

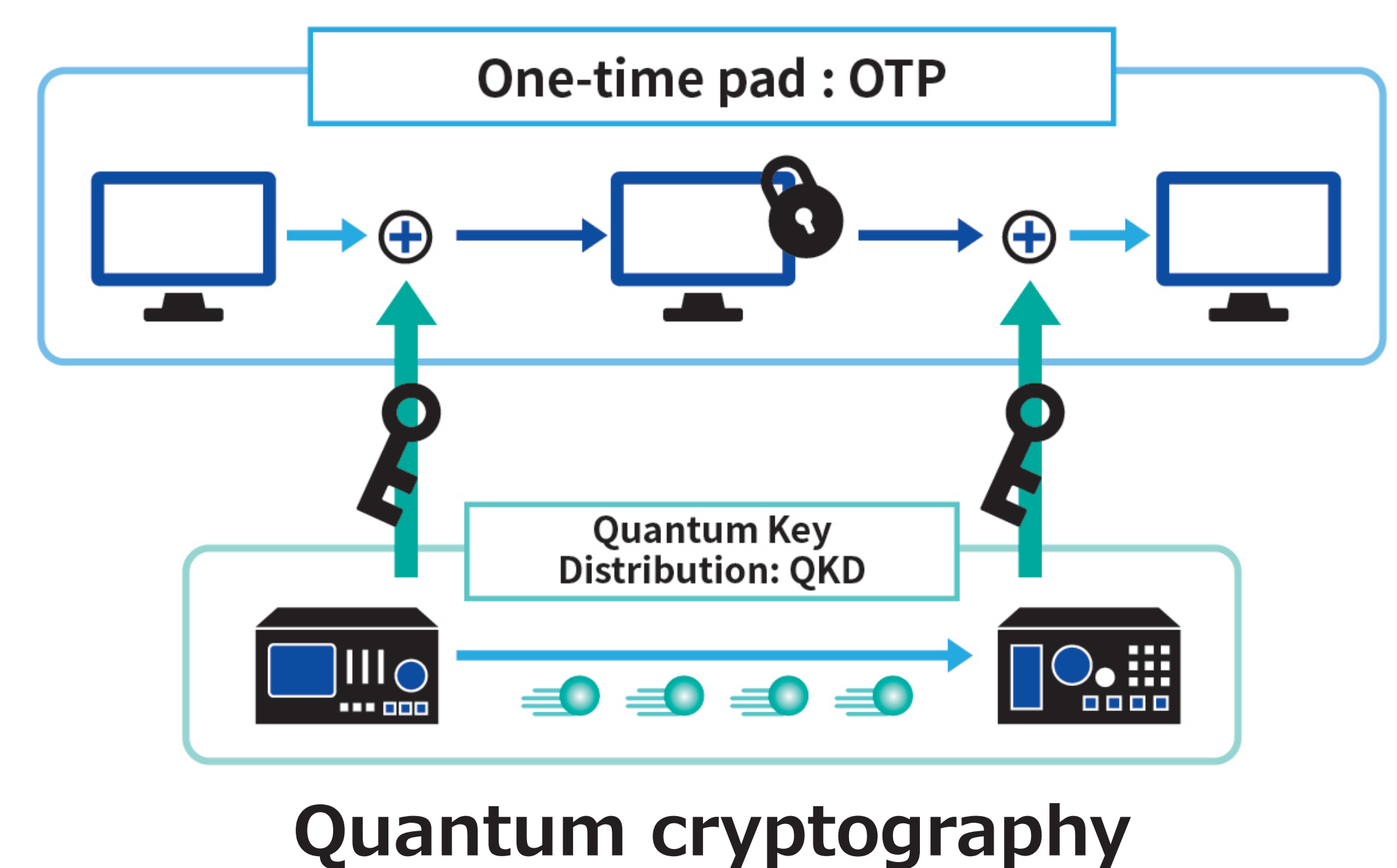
1. Our missions

○ Creation of quantum security

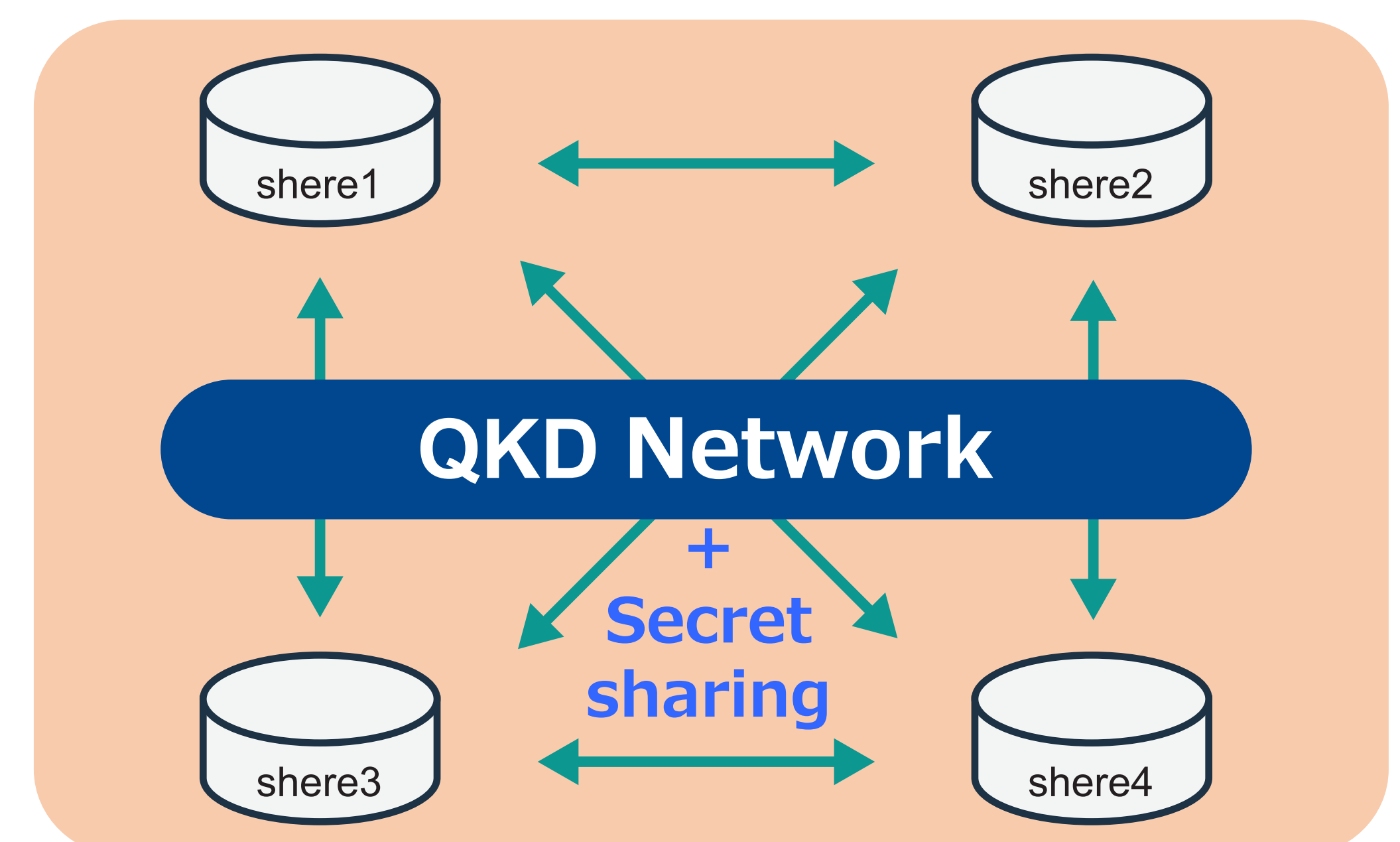
Modern cryptography may be easily decrypted with new computing technology. Therefore, we research and develop "Quantum cryptography", which can't be decrypted by any computer.

