



Eco4Alps Project

Objectives, Achievements, Benefits (with an eye on NoR usage)

Eco4Alps: Services for the Alps Region

Objectives:

- Develop products on the basis of Sentinel and Landsat EO data covering the Alps region, taking advantage of the enormous backlog of data that is available.
- Special focus on the ecosystem of the Alps region, with an emphasis on super-regional coverage.
- Allow researchers, policy makers and other stakeholders to take advantage of the available data in select topics.

Kickoff in '21

Services available in '23 (through early '24)



*“The Alps, with their biodiversity capital, water and wood reserves, are the natural, cultural, living and economic environment for nearly 14 million people and an attractive tourist destination for approximately 120 million guests every year.”
(eo4society.esa.int)*

Context

The Eco4Alps consortium:

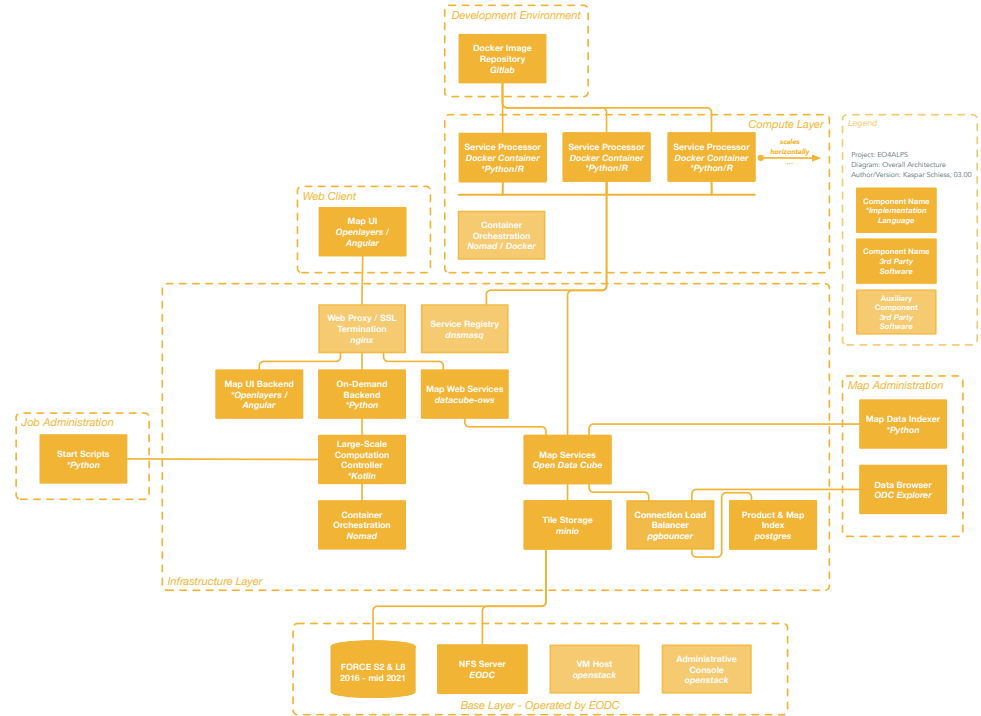
- Solenix (*prime, integrator*)
- Eurac Research (*3 services*)
- BOKU (*3 services*)

Our services focus on studying forest and grassland evolution with a focus on stressors like agriculture and climate change.

- Base S1B and L8 ARD data prepared by EODC
- Completed by various datasets from Copernicus
- EURAC and BOKU provided the algorithms, which were integrated into a cloud constructed on top of EODCs cloud offering, rented through the Network of Resources.

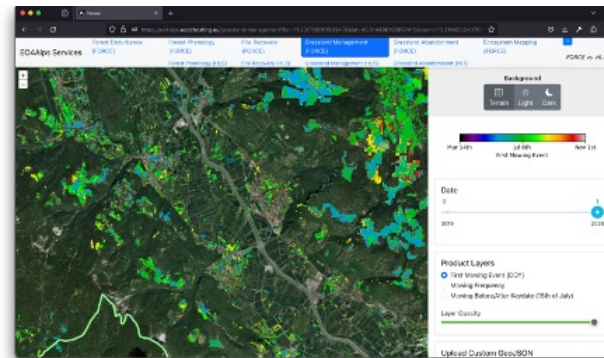
Service Stack

- Service stack entirely built on top of the EODC OpenStack cloud offering (NoR).
- Built using OSS: Docker/Nomad, Open Data Cube, PostgreSQL



Benefits of building in the EODC cloud

- No capital investment, no hardware acquisition, shorter lead times.
- Remote development and staging environment simplified organisation during the COVID pandemic.
- Flexibility during the project, e.g. when more capacity was needed, we were able to acquire it through the NoR as well.
- We found building at a large scale simplified by having NoR resources available.



On the right: EO browser (top), area covered by products (bottom)

Reception

Products were presented to various stakeholders from academia and regional departments (such as forestry services) and were met with interest.

Available through online access during '23 through early '24.

Our services:

- Supplement already available local instruments and EO products with products available for a large area.
- Allow direct comparison between regions and study of super-regional effects.

Thank You



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