

EEA experiences as a solution provider for Earth Observation data

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European Environment Agency (EEA)

Geneva, GWF 2014, 5.5.2014

The EEA's Mission

What?

The provision of timely, targeted, relevant and reliable information to policy-making agents and the public.

Why?

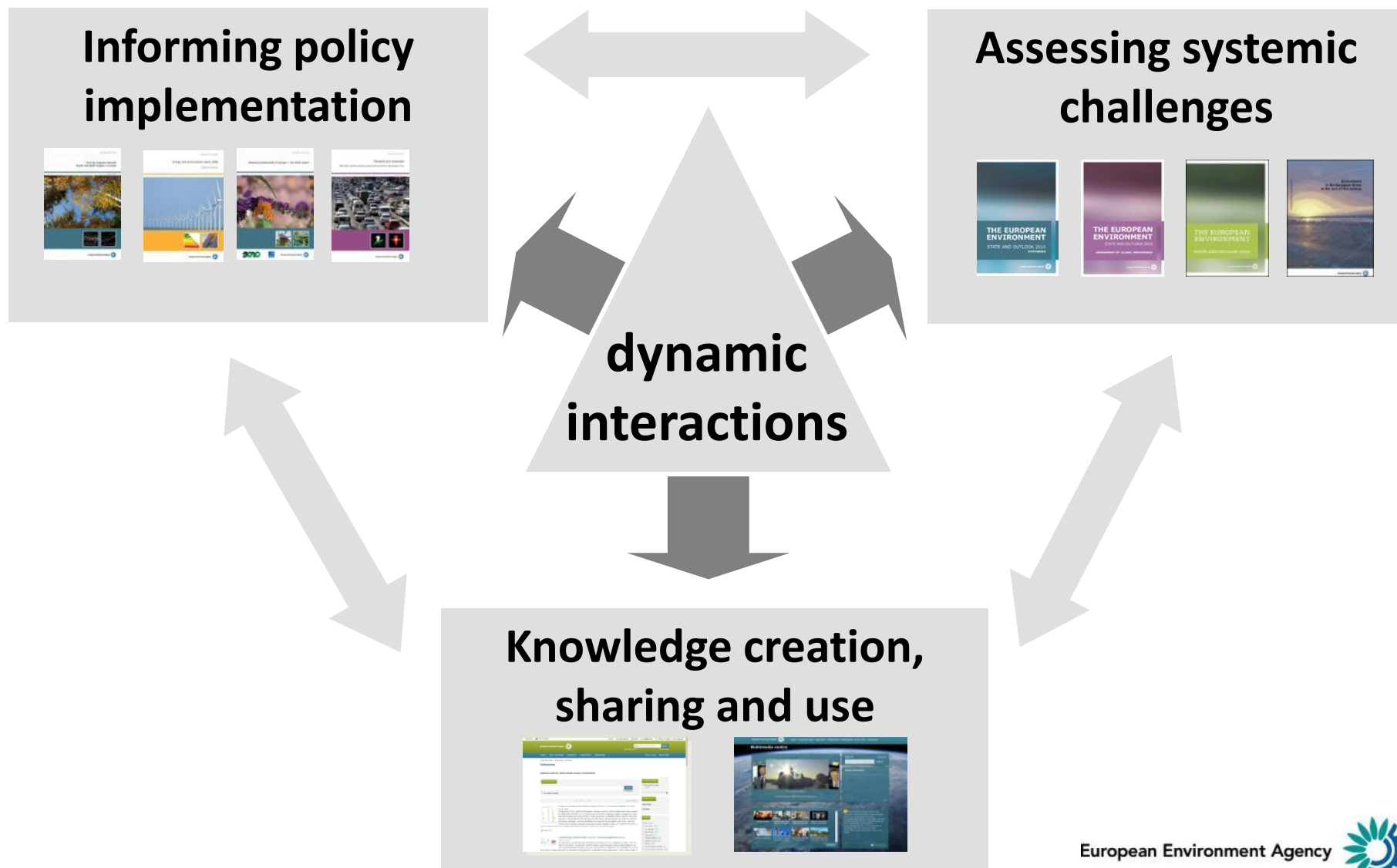
To help achieve significant and measurable improvements in Europe's environment and to support sustainable development.



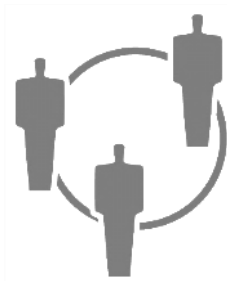
Key goals – EEA Work Programme 2014-2018

- To be the prime source of knowledge at European level **informing the implementation of** European and national **environment and climate policies**;
- To be a leading knowledge centre on the knowledge needed to **support long term transition** challenges and objectives;
- To be the lead organisation at European level facilitating **knowledge-sharing and capacity -building** in the field of environment and climate change.

