



Use the future
to build the present

GESDA Solutions
The Open Quantum Institute

Conference on Quantum Technology for High-Energy Physics

GENEVA, NOVEMBER 2022



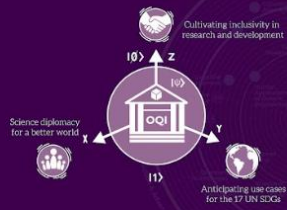
The Open Quantum Institute

A few words about the Geneva Science and Diplomacy Anticipator

Solution Idea

Quantum Revolution
& Advanced AI

Open Quantum Institute



Providing global and inclusive access to
state-of-the-art quantum technology

- Independent non-profit **foundation**
- **Private-public** partnership
- Created in **2019**
- **Mission:** strengthen the impact and innovation capacity of the international community through **science and diplomacy anticipation**
- 5 platforms, **37 scientific emerging topics**, 774 scientists from 70 countries, a **Diplomatic and an Impact forum**





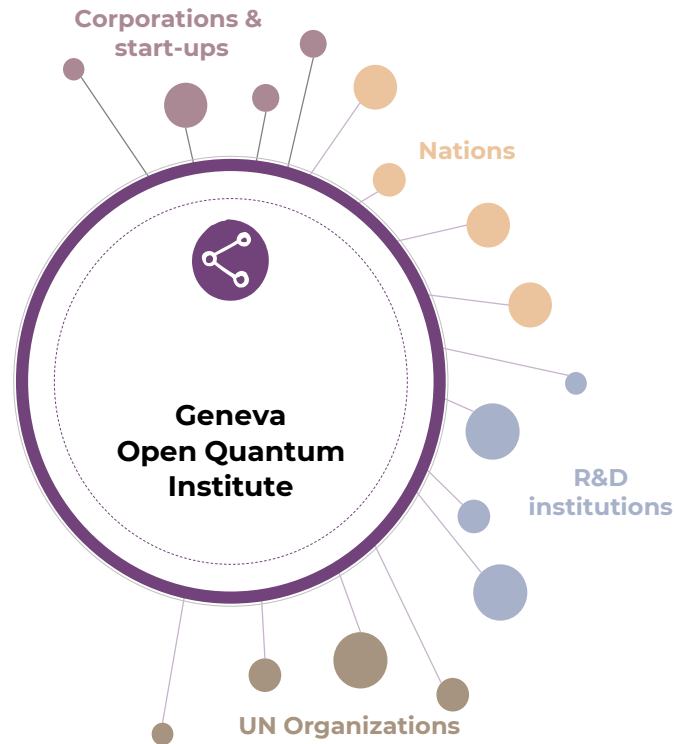
The Open Quantum Institute

Mission statement

Prepare the world for quantum
learn today to be ready for the future

The Geneva Open Quantum Institute is the “**honest broker**” between the
the **researchers and developers’ community,**
the **quantum technology providers, national policymakers**
and the **UN 2030 Agenda.**

By making state-of-the-art quantum technologies available to everyone,
the Institute **anticipates the readiness** of **all stakeholders**
to be informed, embrace and use, once at maturity,
the **full power of quantum** technologies
for the *SDGs and other beneficial applications for humanity.



