## Hungary /12. November 2020/

1. Please describe existing or planned formal cooperative agreements and other institutional arrangements (memorandums of understanding, letters of agreement, frameworks of collaboration, etc.) between the health sector and other sectors directly involved in space activities at the national level.

There is no formal cooperative agreement in Hungary between the health sector and other sectors directly involved in space activities yet. However, we are currently working on the Hungarian National Space Strategy, which may facilitate the interoperability between space and non-space sectors.

2. Please provide recommendations regarding the establishment of a dedicated platform for effective coordination among United Nations entities, other international organizations and relevant actors on space and global health issues.

It is not advisable to create any new institutions as a platform for coordination. However, it is recommended to consult with the World Health Organisation in order to include relevant actors on space to the coordination of global health issues.

3. Please describe existing or planned policy-enabled environmental and governance mechanisms for removing barriers to the effective use of space-based technologies in support of global health.

We are not aware of any barriers in Hungary to the effective use of space-based technologies in support of global health. In the multilateral scene. In the multilateral scene, it is recommended for stakeholders such as UNOOSA, WHO and FAO to foster regular consultations.

4. Please describe existing or planned policies on open data-sharing and participatory approaches to developing and improving access to geospatial information relevant to global health.

The Earth Observation Information System (FIR) is the central government infrastructure in Hungary whose task is to integrate the data of the European Earth observation system (Copernicus) into government processes and to provide them to governmental bodies, organizations, private companies and the citizens. The FIR system is also part of the European Space Agency's (ESA) data distribution network.

The full archive and latest recordings of the European Sentinel satellite family are available in the FIR system. The system directly supports a number of sectoral monitoring processes (water, disaster management, agriculture, forestry) with its significant computing and storage capacity, which can later be supplemented by the sector of health as well.

- 5. Please describe existing or planned efforts related to the geotagging of all assets relevant to health systems, including health information systems.
- 6. Please describe existing or planned intersectoral coordination and cooperation for effective international, regional, national and subnational capacity-building activities relevant to the application of space science and technology in the field of global health.

In Hungary national coordination is initiated among universities, which would lead to – among many other desired results – an institutional framework for students of medicine and students of space

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science and technology to raise awareness of each others' fields, and the general design a space-focussed interdisciplinary post-graduate education.

7. Please describe existing or planned mechanisms to engage educational institutions and other capacity-building mechanisms in motivating young health professionals to acquire skills and abilities required to efficiently use advantages provided by space technology, science and applications at an early stage in their careers.

In Hungary, the Department of Aeronautics and Space Medicine of the University of Szeged offers education in space science and space medicine.

Hundreds of medical students get acquainted with this special field every year as part of their training, expanding their general medical knowledge. The possibilities of telemedicine and the use of robotics in certain forms of surgery are part of the curricula at the Department of Aeronautics and Space Medicine.

8. Please describe existing or planned mechanisms to better integrate space-derived data and information into decision-making processes related to global health, and to harmonize and share such data.

GNSS application GOEASY is a great example how space-derived data can contribute to the monitoring of health and sustainability. GOEASY leverages GALILEO features such as increased trust and improved availability, joint with interoperability with existing Internet of Things (IoT) infrastructures to enable more secure Location Based Services (LBS). GOEASY will be evaluated by means of two concrete use cases, namely the ApesMobility and the AsthmaWatch, both evaluated engaging real users in a medium-scale pilot in Torino (Italy) and Stockholm (Sweden).

9. Please describe how space technology and applications are integrated into health-related emergency planning and management and disaster management plans.

information is not to be shared in such an open format

10. Please describe key activities, reference documents and plans relevant to the topic "Space for global health".

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- 11. Please provide an overview of existing and planned practices and initiatives in the current uses of space (technology, applications, practices and initiatives) in support of global health and identify gaps, if any, in the following areas:
- a. Telemedicine and tele-health;
- b. Tele-epidemiology and environmental health;
- c. Space life sciences;
- d. Disaster and health emergency management;
- e. Other.

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