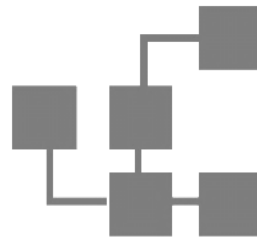
EEA strategic response



3: Knowledge co-creation, sharing and use



Networking and
partnerships



Technical systems
development



Capacity building in
West Balkan and European
Neighbourhood countries



Communication,
outreach and
user analysis



Monitoring, data
and information
management



Quality management
and operational
services



Copernicus
operational services

Provisions of the Copernicus regulation

REGULATION (EU) No 377/2014 of 3 April 2014 ... published 24.4.2014

Article 4

Objectives

1. Copernicus shall contribute to the following general objectives:

- (a) monitoring the Earth to support the protection of the environment and the efforts of civil protection and civil security;
- (b) maximising socio-economic benefits, thereby supporting the Europe 2020 strategy and its objectives of smart, sustainable and inclusive growth by promoting the use of Earth observation in applications and services;
- (c) fostering the development of a competitive European space and services industry and maximising opportunities for European enterprises to develop and provide innovative Earth observation systems and services; 24.4.2014 L 122/51 Official Journal of the European Union EN
- (d) ensuring autonomous access to environmental knowledge and key technologies for Earth observation and geoinformation services, thereby enabling Europe to achieve independent decision-making and action;
- (e) supporting and contributing to European policies and fostering global initiatives, such as GEOSS.

Article 11

Service Operators

1. The Commission may entrust the service component implementation tasks, by means of delegation agreements or contractual arrangements, where duly justified by the special nature of the action and existing specific expertise, mandate, operation and management capacity, inter alia to the following entities:

- (a) the European Environment Agency (EEA);
- (b) ...



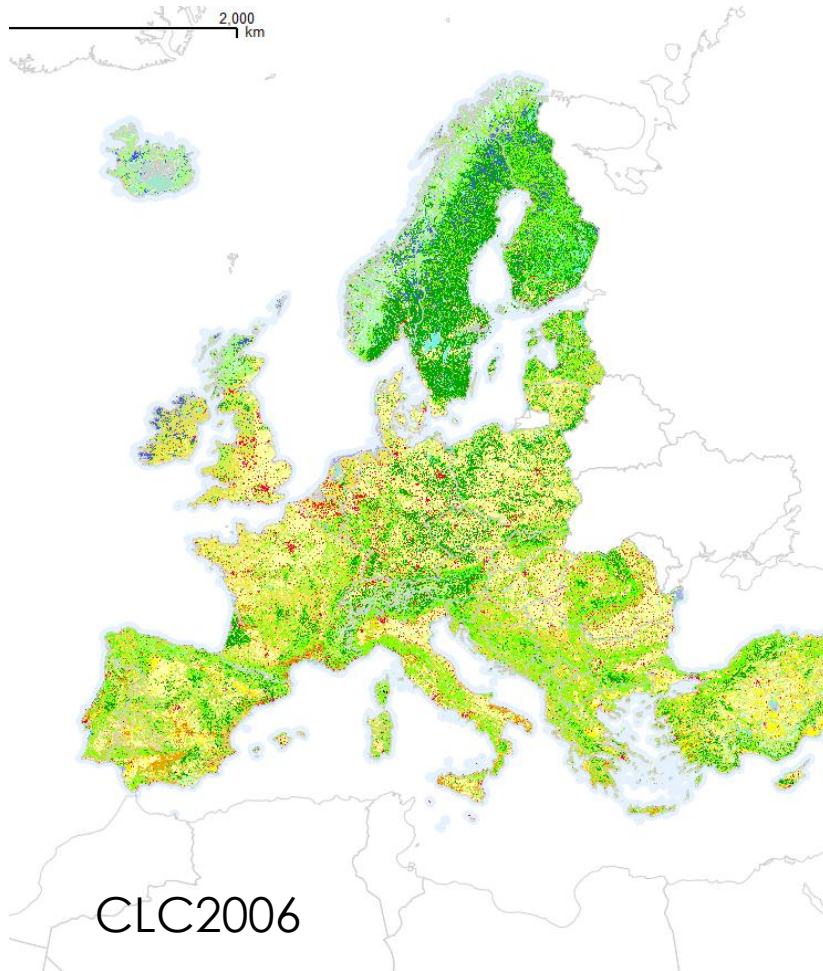
EEA role in Copernicus programme

- Coordinate in-situ data access
 - → GISC project (until 31.10.2013)
 - Reference Data Access component → bridging towards operational phase 2014-2020
- Coordinate and implement the Land Monitoring service (technical coordinator)
 - Pan-European component
 - Local component





