

Enhancing the user uptake of Land Cover / Land Use information derived from the integration of Copernicus services and national databases „InCoNaDa”

Welcome to the 2nd webinar

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| 9:00 – 9:05 | Agata Hościło (Institute of Geodesy and Cartography - IGIK), Geir-Harald Strand (Norwegian Institute of Bioeconomy Research - NIBIO) <i>Welcome to the 2nd InCoNaDa webinar</i> |
| 9:05 – 9:20 | Agata Hościło (IGIK) <i>Introduction to the InCoNaDa project & short presentation of the CLMS products examined in the project</i> |
| 9:20 – 9:40 | Geir-Harald Strand (NIBIO) <i>The use and non-use of Copernicus Land Monitoring Service in spatial planning</i> |
| 9:40 – 10:00 | Monika Cysek-Pawlak (Łódź University of Technology - ŁUoT) <i>Potential of CLMS products for monitoring green urban areas in city of Łódź</i> |
| 10:00 – 10:20 | Alicja Rynkiewicz (IGIK) <i>Detection of land cover changes using Google Earth Engine and Sentinel-2 data</i> |
| 10:20 – 10:30 | Tea/Coffee Break |
| 10:30 – 10:50 | Marcin Żaczek (Institute of Environmental Protection - National Research Institute IOŚ-PIB) <i>Enriching LULUC data application with CLMS products</i> |
| 10:50 – 11:10 | Svein O. Krøgli (NIBIO) <i>Copernicus HRL-Small Woody Features for monitoring agricultural landscapes and Ecological Focus Areas</i> |
| 11:10 – 11:30 | Wendy Fjellstad (NIBIO) <i>Potential use of Riparian Zones to map and monitor vegetation along streams and waterways</i> |
| 11:30 – 11:50 | Małgorzata Herman (Eversis) & Piotr Pielacha (IGiK) <i>Prototype of the InCoNaDa application for integration of LCLU information in Poland</i> |
| 11:50 – 12:30 | Discussion and end of the event |

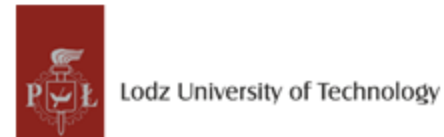


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„InCoNaDa”



Introduction to the project & short presentation of the CLMS products examined in the project

Agata Hościło & the InCoNaDa Team



Aim: to improve the user uptake of Land Cover / Land Use (LCLU) information derived from the integration of Copernicus Land Monitoring Service (CLMS) and national databases.

Objectives:

- to develop land cover and land change maps based on a time series of Sentinel-2 data using machine learning approaches;
- to verify the EAGLE concept based on interlinking LC and LU information and other landscape characteristics (CH) available at the country level;
- to design and develop web-based application enabling to query the LCLU database, generate statistics and land use information adjusted to the user needs in Poland;
- to examine the usefulness of CLMS for:
 - urban and spatial planning;
 - agricultural management;
 - environmental monitoring;
 - reporting GHG emissions and removals from LULUCF sector.

- Instytut of Geodesy and Cartography - Centre of Applied Geomatics (IGiK) (project promotor)
- Norwegian Institute of Bioeconomy Research (NIBIO)
- Institute of Environmental Protection - National Research Institute (IOS) - National Centre for Emissions Management (KOBiZE)
- Łódź University of Technology (LUoT) - Institute of Architecture and Urban Planning
- Eversis Sp. z o.o.



IOŚ-PIB



Duration of the project 1.10.2020 – 30.04.2024

funded by the Norway Grants via the National Centre for Research and Development, programme 'Applied Research', the POLNOR 2019 Call.

InCoNaDa + UA

- Ukrainian National Forestry University, Ukraine



WP1: Enrichment of the land cover, land use databases

developing the best possible automated land cover and land cover change map based on a time series of Sentinel-2, integration of LCLU information derived from the CLMS products and national databases following the EAGLE concept.

WP2: Developing a web-based application enabling the integration of LCLU data derived from the national databases and CLMS products for Poland.

WP3: LCLU for urban and spatial planning

- assessment of the requirements of urban and spatial planning towards geospatial LCLU and LCLU-change information,
- potential of CLMS for mapping and monitoring LC-changes,
- public access to green urban areas,
- biologically active surfaces.

WP4: LCLU for the agricultural sector

dealing with the assessment of the potential of the CLMS products for supporting agricultural policy in Poland (under the CAP- Ecological Focus Areas) and national agricultural policy in Norway.

- HRL Water and Wetness
- HRL Small Woody Features
- HRL Imperviousness

WP5: LCLU for environmental monitoring, dealing with the evaluation of suitability of CLMS for

- mapping and monitoring of biodiversity and wetland ecosystems,
- assessment of vegetation along streams and waterways,
- mapping the high natural value grasslands,
- preparation of landscape audit in Poland.

