

Mission and Strategy of the Open RAN Industry Alliance

*for Securing Open RAN Technology Competitiveness and Nurturing Industry
and Ecosystem*



Mission

Realizing Advanced Nation in Open RAN Technology and Product
that will lead the next generation of communication era

Goal

“ Creating demand for open RAN,
dissemination of open RAN

Securing open RAN
technology competitiveness and
establishing supply chain

Strengthening
virtuous cycle ecosystem foundation
for open RAN ”

Strategy



Market entry

Identifying **domestic and overseas demand**,
linking with **national pilot projects**

Major activities

- Promoting domestic and overseas demonstration projects
- Establishing global certification system
- Promoting joint promotion



Developing Technologies/Standards

Linking global **standards with R&D**, securing high-functional/
performance products

Major activities

- Developing R&D roadmap
- Public-private joint R&D planning
- Proposing and establishing domestic standards



Establishing foundation

Establishing **dedicated testbed**,
establishing system for
Supporting **testing and certification**

Major activities

- Establishing dedicated test bed
- Implementing global PlugFest
- Establishing international cooperation system

Securing leading position in the global open RAN technologies and market competition
➔ **Minimizing the impact of uncertain external environment**

In order for the Open RAN products of domestic small and medium sized venture companies to enter the global market, promoting demonstration projects that can respond to demand such as public network, private network and commercial network

Identifying demand for Open RAN in Korea



※ The above examples are intended to facilitate understanding of Open RAN validation for different network types and are not related to any specific company or organization.

Support for entire cycle for commercialization of open RAN

Establishment and operation of Open RAN

Establishment and operation of network that incorporates open RAN technologies such as openness, intelligentization and virtualization



Testing and verifying Open RAN products

Demonstration for upgrading function and performance and commercialization of R&D outcomes such as O-RU/DU/CU, RIC



Entry into open RAN overseas market

Securing interoperability of domestic products, reference and supporting entry into overseas markets

