

GESDA Submission - Youth Disarmament Report 2025

- 1- Name of the organization: Geneva Science and Diplomacy Anticipator (GESDA)
- 2- Name of the focal point in your organization: Ms. Maricela Muñoz, Director of External Affairs
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- 4- **Submission** to Secretary-General's report on Youth, disarmament, and non-proliferation (max. 500 words).
- 5- **Executive summary of your organization's submission** (max. 200 words).
- 6- Organization wishes their submission to be posted on the ODA website?: Yes

4. Submission to Secretary-General's report (500 words)

The Geneva Science and Diplomacy Anticipator (GESDA) is an independent foundation that connects scientific foresight with multilateral diplomacy to address the global impact of emerging technologies. To promote inclusive science diplomacy, GESDA launched the Open Quantum Institute (OQI), a multistakeholder platform ensuring quantum technologies support the UN Sustainable Development Goals and remain accessible to all.

A key OQI initiative is the “Quantum Diplomacy” simulation game, which immerses participants in a future scenario based on GESDA’s Science Breakthrough Radar—a foresight tool identifying key scientific advances expected in the next 5, 10, and 25 years. Set in a dystopian 2035 shaped by failed international cooperation, the game challenges players—acting as diplomats, scientists, and private sector leaders—to negotiate norms for quantum governance today to prevent that future. The exercise promotes systems thinking and strategic dialogue on the role of advanced technologies in global peace, security, and disarmament.

Youth for Biosecurity Fellowship (2023, 2024)

In 2023 and 2024, GESDA was invited to two editions of UNODA’s Youth for Biosecurity Fellowship Programme, aimed at equipping young professionals and students with a foundational understanding of synthetic biology and its potential global implications. Participants were introduced to emerging bioengineering technologies, dual-use concerns, and governance mechanisms through expert-led presentation and interactive learning methods – including a tailored simulation game on the topic of synthetic biology. The fellows were immersed in fictional negotiations to underscore the importance of anticipatory governance. Synthetic biology applications could present both – opportunities and risks – that need to be assessed beforehand. GESDA’s experiential learning tools fostered strategic

thinking, negotiation skills, and appreciation for the challenges of regulating dual-use technologies in a fast-evolving field.

Quantum Diplomacy and Disarmament Fellowships (2023, 2024, 2025)

GESDA collaborated with UNODA's Disarmament Fellowship Programme in 2023, 2024, and 2025, providing a briefing on quantum technologies and its implications for international security. A key feature of these sessions was GESDA's OQI "Quantum Diplomacy Game", a simulation designed to enhance understanding of the geopolitical, ethical, and regulatory dimensions of quantum technologies. Participants explored the strategic relevance of quantum computing, quantum communication, and sensing technologies, among other things. The simulation placed the participants in the role of policymakers, scientists, and diplomats negotiating the norms and safeguards necessary to avoid a destabilizing quantum arms race and a quantum divide. The exercise fostered multistakeholder dialogue, critical thinking, and the development of recommendations for anticipatory governance structures.

Since 2023, GESDA has advanced and contributed to youth engagement in disarmament and non-proliferation through UN-initiatives, connecting science anticipation and emerging technologies with global peace and security.

Through its contribution at the annual biosecurity and disarmament fellowships, GESDA empowered young leaders with scientific knowledge and diplomatic training, fostering capacity-building, agency, and futures thinking in addressing global security challenges. GESDA remains committed to supporting youth engagement in multilateral and anticipatory governance efforts shaping future security.

5. Executive Summary of Submission

Between 2023 and 2025, the Geneva Science and Diplomacy Anticipator (GESDA) has advanced youth engagement in global peace and security through innovative experiential learning. Central to this effort is GESDA's Open Quantum Institute (OQI), which aligns quantum technology development with the UN Sustainable Development Goals. A key tool is the Quantum Diplomacy Game, a simulation that immerses participants in future scenarios shaped by emerging technologies, fostering futures thinking and anticipatory governance.

GESDA also contributed to the Biosecurity Fellowship Programme, educating youth on anticipating synthetic biology developments, dual-use risks, and opportunities for prospective action. Additionally, GESDA hosted annual briefings at the UN Disarmament Fellowship

Programme, focusing on the anticipating the impacts of quantum technologies. Through interactive simulations, youth professionals were empowered to reach common understandings to prevent technological misuse and further divides, particularly in quantum and biosecurity fields.

GESDA promotes youth leadership, anticipatory governance skills, and multistakeholder collaboration. Its work underscores the importance of integrating scientific foresight with diplomacy to equip future leaders for the complex security challenges posed by rapid technological advances.