EO BALTIC PLATFORM FOR GOVERNMENTAL SERVICES (EO-BALP)
Reference nr. ESA AO/1-11741/23/I-NB

ESA Contract No. 4000142702/23/I-NB

Kick-off meeting, 20.11.2023

Duration: 18 months (11.2023 – 05.2025)

Total budget: 897 740 EUR

Objectives and scope

The objective of the activity is to develop a new EO Cloud Computing platform for the Baltic governmental organisations and provide the following six main platform components based on the initial business requirements:

1. Infrastructure & Population Centre Monitoring application

2. Water Quality Monitoring application

3. Forest Monitoring application

4. Agricultural Land Monitoring application

5. Natural Resource Extraction Monitoring application

6. Maritime monitoring

Final technical requirements for the system will be obtained after collecting user requirements from potential stakeholders and preparing additional detailed technical requirements based on them.

EO-BALP Platform

Earth Observation Data Platform *provided by Baltic Satellite Service*
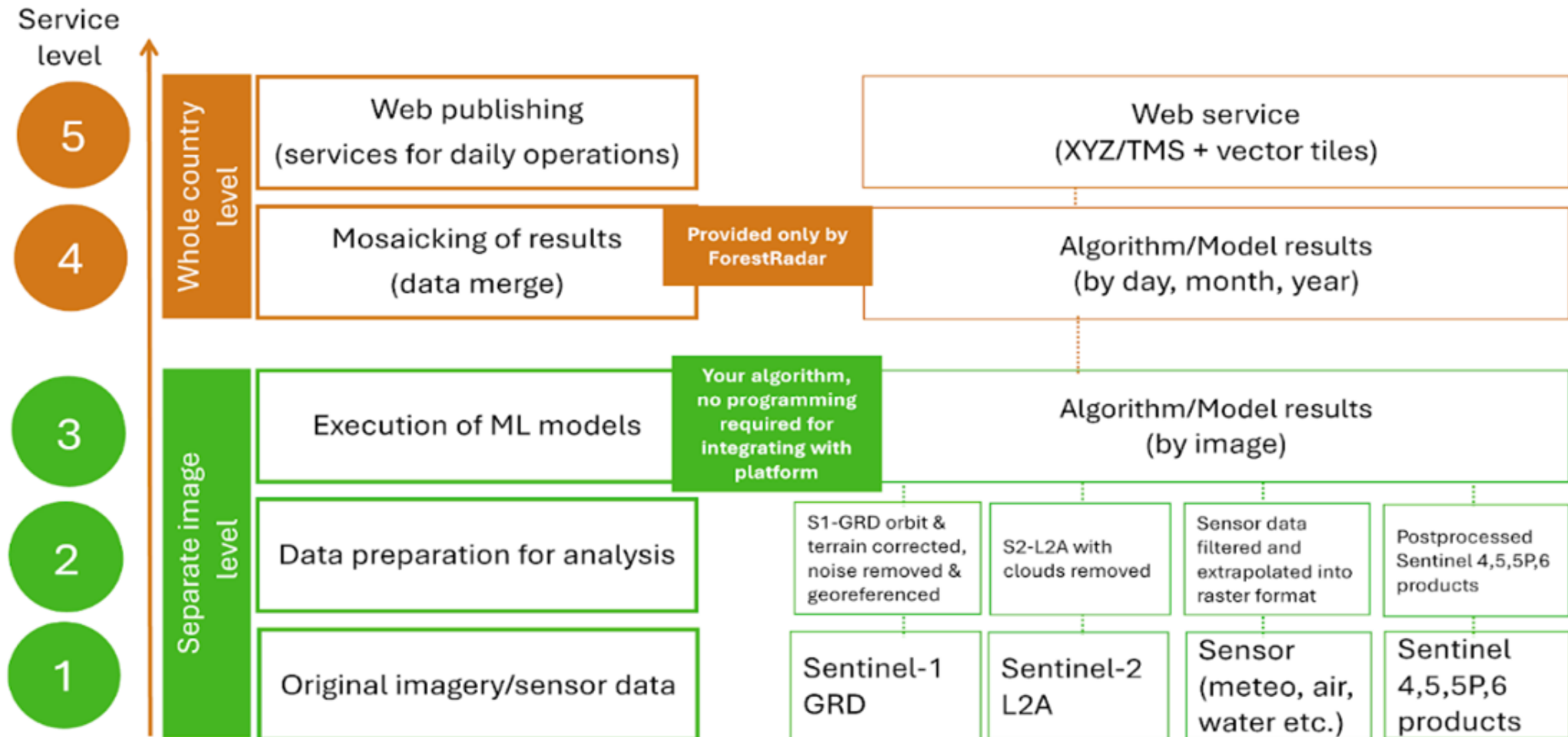
EO-BALP platform

