



Bundesamt für  
Kartographie und Geodäsie



# Copernicus Landüberwachungsdienst und CORINE Land Cover

Dr. Michael Hovenbitzer

# Waldbrände in Westfrankreich im Juli 2022



12. Juli 2022

9.000 ha sind verbrannt

16.000 Menschen wurden evakuiert

> 1.500  
Feuerwehrleute  
wurden eingesetzt

European Union, Copernicus Sentinel-2 imagery, 17.07.2022  
<https://www.copernicus.eu/en/media/image-day-gallery/major-wildfires-western-france-landiras>



CLC+

Vegetation Indices  
Corine Land Cover

HRL Forest  
Natura 2000 LUCAS

Gross Dry Matter Productivity

Pan-European

Local

Global

Bild- und Referenzdaten

<https://land.copernicus.eu/>

Landüberwachung

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**Weltraum**  
Sentinels, Bodensegment, Beitragende Missionen

Quelle: ESA



**In-Situ**  
Messstationen zu Land, Wasser und in der Luft

Quelle: UBA

## Kerndienste Bereitstellung von Datenprodukten

-  **Meeresumwelt**
-  **Landüberwachung**
-  **Katastrophen u. Krisenmanagement**
-  **Atmosphäre**
-  **Klimawandel**
-  **Sicherheit**

Copernicus is the European Union's Earth observation programme. Information from this programme is provided through six thematic services: land, marine, atmosphere, climate change, emergency management and security. All information is free and openly accessible to all users. The Land Service is divided into four main components:



### Global

*provides a series of bio-geophysical products on the status and evolution of the land surface at global scale at mid and low spatial resolution*



### Pan-European

*provides information about land cover and land use and its changes, as well as bio-geophysical parameters at European scale at high resolution*



### Local

*focuses on different hotspots, i.e. areas that are prone to specific environmental challenges and problems*



### Imagery and reference data

*satellite imagery forms the input for the creation of our products; and in order to ensure the efficient use of satellite imagery, in-situ data is required*

# Copernicus Global Land Service

Providing bio-geophysical products of global land surface



Home Products Use cases Product Access Viewing Library Get Support



## Home

The Copernicus Global Land Service (CGLS) is a component of the Land Monitoring Core Service (LMCS) of Copernicus, the European flagship programme on Earth Observation. The Global Land Service systematically produces a series of qualified bio-geophysical products on the status and evolution of the land surface, at global scale and at mid to low spatial resolution, complemented by the constitution of long term time series. The products are used to monitor the vegetation, the water cycle, the energy budget and the terrestrial cryosphere.

## Latest news

SCE NHEMI product from S-NPP VIIRS data is affected  
Thu, 04 Aug 2022

Impact on LST products from the IODC mission satellite replacement  
Tue, 19 Jul 2022

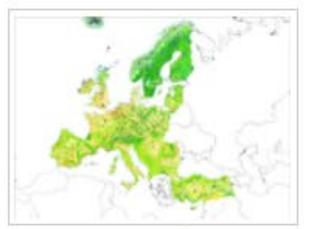


You are here: [Home](#) / [Pan-European](#)

## Pan-European

[Print](#)

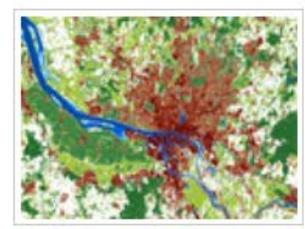
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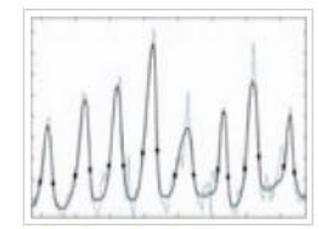
[CORINE Land Cover](#)



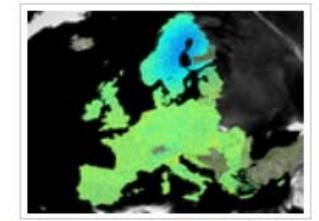
[CLC+](#)



[High Resolution Layers](#)



[Biophysical parameters](#)



[European Ground Motion Service](#)

- [How to access our data](#)
- [Technical library](#)
- [Factsheets](#)
- [Use cases](#)
- [Looking for National projection & Expert products?](#)



[Related Pan-European products](#)

<https://land.copernicus.eu>

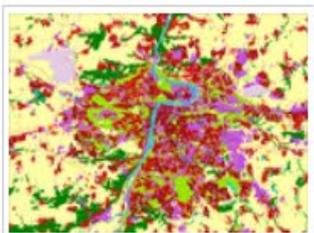


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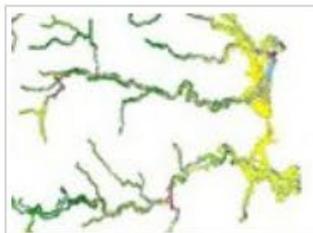
## Local

[Print](#)

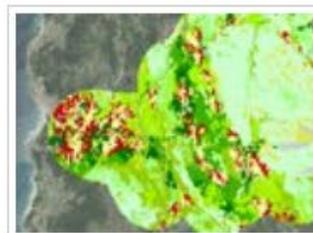
### User corner



[Urban Atlas](#)



[Riparian Zones \(RZ\)](#)



[Natura 2000 \(N2K\)](#)



[Coastal Zones](#)

- [How to access our data](#)
- [Technical library](#)
- [Factsheets](#)
- [Use cases](#)
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You are here: Home / Imagery and reference data

## Imagery and reference data

Print

### User corner



[EU-DEM](#)



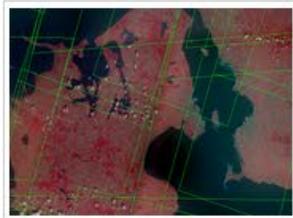
[EU-Hydro](#)



[LUCAS](#)



[European Image  
Mosaics](#)



[Global Image  
Mosaics](#)

How to access our data

Technical library

Factsheets

Use cases

Looking for National projection  
& Expert products?

You are here: Home / Product portfolio / Overview

## Copernicus Land Monitoring Service product portfolio overview

In this section you will find a **short overview** of the Copernicus Land Monitoring Service portfolio (both already operational and upcoming). For your easy reference the products are divided into the

- [Land Cover and Land Use Mapping](#)
- [Hot-spot Monitoring](#)
- [Biophysical Parameters](#)
- [Imagery, In Situ and Reference Data](#)
- [European Ground Motion Service](#)

For more information about the products including available access options (such as on-line map view, download and WMS/WFS services) please click the product link and visit individual product pages.

Note: upcoming products appear in grey.

