

Quantum jump in Korea's quantum industry ecosystem

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1. Government's efforts to develop the quantum industry

■ ~ 2018

Quantum Information Strategies (2014)

Quantum Information and Communication Technology Roadmap

■ 2019

Application of the quantum cryptography communication to the Seoul-Daejeon-Daegu 5G network (360km) (SKT)

Commencement of Government R&D Program for quantum

■ 2020

Quantum Information Research Support Center(Q-center) opened

■ 2021

Quantum information communication section incorporated in "The Special Act on Promotion of Information and Communications Technology and Vitalization of Convergence Thereof"

Organization of a quantum technology special committee under the National Science and Technology Advisory Council

■ 2022

Introduction of quantum cryptography communication in 33 government organizations over the national convergence network

Launch of the world's third quantum cryptography communication service (SKT/KT)

Designated as one of 12 National Strategic Technologies

Quantum Workforce Development Strategies

Establishment of the Quantum Information Society of Korea

Designated as one of the 15 projects of New Growth 4.0 Strategy

The Korea Quantum Computing Industry Leaders' Alliance

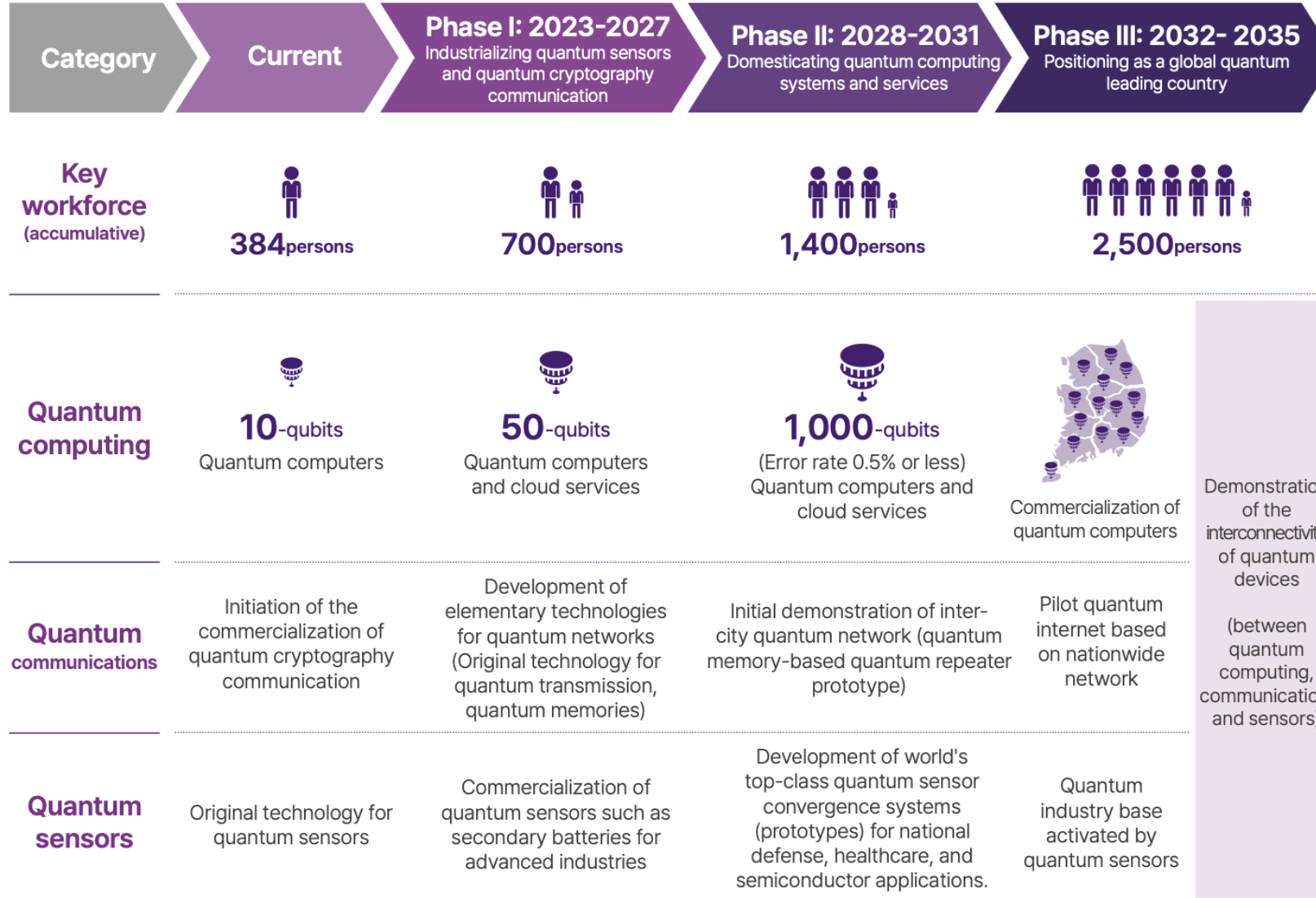
■ 2023

Introduced the world's first security verification system for quantum cryptographic communication

