

## Answers to the Questionnaire on the use of space science and technology for global health,

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.*

Ministry of Health (resp. National Centre of Public Health and Analyses – NCPHA) has cooperative agreements with other ministries and departments in Bulgaria unrelated with space activities.

NCPHA took part in an International Project SEE-ERA.NET, in co-operation with the Institute of Space Research: **Development of Strategy and Methods for Monitoring of Electromagnetic Pollution in the Environment of the Western Balkans**

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.*

Our opinion on this question is that it will be good initiative. We believe that such a platform will unite the efforts of specialists in the field of space investigations to expand cooperation in providing global health. It is necessary to coordinate the proposal with the World Health Organization, whose main activity is in the field of risk assessment and public health protection on a global scale in order not to duplicate activities.

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 such policies and have no opinion on this issue.

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.*

A strategy operating at the national level was developed in 2017 by the NCPHA – “Informational system of sources of electromagnetic fields in residential areas.” It includes information both for the technical characteristics and location of telecommunication sources, and for the EMF exposures to the general population in Bulgaria. The electronic system uses Google maps as a platform for the placement of the information, and it is web-based directed to the general population and experts. It can be viewed on the NCPHA website: <https://public-emp.ncpha.government.bg/Geolocation/ViewBaseStationsOnMap.aspx>

5. *Please describe existing or planned efforts related to the geotagging of all assets relevant to health systems, including health information systems*

In the field of health information systems, NCPHA has developed and maintains the following databases:

- Register of births
- Register of rare diseases
- Register of diabetes
- Register of invasive cardiology
- Information system for the sources of electromagnetic fields

Some of these registers have administrative or legislative problems and need to be updated. They can be viewed on the NCPHA website: [www.ncpha.government.bg](http://www.ncpha.government.bg)

- 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.***

NCPHA was a coordinator of the National Action Plan on Environment and Health up to 2013. It joined the forces of all sectors in Bulgaria – economy, agriculture, communications, energetics, industry, health and safety at work, health status of the people.

NCPHA participate in variety of projects in the field of public health, occupational health, health of children and adolescents, nutrition, environmental health and others. A part of the actual projects can be seen on the web page: [www.ncpha.government.bg](http://www.ncpha.government.bg)

None of the cited programs has a direct connection with space research and programs.

A project in the field of the health effects of the population connected with the implementation of 5G technology is planned. This technology has direct impact on the global health, also with the space technologies because of the fact that 5G will work using hundreds of satellites around the globe.

- 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.***

Postgraduate education in the field of Medical sanitary physics, Sanitary engineering includes training in the area of new contemporary applied technologies. Some of the lectures are in the field of new technological applications in space exploration.

- 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.***

We don't have any information to answer this question.

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

We don't have any information to answer this question.

- 10. *Please describe key activities, reference documents and plans relevant to the topic "Space for globalhealth".***

There are no any projects in this area at this time.

- 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

Improvement and maintenance of the information systems managed by the NCPHA:

-Register of births

-Register of rare diseases

-Register of diabetes

-Register of invasive cardiology

-Information system for the sources of electromagnetic fields

b. Tele-epidemiology and environmental health

There are no planned activities in this area.

c. Space life sciences

There are no any projects in this area.

d. Disaster and health emergency management

Ministry of Health has a plan for activities in emergency situation.



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