CLC series: 1990-2000-2006-2012-

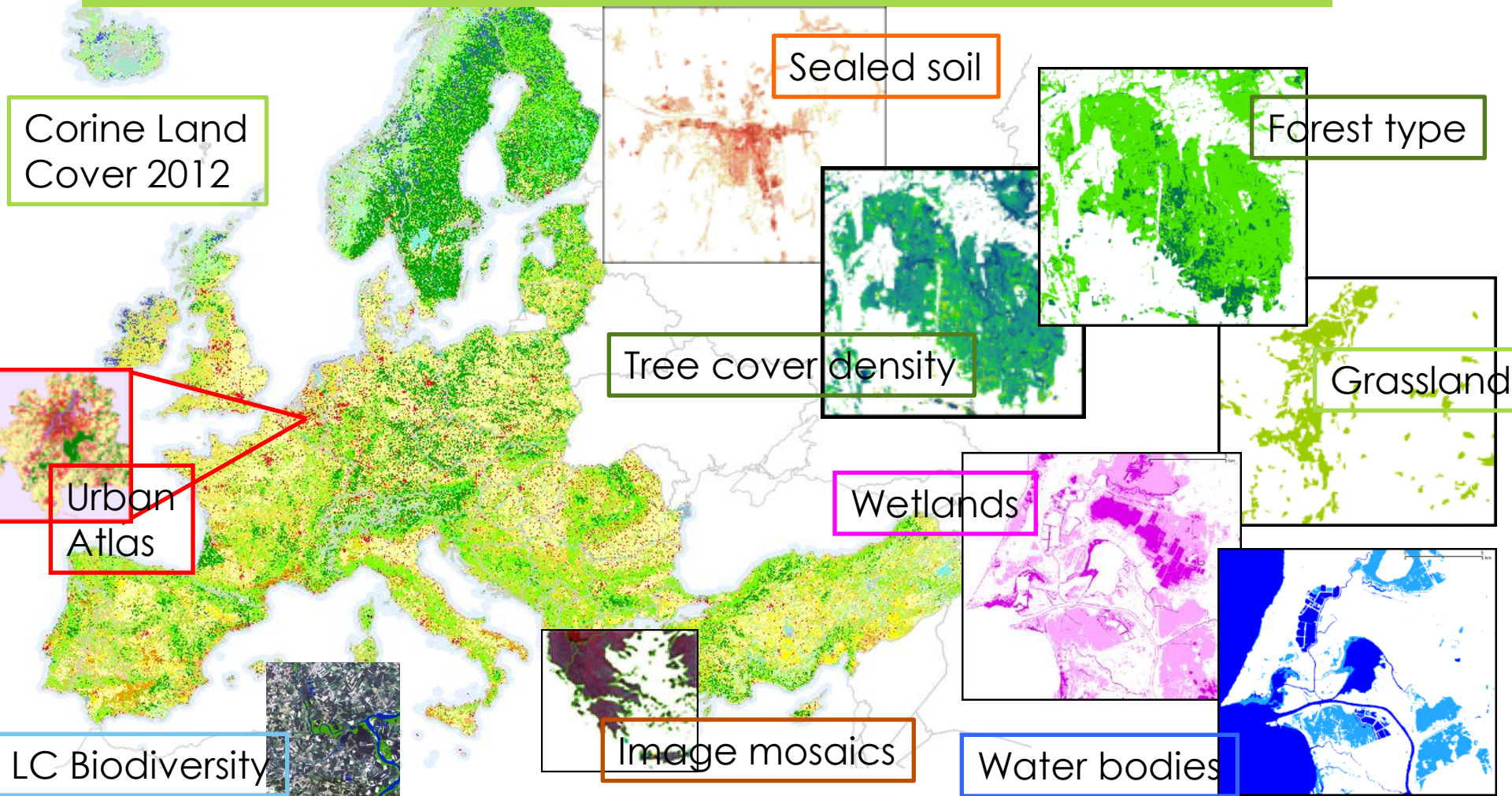


- EEA flagship product for many years
 - 44 LC/LU classes,
 - MMU: 25 ha,
 - linear elements > 100m width
 - Updates every 6 years, incl. change layer
 - 39 countries, +/- 6 Mill. km²
 - Production done by Eionet NRC/LCs through grant agreements
 - Coordination, training, QA/AC, integration by EEA.



