



D3.4 EvoLand prototypes source code - final version

Work Package 3 – Prototype Demonstration

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0.9	31.08.2024	Initial Version (D3.3)		GAF, VITO, CLS
1.0	16.10.2025	Final Version (D3.4)	Final Version of report	GAF, VITO, CLS

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1. Forest Prototypes

C1 – Continuous Forest Monitoring

Description	
Name	C1_ContinuousForestMonitoring
Description	This workflow extracts forest changes/losses from a time series of Sentinel 2 data on a monthly basis. More information here
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C1_ContinuousForestMonitoring
License	Apache 2.0
DOI	No paper published
Citation	No paper published

C2 – Forest Disturbances Mapping

Description	
Name	C2_ForestDisturbancesMapping
Description	This workflow extracts a classification of forest disturbance agents including the assigned classes and their probabilities, from a time series of Sentinel 2 data merged with the C1 prototype as input. More information here
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C2_ForestDisturbance
License	Apache 2.0
DOI	No paper published
Citation	No paper published

C3 – Biomass Mapping

Description	
Name	C3_BiomassMapping
Description	This chain extracts a classification of Above-Ground Woody Biomass (AGB) and Forest Canopy Height (FCH) from multitemporal Sentinel 2 + Sentinel 1 data, ALOS Palsar-2 and GEDI data. More information here
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C3_ForestBiomass
License	Apache 2.0
DOI	No paper published
Citation	No paper published

C12 – Tree Types Mapping

Description	
Name	C12_TreeTypesMapping
Description	This workflow extracts a classification of Tree Types from Sentinel-2 time series data. More information here .
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C12_TreeTypesMapping
License	
DOI	No paper published
Citation	No paper published

2. Agriculture Prototypes

C4 – Cover Crop Type

Description	
Name	C04 Cover Crop Type
Description	This workflow classifies groups of cover crop types based on Sentinel-2 bands and NDVI temporal features extracted per parcel. More details here .
Version	2.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C4_CoverCropType.git
License	Apache License 2.0
DOI	No paper published
Citation	No paper published

C5 – Grassland/Cropland GPP

Description	
Name	C05 Grassland/Cropland GPP
Description	This prototype produces high resolution GPP data (10-daily, 10m) for grassland and cropland. Utilizing the Copernicus DMP (Dry Matter Production) algorithm adapted for Sentinel-2 HR-VPP data. More details here
Version	20
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C5_CropGrasGPP
License	Apache License 2.0
DOI	https://doi.org/10.5281/zenodo.10808444
Citation	No paper published

C6 – Small Landscape Features

Description	
Name	C06 Small Landscape Features
Description	This chain extracts landscape features from VHR and Sentinel 2 data, plus creates the change layer which shows if the landscape features disappeared or appeared between 2 dates. More details here .
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C6_SmallLandscapeFeatures
License	open source licensing scheme (GPLv3)
DOI	No paper published
Citation	No paper published

3. Water Prototypes

C7 – Improved Water Bodies Mapping

Description	
Name	C07 Improved water bodies mapping
Description	This chain extract water bodies from Sentinel 2 data. More information here
Version	2.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C7_ImproveWaterBodiesMapping/blob/main/README.md
License	Open-source licensing scheme (GPLv3)
DOI	No paper published
Citation	No paper published

4. Urban prototypes

C8 – Continuous Imperviousness Monitoring

Description	
Name	C8_ContinuousImperviousness
Description	This chain extract imperviousness degree from Sentinel 2 data. More information here
Version	2.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C8_ContinuousImperviousness
License	open source licensing scheme (GPLv3)
DOI	No paper published
Citation	No paper published

C9 – Automated Land Use Mapping of Urban Dynamics

Description	
Name	C9_MappingUrbanDynamics
Description	This chain extracts urban changes from Sentinel-2 data. More information here .
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C9_MappingUrbanDynamics
License	Open-source licensing scheme (GPLv3)
DOI	No paper published
Citation	No paper published

5. General Land Cover Prototypes

C10 – Continuous Mapping of Land Surface Characteristics

Description	
Name	C10 – EvoLand LSC
Description	Inference of the LSC model using openEO. More information here .
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/evoland-lsc
License	Creative Commons Zero v1.0 Universal
DOI	No paper published
Citation	No paper published

C11 – On-demand Land Cover Mapping

Description	
Name	C11_OnDemandLandCoverMapping
Description	Inference of the on demand land cover pipeline (based on openEO). More information here .
Version	1.0
Access	https://github.com/Evoland-Land-Monitoring-Evolution/C11_ondemandLCM
License	Apache License 2.0
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