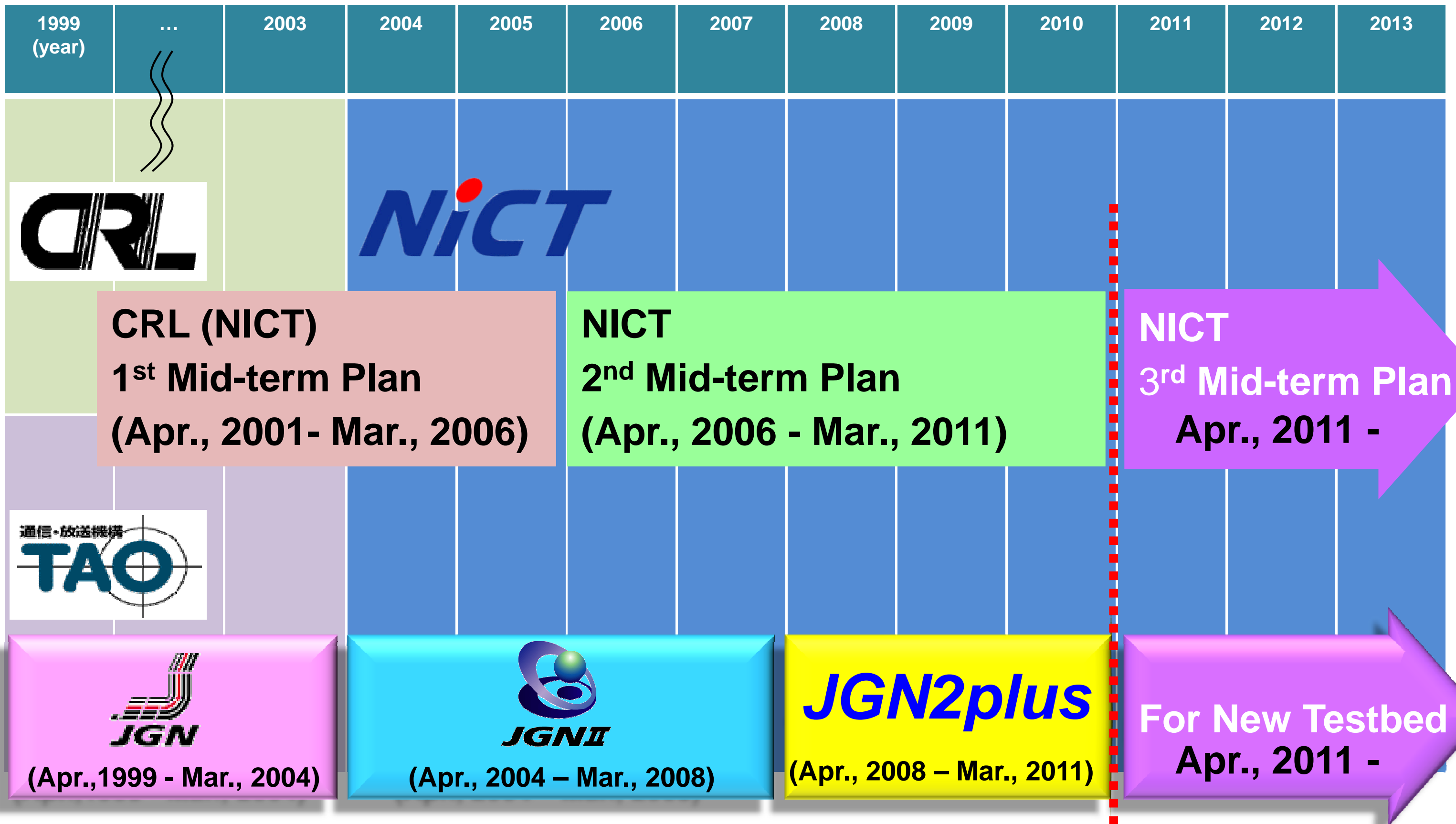


Major Changes from JGN2 to JGN2plus



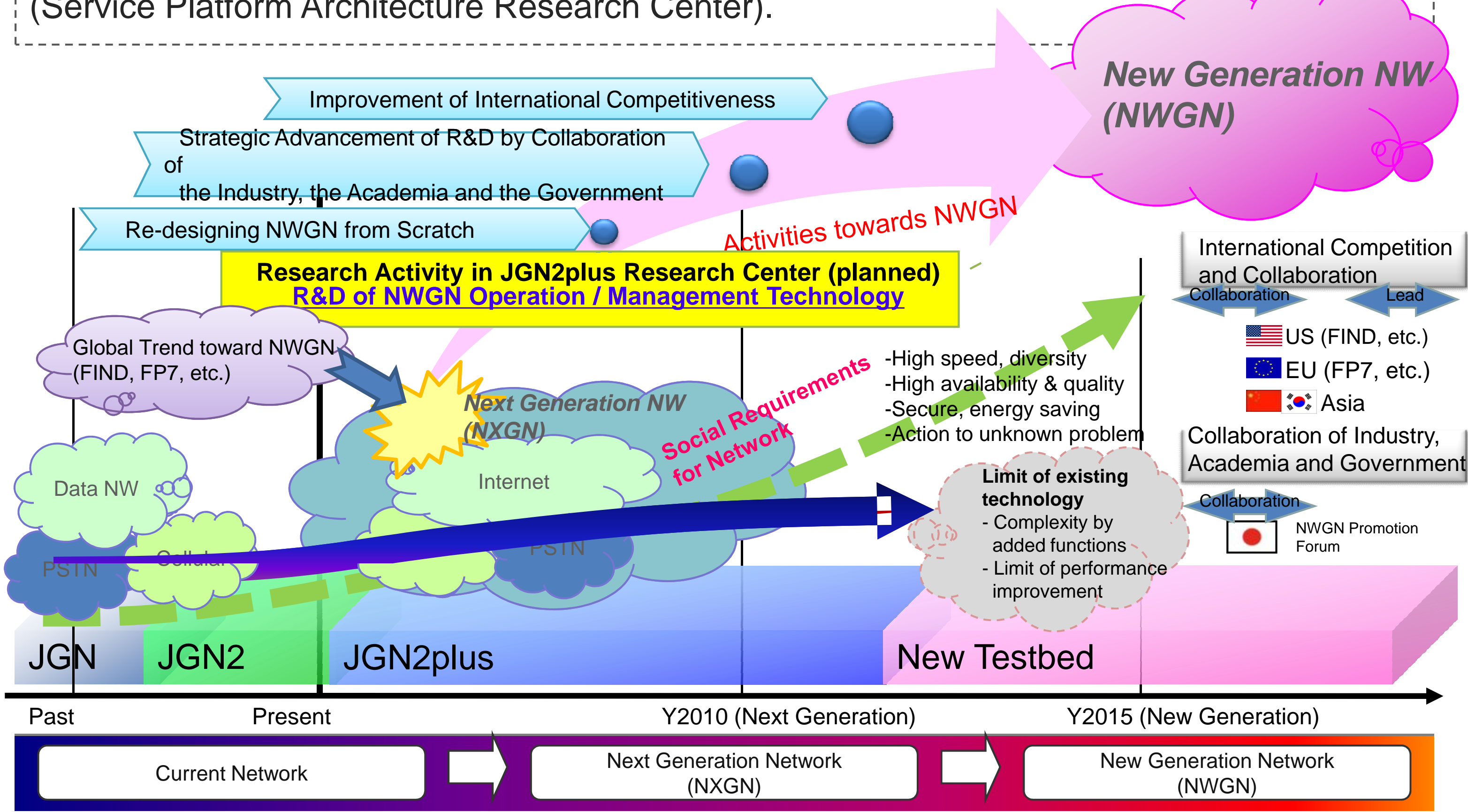
	JGN2 (2004.4 - 2008.3)	JGN2plus (2008.4 - 2011.3)
R&D Structure	R&D by Seven Research Centers (Research on specific topics for 4-year plan)	<p><u>Service Platform Architecture Research Center</u></p> <p>SPARC</p> <p><u>Operation</u></p> <p>Uniting operation and research as one structure to advance R&D for operation / management technology in NWGN</p> <p><u>R&D</u></p> <p>Advancement of NWGN testbed R&D</p>
NW Operation	Network Operation Center (NOC) (Stable operation of L2&L3 services)	
NW Services	<ul style="list-style-type: none"> - Optical Testbed Service - Nation-wide Access Points (64 APs) - International Circuits (US, TH, SG) 	<ul style="list-style-type: none"> - Optical Testbed Service - Nation-wide Access Points - International Circuits (US, TH, SG, CN, KR) - Overlay Service Platform Provisioning.