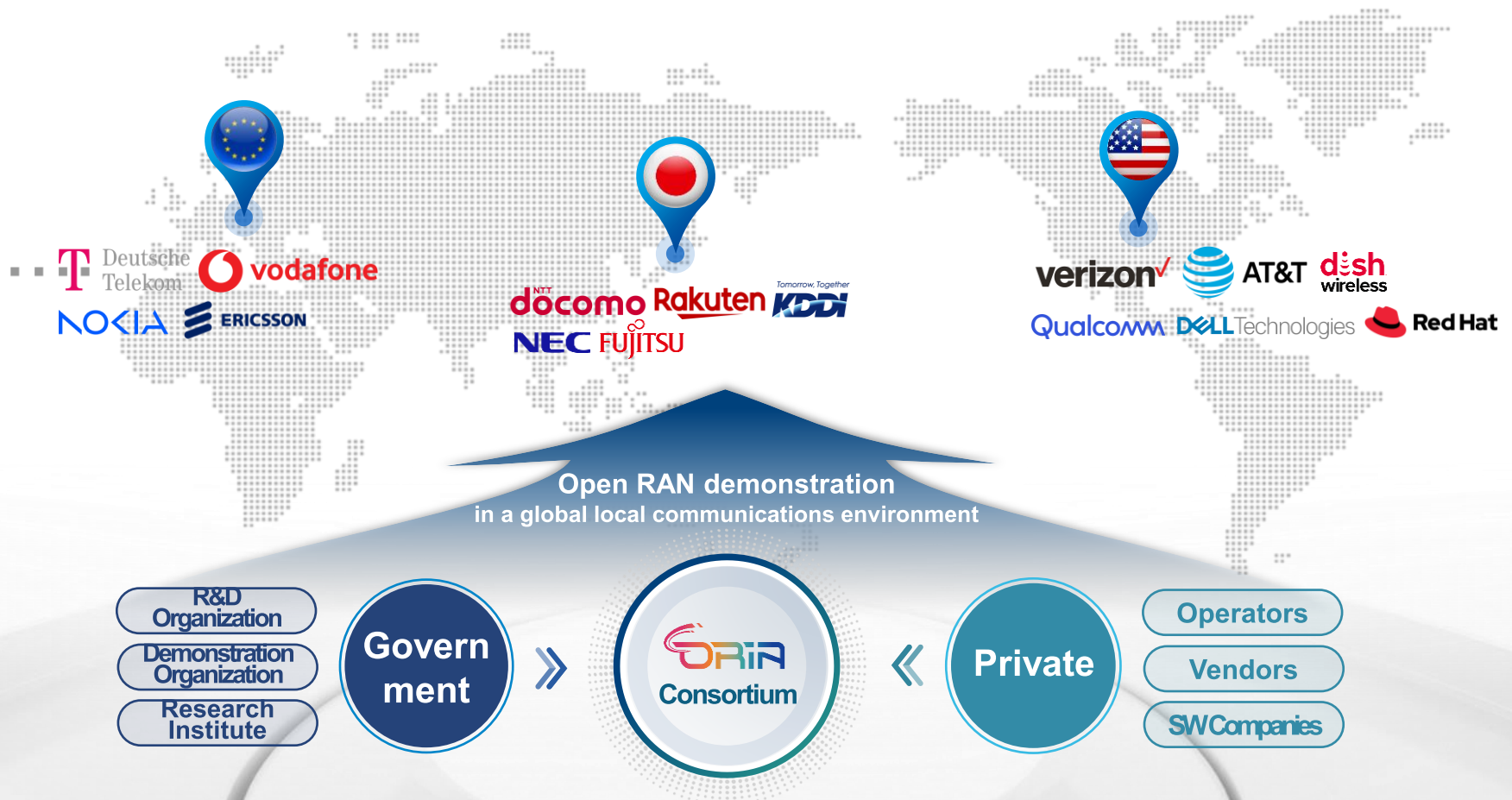


2 Strategy 1. Market Entry

→ Demonstration of international cooperation

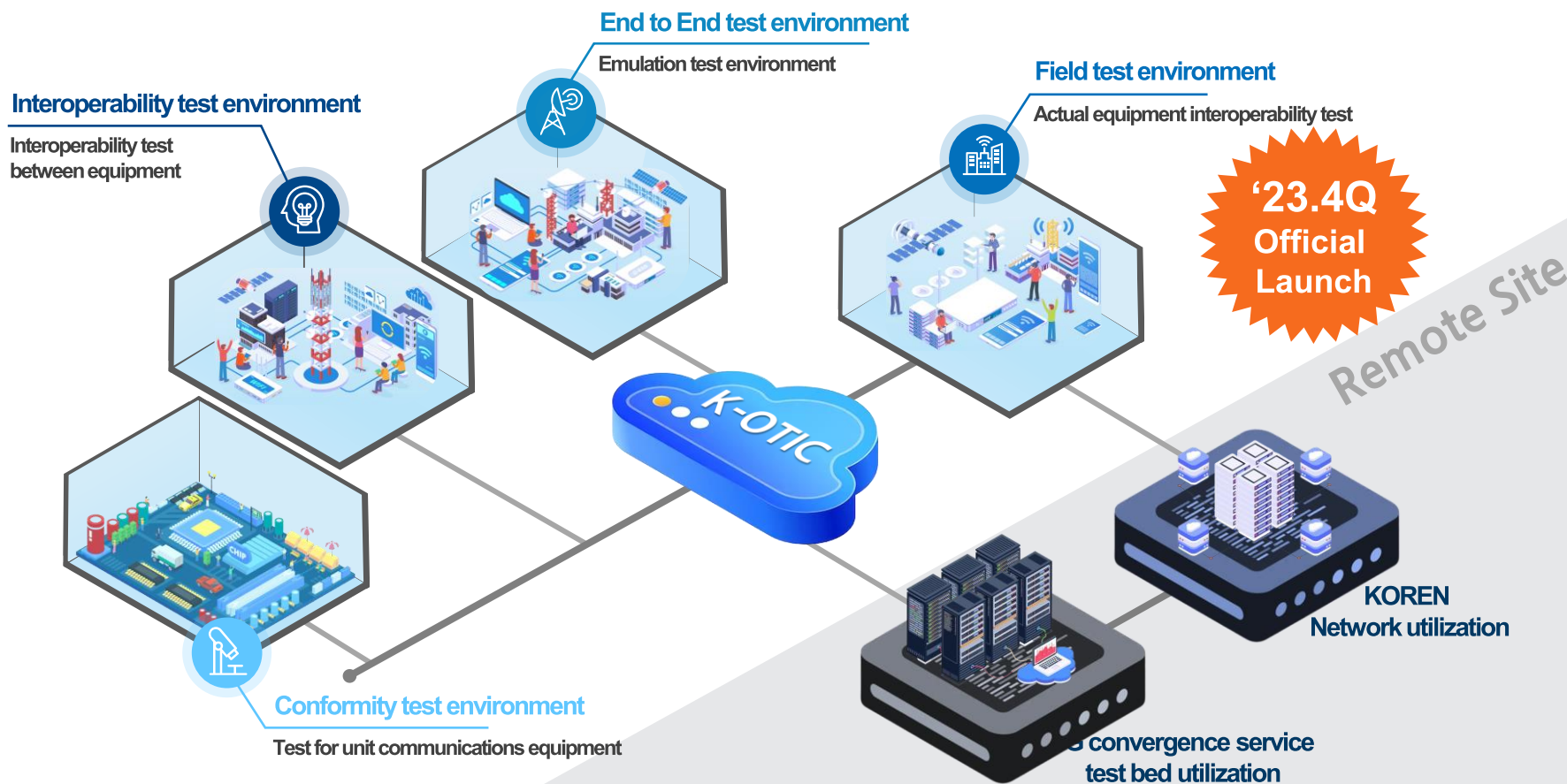


Supporting interoperability with overseas local telecom operators, equipment companies and supporting field test to secure global technology competitiveness and market entry of domestic open RAN companies



Securing global test and certification system by introducing **OTIC** of O-RAN ALLIANCE and providing **Open RAN technologies** of domestic SMEs and **test environment necessary for product development**

※ OTIC : Open Testing & Integration Center



Promoting domestic and overseas joint promotion based on cooperation between alliance and member companies in order to advertise excellence and reliability of Open RAN products of domestic small and medium sized venture companies



