

# 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**




**A satellite 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**

**Raster analysis (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 Ikaunieca

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



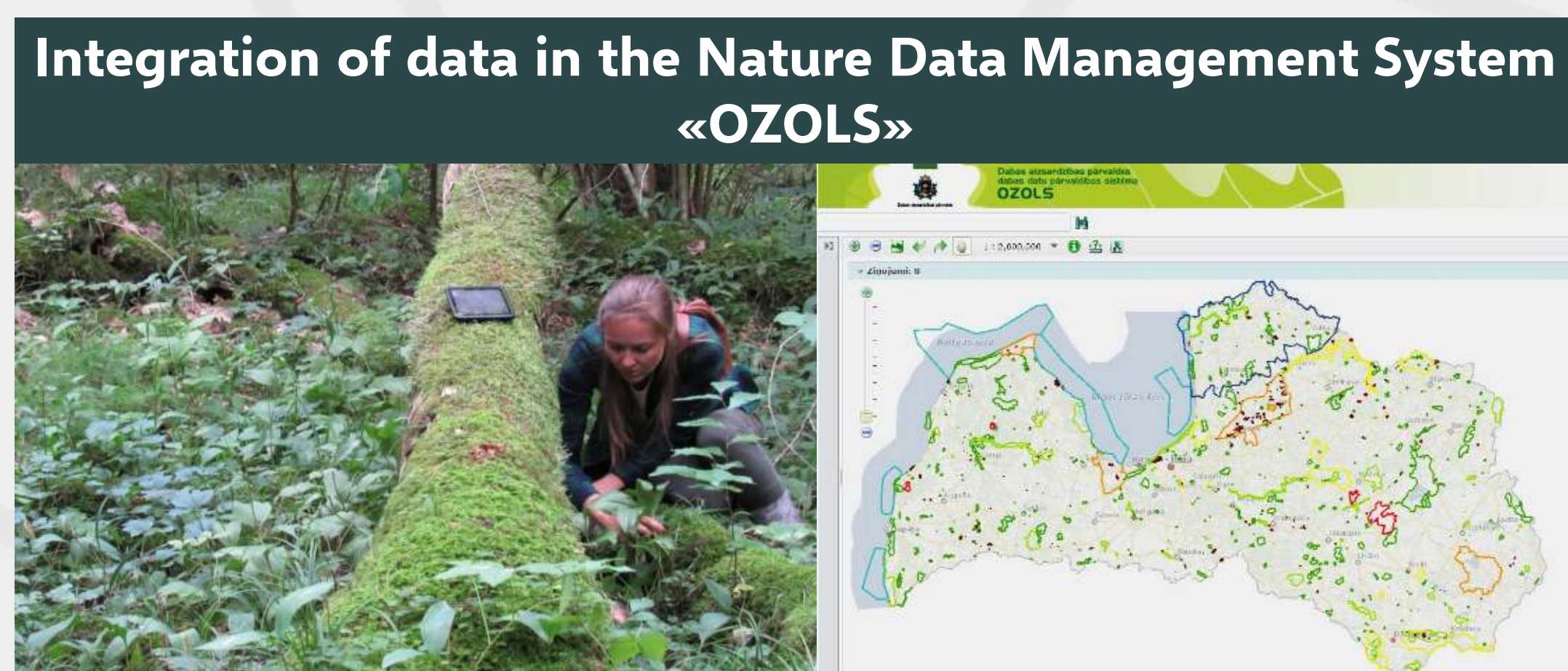
**Overgrowing of habitat 1630\* Boreal Baltic coastal meadows with reed stands is a significant problem at the Latvian coastline. Efficient methods for monitoring changes would highly help to take appropriate management actions.**  
 Photo: Nature Conservation Agency of Latvia

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



**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 Ikaunieca

**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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