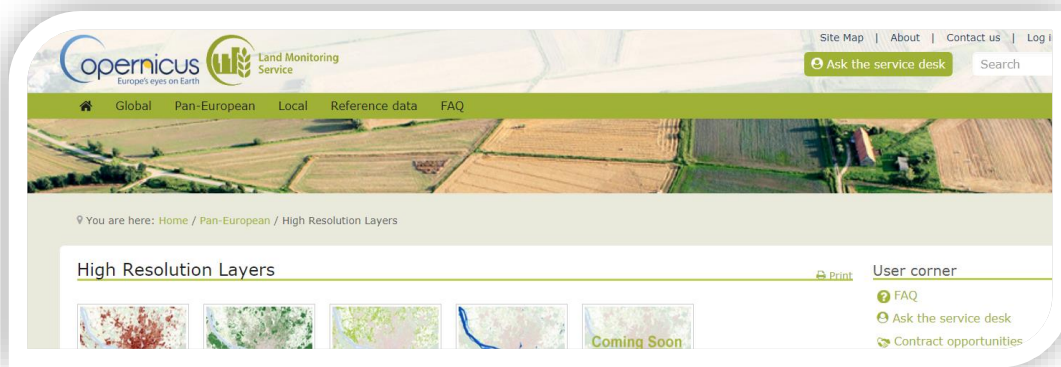


Copernicus – NSS Coordination Group - 1st meeting 19th April 2018, 9h30-10h30 Fontana

Background material with short update on status of Copernicus Land Monitoring Service (CLMS) at EEA

Download and viewing of products: see <https://land.copernicus.eu/>



Overview table with the whole CLMS portfolio (at EEA), and some planned products

Part of portfolio	Name of product	Available reference years	Planned and/or in production
Local component	Urban Atlas (UA)	2006, 2012	2018
	Riparian Zones (RZ)	2012	2018
	Natura2000 (N2K)	2006, 2012	Ongoing extension of number of areas for same reference years
	Coastal Zones	-	Production start Q3 2018
	High resolution Phenology	-	Production start planned for Q3/Q4 2018
Pan-European	CLC and CLCC	1990, 2000, 2006, 2012	2018 in preparation
	HRL's (see detailed table below)	2012 and 2015 (in case of imperviousness also 2006 and 2009)	2018 in preparation (Production start Q4 2018)
	Ground motion service	-	In planning
	Snow and Ice	-	Production from December 2018
Reference products	EU DEM	2012	
	EU Hydro	2012	

Overview 2015 reference year HRL's

Lot	Topic	Products	Input imagery
1	Imperviousness	<ul style="list-style-type: none"> • Imperviousness density (IMD) • Imperviousness density change (IMC) • Imperviousness density change classified (IMCC) 	Multi-temporal HR and VHR for calibration
2	Forest	<ul style="list-style-type: none"> • Tree Cover Density (TCD) • Dominant Leaf Type (DLT) • Forest type (FTY) • Tree Cover density change (TCDC) • Leaf Type change (DLTC) – Experimental Product 	Multi-temporal HR and VHR for calibration
3	Grassland	<ul style="list-style-type: none"> • Grassland (GRA) • Grassland Vegetation Probability Index (GRAVPI) – Expert Product • Ploughing Indicator (PLOUGH) – Expert Product 	Multi-temporal HR and VHR for calibration + SAR (S1)
4	Wetness and Water	<ul style="list-style-type: none"> • Wetness and water (WAW) in 4 classes: <ul style="list-style-type: none"> • permanent water • temporary water • permanent wet • temporary wet • Water & Wetness Probability Index – Expert Product 	Multi-temporal HR and VHR for calibration + SAR
5	Small Woody Features (SWF)	<ul style="list-style-type: none"> • Small woody features (vector, 5m and 100m raster) 	VHR IMAGE 2015

Status 2015 HRLs

- All imperviousness, forest, grassland and wetness/water products delivered
- Production of HRL Small Woody Features delayed due to input image issues. Full coverage expected by end of 2018
- Publication on <https://land.copernicus.eu/pan-european> ongoing
- Detailed specs document <https://land.copernicus.eu/user-corner/technical-library/>
- Some 2012 HRL's discontinued and replaced by new baseline products (see below)

Overview on HRL's evolution between 2012 and 2015 reference years

	2012 production	2015 production
Imperviousness	Imperviousness and imperviousness change (and predecessor status and change products 2006-2009)	Imperviousness and imperviousness change Full re-processing of 2006, 2009, 2012 and change products, and 2015 status products
Forest	Tree cover density and Forest Type products	Tree cover density, dominant leaf type and forest type products + new change products
Natural Grassland	Limited grassland product with a focus on natural grasslands	Discontinued and replaced by new grassland baseline product
Grassland	n.a.	<u>New grassland baseline product</u> based on 7-year time series, including all grasslands
Wetlands	Wetland product mapping wet areas. Often confused with ecological definition of "wetland"	Discontinued and replaced by new combined wetness & water product
Permanent Water-bodies	Permanent water bodies	Discontinued and replaced by new combined wetness & water product
Wetness and Water	n.a.	<u>New combined baseline product</u> based on time series analysis mapping temporary and permanent wet and temporary and permanent water
Small Woody Features	n.a.	<u>New product based on VHR data</u> , mapping small patchy and linear woody features as vector product, but also available in 5m and 100m raster version

Status production of local component products

- UA:
 - Finalised production of LULC (+Street tree layer) EEA39 for 2012
 - Production of 2018 reference year will start as soon as VHR2018 data is available
- RZ:
 - Ongoing extension of EU-Hydro based Strahler Level 2 (reference year 2012)
 - 2018 reference year production will probably start in early 2019
- N2K:
 - Ongoing geographic extension of 2012+2016 mapping from ~110.000 km² to nearly 500.000 km²

Status CLC 2018 production and CLC+ development

CLC2018

- The timing and frequency of the SOER exercise (5-yearly: 2010, 2010, 2015, 2020 etc) is currently not harmonized with the CLC update schedule (6-yearly: 2006, 2012, 2018 etc)
- CLC2018 is produced at unprecedented speed and under great pressure to contribute to SOER 2020
- CLC2018 production is happening under new contractual setting, and under completely changed input image situation. Both changes introduce additional challenges
- For now, we expect most (but not all) country results to be delivered to the ETC by that end August deadline



Implemented by



- Some countries will be delayed, such that the mid-December version might show a partial coverage. We know already that TR will be delayed until end of 2018 (production).
- We expect a further period of around 3months for the additional work steps necessary on the side of the ETC technical team (technical checks, mosaicking, rasterization etc), before the harmonized final mosaic can be handed over to EEA, for inclusion in the accounting procedure / CUBE system.
- This timing would bring us to an estimated timing of early December 2017 before the final CLC data arrives (likely with some delayed countries missing) at EEA.
- Data is expected to be available to EEA project managers in mid-December 2017

CLC+

- CLC+: Detailed specifications are being developed by EAGLE group and under considerable consultation over the last year. Current version: V4.
- First contract to be implemented: CLC backbone production for 2018 reference year (parallel to standard CLC production for 2018). Production start planned for Q3/4 2018
- Harmonisation of 2018 portfolio with CLC+ ongoing