Every year
1Q

Distribution of publications
incorporating results of activities such as
issue report, white paper and standard model



Sharing accumulated experience
and knowhow **Positioning as**
leading group for open RAN



Every year
1Q, 3Q

Promoting excellent products of member companies by participating in global exhibitions
And holding conference



Maximizing synergy of allianc +
member companies **K-open RAN**
product branding



Every year
2Q

Holding alliance internal workshop in order
to identify agenda for mutual cooperation among
member companies



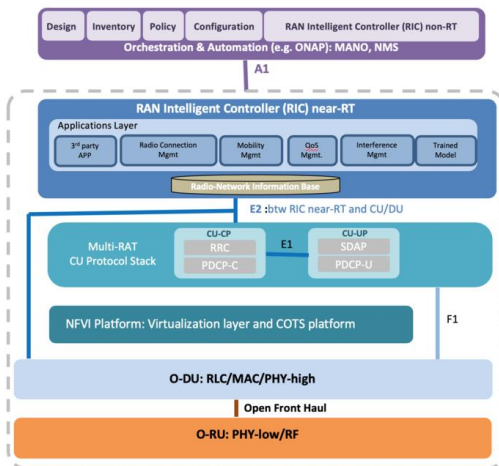
Requirements for members, pre-
review of promotion plan **Planning**
stable promotion