WP6: LCLU for reporting GHG emissions and removals from LULUCF sector,

- review of the EU and national regulations related to reporting obligations in the context of land cover, land use and changes,
- assessment of the usefulness of CLMS products for reporting GHG emissions and removals from LULUCF.

Verification and testing the **LCLU web-based application** for the needs of spatial planning, agriculture, environmental monitoring, reporting and LULUCF related obligations.

Poland - Łódź Province



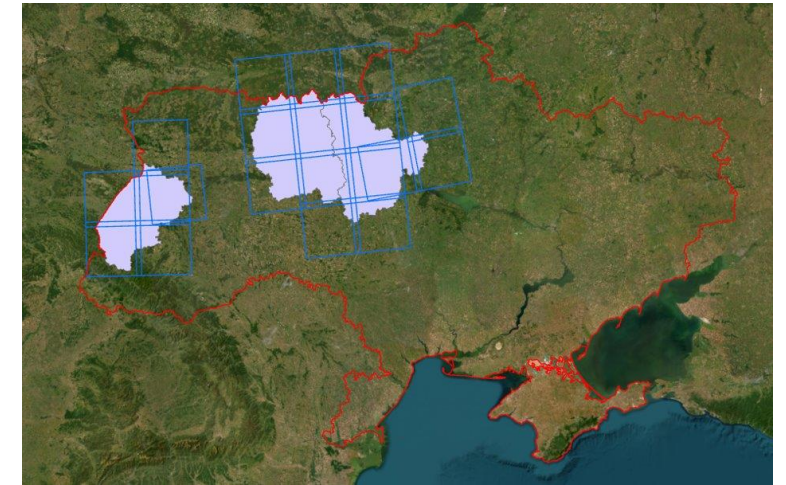
Norway - Viken county



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Ukraine –

3 regions: Lviv, Kyiv, Zhytomyr



High Resolution Layers



Imperviousness



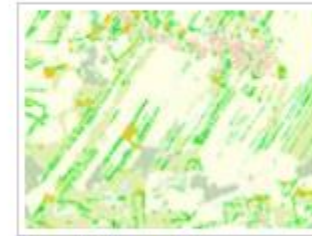
Forests



Grassland



Water & Wetness



Small Woody Features



Imperviousness

IMD – Imperviousness 2018

IMCC – Imperviousness Change 2015-2018

