

OQI operational launch | 5 March 2024

Workshop A4: Activating multilateral governance building – Summary

Workshop time span: 15.15 – 17.00

Zoom: <https://cern.zoom.us/j/66491412442?pwd=dHZSdkw1c3pobGpzeVRwZExjYXdndz09>

Session chairs: Marieke Hood (GESDA) and Maricela Muñoz (GESDA)

Rapporteurs: Ozge Aydogan (UN SDG Lab) + Mira Wolf Bauwens (IBM)

Participants

Members of the OQI DEEG (diplomatic engagement expert group composed of the permanent representations in Geneva), experts of multilateral governance and responsible computing from industry and academia, experts from relevant UN organizations (UNESCO, OECD, UNIDIR, ITU, others)

Summary of the workshop

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- We reminded ourselves of the following:
 - Quantum computing is a **dual use technology per nature**
 - It could **impact a broad spectrum of key sectors** when it reaches full maturity – in 8 to 10 years
 - Policy makers should be able **to comprehend and anticipate** the impact of science and technology for their constituents, and this should be evidence-based
 - **International collaboration** is required to realize the promise of quantum computing to contribute to the progress towards the SDGs for all.
- We have reflected on **how the dialogue on quantum computing for the SDGs need to be open to all geographies**, including those who don't have quantum infrastructure or research, because all of humanity will be impacted by quantum computing when at scale
- We have discussed **the importance of updating and further completing the intelligence report** on quantum computing governance for the SDGs, produced last year as a result of our reflections
- We have agreed that a **few more themes could be addressed**, including:
 - Human agency
 - Talent and human capital
 - International value chains

Next steps

We will be coordinating next activities as appropriate, including DEEG working meetings and other activities.

Summary of the OQI operational launch event

Around 300 experts, 40 partner organizations from the public and private sectors and 20 countries took part, under GESDA's impetus, in the incubation of the OQI. Around 150 of them, present at CERN for the operational launch, took part in various workshops and focused their attention on what should make the OQI's strength and difference, namely :

- Rapidly implement solutions that use the potential of quantum computing to achieve the UN's Sustainable Development Goals (SDGs).
- Provide global, inclusive and equitable access to a pool of public and private quantum computers and simulators available via the cloud.
- Develop educational tools to enable everyone in the world to contribute to the development of quantum computing and make the most of the technology.
- Provide a neutral forum to help shape multilateral governance of quantum computing for the SDGs.

In concrete terms, the partners are convinced that the Open Quantum Institute, thanks to quantum computing simulations, will be able, for example, to contribute to the reduction of carbon dioxide (CO₂) in the atmosphere by improving the catalytic process responsible for fixing carbon to the surface of materials. This will contribute to achieving SDG 13, which calls for the fight against climate change.

Another example: antibiotic resistance is considered by the World Health Organization (WHO) to be one of the ten most serious threats to public health. Experts believe that quantum computing solutions will enable resistance patterns to be predicted more quickly and accurately, and new, less resistant chemical compounds to be identified on more targeted bacteria. This is tantamount to improving people's health and well-being, which is the aim of Sustainable Development Goal 3 (health and well-being).

This project to create an OQI is a perfect illustration of GESDA's way of working, which is to anticipate technologies that could change the world, and to look for solutions to implement them for the benefit of humanity. Already in 2021, GESDA's scientific community has put the spotlight on the potential of quantum technology. GESDA has decided to make this a priority and, at the 2023 GESDA Summit, announced the creation of an Open Quantum Institute after a year of incubation work. CERN, which contributed to the incubation phase, is now taking over responsibility for the project during its pilot phase, with continued support of GESDA, UBS and all the engaged OQI community.

Media coverage of the launch

The opening of the GESDA Open Quantum Institute at CERN has drawn considerable media attention, particularly in the United States and Switzerland.

The syndication of the Agence France Presse story in U.S. newspapers contributed to widespread coverage in America, while Switzerland saw significant reporting from various outlets, including the original content from ATS.

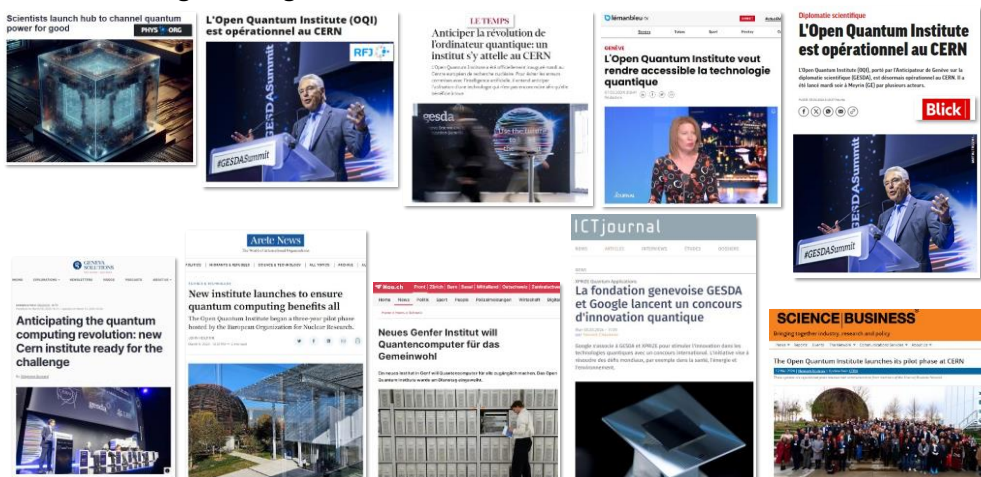
Total reach was 96 Billion.