- Designed for users without specific knowledge and also by professionals in the field.
- Will enable all participating stakeholders in the three Baltic countries to deploy, operate and deliver EO-based services to national governments and institutions.
- Will allow users to discover and select data, pre-existing processing services, EO based services, products and applications, visualize and analyze them or select and apply data manipulation tools to the result.
- Will allow users to discover and select data samples and software components, upload and validate applications and deploy them on the platform for use also by other users.
- Users will be able to authenticate, upload and deploy a new application software, discover and select data, process the data and eventually publish the resulting product.

Interoperability of EO Platform with existing e-government platforms

- Importing existing geospatial data from governmental and other public/private entities to the platform to be used for provision of specialised services.

- Developing functionality allowing to integrate XYZ/TMS, WMS web services and JSON/GeoJSON data from governmental and other public/private entities directly into specialised service web applications.

- Publishing all geographic data produced by specialised applications based on standard and widely used web service formats (XYZ/TMS, WMS, GeoJSON) which allow using them by governmental and other public/private entities in their own web applications and in desktop GIS software (QGIS, ArcGIS, etc).

Applications/domains (1)

Nr	Application/service name	Domains
1	Infrastructure & population centre monitoring **(AS DATEL, Estonia)**	<u>Regional security</u>: Risk and Hazard characterization for critical infrastructure, population centres and sensitive habitats and ecosystems • detection and characterization of land motion • detection and characterization of threats in infrastructure corridors Monitoring application of infrastructure and settlements with more than 60,000 inhabitants, which will help to detect and characterize ground movements from satellite data, and to identify dangerous places in infrastructure protection zones.
2	Water quality monitoring **(Klaipeda University, Lithuania)**	<u>Water Quality Monitoring:</u> a water quality monitoring application that will help determine water quality and pollution, as well as pollution sources in the Baltic Sea, coastal waters and inland waters.
3	Forest monitoring **(Baltic Satellite Service, Latvia)**	<u>Multi-purpose Land Monitoring & Change Detection:</u> a forest change monitoring application, which will help to regularly detect clear-cuts and wind falls, as well as forest damage caused by diseases, pests, fires, water, etc.) and will provide the latest satellite data mosaic service in all Baltic countries.

Applications/domains (2)

Nr	Application/service name	Domains
4	Agricultural land monitoring **(Rural Support Service, Latvia)** Lauku atbalsta dienests	Multi-purpose Land Monitoring & Change Detection: an agricultural land monitoring application that will help to assess crops, yield, soil quality, identify wildfires and flooded agriculture field areas.
5	Natural resource extraction monitoring **(Institute of Electronics and Computer Science, Latvia)** ELEKTRONIKAS UN DATORZINĀTŅU INSTITŪTS	Regional security: natural resource extraction monitoring application that will help identify illegal resource extraction sites (sand, gravel, other mineral resources).
6	Maritime monitoring **(Klaipeda University, Lithuania)** Klaipeda University	Regional security: a maritime monitoring application that will help identify ships, their type, location and movement.

Looking towards cooperation!

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Project news:

BSS homepage: https://www.baltsat.lv/projects/eo-balp/

ESA homepage: https://eo4society.esa.int/projects/eo-balp/