Identifying mid to long-term R&D item in order to secure Open RAN core technologies and products Incorporating them into technology roadmap (future communication and radio frequency field) of the Ministry of Science and ICT

Collecting information on core technologies

Checking

architecture structure defined by O-RAN Alliance and development trend



Identifying areas for mid to long-term R&D items

Identifying mid to long term R&D items led by open RAN Industry Alliance

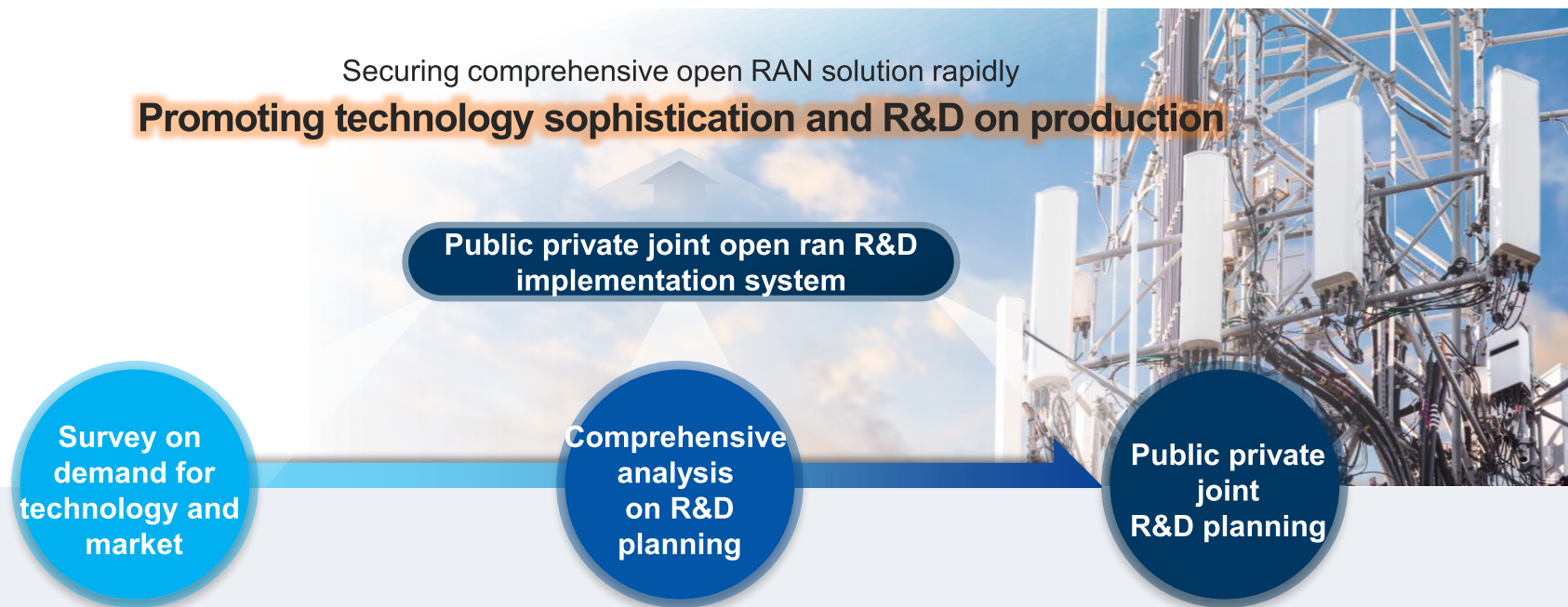
- Non-real-time RIC and A1 interface Underway
- Near-real-time RIC and E2 interface Underway
- Open front haul interface Underway
- Open X-haul transmission technology New area
- F1/W1/E1/X2/Xn interface technology New area
- Software-based cloud platform technology New area
- Stack reference (software structure) design New area
- OAM Technology New area
- Security technology New area
- Orchestration technology New area

Incorporating into government technology roadmap

Incorporating Open RAN into the future communication, radio frequency area of the technology roadmap of the Ministry of Science and ICT



