.

\*1 A state-of-the-art facility that uses extremely bright X-rays to visualize the functions of materials and living organisms. The X-rays are generated from electrons that are accelerated up to 3 giga electron volts (3GeV), nearly the speed of light, and then redirected by a magnetic field.

**Outline of the High-Level Meeting: ‘Quantum Innovation for a Better Future’**

Date & Time: Sunday, May 14, 2023, 11:40am - 12:40pm

Hosts: Tohoku University, Q-STAR

Co-sponsors: Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry



- Venue: NanoTerasu, 3GeV Synchrotron Radiation Facility
- Chair: Prof. Kohei Itoh, Chair of the Expert Panel on Quantum Technology Innovation, Government of Japan; President, Keio University
- Participants: G7 Delegation  
Ms. Sanae Takaichi, Minister of State for Science and Technology Policy  
Japanese government officials  
The Quantum Economic Development Consortium (QED-C/US)  
European Quantum Industry Consortium (QuIC/Europe)  
Quantum Industry Canada (QIC/Canada)  
Tohoku University  
Quantum Strategic industry Alliance for Revolution (Q-STAR/Japan)

### About Q-STAR

Q-STAR (Quantum Strategic industry Alliance for Revolution) was established in Japan on September 1, 2021. It was created by companies determined to take the initiative to use quantum technologies to create new industries and businesses. Its initial cohort of 24 members has increased rapidly to over 70, including small and large enterprises as well as startups and academic institutions. Q-STAR represents a range of sectors from materials, chemicals, electronics, and communications, to infrastructure, manufacturing, finance, construction, and more.

Q-STAR website: <https://qstar.jp/en>

### About NanoTerasu

NanoTerasu is a state-of-the-art synchrotron radiation facility with the potential to greatly enhance academic and industrial research capabilities and productivity under construction through a government-private-regional partnership (\*2). After operations begin in 2024, it is expected to serve as a powerful observational tool contributing to various fields such as quantum devices, clean energy, climate technologies, biotechnologies, and food production. It will do so by using intensely bright soft X-rays that enable the observation of essential light elements such as lithium and carbon with a high degree of sensitivity.

NanoTerasu website: <https://www.nanoterasu.jp/>

\*2 The partnership includes the National Institutes for Quantum Science and Technology (national partner), Photon Science Innovation Center (representative organization for industry), Miyagi Prefecture, Sendai City, Tohoku University, and the Tohoku Economic Federation (regional partners).