### Land Cover and Land Use Mapping

Product/ Variable	Reference years or time period available	Geographic coverage	Spatial resolution, map scale or MMU	Update frequency	Delivery timeliness	Main EO data sources used	Status	Roadmap
<b>Land cover classifications</b>								
<a href="#">Global Dynamic Land Cover</a>	2015, 2016, 2017, 2018 Demonstration	Africa	100 m	Yearly	Within 3 months after the end of the year	PROBA-V	Available	
	2015, 2016, 2017, 2018, 2019	Global	100 m	Yearly	Within 3 months after the end of the year	PROBA-V	Available	
<a href="#">CORINE Land Cover</a>	1990, 2000, 2006, 2012, 2018	Increasing: EEA38+UK for the 2018 reference year	25 ha MMU	6 years	<1 year for the 2018 reference year	Sentinel-2 for the 2018 reference year	Available	
<a href="#">CORINE Land Cover Change</a>	1990-2000, 2000-2006, 2006-2012, 2012-2018	Increasing: EEA38+UK for the 2018 reference year	5 ha MMU		<1 year for the 2018 reference year	IRS P6 LISS III, RapidEye for the 2012 reference year and Sentinel-2 for the 2018 reference year	Available	
<a href="#">CLC+</a>	2018	EEA38+UK	05 ha MMU	3-6 years	TBD	TBD	Production on-going	Production of CLC+ Backbone started in Q1 2020; production of CLC+ Core started in Q4 2020
<b>Detailed thematic layers</b>								
<a href="#">Dominant Leaf Type</a>	2012, 2015, 2018	EEA38+UK	10 m, 20 m	Reference years in 3 years intervals	12-18 months from the end of the reference year	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Forest Type</a>	2012, 2015, 2018	EEA38+UK	10 m, 20 m, 100 m	Reference years in 3 years intervals	12-18 months from the end of the reference year	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Grassland</a>	2015, 2018	EEA38+UK	10 m, 20 m, 100 m	Reference years in 3 years intervals	12-18 months from the end of the reference year	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Grassland Change</a>	2015-2018	EEA38+UK	20 m	Reference years in 3 years intervals	12-18 months from the end of the reference year	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Imperviousness</a>	2006, 2009, 2012, 2015, 2018	EEA38+UK	10 m, 20 m, 100 m	Reference years in 3 years intervals	12-18 months from the end of the reference year	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Impervious built-up</a>	2018	EEA38+UK	10 m, 100 m	TBD	N/A	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Imperviousness Classified Change</a>	2006-2009, 2009-2012, 2012-2015, 2015-2018, 2006-2012	EEA38+UK	20 m	Reference years in 3/6 years intervals	12-18 months from the end of the reference year	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Imperviousness Change</a>	2006-2009, 2009-2012, 2012-2015, 2015-2018, 2006-2012	EEA38+UK	20 m, 100 m	Reference years in 3/6 years intervals	12-18 months from the end of the reference year	Sentinel-1, Sentinel-2 for the 2018 reference year	Available	
<a href="#">Small Woody Features</a>	2015	EEA38+UK	5 m, 100 m and vector	Reference years in 3 years intervals	Not established yet	DEIMOS-2, Pleiades 1A, Pleiades 1B, GeoEye-1, SPOT 6, SPOT 7, WorldView-2, WorldView-3	Available	Production for the 2018 reference year started in Q4 2020

You are here: Home / News

## News



### Reflections on the evolution and potential of the Copernicus Land Monitoring Service

Jul 15, 2022

Interview with Hans Dufourmont

Read more



### First product from the European Ground Motion Service released

May 19, 2022

Read more



### WEkEO Jupyter notebook competition webinar

May 17, 2022

Read more

## User corner

- How to access our data
- Technical library
- Factsheets
- Use cases
- Looking for National projection & Expert products?

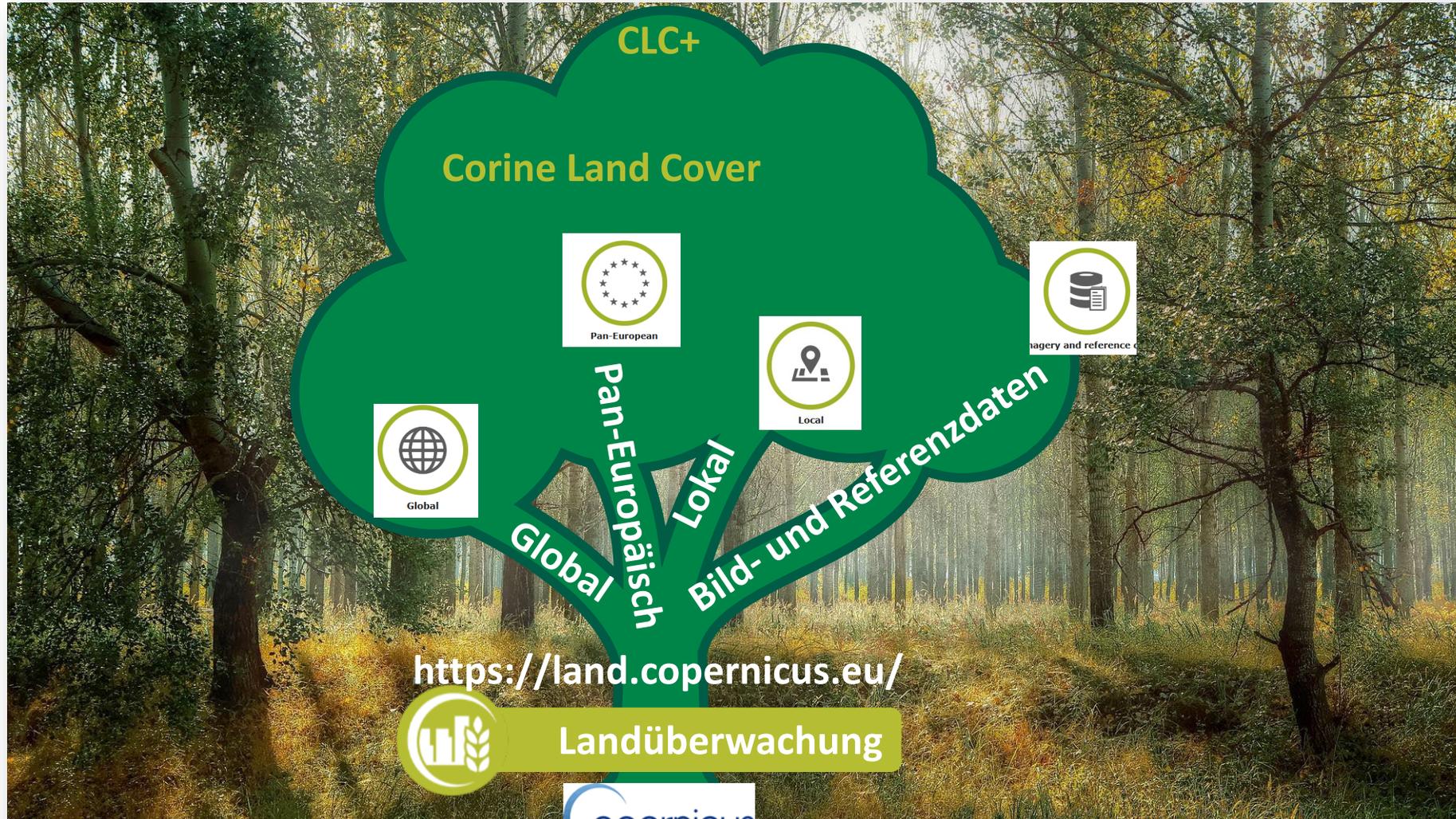


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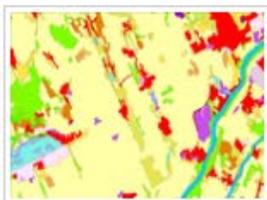
You are here: Home / Pan-European / CORINE Land Cover