JGN Project Milestone



Research Activities about JGN2plus and NWGN

JGN2plus is a testbed network to support R&D of NWGN promoted by NICT. It also plays the role of supporting R&D activities in JGN2plus research center, SPARC (Service Platform Architecture Research Center).



JGN2plus Services Available



Network Services

L3: IP Connection

- IP interconnection between JGN2plus users, or between JGN2plus users and other research networks
- ✓ IPv4/v6 Dual Stack, IPv6 Native (Full Route), Core Routers on Main APs

L2: Ethernet Connection

- Point-to-Point Connection Service: VLAN-based L2 Point-to-Point Interconnection
- Multi-point Connection Service: VLAN-based L2 Multi-point Interconnection
- ✓ Jumbo-framed Support (over 1G, 10G Lines)

Optical Testbed

- Hakusan – (8 fibers) – Otemachi – (16 fibers) – Koganei
- for experiments of optical-level transmission

International Circuits



US



TH



S
G



C
N



KR

API Asia Pacific Information Infrastructure

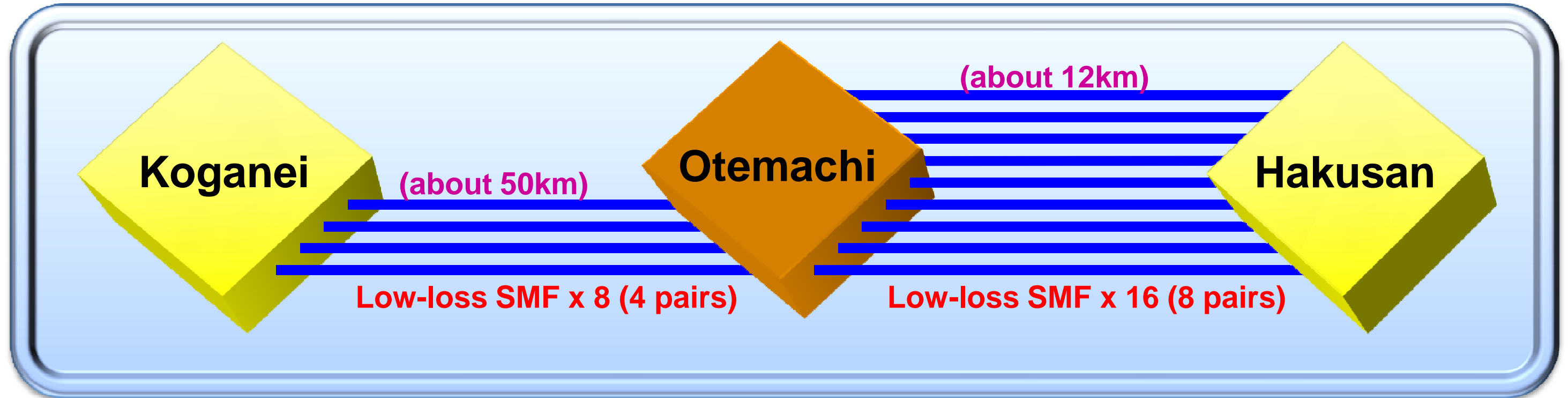
Operation
+
R&D

Operation Service + R&D

- Operation / Management of Circuits, Equipment on APs
- Service Platform Provisioning
- Technical Supports

