



**National Institute of Information and
Communications Technology**

Beyond human intelligence, co-create new standards for future society.

NICT aims to promote the social implementation of research outcomes and realize a future society through research in the Five priority R&D areas, Four strategic fields, and Foundational R&D for innovation, as well as through the functions of the “Innovation Hub,” which connects NICT with external organizations.



Four strategic fields

Five priority R&D areas

Innovation Foundations

Innovation Hub

Partner



Companies / Start-ups
Universities / Research institutions etc.

The society of the future
NICT should aim for

A resilient society capable of responding to increasingly severe natural disasters



A digitally secure society in which everyone can safely benefit from ICT



A sustainable and vibrant society enabled by green and digital initiatives



A human-centric AI society that promotes productivity improvement



Four strategic fields Technology fields to Be Advanced Strategically

We accelerate innovation by strategically promoting technologies that support Japan's key policies across domains, serving as a central nexus that links R&D with social implementation.

AI・Communication

Through the R&D of technologies of AI complexes and a platform that dynamically evaluates LLMs, we promote the development and utilization of trustworthy AI in Japan.

Beyond 5G

To realize and globally expand Beyond 5G, NICT functions as an innovation hub, promoting strategic R&D aimed at creating use cases and enabling early social implementation.

Quantum ICT

We support the creation of use cases for the early social implementation of quantum cryptography, and conduct fundamental and foundational R&D in quantum information and communication toward achieving a global quantum-secure network.

Cybersecurity

As Japan's core center for cybersecurity R&D, we actively disseminate research outcomes and contribute to building an ecosystem of human resources and technologies that underpin Japan's cyber resilience.

Five priority R&D areas Fundamental and Foundational R&D to Be Promoted as Priorities

We advance R&D that secures a robust, safe, and reliable communication environment, contributing to a sustainable society that supports GX/DX and to the creation of new value.

Advanced electromagnetic technology

Through R&D and public services related to electromagnetic waves such as radio waves and light, we promote the realization of a safe, secure, and reliable social infrastructure by accurately capturing changes in society and nature.

Remote Sensing Technology / Space Environment Technology / Electromagnetic Compatibility Technology / Space-Time Standards Technology / Digital-Optics Technology

Innovative networks

To achieve high-speed and reliable transmission across terrestrial and space environments, we conduct R&D on network infrastructure technologies that provide sustainable, resilient, safe, and comfortable communications.

Network architecture technologies / Photonic Network Technology / Optical and Radio Convergence Technology / Next-Generation Wireless Technology / Space Communications Fundamental Technology

Cybersecurity

To protect social systems and citizens from cyber threats, we conduct fundamental and foundational cybersecurity R&D and promote the dissemination and social implementation of research results.

Cybersecurity technologies / AI × cybersecurity technologies / Next-generation cryptography and privacy protection technologies / Cybersecurity trainings / Promotion of industry-academia-government collaboration / Promotion of cybersecurity measures for IoT devices

Universal communication

We aim to address social issues and create new value through the safe and secure use of AI enabled by both the R&D and the social implementation of technologies for AI complexes and multimodal AI communication.

AI complex technologies / Multimodal AI communication technologies

Frontier science

Through R&D on advanced foundational technologies that lead to disruptive innovation in next-generation ICT, we contribute to forming new concepts and frameworks that underpin the ICT of future society.

Advanced ICT foundational technologies / Frontier ICT technologies / Bio-inclusive ICT platform technologies / Brain-ICT interface technologies

Innovation Foundations Foundational R&D Themes Supporting Innovation

We promote critical R&D that integrates foundational ICT technologies across domains to accelerate innovation in Japan.

Resilient ICT foundational technologies / Beyond 5G architecture technologies / Terahertz-wave ICT platform technologies / Global quantum-secure network technologies / Testbed construction technologies for the Beyond 5G era / Advanced ICT device development platform technologies

Innovation Hub Social Implementation Functions / External Collaboration Functions

- We will strengthen NICT's Innovation Hub functions to promote the social implementation of technologies originating in Japan.(Development of co-creative innovation testbeds / More effective utilization of facilities, infrastructure, and data, etc.)
- We will also enhance NICT's functions as a research funding and program management agency, among other initiatives.