# CORINE Land Cover

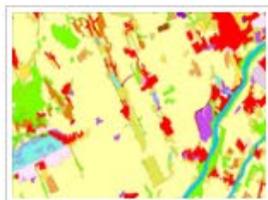
Print

## User corner

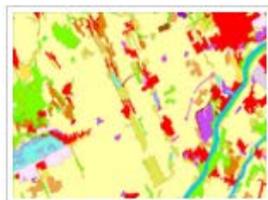
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- Technical library
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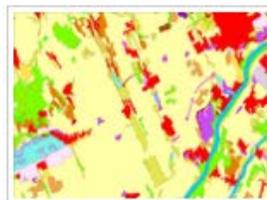
CLC 1990



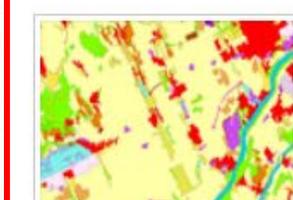
CLC 2000



CLC 2006



CLC 2012



CLC 2018



CHA 1990-2000



CHA 2000-2006



CHA 2006-2012



CHA 2012-2018



You are here: Home / Pan-European / CORINE Land Cover / CLC 2018

### CLC 2018

Print

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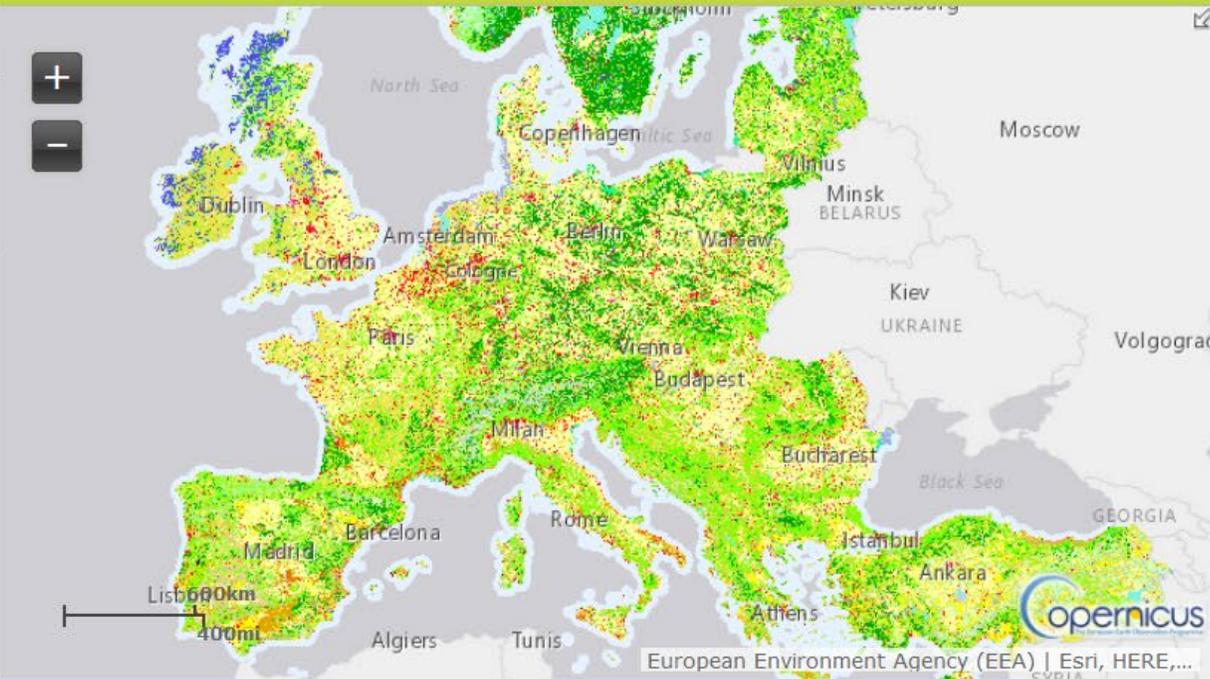
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Map View Metadata Download

Legende Web services

#### CLC2018\_WM

- Corine Land Cover 2018 raster
- Continuous urban fabric
- Discontinuous urban fabric
- Industrial or commercial units
- Road and rail networks and associated land
- Port areas
- Airports
- Mineral extraction sites
- Dump sites
- Construction sites
- Green urban areas
- Sport and leisure facilities
- Non-irrigated arable land
- Permanently irrigated land
- Rice fields
- Vineyards



You are here: Home / Pan-European / CORINE Land Cover / CLC 2018

# CLC 2018

Print

Map View Metadata **Download**

The current CLC 2018 version is v.2020\_20u1, which covers all EEA39 countries. For details click [here](#).

Corine Land Cover products are available in both raster (100 resolution), and vector (ESRI and SQLite geodatabase). The Minimum Mapping Unit (MMU) for the CLC is 25 hectares for areal phenomena and 100 meter for linear phenomena. The time series (1990, 2000, 2006, 2012 and 2018) are complemented by change layers, which highlight changes in land cover with an MMU of 5 ha. If you are interested in changes between two surveys always use the CLC-Change layer, as this has a higher resolution than the status layer. Results can be filtered by using the search box.

Please note that you can only download the latest version of our products from this website. If you are looking for older versions of the products please contact copernicus@eea.europa.eu.

**Log in to download the data**

New user? [Follow this link to register.](#)