Held Quantum Korea 2023

1. Government's efforts to develop the quantum industry

Three-phase development Strategies



2. Government's quantum industry investment plan

Key Indicators

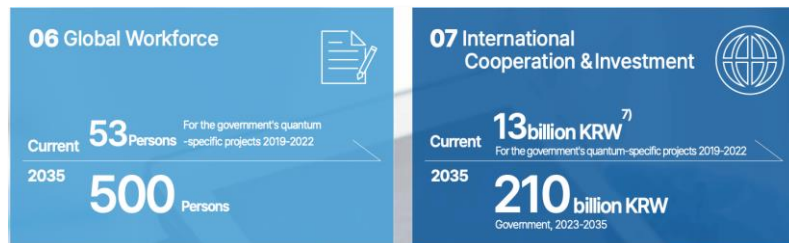
1. Science & Technology



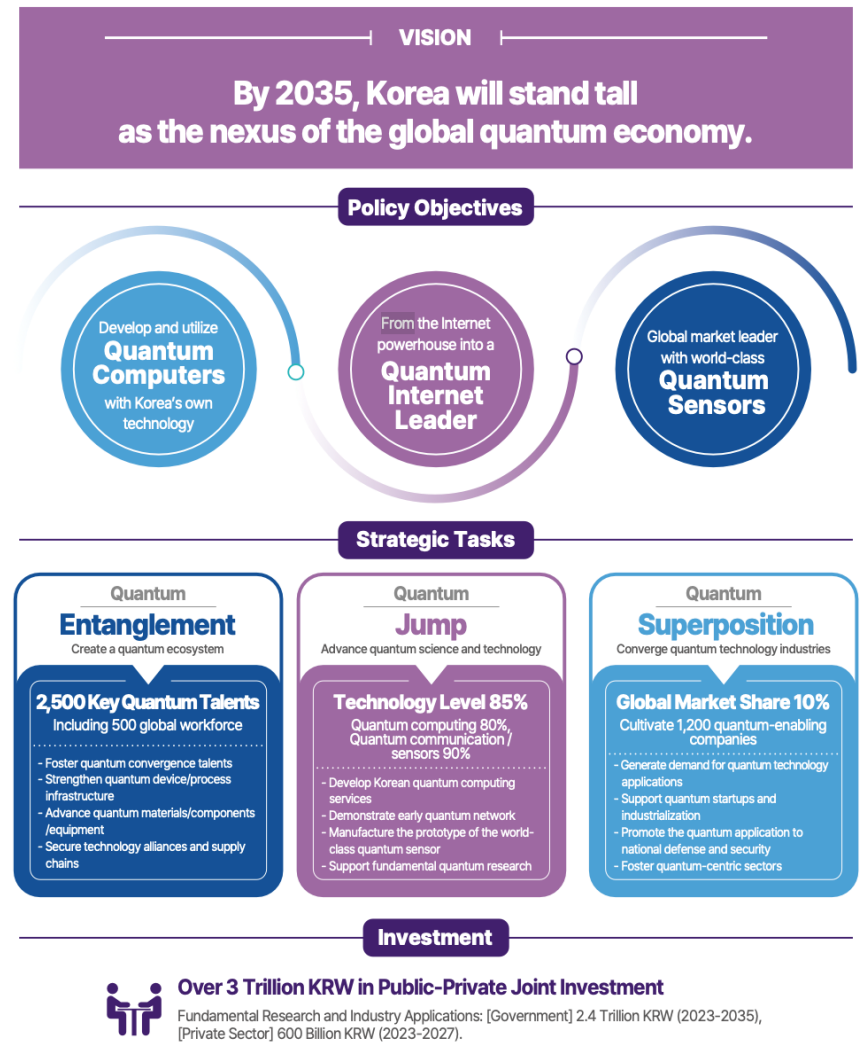
2. Industry and Market



3. International Cooperation and Investment



Vision and Policy Objectives



* Korea's National Quantum Strategy (June, 2023)

2. Government's quantum industry investment plan

■ To be invested

[Quantum cryptography communication industry expansion]

- >> Development of a small/low-cost modular quantum cryptography key distribution (QKD) system
- >> Development of quantum channel and existing channel multiplexing-based system

[Next generation quantum cryptography communication]

- >> Development of next-generation quantum cryptography key distribution (QKD) system to diversify quantum cryptography communication
- >> Development of long-distance wireless quantum cryptography key distribution (QKD) technology applicable to satellite quantum secure communication

