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Integrated Applications End-to-End Solutions (2)

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SPACE APPLICATIONS FOR GLOBAL HEALTH

Abstract

The challenges posed by Global Public Health are closely interconnected with the ones of Sustainable Development, Urbanization, Food Security and many others. The European Space Agency initiated a number of projects in the downstream areas, focusing on public health and addressing various aspects of it. One recent example is "Artificial Intelligence and Earth Observation as Innovative Methods for Monitoring West Nile Virus Spread (AIDEO)", developed by a consortium led by the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise (IZSAM). In addition, in the context of the recently approved ESA Earth Observation program FUTUREEO, which includes the theme of Resilience, and in particular Health as a key domain in this area, ESA convened stakeholders consultations and engagement activities, involving the main actors at global level, including Public Health authorities, pharmaceutical companies, innovative enterprises, NGOs operating in the medical field, civil society representatives and citizens. This approach has been identified to ensure a proper collection process of user needs and requirements, to ensure a coherent end-to-end development of space applications. In addition, innovative technologies such as Big Data Analytics applied to a use case on global health (using ESA Climate Change Initiative data sets), led by Kx and 3DEO, are being considered for future exploitation of health and EO data. Activities in the field are also planned in India, in context of "Waterborne Infectious Diseases and Global Earth Observation in the Nearshore (WIDGEON)" led by PML, U.K. In conclusion, ESA plans to consolidate these activities in the near future and to define a joint roadmap by: -identifying the current main challenges related to Global Health and Earth Observation at large through discussions with scientists, policy makers and industry; -addressing the most pressing needs and information requirements; -providing users and stakeholders with Earth Observation data, resources and capabilities. This will include opening public consultations and calls for ideas, following an Open Innovation approach, as well as working on Open / Virtual collaborative platforms with stakeholders at global level.