

How can we ensure equitable access to quantum technologies?

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Setting the scene: Science Diplomacy

Ensure equitable access
to the technology and
progresses for the benefit
of humanity

Science to accelerate
sustainable development

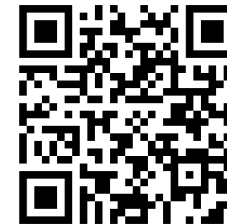
Policymakers to think
upstream about the impact of
scientific and technological
progress on society

**Anticipation of future
developments**

**Acceleration of the dialogue
between science, diplomacy,
philanthropy and society**

**Translation of
opportunities into action**

Zooming in: The Open Quantum Institute



Strategic Pillars of the Open Quantum Institute

A1 Accelerating applications for humanity

Realising the full potential of quantum computing by accelerating the use cases geared towards achieving the SDGs, thanks to the combined forces of researchers and developers, entrepreneurs, the United Nations, and large NGOs.



A2 Access for all

Providing global, inclusive and equitable access to a pool of public and private quantum computers and simulators available via the cloud



A3 Advancing capacity building

Developing educational tools to enable everyone around the world to contribute to the development of quantum computing and make the most of the technology.



A4 Activating multilateral governance for the SDGs

Providing a neutral forum to help shape multilateral governance of quantum computing for the SDGs





A4 - Activating Multilateral Governance for SDGs



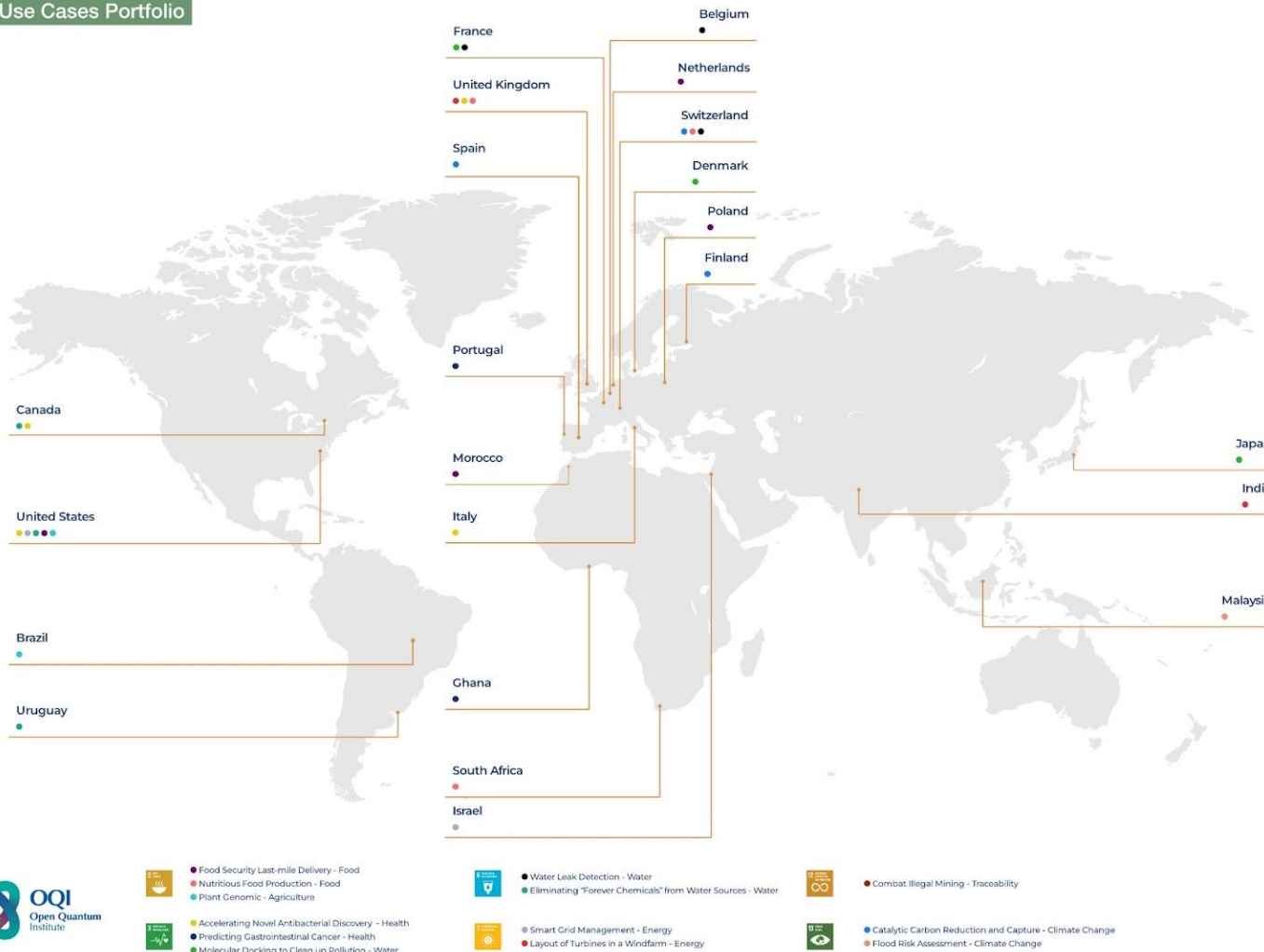
Quantum Diplomacy engagement through informal discussions with 20+ permanent representations in Geneva and in country with input from community of practice (industry and science)

