

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Open Space: Participatory Space Education and Outreach (8)

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#COSMOSMHACK

**Abstract**

In the last November Italian Space Agency (ASI), The geo-spatial Company e-Geos (Telespazio/ASI) and the Local Government of Regione Lazio through its Regional Agency for economic and entrepreneurial development, BIC Lazio, organized an hackathon, COSMOSmHack. The scope of the competition was to stimulate the exploitation of Earth Observation data from the Italian COSMO-SkyMed (CONstellation of small Satellites for the Mediterranean basin Observation) to solve big societal challenges launching new business opportunities. In line with the recent European data and information policy with the Copernicus Programme, participants received free and open access to environmental data from COSMO-SkyMed, for the very first time included in such kind of initiatives. The participants has been divided into small teams bringing a mix of skills (e.g. data, ICT, business), and putting passion into developing innovative proofs of concept (POC), concept design, mock-up, web/mobile applications. We got Fifty participants, twenty-five years old as average. The competition was also sponsored by two of the main European industrial players in Aerospace sector: Telespazio and Thales Alenia Space Italia. Four challenges were proposed to inspire participants: • Coasts and Sea: monitoring of marine and coastal areas for effective and safe management of the territory in order to improve the livability, the usability for tourism, and protection and environmental sustainability. • Emergency and Safety: effective management, innovative and participatory both environmental emergencies as well as major events management (i.e. Jubilee) • Cultural heritage: Management and enhancement of the cultural heritage for tourism, offering tools and information to assist the tourists and the manager. • Agriculture: support to the agro / food sector using satellite data as a tool for sustainable land use and precision farming for the enhancement of local production and the "made in Italy" The evaluation of the outputs was made according to different criteria: innovative content, user experience, business model and outlook. The scope of the winner project, "Project Aquaculture", is to monitor the status of the coastal aquaculture structures and alerting to take countermeasures against possible incoming "pollution waves" and using different types of satellite imagery, from Cosmo-SkyMed radar images to optical images (i.e. Copernicus-Sentinels). The winning team will receive support and funds to proceed to the launch of new startup venture during an incubation phase in BIC Lazio and with the support of other Organizers.