We work on developing a new fusion field called "Quantum security field", which combines Quantum ICT field with peripheral technologies.

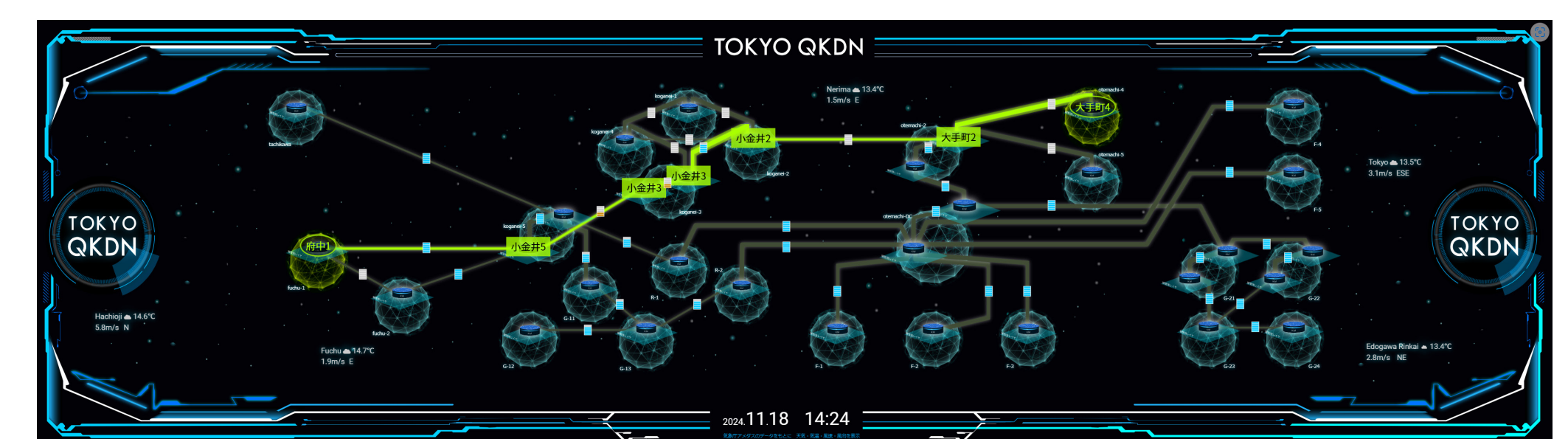
For example, we developed "Quantum secure cloud", a combination of quantum cryptography and secret sharing. We conduct experiments on this with companies that handle important information.