## User corner

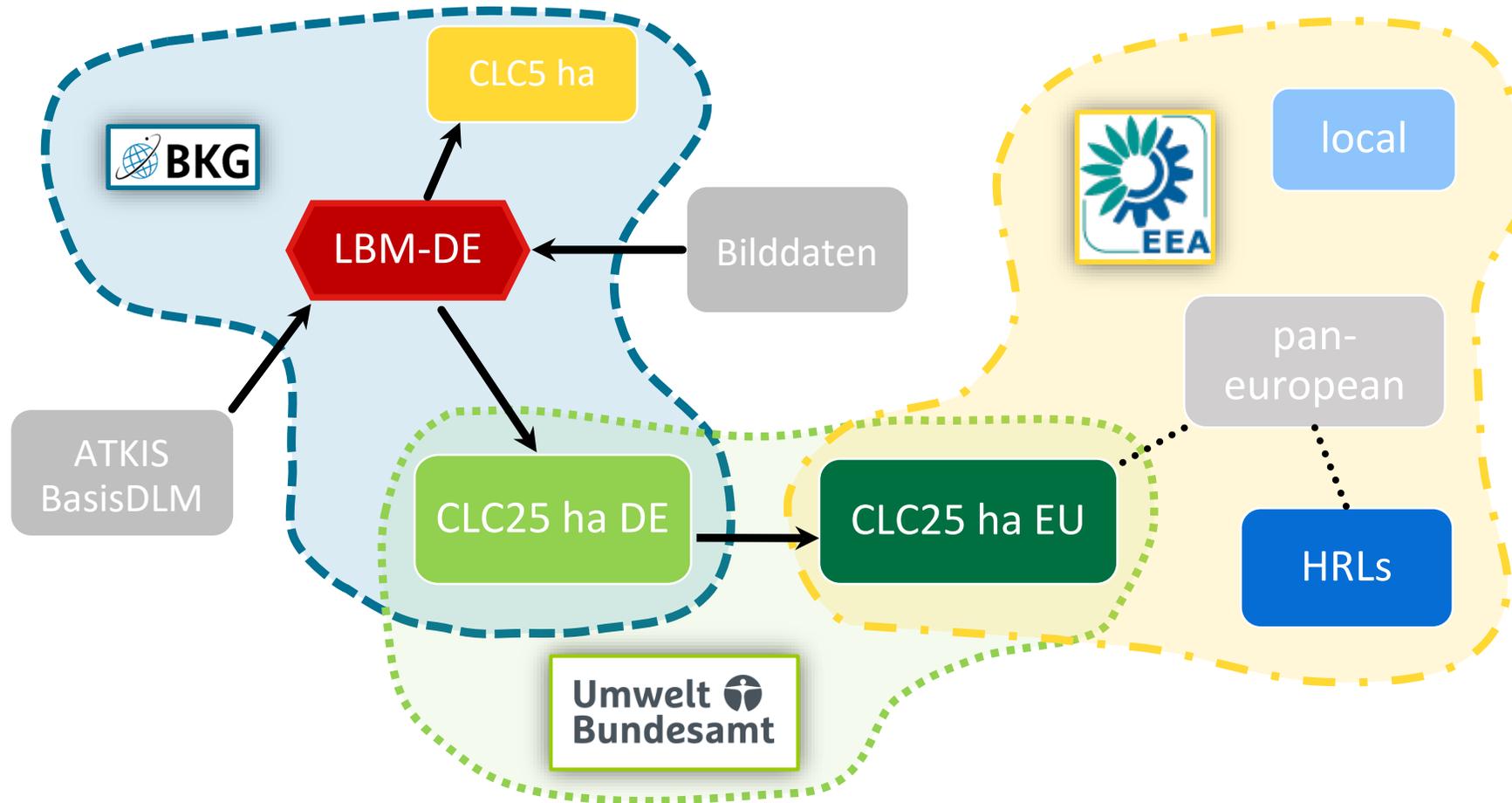
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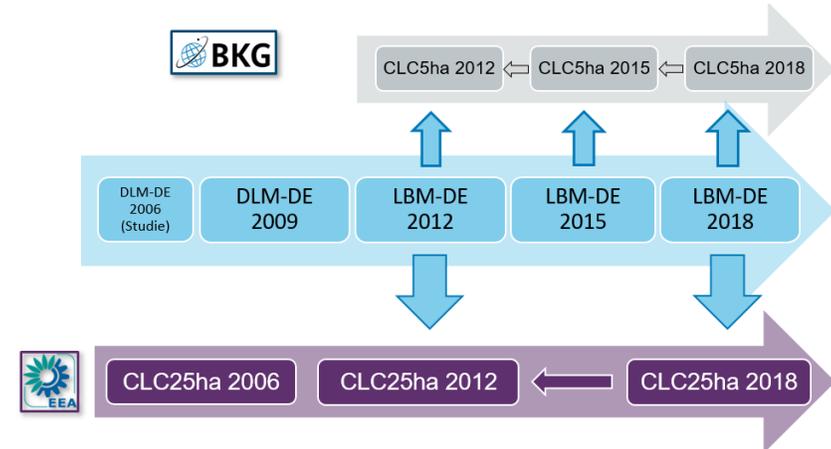
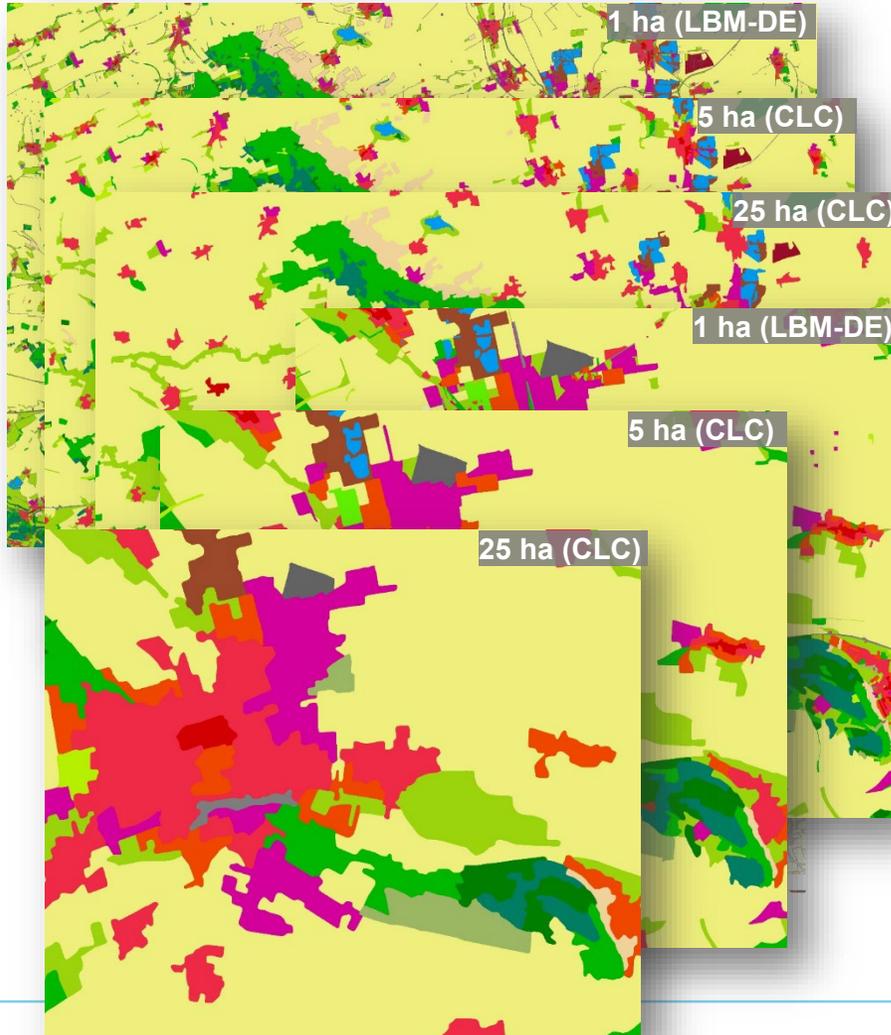
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Download ist kostenlos

Show 20 entries

Search:

