

Hackathon

A hackathon is a design event in which programmers and others involved in software development, often including subject-matter-experts, collaborate intensively on software projects. Hackathons can provide visibility for the RI's data and in best case provide new tools and ways of using the RI's data.

Advantages: High potential to find new users of RI's data and new ways to use the data. Positive impact on the relationship between local organizers, companies, institutes and RI and can support their future collaboration. Can bring different disciplines together and deepen their collaboration (through potential collaboration between mentors, mentors and participants, organizers and mentors etc.). Bring visibility to the RI and other organizers in media and social media.

Challenges: Choosing attractive and useful topic and advertising it to right target audiences. Teamwork and communication with different organizers is critical but can be challenging. Reaching the potential participant and attract them to participate. Finding the sponsors and engage them. To find a suitable venue which has space for group work, eating and sleeping. Needed resources are extensive.

Resources: Working hours of coordinators, mentors and other staff. Expenses include planning and coordination of the event, catering of the event including all meals, advertisement of the event, promotion materials and potential costs of the venue. Coordination can take several months working hours of few persons even some of the task would be outsourced.

Recommendation: Find a suitable partner with experience on organizing hackathons and existing network to reach potential participants. Training of the mentors to use the data and be familiar with the topics and active communication between organizers before and during the event. Guarantee the data availability and quality.

Copernicus ATMOSHAC “Hack the atmosphere” hackathon was organized in Helsinki, Finland in November 2018. It was powered by Ultrahack company and funded by the EU's Copernicus Programme and organised through a partnership of EUMETSAT, the Copernicus Atmosphere Monitoring Service (CAMS), the Finnish Meteorological Institute (FMI), and the Institute for Atmospheric and Earth System Research (INAR) of University of Helsinki. The hackathon was advertised to create solutions to help people reduce their exposure to pollutants & UV radiation by using copernicus atmospheric data. It used several resources for data including:

- WEkEO platform - <https://www.wekeo.eu/> This provides access to Copernicus datasets and cloud based processing.
- Climate Data Store <https://climate.copernicus.eu/climate-data-store> . The C3S Climate Data Store (CDS) is a one-stop shop for information about the climate.
- CAMS Products <https://atmosphere.copernicus.eu/data> . The Copernicus Atmosphere Monitoring Service (CAMS) supports scientists, policymakers and businesses by providing quality assured information about the Earth's atmosphere, in particular its content of trace gases and aerosols.
- AC SAF <https://acsaf.org/> . The AC SAF processes data on ozone, other trace gases, aerosols and ultraviolet data, obtained from satellite instrumentation.
- Sentinel-5p Tropomi data - <http://www.tropomi.eu/data-products/level-2-products>
- Smart SMEAR <https://avaa.tdata.fi/web/smart>

In Twitter, the organizing institutes gained a lot of visibility through AtmosHack. Finnish Meteorological Institute (FMI) made a press release about the event and their AtmosHack coordinator was interviewed by local news room. The coordinator estimated that the event took 3 months of her working hours during a 6 month period. This estimate covers only her time, so additionally several weeks of other organizers' and mentors' working hours. During the event they had 60 participants and 10 organizers and 10 mentors present. The catering expenses were almost 10 thousand euros. As promotional material they had roll ups and for each organizer and participant jacket, had, mug, and stickers.

- Hannakaisa Lindqvist, FMI