

UN/Space and Global Health Conference

Space and Global Network activities

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gdhub
Geneva Digital Health Hub



United Nations
Office for Outer Space Affairs

06 February 2024

Genesis & Mission

- 20 to 29 June 2018 : sixty-first session of the Committee on the Peaceful Uses of Outer Space welcomed the introduction of a new item entitled “Space and global health” on the agenda of the Scientific and Technical Subcommittee and the establishment of the Working Group on Space and Global Health under the item.
- COPUOS – subsidiary body of the UN General Assembly - primary international/multilateral platform deciding on the global governance of outer space activities
- 12 December 2022: the General Assembly adopted its resolution 77/121 on international cooperation in the peaceful uses of outer space(...) noted with satisfaction the establishment **of the Space and Global Health Platform**, based in Geneva, **to promote effective collaboration on space and global health issues among Member States and United Nations system entities**, in particular the World Health Organization (WHO) and the Office for Outer Space Affairs, as well as international organizations and relevant actors, and welcomed the establishment of the Space and Global Health Network (SGH Network).

Genesis & Mission of the Space and Global Health Network

- The SGH Network is hosted and supported in its operational activities by the Geneva Digital Health Hub.
- The various activities of the SGH Network are promoted and consolidated through the Space and Global Health Platform (Implementome), a dedicated, cooperative, globally accessible, multifaceted platform for information and community management.



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Office for Outer Space Affairs



UNITED NATIONS | WORLD HEALTH ORGANIZATION
**INTERNATIONAL CONFERENCE ON
SPACE AND GLOBAL HEALTH**

**1 - 3
NOVEMBER** | **GENEVA
SWITZERLAND**

IN COLLABORATION
WITH



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

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SUPPORTED BY



132 countries

998 individuals applicants

232 individuals selected

171 participants

41 speakers

31 Statements of intent

UN/WHO Space and Global Health Conference

Four main areas : (a) Telemedicine and telehealth; (b) Tele-epidemiology and environmental health; (c) Space life sciences; (d) Disaster and health emergency management.

- Keynote addresses, presentation sessions and a poster session.
- Each session was followed by discussion sessions on the implementation of the resolution on space and global health.
- A reception was hosted by the Government of Switzerland on November 1st .



UN/WHO Space and Global Health Conference

■ Speakers:

Geneva-based organizations (the **Group on Earth Observations** and the **SGH Network**) and from six space agencies (ASI (Italy), CONAE (Argentina), ESA (European), GISTDA (Thailand), NASA (United States) and SUPARKO (Pakistan)) also presented during the conference.

■ Stakeholders :

Representatives of national health authorities, space agencies, academia, international organizations, governmental institutions, non-governmental entities etc.



UN/WHO Space and Global Health Conference

96 paragraphs of observations and recommendations

Improving education. Capacity Building

95. Successful examples of multidisciplinary capacity-building efforts bridging space and health were discussed, and it was recognized that more efforts were needed. Participants **recommended advocating for improving education through the creation of a space and global health curriculum and a comprehensive list of relevant use cases to drive capacity-building and awareness-raising efforts.**

Technical Operability

84. The identification of issues and concerns, as well as existing policies and regulations, could be taken as a first step towards establishing mechanisms to facilitate the development of space-based technologies in support of global health. Participants recognized the need to advance further in terms **of organizational and technical interoperability.**

Collaboration and knowledge sharing

76. Participants **encouraged space agencies and health authorities to proactively engage with the Space and Global Health Network by providing updates on and insights into their collaborative projects and endeavours for incorporation in the Space and Global Health Platform, and to make that information available to the members of the Network,** thus enriching the collective expertise of the Network and fostering an environment conducive to innovation and enhanced cooperation.

Risk monitoring of key variables

87. Variables such as temperature, humidity, particulate matter, carbon monoxide and dioxide concentration, land cover and use, and other environmental data were identified as important for risk assessment. Along the same lines as the essential climate variables, it **was recommended to create a list of public health monitoring requirements and essential variables that could** be captured by space systems and associated applications to reduce the risk of monitoring gaps.