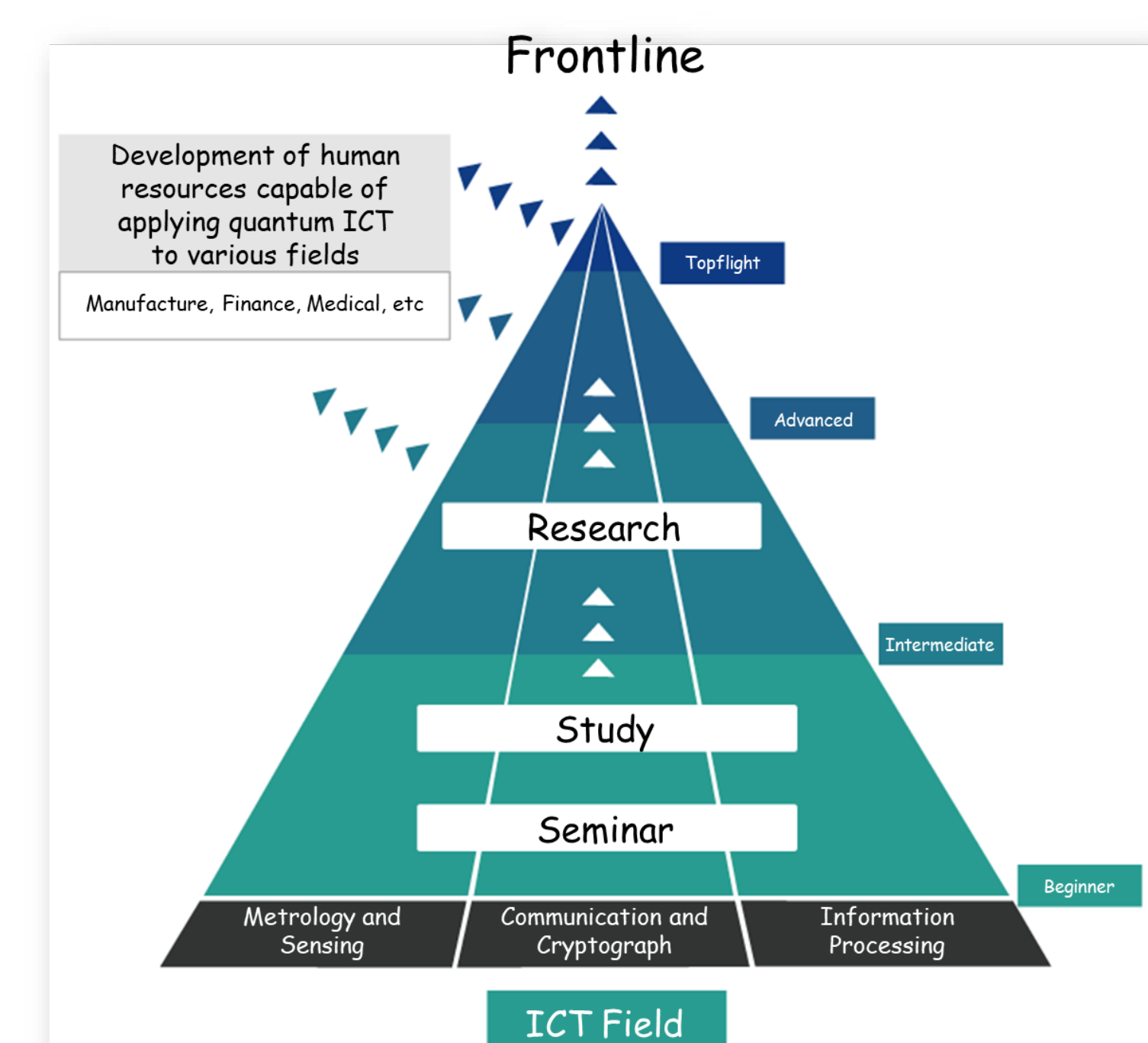
Quantum cryptography



Quantum secure cloud



Monitor of Tokyo QKD Network



Structure of training

| | 2021 | 2022 | 2023 | 2024 | 2025 |
|------------------|-------|----------------------------|--------------|----------------------------|------|
| PP (EAL4+) | Write | Evaluation / Certification | | | |
| PP (EAL2) | Write | Evaluation / Certification | | | |
| EMD (EAL4+) | Write | | | | |
| EMD (EAL2) | Write | | | | |
| Test environment | | research / examination | Construction | | |
| TOE | | | | Evaluation / Certification | |

Standardization schedule

2. Objectives

① Industry-Academia-Government collaboration

We establish an environment for industry, academia and government to collaborate in quantum cryptography and satellite quantum communications.

- Extending Tokyo QKD Network
- Using Tokyo QKD Network as open testbeds

② Human resources development

We provide practical programs to train future Quantum ICT human resources.

