Integrated capacity building for faster up-take of Earth observation data in knowledge value chains.

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Abstract. In order to benefit from the vast amount of Earth observation data, faster transformations of data to information and knowledge is necessary. NextGEOSS data hub and platform enable this through its services. These services are delivered in a 5-step user experience that includes training and capacity building in each step. NextGEOSS is using various methods, such as online training, hackathons, and in person training integrated in a onboarding process applicable to all value chains, resulting in faster up-take of Earth observation data.

1. Introduction
The Sustainable Development Goals encapsulate the main challenges of our society. Ranging from access to fresh water, food and energy to health, security and economic growth. Earth observations play a central role in supporting these goals. Europe is investing in its flagship Earth observation programme, Copernicus, and other initiatives, providing enormous amounts of open data and information. A major challenge is still in front of us: access to data and resources supporting service developers are still fragmented, slowing down the transformation of Earth observations to valuable knowledge for society. The European H2020 project NextGEOSS solution is to create a collaborative and standardized ecosystem where developers can find their way to build Earth observation based applications and services.

Training and capacity building are considered necessary to transform Earth observation data to knowledge on the NextGEOSS data hub and platform. Procedures have been developed based on experience from all 10 internal pilots built on NextGEOSS: Agricultural Monitoring, Biodiversity, Space & Security, Cold Regions, Air Pollution in Mega Cities, Disaster Risk Reduction, Territorial Planning, Food Security, Smart Cities, and Energy (Grid Operations and Urban Solar Mapping). In the following we will explain the capacity building strategy, how it has been implemented for the internal pilots, and how NextGEOSS also offer training and capacity building throughout all its services: integration of external pilots, showcasing applications, and linking data.
2. Capacity building strategy

NextGEOSS 5-step user experience forms the framework for the capacity building, together with the unique onboarding process that follows. In each step NextGEOSS offer guidelines, and or some form of training, be in online or in person, or through written material in various guides.

3. Online training

The training material is created through various activities

(i) In the first phase of the NextGEOSS project a series of webinars about the CKAN based NextGEOSS data hub were held, giving general information about CKAN, as well as how CKAN was used to create the NextGEOSS data hub.

(ii) INSPIRE hackathons. An integral part of the INSPIRE hackathon concept is the series of educational webinars. NextGEOSS has supported and co-organized a number of INSPIRE hackathons and through these created multiple education webinars.

(iii) The NextGEOSS webinar series was established in the consolidation phase of the project. This series of webinars highlights the different components of the NextGEOSS data hub and platform, the technology behind it and its many implementations in among other the pilots. These webinars come with an article or blogpost addressing the topic of the webinar on a more general level.

4. In person training

NextGEOSS in person trainings are offered as side events at community gatherings such as the annual European Geosciences Union (EGU), GEO symposium/week, EuroGEO workshop etc. The in person training format is also included in the annual NextGEOSS Summit. Depending on the format, mostly time slots length, NextGEOSS experts are presenting how-tos complemented with individual participants hands-on guidance. This allows NextGEOSS to get direct feed-back from the users which again is fed into the updates and development of the capacity building material and training styles.

5. Summary

Training and capacity building as part of an onboarding process contribute to speed up the up-take of Earth observation data. The procedures are the same for all types of value chains and contributes thus to transformation of Earth observation data to valuable information and knowledge in a multitude of societal benefit areas.

6. References

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