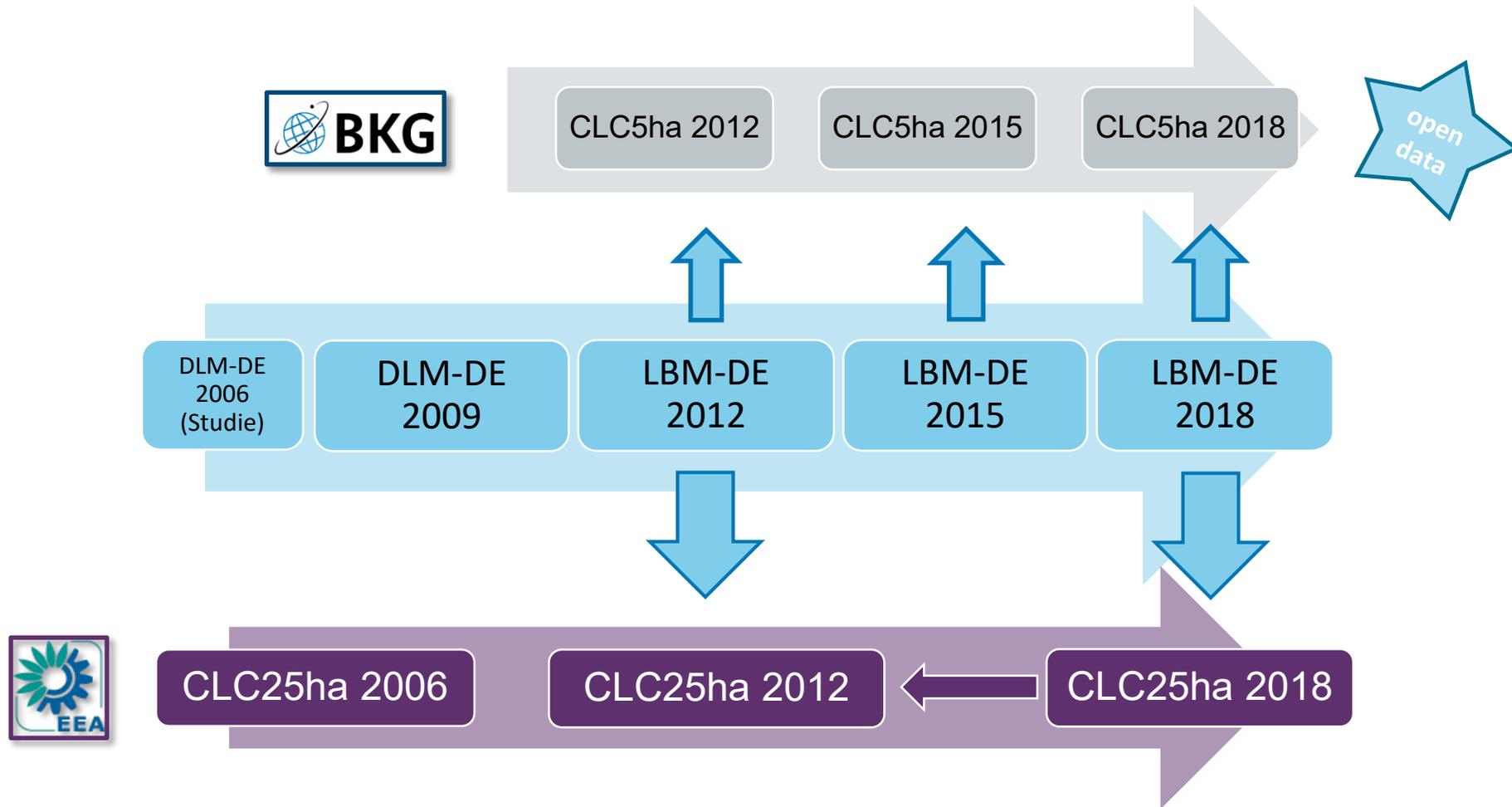
Name	Year	Type	Format	Version	Size
Corine Land Cover - 100 meter	2018	Raster	100m GeoTiff	v2020_20u1	125.0 MB
Corine Land Cover - ESRI FGDB	2018	Vector	ESRI Geodatabase	v2020_20u1	5.0 GB
Corine Land Cover - GeoPackage	2018	Vector	SQLite Database	v2020_20u1	3.5 GB