*<https://sdgs.un.org/goals>

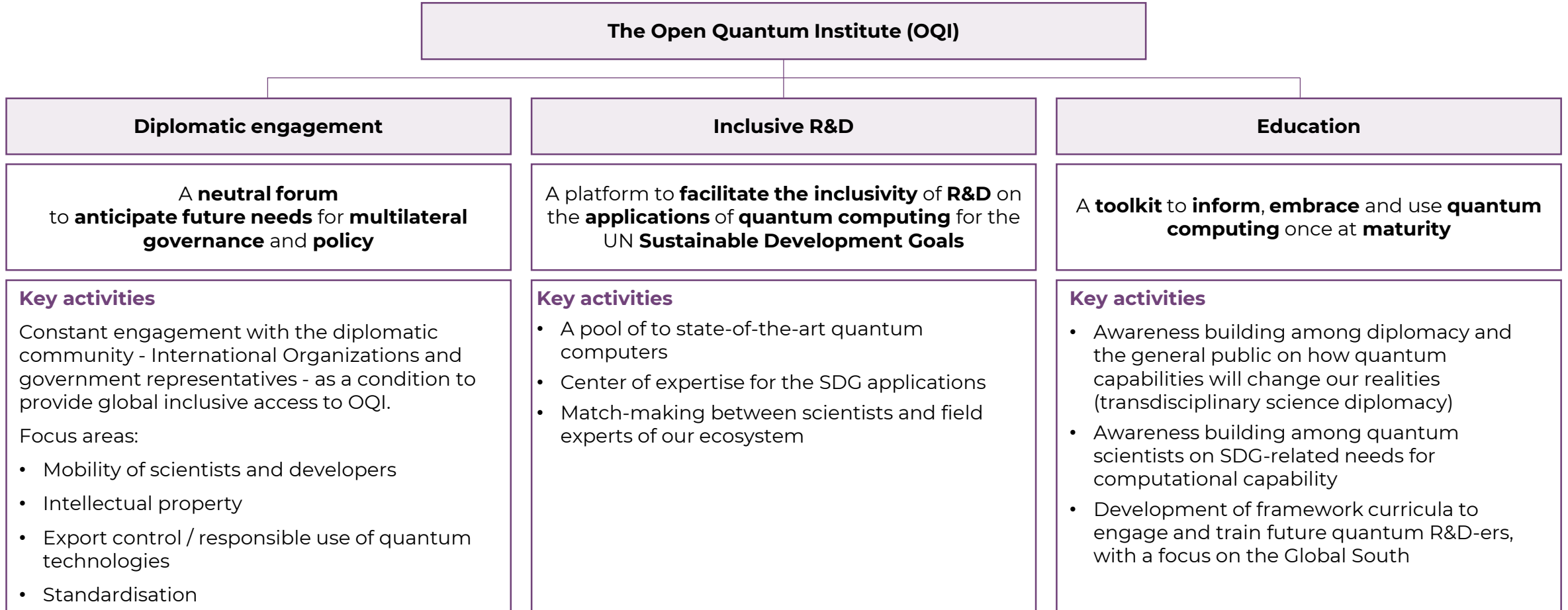
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What it does NOT do

- **Conduct R&D** directly
- **Build** quantum hardware
- **Provide funding** directly



The Open Quantum Institute

Spearheading partners

Academic



CERN



EPFL



ETHZ



Forschungszentrum Jülich



Imperial College London



National Institute for Theoretical and Computational Sciences (NITheCS)



Quantum Delta NL



Raman Research Institute



University of Calgary



University of Copenhagen



University of Geneva



University of KwaZulu-Natal

Diplomacy

Permanent Missions from a number of countries have been actively helping to shape the multilateral relevance of the future Open Quantum Institute

Australia

Mexico

Austria

Morocco

Brazil

Netherlands

France

Pakistan

Japan

Singapore

Malta

Switzerland

Citizens

Strategic partners



Fondazione Compagnia di San Paolo

Fondazione Compagnia di San Paolo



SDG Lab



XPRIZE

Impact



Alpine Quantum Technologies



AWS



IBM



IQM Quantum Computers



Microsoft

Microsoft



Oxford Quantum Circuits



PASQAL

PASQAL



Strangeworks

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Next steps and opportunities for collaboration

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Incubation of OQI in 2023-2024

Opportunities for collaboration

1. Contribute to the repository of SDG use cases
2. Take part in a R&D project
3. Provide technical or educational capability
4. Get involved in the governance and funding streams

Questions?

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31 Oct 2022

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The diagram features a central circular icon of a classical building with the letters "OQI" on its facade. This central icon is surrounded by four axes of a coordinate system: the vertical axis is labeled $|0\rangle$ at the top and $|1\rangle$ at the bottom, with a z label at the top; the horizontal axis is labeled x on the left and y on the right; a diagonal axis is labeled $|\psi\rangle$. Four circular icons are placed around the central icon, each with a corresponding text label: a handshake icon at the top labeled "Cultivating inclusivity in research and development"; a globe icon at the bottom right labeled "Anticipating use cases for the 17 UN SDGs"; a group of people icon at the bottom left labeled "Science diplomacy for a better world"; and a quantum circuit icon at the top right labeled "Quantum computing potential".

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