

## EU LIFE Programme project "Optimising the Governance and Management of the Natura 2000 Protected Areas Network in Latvia" (LIFE19 IPE/LV/000010 LIFE-IP LatViaNature)

## Planned activities in remote sensing for the monitoring of biodiversity in Latvia

**Purpose:** to organize feasibility study within LIFE Integrated Project LatViaNature for the development of software environment, along with raster analysis using remote sensing data, identifying new sites of potentially protected habitats or change detection in the existing ones, taking into consideration the locally specific conditions.

Aerial, drone and satellite imagery

Raster analysis



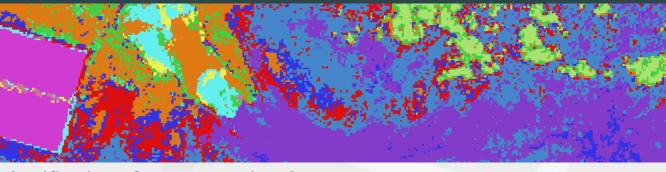
A satelite based image of Gauja National Park Image: https://apps.sentinel-hub.com/

A drone taken picture of habitat 1630\* Boreal Baltic coastal meadows **Photo: Nature Conservation Agency of Latvia** 

**Cloud data** platforms &

local servers

(data processing and machine learning training)



Classification of remote sensing data **Image: Institute of Electronics and Computer Science** 



## Application in other areas of Latvia



The success of improving conditions by management activities of habitat 2180 Wooded dunes of the Atlantic, Continental *and Boreal region* shall be monitored.

Photo: Sandra Ikauniece

Testing methods of change detection in the quantity and quality of habitats at pilot sites

Testing methods for identification of new potentially protected habitats at pilot sites



**Overgrowing of habitat** 1630\* Boreal Baltic coastal meadows with reed stands is a significant problem at the Latvian coastline. Efficient methods for monitoring changes would highly help to take appropriate management actions.

**Photo: Nature Conservation Agency of Latvia** 



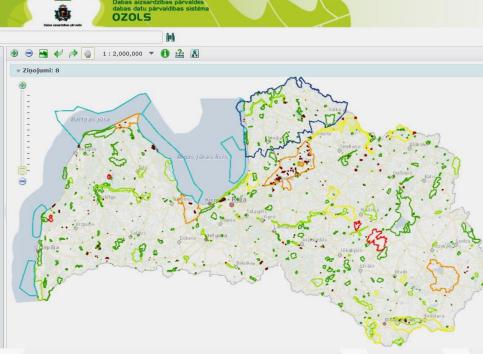
Habitat 9080 Fennoscandian deciduous swamp woods with a rich biodiversity supporting structure. Identification of similar new habitats is essential for protecting the given habitat type.

**Photo: Sandra Ikauniece** 

Integration of data in the Nature Data Management System «OZOLS»







Left:

Nature expert performing species monitoring. After verification, data will be stored in the Nature Data Management System «OZOLS».

Photo: Agnese Priede



## **Right:**

A screenshot of the Nature Data Management System «OZOLS» web service where information on protected territories, species and habitats management and biodiversity monitoring is accumulated.

Image: https://www.daba.gov.lv/en/nature-data-management-system-ozols

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