- NICT Quantum Camp
- Young Researchers Lab
- Internships for students and graduated people

③ Dissemination to society

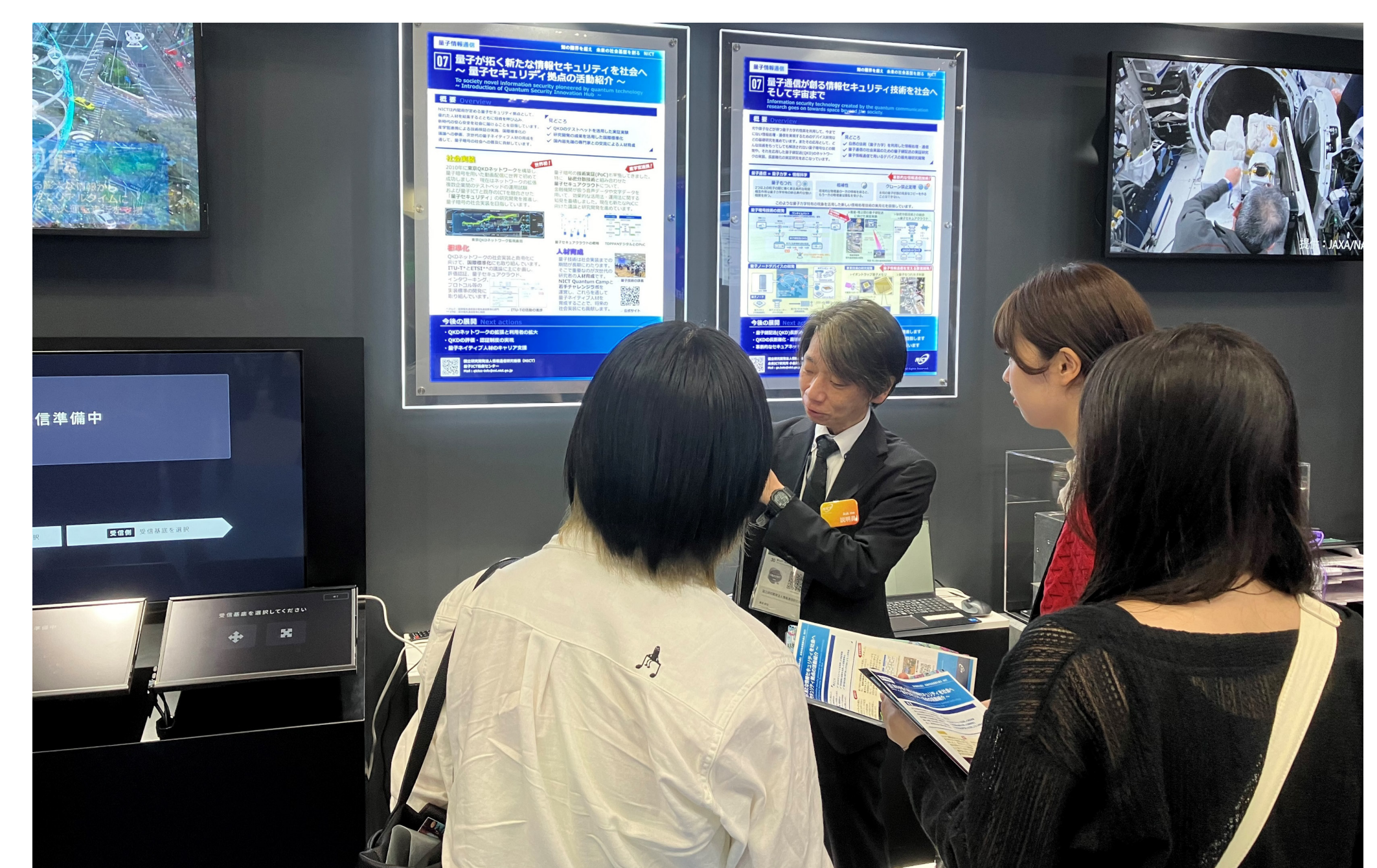
We work on standardization and establishment of evaluation/certification scheme for earlier dissemination of quantum security.

- Standard documents of QKDN and QKD modules
- Evaluation/certification systems for QKD

④ Outreach activities

We continue publicizing our missions and achievements through organizing events and participating in exhibitions.

- NICT OPEN HOUSE 2024
- CEATEC 2024



CEATEC 2024