Unitar Online Catalogue

UNITAR & CERN Quantum Innovation for Sustainable Development Hackathon 2026

United Nations Satellite Centre UNOSAT

Deadline: 10 Jul 2026

Type:	Side Event
Location:	Geneva, Switzerland
Date:	12 Jul 2026
Duration:	1 Days
Thematic Area:	Risks, Data, Technology and Geospatial Intelligence, , Satellite Imagery and Geospatial Analysis, , Technology, Artificial Intelligence and Digital Policy, , Youth engagement
Website:	https://unosat.org/
Price:	$0.00
Event Focal Point Email:	unosat@unitar.org
Partnership:	Conseil Européen pour la Recherche Nucléaire

BACKGROUND

The Hackathon was jointly organized by United Nations Satellite Centre, CERN, the Open Quantum Institute (OQI), and Quantum4Purpose, and hosted at CERN IdeaSquare from **10 to 12 July 2026**. Building on the success of the inaugural

edition in 2025, the hackathon brought together students, researchers, and emerging professionals to explore the application of quantum computing to the design of novel quantum materials and their potential contribution to the achievement of the United Nations Sustainable Development Goals (SDGs).

The United Nations Satellite Centre participated in the final day of the hackathon (12 July 2026), contributing to the closing programme through engagement with participants, project presentations, discussions on humanitarian and sustainable development applications of emerging technologies, and strengthening collaboration between CERN and the United Nations.

EVENT OBJECTIVES

Promote innovation in quantum computing and quantum materials in support of the Sustainable Development Goals.

Strengthen collaboration between academia, research institutions, industry, CERN, and the United Nations.

Provide participants with an opportunity to develop practical concepts and prototype quantum algorithms for real-world applications.

Encourage interdisciplinary teamwork and knowledge exchange through challenge-based learning.

Showcase the potential of emerging technologies to address scientific, humanitarian, and sustainable development challenges.

Facilitate dialogue between CERN and the United Nations Satellite Centre on opportunities for future collaboration in technology and innovation for sustainable development.

CONTENT AND STRUCTURE

The hackathon was conducted over three days and combined technical learning, collaborative innovation, mentoring, and final project presentations. Participants worked in multidisciplinary teams to address challenge statements related to quantum materials and sustainable development.

The programme included:

- Technical sessions on quantum computing and quantum materials.
- Team-based hackathon activities and collaborative solution development.
- Mentoring by experts from CERN, OQI, Quantum4Purpose, academia, and industry.
- Access to quantum computing resources and technical support.
- Final project presentations and evaluation.

On 12 July 2026, representatives from the United Nations Satellite Centre participated in the closing day activities, engaging with participants and mentors, attending the final presentations, contributing perspectives on humanitarian and sustainable development applications of advanced technologies, and exploring opportunities for future collaboration.

METHODOLOGY

The event adopted a challenge-based and experiential learning methodology that combined expert guidance with collaborative problem-solving. Participants applied theoretical knowledge through practical team exercises, supported by mentoring and peer learning throughout the hackathon. The United Nations Satellite Centre contributed on knowledge exchange, dialogue with participants and organizers, and highlighting the role of emerging technologies in addressing global humanitarian and sustainable development challenges.

TARGETED AUDIENCE

The hackathon brought together approximately 35–40 participants organized into multidisciplinary teams, including:

-Students participating in the CERN Summer Student Programme.

-Master's and PhD students from leading Swiss universities.

-Early-career researchers in quantum computing, materials science, physics, computer science, engineering, and artificial intelligence.

-Researchers and innovators interested in applying quantum technologies to societal challenges.