Need assessment of spatial resolutions

86. Acknowledging that the applications presented during the Conference made use of existing and mostly freely available sensors, it was recognized **that a thorough needs assessment should be conducted to understand the appropriate spatial resolution for each application** and to identify potential needs for very high-resolution data in some applications.

Reducing Gender gap

91. It was highlighted that, although there was limited data from participants in spaceflights, a gender imbalance existed, due to the overrepresentation of men as compared to women, which presented challenges to understanding specific health issues. **Space agencies were encouraged to continue broadening the participation of women in space exploration, including through the Space4Women initiative of the Office for Outer Space Affairs.**

Report of the conference



Examples of the various topics : use of remote sensing data and geographic information systems and their role in preventing and forecasting health issues and supporting decision makers, with concrete examples in areas such as urban heat, air pollution and vector-borne, waterborne and soil-related diseases. The use of machine learning, AI (artificial intelligence) and data modelling techniques etc.

Detailed report of the conference ([A/AC.105/1306](https://www.un.org/Depts/under23/1306/))

**Committee on the Peaceful
Uses of Outer Space**
Scientific and Technical Subcommittee
Sixty-first session
Vienna, 29 January–9 February 2024
Item 13 of the provisional agenda*
Space and global health

Report on the United Nations/World Health Organization International Conference on Space and Global Health

(Geneva, 1–3 November 2023)

I. Introduction

1. At its sixty-first session, held from 20 to 29 June 2018, the Committee on the Peaceful Uses of Outer Space welcomed the introduction of a new item entitled “Space and global health” on the agenda of the Scientific and Technical Subcommittee and the establishment of the Working Group on Space and Global Health under the item. At its sixty-second session, held from 12 to 21 June 2019, the Committee endorsed the multi-year workplan of the Working Group (2019–2022).¹

2. On 12 December 2022, the General Assembly adopted its resolution 77/121 on international cooperation in the peaceful uses of outer space, in which it took note of the report of the Working Group on the work conducted under its multi-year workplan,² noted with satisfaction the establishment of the Space and Global Health Platform, based in Geneva, to promote effective collaboration on space and global health issues among Member States and United Nations system entities, in particular the World Health Organization (WHO) and the Office for Outer Space Affairs, as well as international organizations and relevant actors, and welcomed the establishment of the Space and Global Health Network.

3. On the same date, the General Assembly adopted its resolution 77/120 on space and global health, in which it agreed to promote capacity-building events, to be organized by United Nations entities and other relevant actors, with the objective of further promoting awareness of and engagement with regard to the important contribution of space science and technology in the health domain.

4. In line with the resolutions, the United Nations/World Health Organization International Conference on Space and Global Health was co-organized by the Office for Outer Space Affairs, WHO and the United Nations Conference on Trade and

* A/AC.105/C.1/L.412.

¹ A/AC.105/1202, annex III, appendix I.

² A/AC.105/C.1/121.



2024 Activities Plan

2024



- Aligned with the recommendations of the United Nations General Assembly Resolution 77/120, the UN/WHO Space and Global Health Conference and the overall mission of the SGH Network to promote effective collaboration on space and global health issues among Member States, United Nations entities, other international organizations, and relevant actors.
- Objectives
 - to raise awareness on the SGH Network mission and activities
 - to engage with new stakeholders sharing similar interest to contribute to shape the agenda in the field of Space and Global Health.

2024 Activities Plan

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A. Curriculum on Space and Global Health