- Digital and economic inclusivity
- Technology for the SDGs
- Global Security
- Interoperability
- Trade
- Environment
- Talent
- Human Agency



A1 - Accelerating Applications for Humanity

OQI Use Cases Portfolio



- Nutritious Food production
- Food Security – Last mile food delivery
- Plant Genomics



- Accelerating Novel Antibacterial Discovery
- Molecular Docking
- Predicting Gastro- intestinal Cancer



- Water Leak Detection
- Eliminating forever chemicals from water sources



- Laying out turbines in a windfarm
- Smart grid management



- Carbon Capture
- Flood risk assessment



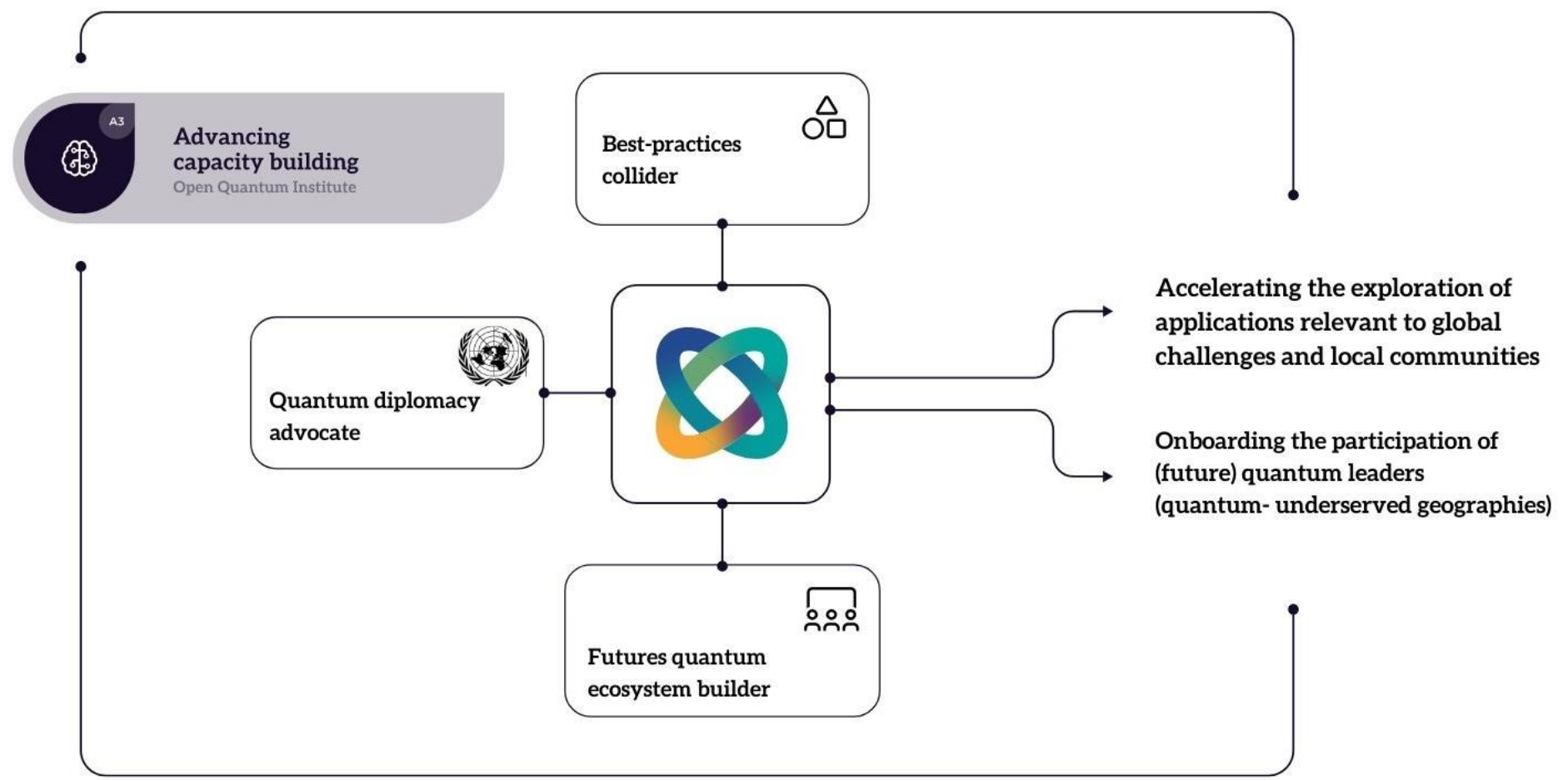
A2 - Access for All



OQI as the center for expertise on the applications of quantum computing for the SDGs (and their future succeeding framework)