JGN2plus Services

(1) Optical Testbed Service



- JGN2plus Optical Testbed Service

- Koganei-Otemachi Section

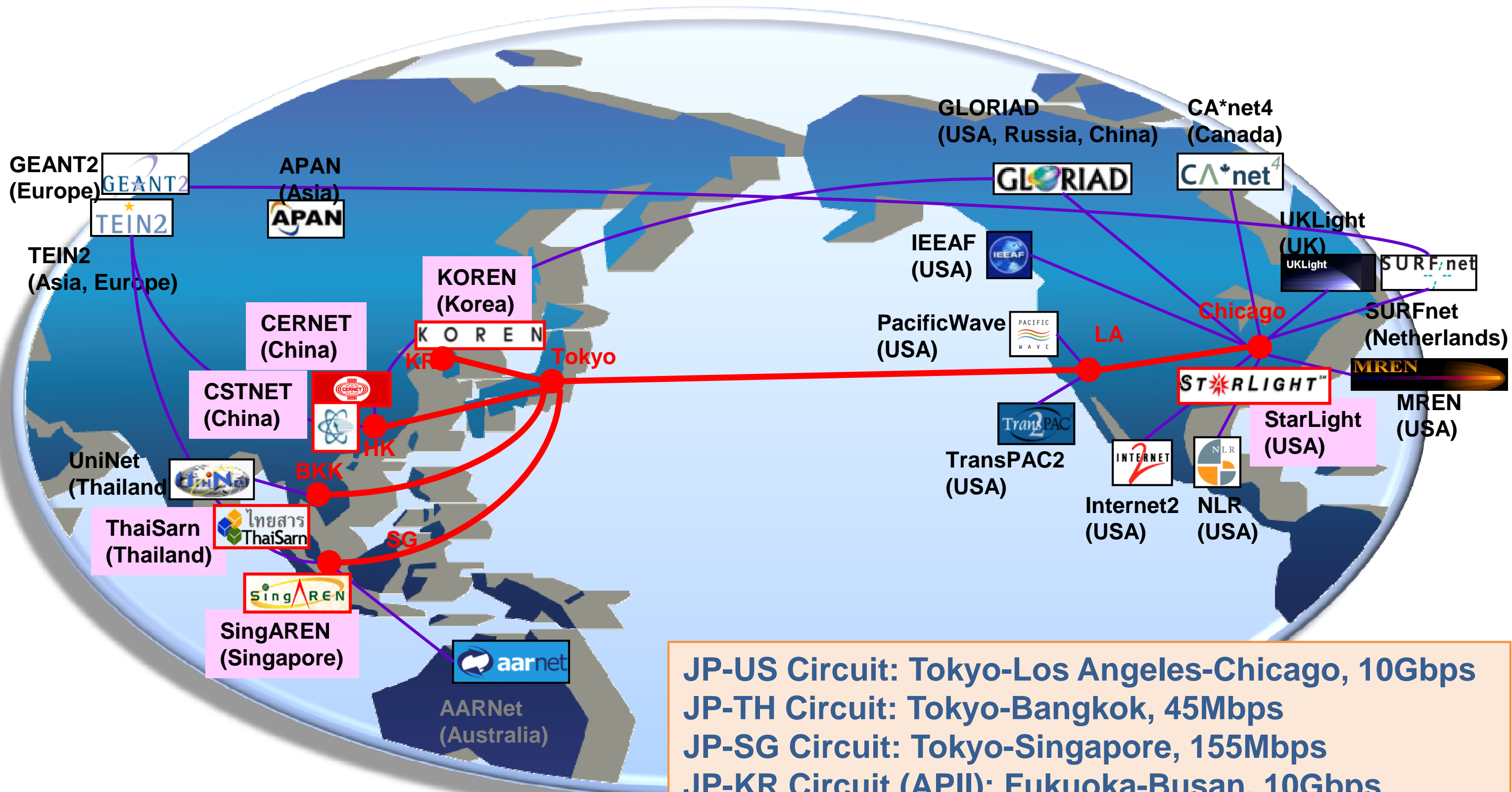
- about 50km
- Single Mode Optical Fiber (ITU-T G.652) x 8
- Low-loss SMF (within 20dB loss at 1550nm wavelength, without any amplifiers)

- Otemachi-Hakusan Section

- About 12km
- Single Mode Optical Fiber (ITU-T G.652) x 16
- Low-loss SMF (within 10dB loss at 1550nm wavelength, without any amplifiers)