B. Events 2024



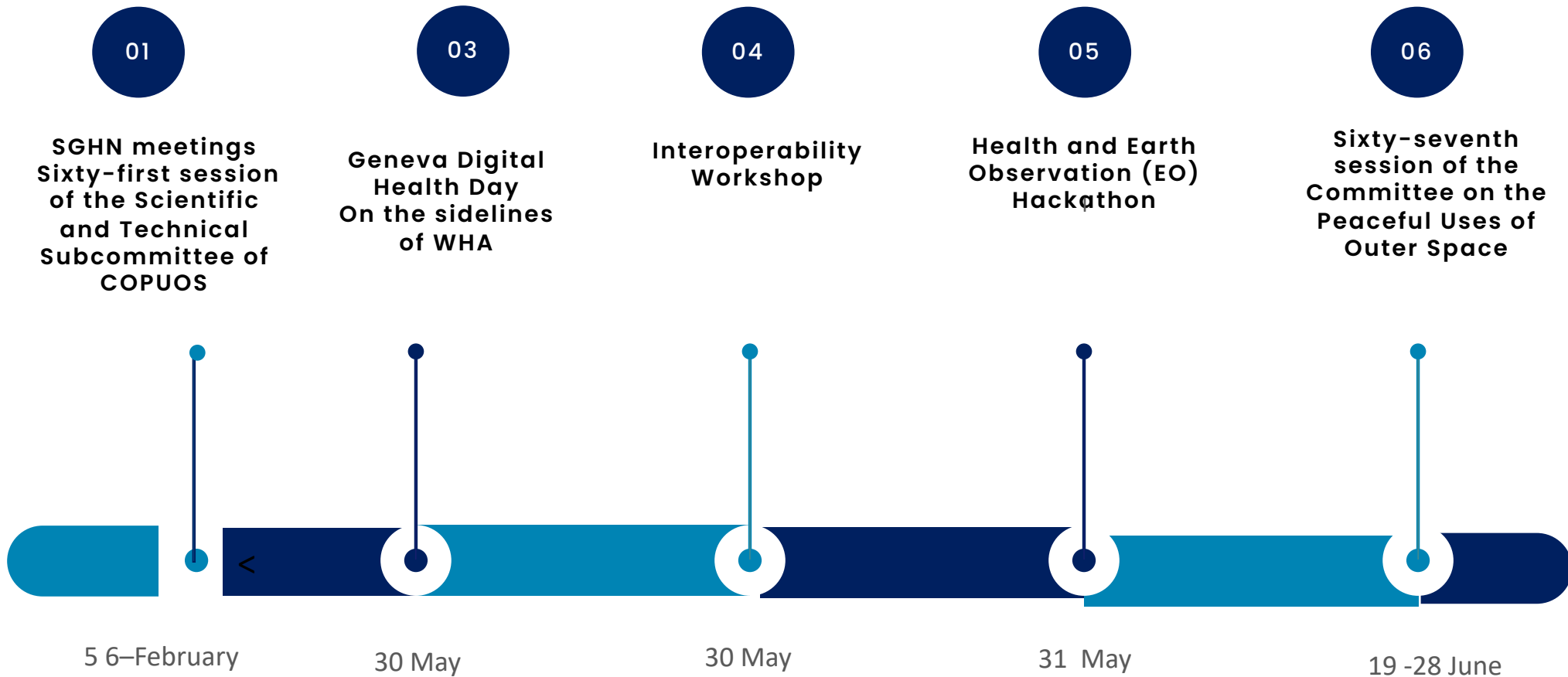
C. Community of Practice/ Implementome



D. Working groups of experts of the Space and Global Health Network.

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2024 Events



30 May 2024
Geneva

- In collaboration with the Geneva Health Forum, within the context of seventy-seventh World Health Assembly.
- First edition of **the Geneva Digital Health Day organized by** the Geneva Digital Health Hub.
- Platform for healthcare professionals, innovators, humanitarians, entrepreneurs, policy-makers and academics to share insights, experiences, and solutions **in the field of digital health, with the mission to promote knowledge sharing and collaboration.**
- Topics aligned with the recommendations of 2023 UN/WHO Space and Global health Conference and the report of the sixty-first session of the Scientific and Technical Subcommittee in Vienna.
- Interoperability, data governance, remote-sensing, GIS, curriculum for capacity building in the field of space and global health etc.
- Multi-disciplinary stakeholders' sessions will take place (including actors from the industry, venture-capital and financing firms) to improve the collaboration between the fields of space and global health.