A3 - Advancing capacity building at OQI





A3 - Advancing capacity building - activities



Educational Consortium

55+ institutions contributing, with 17 official member institutions, and 80 experts involved in the Education Consortium

All activities aligned and relayed as part of the UN Year of Quantum Science and Technology

- Educational Consortium Workshops
- Extended Educational Repository
- Foundational Trainings

- Hackathons
- Training for host institutions of OQI supported hackathons
- Pre-hackathon training programme for participants
- OQI mentorship programme
- OQI internship programme
- Regional quantum community events
- OQI inspired activities

- Quantum Diplomacy Game
- Quantum Diplomacy Game facilitator programme



Best-practices collider

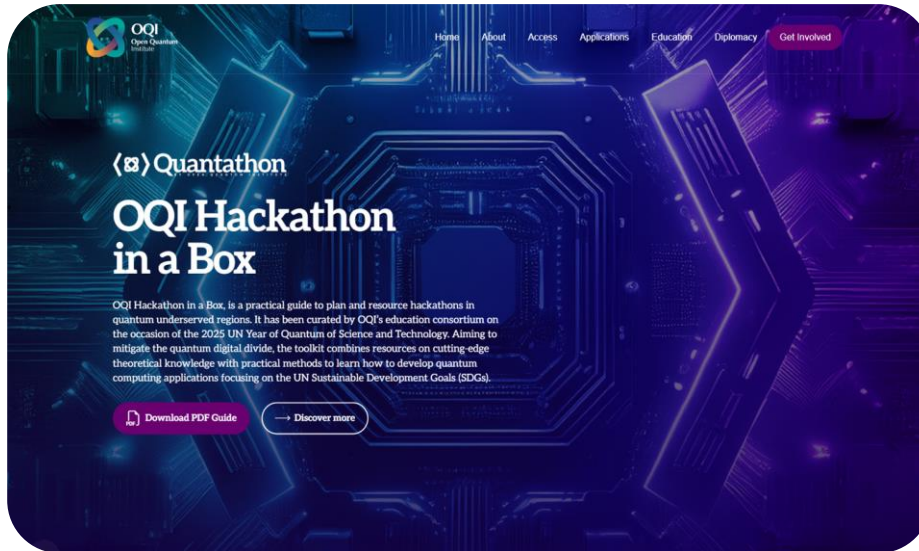


Futures quantum ecosystem builder

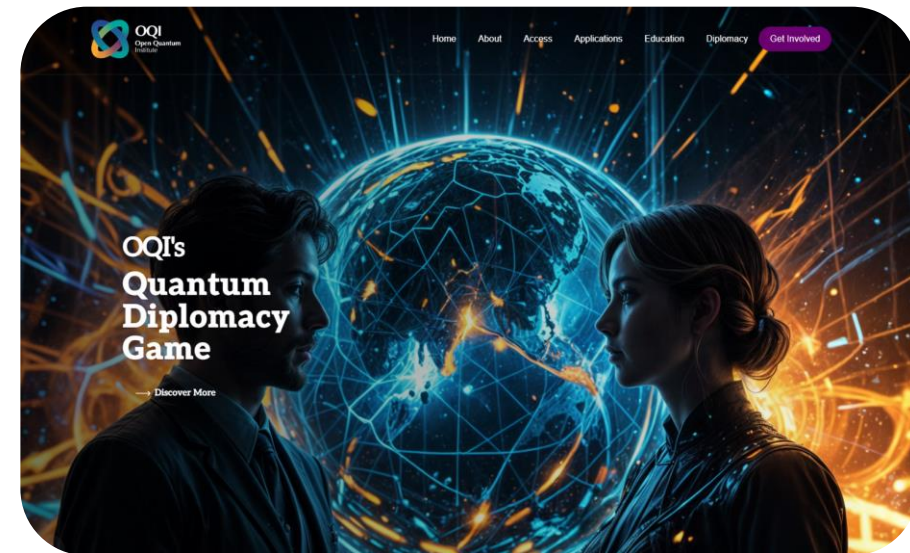


Quantum diplomacy advocate

Activating opportunities: IYQ2025



- 6 Hackathons taking place in all continents
- 4 Quantum diplomacy Games around the globe,
- OQI white Paper on Use Cases and Arxiv Paper on Regime of Quantum Advantage



How can we ensure equitable access ?

Anticipating

Accelerating of the dialogue between science, diplomacy, philanthropy and society

Translating opportunities into action

Identifying opportunities for SDG use cases on the global quantum landscape

Identifying access and implementation support needs

Using platforms such the Quantum Diplomacy Symposium to debate across sectors about multilateral efforts required to harness the technology responsibly

Using quantum technologies as tools for equitable innovation rather than instruments of division

Offering support for implementation when providing access to technology

Advocating for capacity-sharing initiatives

Offering open-source educational resources

Implementing collectively best practices for advancing capacity building



Thank you!
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