Forests

DLT – Dominant Leaf Type 2018

DLTC – Dominant Leaf Type Change 2018

TCD – Tree Cover Density 2018

TCCM – Tree Cover Change Mask 2015-2018

Grassland

GRA – Grassland 2018

GRAVPI – Grassland Vegetation Probability Index 2018

PLOUGH – Ploughing Indicator 2018

Water and Wetness

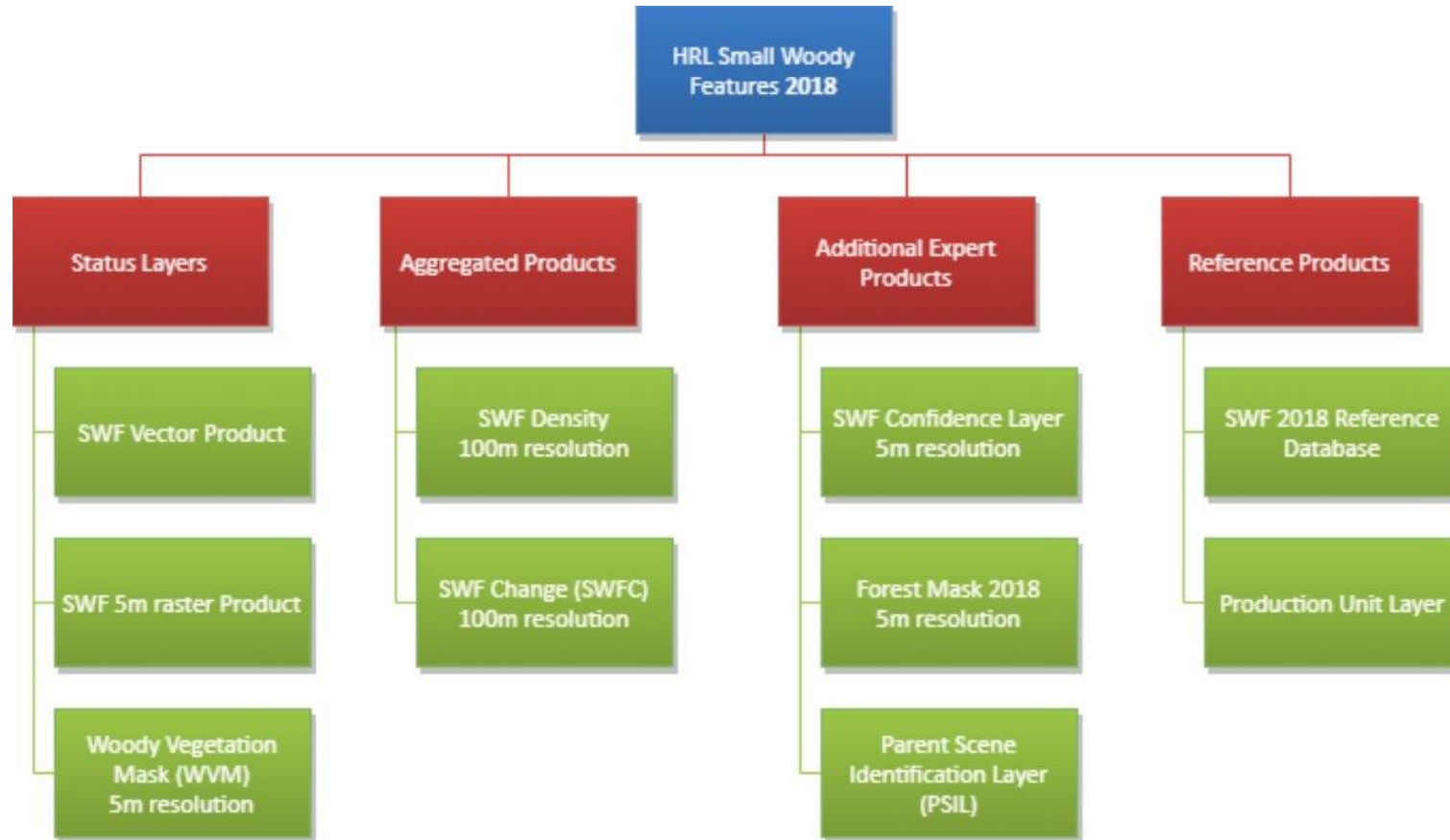
WAW – Water and Wetness 2018

WWPI – Water and Wetness Probability Index 2018

Small Woody Features

SWF – Small Woody Feature 2015, 2018

Linear structures such as hedgerows, as well as patches of woody features for the 2018 reference year. The data are available in vector format and as 5 m and aggregated 100 m raster files.



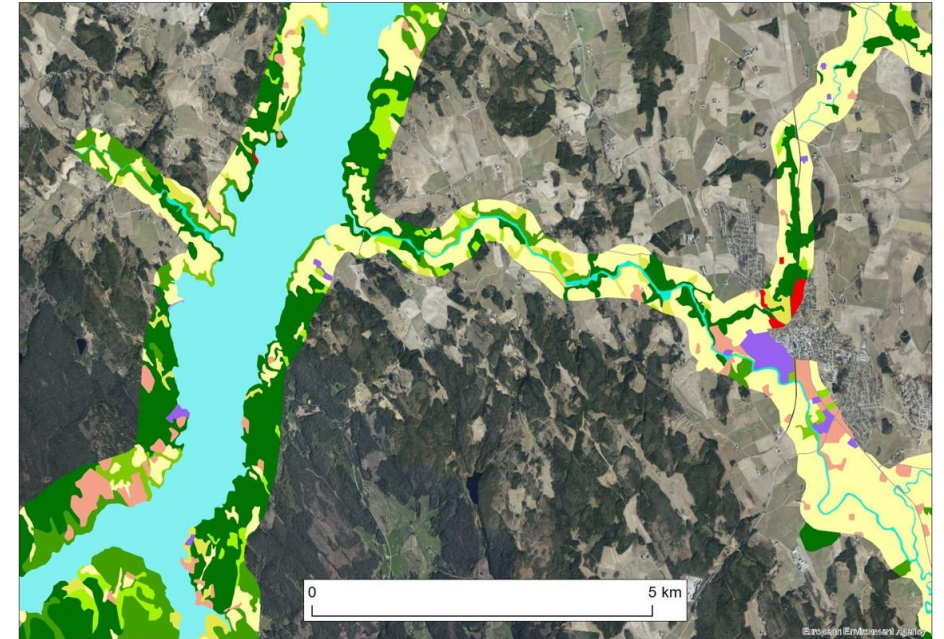
Priority Area Monitoring

Riparian zones

Provides detailed land cover and land use information for 55 thematic classes in a variable buffer zone of selected rivers across Europe for the 2018 reference year.