Deadline to apply: February 10

- **Fist Hackathon** organized by The European Space Agency (ESA) and the Geneva Digital Health hub with the collaboration of the Space and Global Health Network.
- Individuals from all backgrounds (global health experts, medical professionals, data scientists, project managers, etc.), with a special focus on health sector and Earth Observation (EO) applications experts, are invited to contribute through their ideas and expertise.
- Challenges on various topics aligned with the mission of the Space and Global health Network shall be featured during this Hackathon including technologies, such as Earth Observation Satellite Data, digital technologies (e.g. AI, Internet of Things), and innovative visualisation techniques (e.g. Metaverse, Augmented Reality) etc.

31st May – 1st of
June 2024
Geneva



Deadline to apply: February 14

61st session of the Scientific and Technical Subcommittee of COPUOS. Vienna (5-6 February).

- **Alignment on our activities plan for 2024**
- **Curriculum on Space and Global Health**
 - New taskforce
 - Methodology to design and implement a curriculum, bring innovative content bridging Space and Global Health topics beyond Space and Medicine. Online training/MOOC.
 - E.g. Space-based Essential Health Variables (S-EHVs), EO, One-health etc.
 - Survey and consensus meetings.
- **Assessment on creating potential taskforce groups** on specific topics(around specific use cases)
Synergies with existing groups.
- **Technical Interoperability:**
Identify the type of data that needs to be operable (EO, e.g Satellite/ veterinarian data etc. simple UN efforts (how can we leverage on those efforts).
Further meetings and challenge during the upcoming Hackathon with ESA (31st and June 1st).

Call for collaboration!

How to join the SGH Network

Statement of Intent for Participation in the Space and Global Health Network

The intent of the Space and Global Health Network (SGH Network) is to increase collaboration and cooperation between the space domain and the global health domain. The SGH Network is an open and flexible network of international organizations, governmental institutions, non-governmental entities, other relevant stakeholders, and individuals willing to share experiences and expertise in the fields of space and/or global health, and contribute to the development and/or use of services and tools supporting these goals. To facilitate interactions, it is coordinated by a Network Coordinator.

Herein, this statement provides guidance and operational principles for the participants in this network.

Participation

Participation in the SGH Network is entirely voluntary and each participant's activities are funded through their own resources.

As a condition of participating in the SGH Network, the participants agree to a policy of free and open sharing of all data and information submitted to the network.

Operational Principles

The overall goals and objectives of the SGH Network are to:

- Implement, maintain, and develop the Space and Global Health Platform (SGH Platform), a cooperative, globally accessible, multifaceted platform for information and community management, aiming at promoting effective collaboration on space and global health issues among Member States, United Nations entities, other international organizations and relevant actors. The SGH Platform is a collection of distributed resources and services managed by various members of the Network.
- Collaborate with the Scientific and Technical Subcommittee (STSC) and with the United Nations Office for Outer Space Affairs (OOSA) to leverage on the existing meetings to connect with the relevant stakeholders in the domain of space and global health.

To execute the objectives above, the functions of the SGH Network are to:

- Coordinate the consistent implementation, maintenance and development of the online resources and services provided to and by the SGH Platform.
- Foster in-presence meetings and exchanges amongst interested stakeholders, in particular during existing events, such as the STSC sessions and the Geneva Health Forum conferences.
- Promote the use of the SGH Platform amongst space domain professionals as well as global health professionals.
- Report to the STSC on a yearly basis through the Network Coordinator.

The SGH Network Steering Committee

Representatives of resources and services of the SGH Platform intend to form a Steering Committee to better coordinate the operation and interchange of the network, and guide its growth, enhancement and evolution. The Steering Committee intends to meet on approximately an annual basis to perform a review and provide guidance and recommendations. All members of the SGH Network are welcome to send representation to the Steering Committee meetings. These meetings are expected to take place in the margins of the STSC sessions. The SGH Network Steering Committee is chaired by the SGH Network Coordinator.

Signature

Signature on this Statement of Intent serves as an expression of interest in supporting the SGH Network and its objectives, but does not constitute a binding commitment.

[Signature by Official of Institute/Organization or by Individual member]

Statement to be sent to the coordinator and the network, Prof. Antoine Geissbuhler and Community manager, Awa Babington-Ashaye



Get in touch



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