⚡ **Conducting comprehensive analysis on R&D demand in order to secure Open RAN core technologies and products, inducing efficiency and maximizing synergy by planning public-private R&D and division of roles**



- ▶ Future Demands for **Emerging Industry** Core Technologies
- ▶ **Mission-Oriented** Demand Based on Market Needs
- ▶ Demand for **Solving Four Major Social Issues**

※ Citizens' Quality of Life, Disaster Safety, Welfare Enhancement, Urban Environment

- ▶ **Division of Roles between Public and Private Sectors** in Open RAN R&D
- ▶ Industry-Academia-Research **Demand Survey** for R&D Planning
- ▶ **Analysis of Results** Focused on the Alliance
- ▶ Presenting Analysis Results to **Government and Relevant Agencies**

- ▶ Government National Research and Development (R&D) Planning for **National Projects**
- ▶ Private Sector's **Internal** R&D Planning for Proprietary Projects
- ▶ **International Collaborative Research** R&D Planning with Advanced Countries

3 Strategy 2. Technology/Standards Development

Proposing and establishing domestic standards



Developing draft for domestic standards by ORIA expert committee → Proposing and establishing TTA standards Establishing profiling specifications to apply open RAN in Korea based on global standards

Developing domestic standards for collecting information on international standardization of open RAN



Virtualization and intellectualization committee

Open solution committee

Ecosystem committee

Openness

Profiling specification
O-RU, front haul



Virtualization

Profiling specification
O-DU/O-CU



Intellectualization

Profiling specification
O-RAN RIC



Orchestration

Profiling specification
O-RAN E2E



② Establishing tasks for standardization

Korea Information and Communications Technology Association
Telecommunications Standards Committee
- Mobile Communication Technology Committee (TC11)
- Mobile Communication Wireless Access PG (PG1102)

① Establishing standards for open RAN

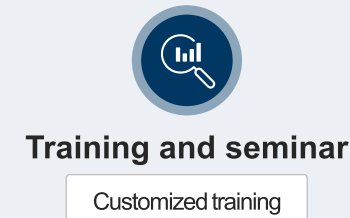
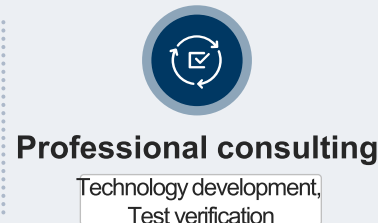
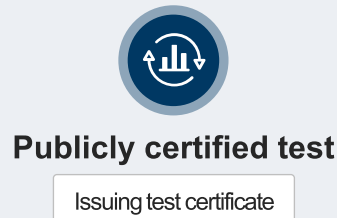
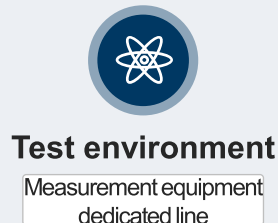
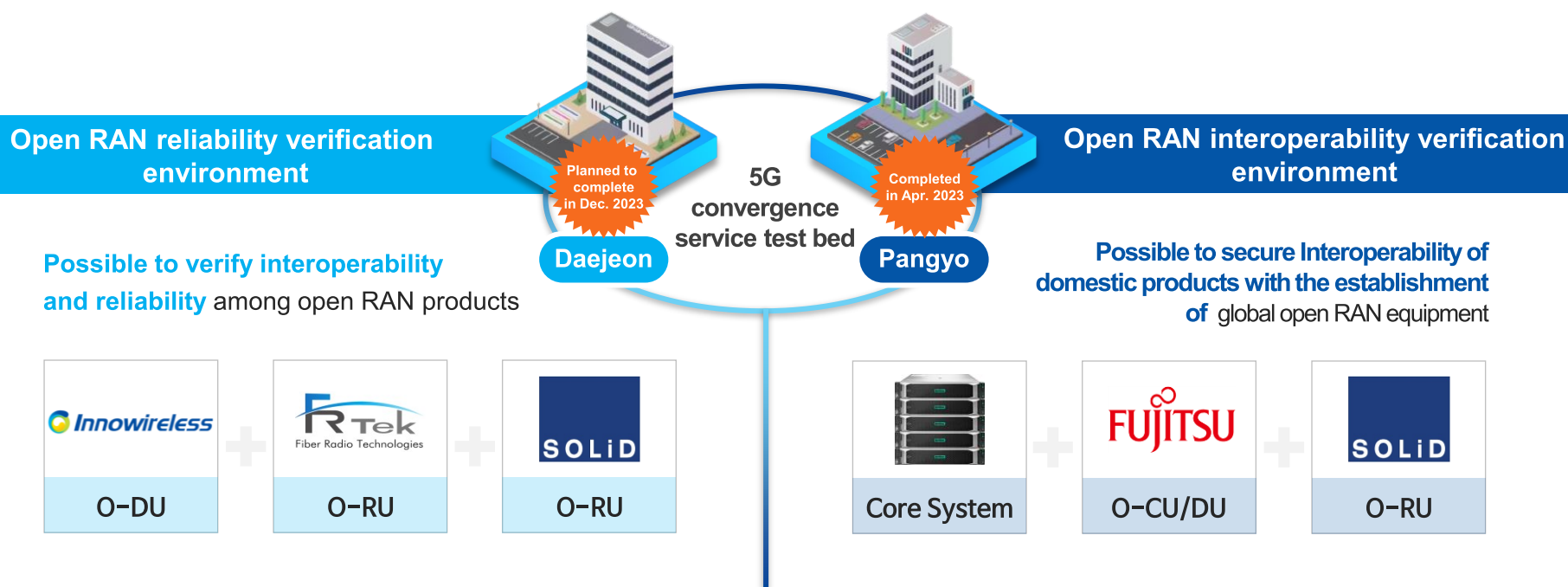
Developing domestic standards