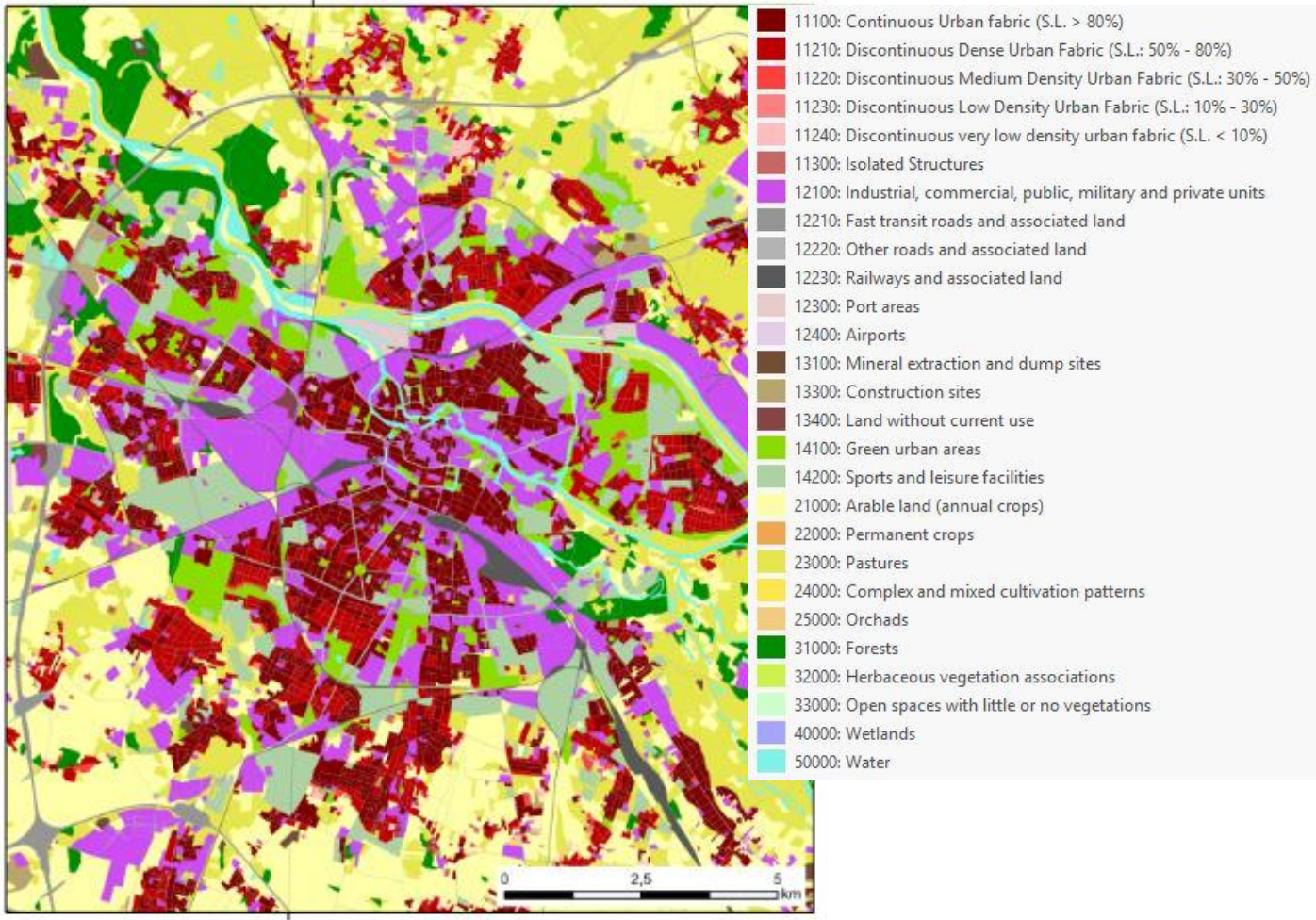
The dataset has a Minimum Mapping Unit (MMU) of 0.5 ha and a Minimum Mapping Width (MMW) of 10 m and is available as vector data.

Data available for 2012 and 2018



<https://land.copernicus.eu/en/products/riparian-zones/rz-land-cover-land-use-2018>

Urban Atlas 2006, 2012, 2018



Urban Atlas 2018

- Contains 788 FUAs with more than 50.000 inhabitants covering all EEA38 countries and the United Kingdom.
- The nomenclature includes 17 urban classes with the MMU of 0.25 ha and 10 rural classes with the MMU of 1ha.
- Includes population estimates for each polygon.
- Street Tree Layer for 785 FUAs.
- Change product for 2012-2018 for 785 FUAs.

Urban Atlas - Street Tree Layer



Thank you for your attention

<https://www.inconada.eu/>

Contact

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