[Establishment of quantum fab infrastructure]

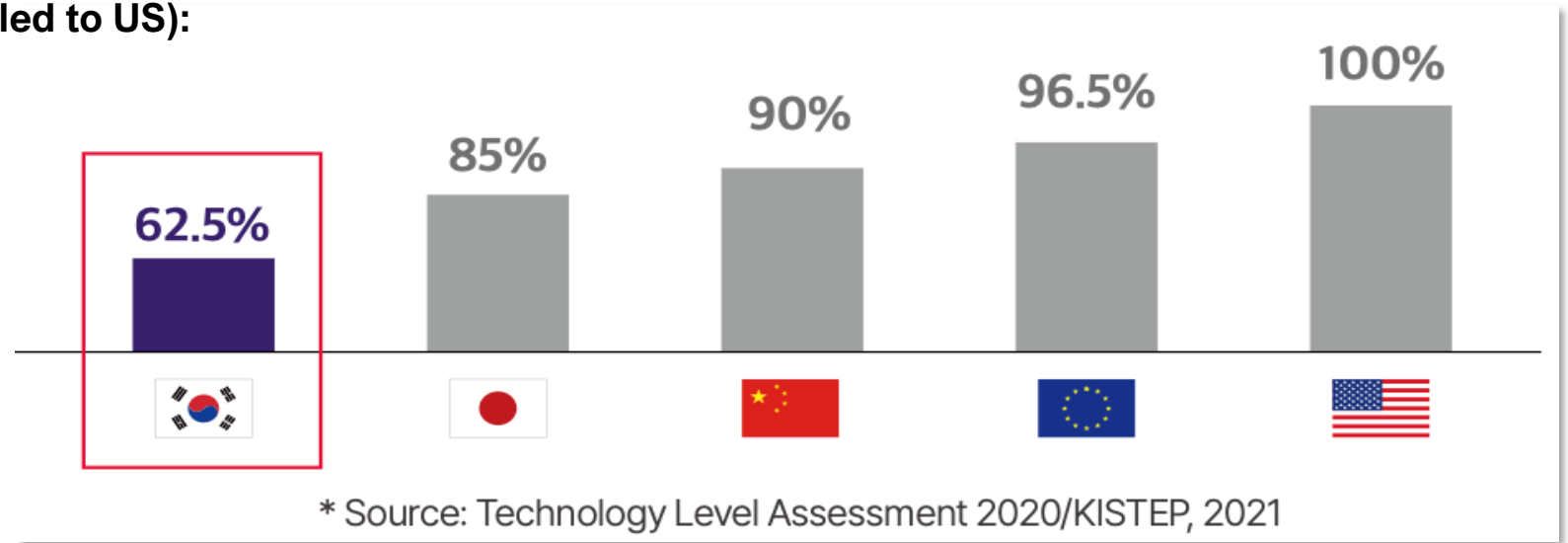
- >> Establishment of two open quantum process infrastructures in each region, open operation and training of professional manpower

■ 2024 R&D Projects : KRW 309 billion won (approx. USD230m)

- Quantum sensor core technology development('19~'25 / 30billion won)
- Quantum cryptography communication integration and transmission technology advancement('20~'25 / 67billion won)
- Quantum Internet core technology development('22~'26 / 86billion won)
- Quantum sensor commercialization technology development('23~'25 / 77billion won)
- Quantum cryptography communication industry application and diffusion technology development('24~'28 / 49billion won)

3. Technological competitiveness of Korea's quantum industry

Technology Competency (scaled to US):



Patent Applications:



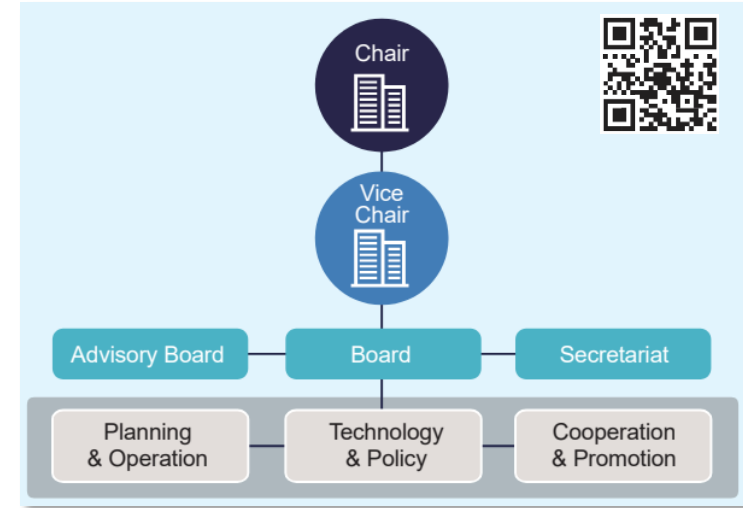
4. Introduction to KQIA

KQIA is a non-profit organization established in November 2022 under the Support of MSIT(Ministry of Science and ICT)