③ Sharing standards

Real-time sharing on website



Expanding **5G convergence service test bed** established for 5G E2E test by the government to the facilities that enable verification of **interoperability and operation reliability of open RAN equipment**



4 Strategy 2. Technology/Standards Development

→ Holding global PlugFest



Holding global Open RAN PlugFest event hosted by O-RAN ALLIANCE in order to secure interoperability between domestic open RAN equipment and global equipment

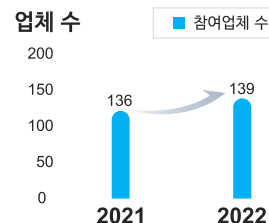
※ PlugFest : Event for testing interoperability of different products based on standards



Global O-RAN PlugFest Event

01

Providing opportunity to verify suitability and interoperability of open RAN equipment



- Holding 2 times a year since 2022
- Increasing number of participating Countries and companies
- Disclosing results of PlugFest
 - ※ Verifying O-RAN test item validation

02

So far, Korea has held event led by telecom operators' consortium Providing opportunity to participate as ORIA member in consultation with telecom operators

Consortium of Korean telecom operators



※ Second half of 2022

※ Second half of 2022

※ First half of 2023

Promoting cooperation with leading global groups to secure Korea's **competitiveness** in Open RAN and cooperation to **secure interoperability** with between excellent domestic products and global equipment



Best outcome



Optimal timing



Maximum synergy



Establishing **equal cooperative relationship** with open **RAN leading group** Leading **global open RAN** based on **experience and knowhow**

Establishing an Alliance Activity Roadmap, taking into thorough consideration both the government's Open RAN initiatives and policies, as well as the private sector's technology development timelines. This roadmap will be designed to foster mutual cooperation, aiming at achieving the set goals.



