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

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

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 Ikauniece

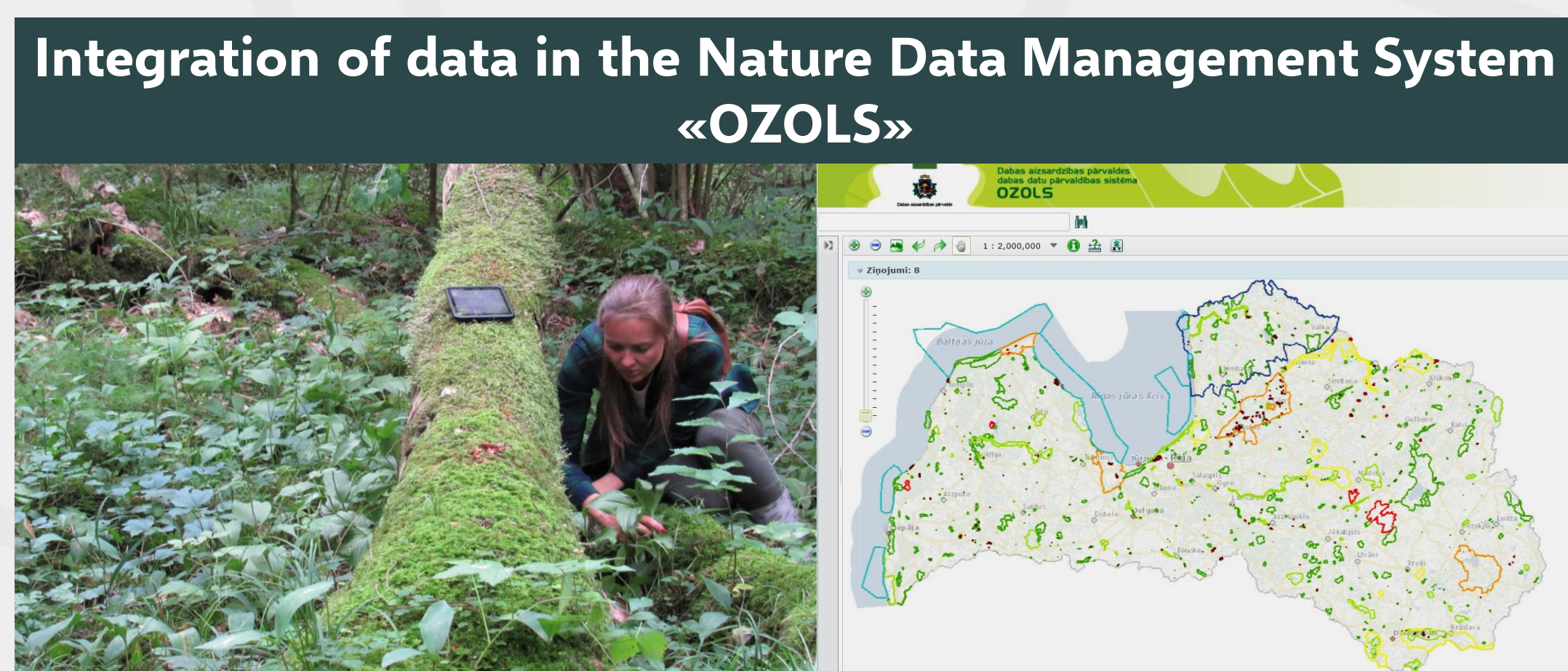## Testing methods of change detection in the quantity and quality of habitats at pilot sites

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 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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