Organizational Structure under the 6th Mid- to Long-Term Plan

April 2026 – March 2031

Radio Research Institute

Electromagnetic Advanced and Infrastructure Research Center

Network Research Institute

Photonic ICT Research Center
Wireless Networks Research Center

Cybersecurity Research Institute

Cybersecurity Nexus
National Cyber Training Center
National Cyber Observation Center
Center for Research on AI Security and Technology Evolution

Universal Communication Research Institute

Data-driven Intelligent System Research Center
Advanced Science and Technology Research Center for Multimodal AI Communication

Advanced ICT Research Institute

Kobe Frontier Research Center
Bio-ICT Collaboration Center
Koganei Frontier Research Center
Center for Information and Neural Networks

Beyond Connectivity Research and Development Promotion Unit

Advanced Connectivity Bridge
Terahertz Technology Research Center

- AI Research and Development Promotion Unit
- Quantum ICT Collaboration Center
- Resilient ICT Research Center
- Testbed Research and Development Promotion Center
- Advanced ICT Device R&D Promotion Center

Open Innovation Promotion Headquarters

General Strategic Planning Office
Funding Allocation Unit
Innovation Hub Unit
NRA Unit
Innovation Promotion Department
Global Alliance Department
ICT Deployment and Industry Promotion Department

- Global Alliance Department
- Hokuriku Collaboration Research Center

General Affairs Department

Financial Affairs Department

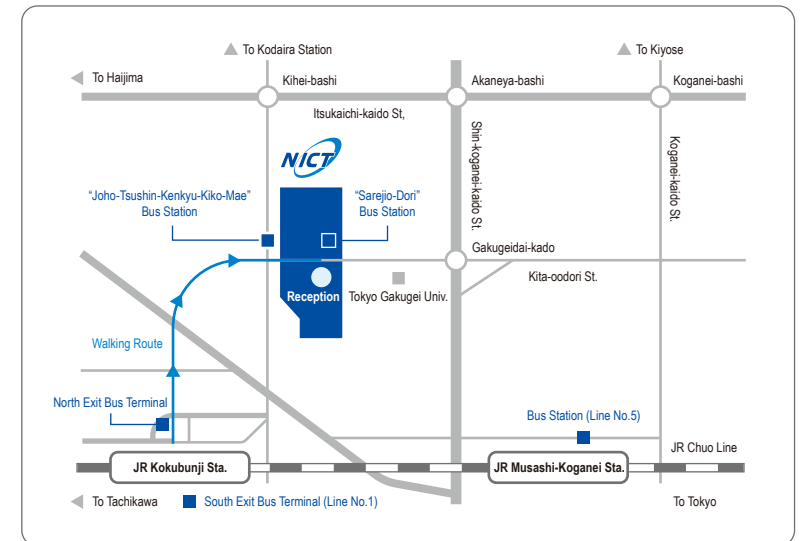
Strategic Planning Department

Operation Planning Department

DX Design Promotion Center
Research Security Management Center

Public Relations Department

- Innovation Design Initiative
- NICT Knowledge Hub
- Diversity Promotion Office
- Information Gathering Satellite Development Office
- Tokyo Centre of the GPAI Expert Community Secretariat
- Audit Office



National Institute of Information and Communications Technology

4-2-1, Nukui-Kitamachi, Koganei, Tokyo 184-8795

E-mail : publicity@nict.go.jp

URL : <https://www.nict.go.jp/en/>

Facebook: [fb.com/NICT.Kouhou3](https://www.facebook.com/NICT.Kouhou3)

Instagram: [@nict_kouhou](https://www.instagram.com/nict_kouhou)

X: [@NICT_Publicity](https://twitter.com/NICT_Publicity)