JGN2plus Services

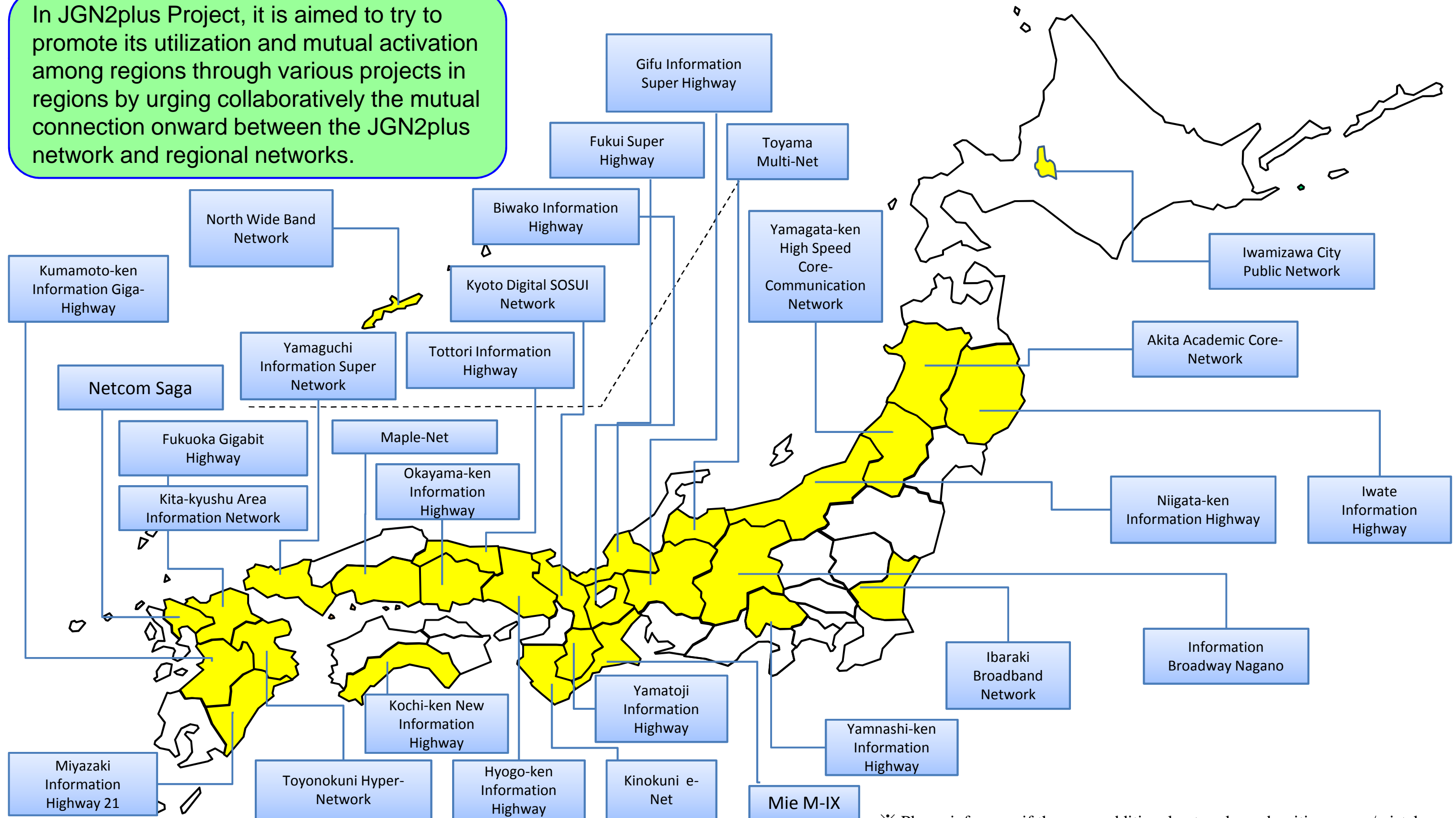
(2) JGN2plus International Circuits (L2/L3)



JP-US Circuit: Tokyo-Los Angeles-Chicago, 10Gbps
JP-TH Circuit: Tokyo-Bangkok, 45Mbps
JP-SG Circuit: Tokyo-Singapore, 155Mbps
JP-KR Circuit (APII): Fukuoka-Busan, 10Gbps
JP-HK Circuit: Tokyo-Hong Kong, 2.4Gbps