Top articles:

- ❑ Agence France Presse: [Scientists launch hub to channel quantum power for good](#)
This article was picked up by 64 other sources, mainly in the United States, but also in several Asian countries, the United Kingdom and Türkiye. It conveys a full spectrum of information, including the launch of the Open Quantum Institute, quotes by Peter Brabeck-Letmathe, and the collaboration announcement between GESDA, Google, and XPRIZE.
- ❑ Agence Télégraphique Suisse: [L'Open Quantum Institute \(OQI\) est opérationnel au CERN](#)
The article was picked up by 10 other Swiss sources and it summarizes several quotes from key figures involved in the launch of the pilot phase at CERN for the Quantum Initiative. GESDA chairman Peter Brabeck-Letmathe expressed his pride in this important step. CERN's executive director Fabiola Gianotti believes that the OQI can be a pioneer in scientific diplomacy. Secretary of State Alexandre Fasel remarked that this work will shape the future of quantum technology for the common social good.
- ❑ Le Temps: [Anticiper la révolution de l'ordinateur quantique: un institut s'y attelle au CERN](#)
- ❑ Blick: [L'Open Quantum Institute est opérationnel au CERN](#)
- ❑ SDA: [Neues Genfer Institut will Quantencomputer für das Gemeinwohl](#)
- ❑ Geneva Solutions: [Anticipating the quantum computing revolution: new Cern institute ready for the challenge](#)
- ❑ Léman Bleu: [L'Open Quantum Institute veut rendre accessible la technologie quantique](#)
- ❑ ICT Journal: [La fondation genevoise GESDA et Google lancent un concours d'innovation quantique](#)
- ❑ Arete News: [New institute launches to ensure quantum computing benefits all](#)
- ❑ Science Business: [The Open Quantum Institute launches its pilot phase at CERN](#)

Clipping Report

Overall Coverage in Images



Detailed run of show

- 15.15 – 15.20 **Welcome to the workshop**
Maricela Muñoz
- 15.20 – 15.35 **Multilateral governance at OQI – what have we achieved so far**
Marieke Hood and Maricela Muñoz
- Mission and values of OQI and how diplomacy is needed to realize them (*Marieke Hood*)
 - Expert group inclusivity, shaping the dialogue, intelligence report + Moderated discussion on Intelligence report (*Maricela Muñoz*)
 - Usefulness of the tool and limitations
 - Opportunities for further dissemination
 - Should we continue and expand
- 15.35 – 15.40 **Quantum Diplomacy Serious Game introduction**
Marga Gual Soler (GESDA)
- Explaining the scenario (cf. simplified slide) and rules of the game
 - Character distribution
- 15.45 – 16-15 **Quantum Diplomacy Serious Game playing**
Marga Gual Soler, Marieke Hood, Maricela Muñoz, Daria Robinson
- 16.15 – 16.35 **Quantum Diplomacy Game debriefing**
Marga Gual Soler and all
- 16.35 – 16.45 **Inspiration for the Diplomacy work of OQI**
Marieke Hood
- New themes for the Intelligence Report
 - New players to involve (IOs)
- 16.45 – 17.00 **Conclusions and next steps**
Maricela Muñoz
- 14.45 – 17.30 Break**
- 17.30 – 17.40 **Welcoming OQI at CERN**
Joachim Mnich, Director Research and Computing, CERN
- 17.40 – 18.05 **Rapporteurs presentations of workshop findings (5 min per workshop)**
- Workshop A1 – Acceleration of applications for humanity (*Vincenzo Savona (EPFL) + Massamba Thiye (UNFCCC)*)
 - Workshop A2 – Access for all (*Ines Juvan Beaulieu (OQC) + Julia Thiele (AWS)*)
 - Workshop A3 – Advancing Capacity Building (*Sana Odeh (NYU) + Rosario Fazio (ICTP)*)
 - **Workshop A4 – activating multilateral governance (*Ozge Aydogan (SDG Lab) + Mira Wolf Bauwens (IBM)*)**
- 18.05 – 18.15 **Switzerland at the forefront of science diplomacy in action**
Alexandre Fasel (FDFA) (zoom)
- 18.15 – 18.20 **Closing of this part with focus on multistakeholder engagement and transition to prize announcement**
Peter Brabeck-Letmathe (GESDA)
- 18.20 – 18.45 **Special announcement by XPRIZE**
(supported by Google as title sponsor and GESDA as presenting partner)
Anousheh Ansari (XPRIZE) with contributions of GESDA (Sandro Giuliani) and Google (TBC)
- 18.45 – 18.50 **Closing remarks**
Nathalie Fontanet (Canton and Republic of Geneva)
- 18.50 – 20.00 **Networking cocktail**