- Started as QCILA(Quantum Computing Industry Leaders' Alliance)
- **As of 2024, 67+ Members**

Mission

- Accelerate the commercialization of Quantum Computing
- Foster the industrial ecosystem
- Contribute to the national public interest and technology competitiveness
- Represent the Korea Quantum Technology Industry for International Collaborative Efforts



9 Board Members (as of April 2024)



67 member companies, including...

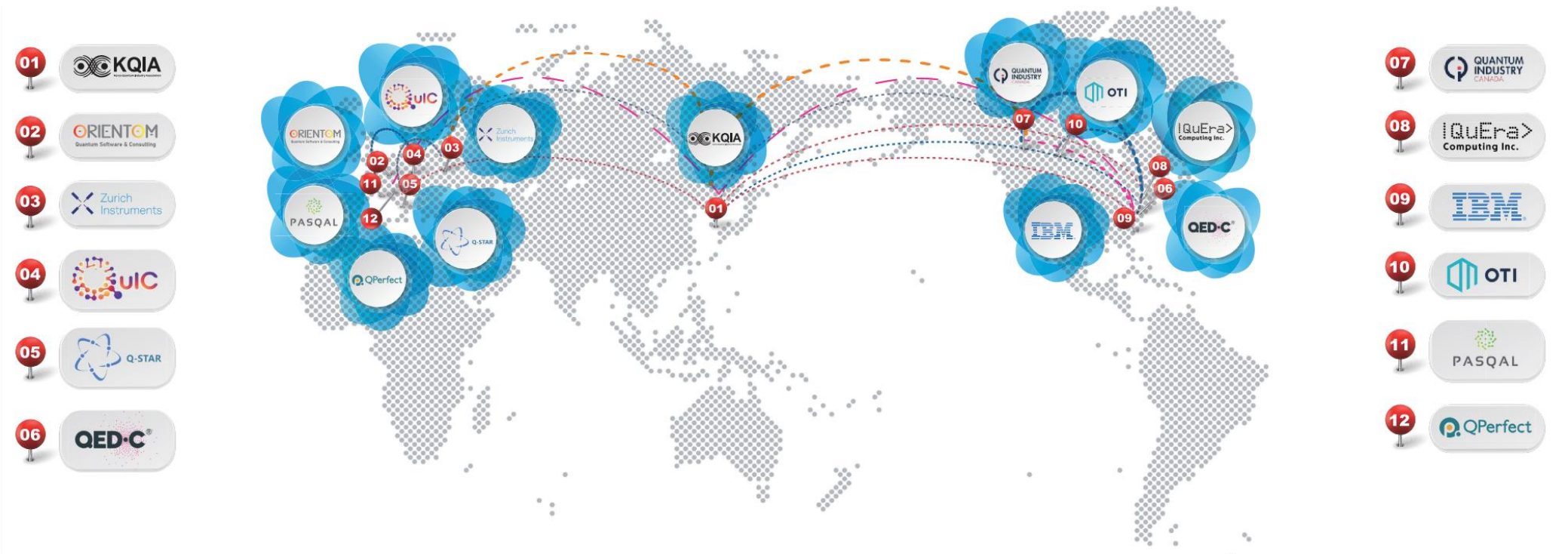


4. Introduction to KQIA

Member

- (Regular member) Domestic corporation whose head office, main office & place of business mgt/admin are in Korea
- (Associate member) Foreign corporation w/ a branch office in Korea, an unincorporated company, or a prospective founder
- (Special member) Institution/individual in a non-profit, public, or edu institution. Or a foreign corporation, non-profit, or other organization w/o a branch office in Korea

Global Networking



5. Main activities of KQIA

What we do

Discovery of quantum computing use cases and business models

Proposal for government R&D and public-private joint projects

Establish domestic and international cooperation system and promote exchange

Hosting technology network events and industry exhibitions

WG

Planning & Operation

Technology & Policy

Cooperation & Promotion

Scientific
Advisory Board

Korea Quantum Industry Leaders Forum
(Nov, 2023)



Quantum World Congress
(Sep, 2023)



KQIA-IonQ Meeting
(Sep, 2023)



Networking Night
(June, 2023)



Quantum Korea 2023
(June, 2023)



QED-C & QCILA Meeting
(May, 2023)



Networking Day
(Mar, 2023)



QCILA Inauguration Ceremony
(Nov, 2022)



KQIA is seeking global networking partner



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