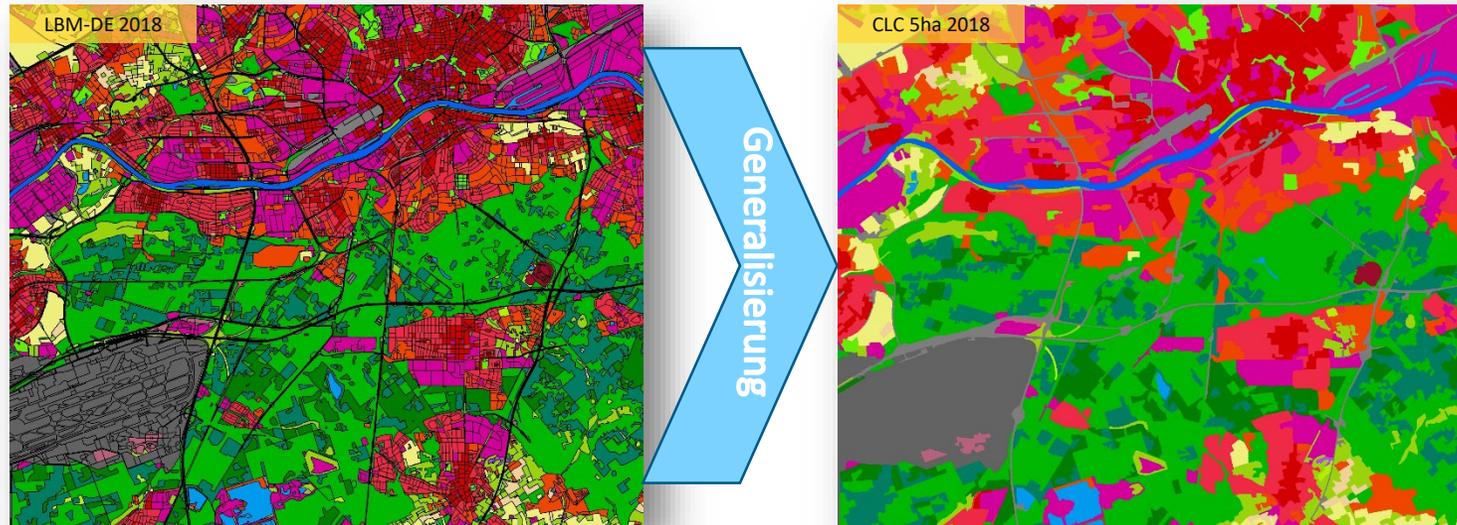




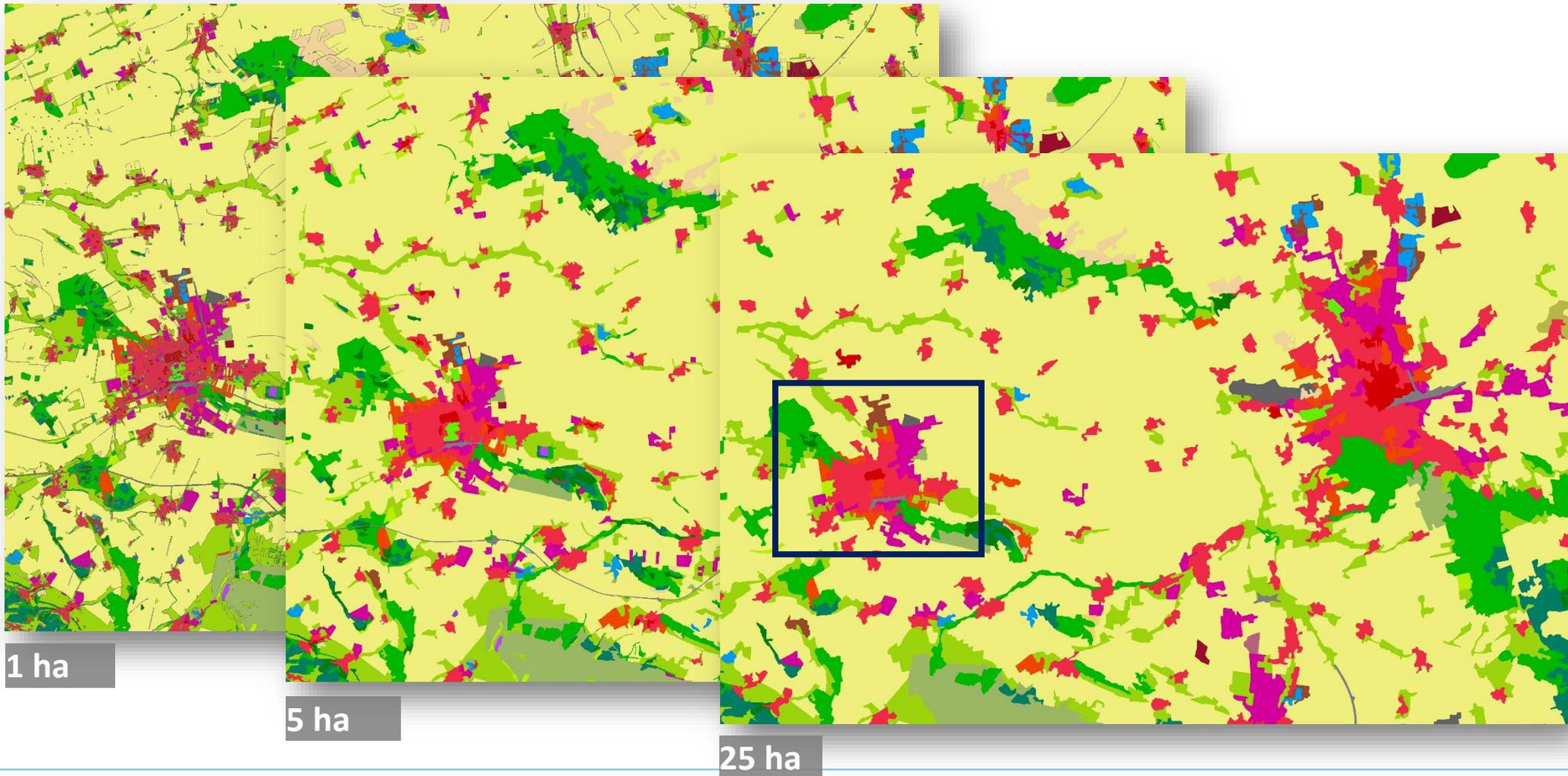
- Q 31 Landbedeckungs-Klassen (LB)
- Q 16 Landnutzungs-Klassen (LN)
- Q Vegetationsanteil [%]
- Q Versiegelungsanteil [%]
- Q Aktualisierung alle 3 Jahre
- Q Mindestkartierfläche 1 ha
- Q Grundlage für CORINE Land Cover (CLC)

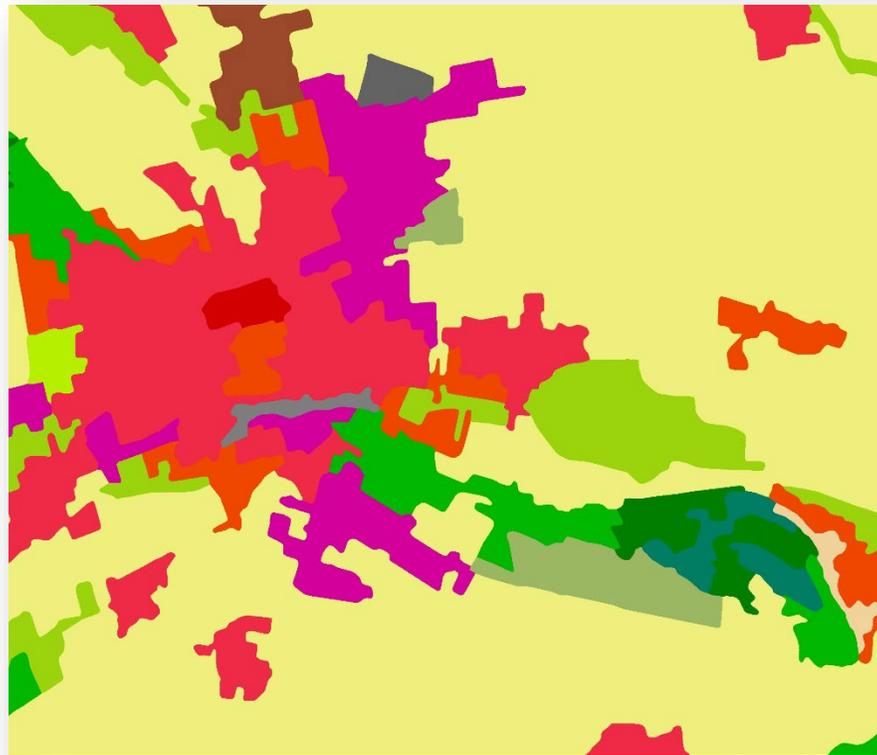
# LBM-DE und Folgeprodukte (Zeitreihe)





- Geometrievereinfachung, schmale Objekte beseitigen
- Bebauungsflächen und Gewässerflächen über räumliche Distanz zusammenfassen
- benachbarte Objekte nach Ähnlichkeit zusammenfassen
- Objektbezogene Hinweise automatisch erstellen und interaktiv überprüfen
- Stützpunktreduzierung, Glättung