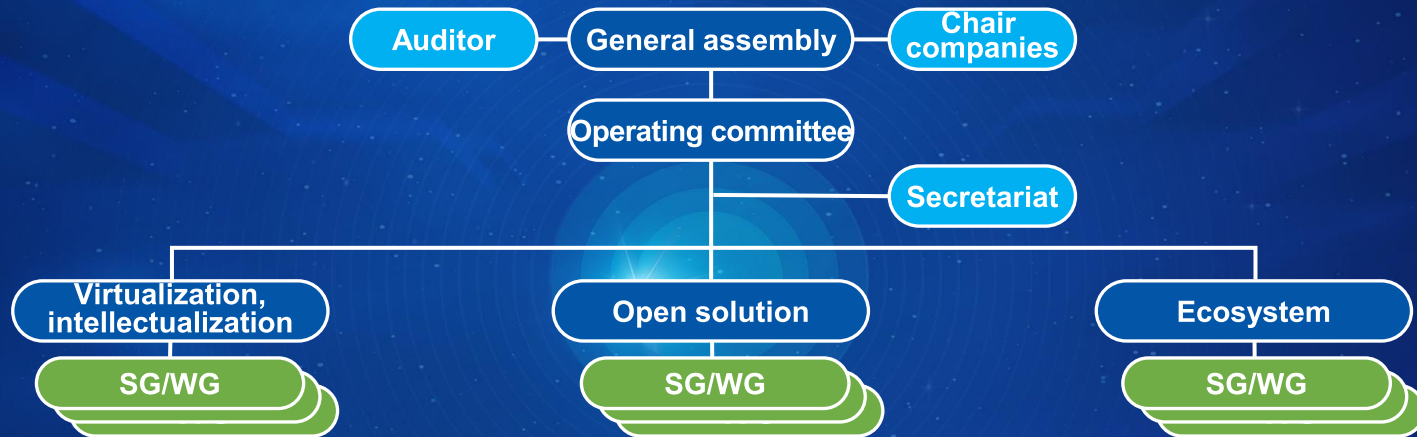
Founding private public joint Open RAN industry alliance, Open RAN hub in Korea



7 Introduction of the Alliance

Organization structure and implementation system

Establishment of the implementation system to achieve goals by **organizing chair companies, domestic and overseas member companies, experts from industry, academia and research institute in the general assembly operating committee and expert committee**



General assembly

Composed of chair companies, audit and member companies Holding annual assembly (possible to hold special general meeting, if necessary)

- Review and approval of previous year's activities and financial statements
- Review and approval of annual activities and budget plan
- Approval of new executive appointments and changes to existing executives
- Amendments to operating regulations and bylaws

Operating committee

Composed of chair of operating committee, chair companies and head of subcommittees Holding monthly committee

- Annual activities and budget plan review
- Review and resolution of general meeting agenda items
- Review and resolution of membership applications
- Review and resolution of other major operational matters

Expert committee

Composed of chair of expert committee and members (member companies) Holding monthly meeting

Virtualization and intellectualization	Open solution	Ecosystem
O-DU/CU RIC technology and standard discussion	O-RU, O-RU/DU technology and standard discussion	International certification system, test bed establishment, holding PlugFest, support for demonstration

7 Introduction of the Alliance

Chair and member companies



30 companies including telecom operators, manufacturers, SMEs, global companies and relevant organizations participate

01 Chair companies: 11

Composed of representative companies and relevant organizations that lead securing, spreading and disseminating domestic open RAN technology competitiveness



Representative chair company in 2023



SAMSUNG



NOKIA



02 Member companies – Domestic companies: 14

Communication equipment manufacturer, SMEs that develop functional SW and testing facilities which focus on the development of open RAN RU, DU and SW technologies



03 Member companies – Global companies: 5

Participation of open RAN chip set, communication equipment, server and open source companies Promoting mutual cooperation with domestic telecom operators and SMEs



Hewlett Packard Enterprise



Red Hat

Open RAN, the new paradigm of mobile communication!

Let's think, discuss and work together to enhance domestic wireless network capabilities and nurture equipment industry and ecosystem.