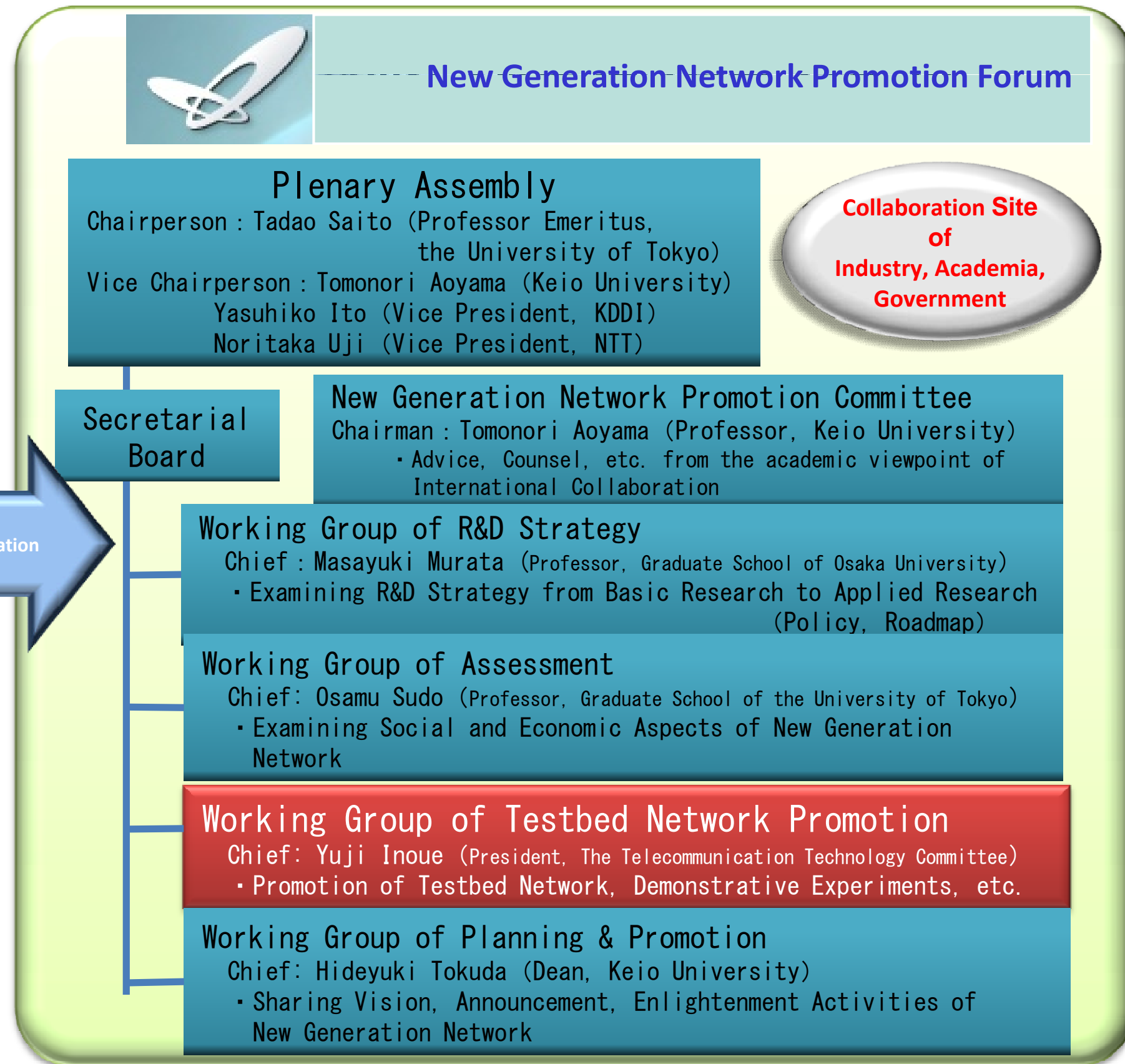
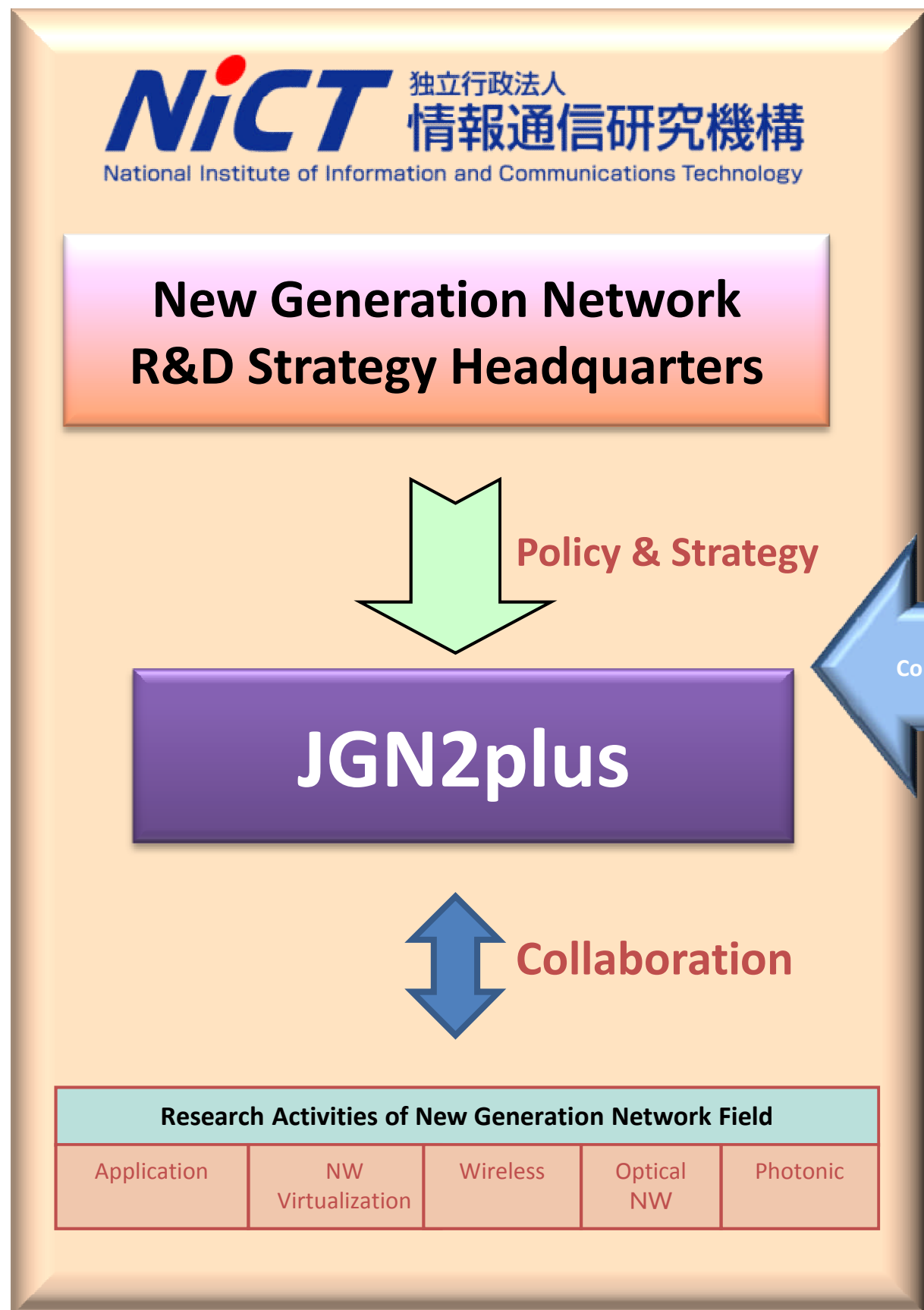
Mutual Connection between JGN2plus and Regional Networks (incl. Provisional Plans)

In JGN2plus Project, it is aimed to try to promote its utilization and mutual activation among regions through various projects in regions by urging collaboratively the mutual connection onward between the JGN2plus network and regional networks.



※ Please inform us if there are additional networks and writing errors/mistakes.

JGN2plus System



Utilization Procedure of JGN2plus