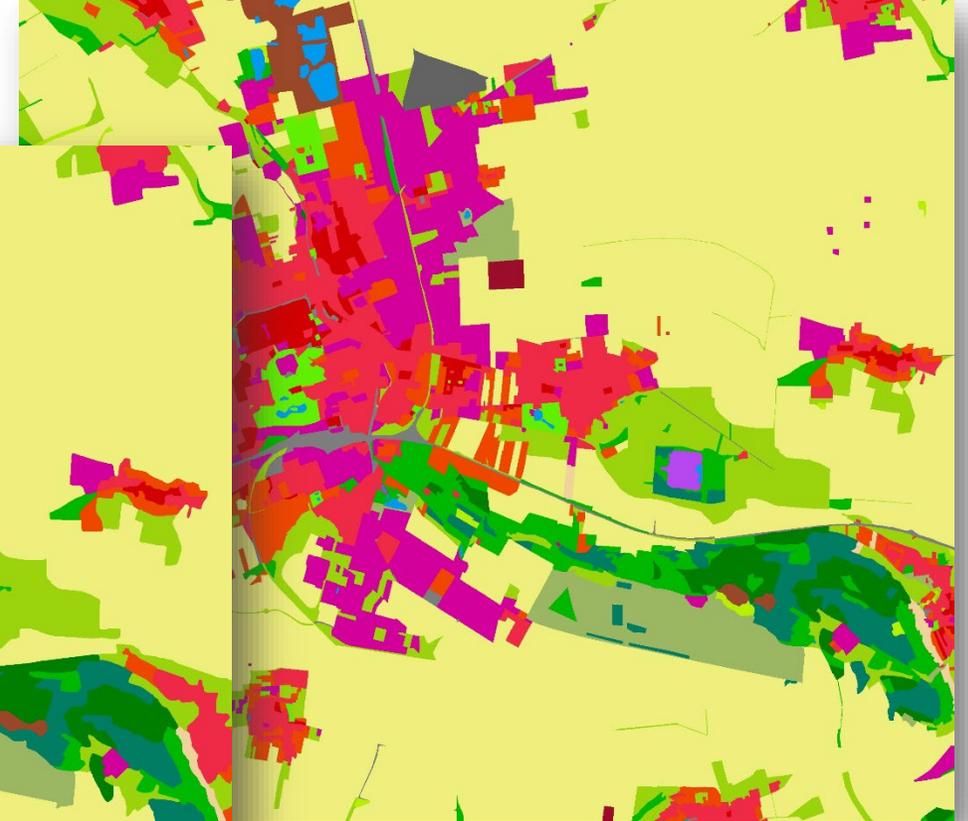




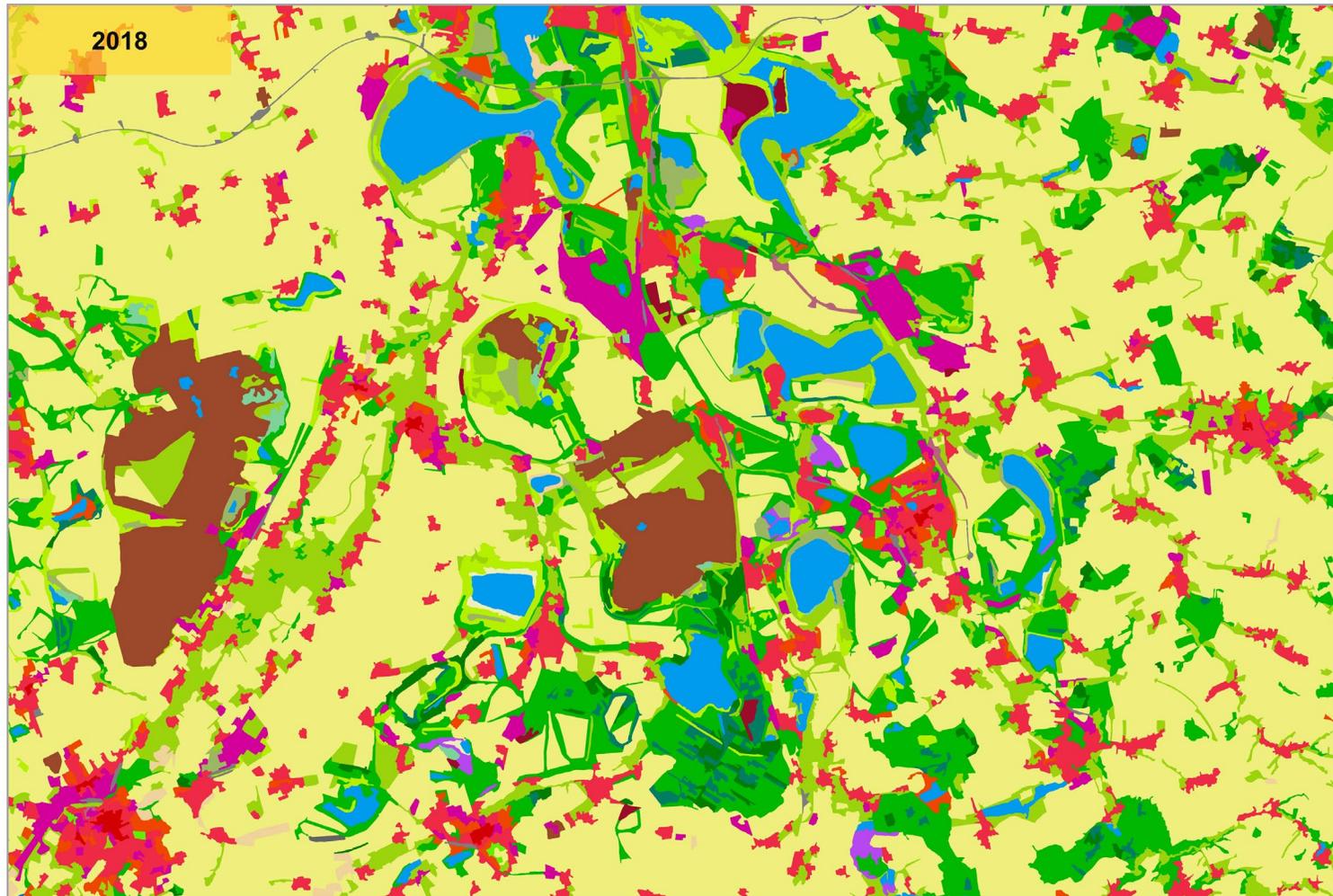
25 ha



5 ha

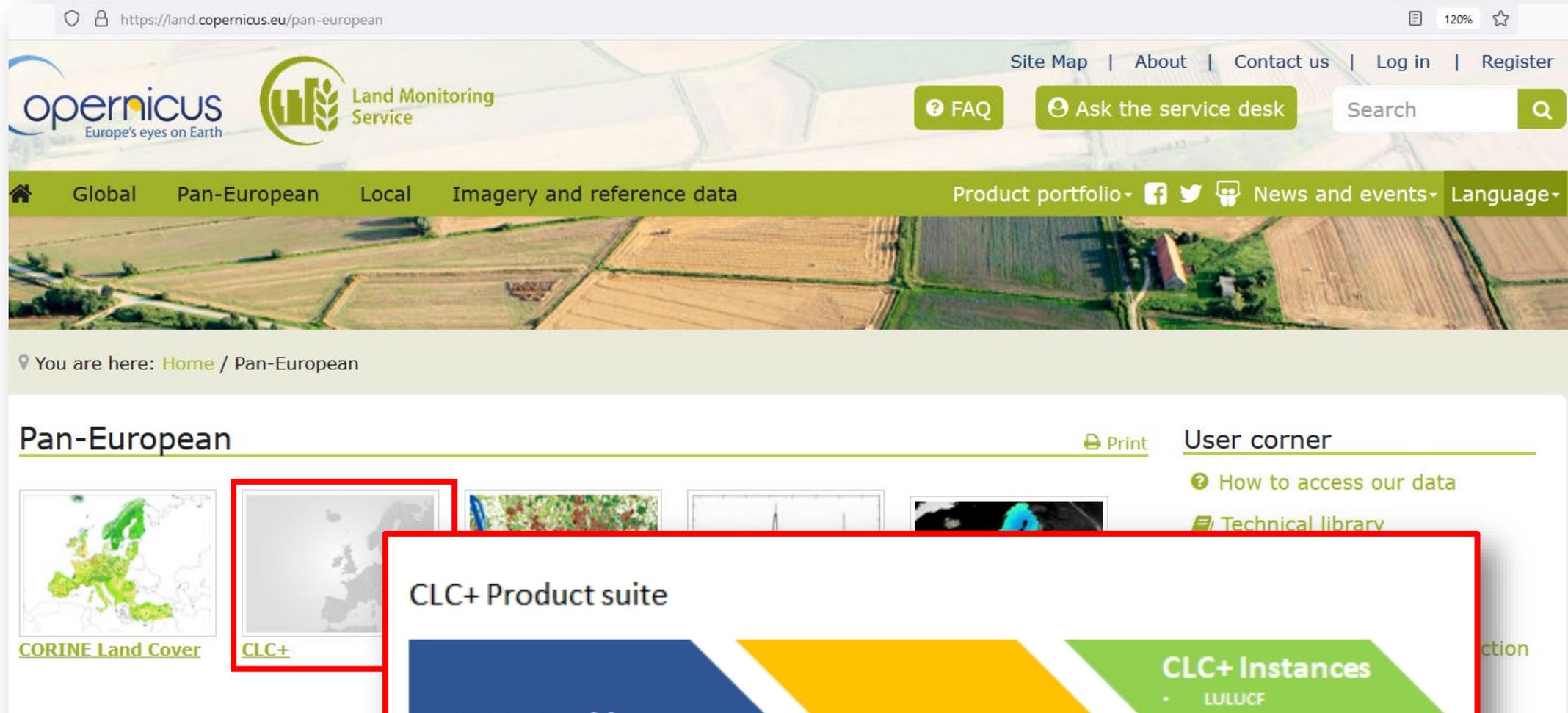


1 ha



Download:  
[www.bkg.bund.de](http://www.bkg.bund.de)

In Planung:  
2021/2024



The screenshot shows the Copernicus Land Monitoring Service website. The header includes the Copernicus logo, the text "Europe's eyes on Earth", and the "Land Monitoring Service" logo. Navigation links include "Site Map", "About", "Contact us", "Log in", and "Register". There are buttons for "FAQ" and "Ask the service desk", and a search bar. A green navigation bar contains "Global", "Pan-European", "Local", "Imagery and reference data", "Product portfolio", "News and events", and "Language". Below the navigation bar is a large aerial photograph of agricultural fields. A breadcrumb trail reads "You are here: Home / Pan-European". The main content area is titled "Pan-European" and features a "Print" button and a "User corner" section with links to "How to access our data" and "Technical library". A row of five thumbnail images is displayed, with the second one, labeled "CLC+", highlighted with a red border. Below this row is a diagram titled "CLC+ Product suite" showing three chevron-shaped boxes: "CLC+ Backbone" (blue), "CLC+ Core" (yellow), and "CLC+ Instances" (green). The "CLC+ Instances" box lists "LULUCF", "Legacy", "CAP 2020", "Urban", and "...". To the left of the diagram, there are two map thumbnails: "CORINE Land Cover" and "CLC+", with the latter also highlighted by a red border.

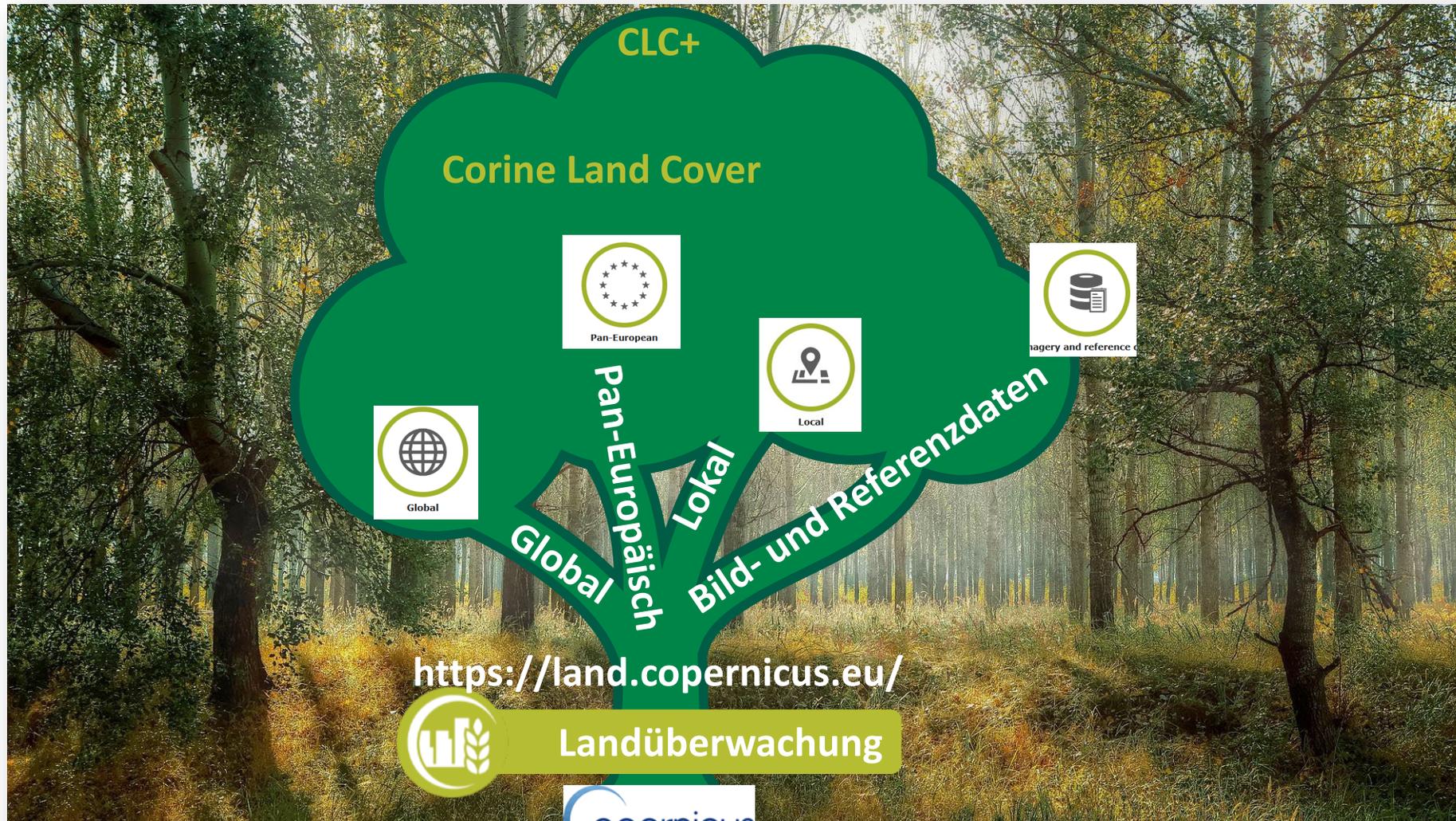


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Bundesamt für  
Kartographie und Geodäsie



Copernicus  
Europas Blick auf die Erde

 **BKG**  
Wir geben Orientierung.

# Vielen Dank für Ihre Aufmerksamkeit.

Fragen? Kontaktieren Sie uns!



Dr. Michael  
Hovenbitzer  
Fachkoordinator  
BKG



Dr. Christian  
Schweitzer  
Fachkoordinator  
UBA

**copernicus-  
landdienst@bkg.bund.de**

Bundesamt für Kartographie und Geodäsie  
Referat GD 5 - Weiterentwicklung Geoinformation und Fernerkundung  
Richard-Strauss-Allee 11  
60598 Frankfurt am Main  
Dr. Michael Hovenbitzer  
michael.hovenbitzer@bkg.bund.de  
www.bkg.bund.de  
Tel. +49 69 6333 – 440