Land monitoring pan-European component, reference year 2012

Product portfolio



Dissemination through www.land.copernicus.eu

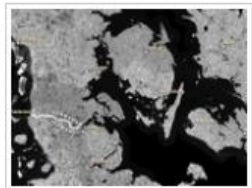
Copernicus Land Monitoring Services



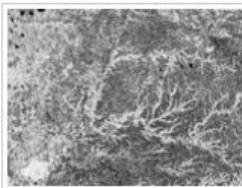
[Home](#) [Global](#) [Pan-European](#) [Local](#) [In-situ](#)

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Pan-European



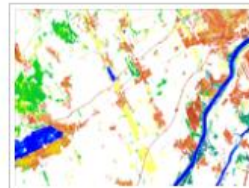
[High Resolution Image Mosaic](#)



[Bio-geophysical variables](#)



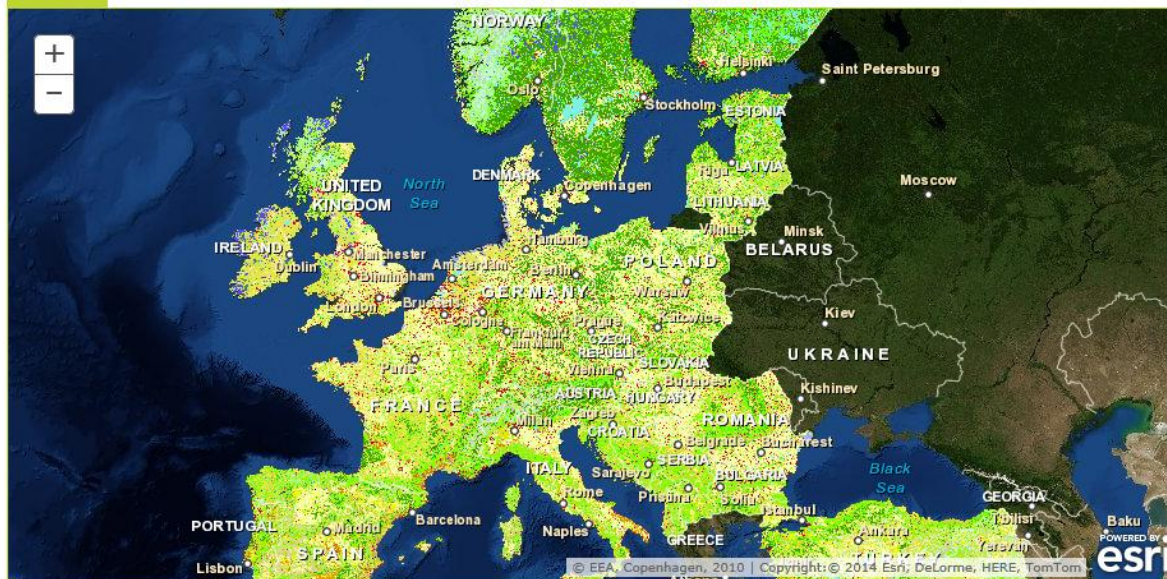
[Corine Land Cover](#)



[High Resolution Layers](#)

The pan-European CLC 2006 characteristics: artificial European component

[Map View](#) [Metadata](#) [Web Map Services](#) [Download](#) [Legend](#)



User corner

- ➔ [Ask the service desk](#)
- ➔ [Technical library](#)
- ➔ [EAGLE Working Group](#)
- ➔ [Copernicus Land News](#)
- ➔ [Land use cases](#)
- ➔ [Events](#)
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- ➔ [Publications](#)



Partners



European Environment Agency



Land service evolution: Known services: ensuring continuity

- CLC and CLCC:
 - continued every 6 year; next run: 2018
 - evolving methodology: bringing EAGLE matrix model to an operational status
 - CLC around sea basins (Black sea, Mediterranean) ?
- HRLs: planned intermediate and complementary to CLC
 - continued every 3 years, next runs: 2015, 2018
 - from 2015: working with yearly incremental updates
 - content: repetition and improvement of existing 5 HRLs
 - Re-analysis imperviousness
- Local component:
 - continuation of Urban Atlas: 2015, 2018
 - Riparian zones: 2012, 2018



Land service evolution: New services ?

- New HRLs:
 - pan-European green linear elements ?
 - improve grassland / intensity of agricultural management ?
 - geohazard zones ?
 - biofuel crop monitoring ?
 - (inland water extraction/ irrigation monitoring ?)
- New local components:
 - Urban Atlas: inclusion of 3rd dimension ?
 - Urban Atlas: extension to EEA39 ?
 - Natura2000 monitoring ?
 - Coastal zone monitoring ?
 - permanent snow & ice cover ?

Link with GEOSS portal

- EEA as a dataprovider – metadata harvested through CSW service

The screenshot displays the GEOSS portal search results. On the left, a sidebar contains a 'SEARCH' section with filters for 'Country/Geography', 'Data Access Conditions', and 'Earth Observation Catalogs'. Under 'Earth Observation Catalogs', the 'EEA SDI Catalog' is selected. Below the filters are 'CLEAR' and 'SEARCH' buttons. The main area features a world map with navigation controls. Below the map, it states 'Total Results: 412' and provides tabs for 'All', 'Alerts, RSS, and information Feeds', and 'Websites and documents'. A 'Legend' section is visible, showing two results. The first result is 'Near real time measurements of ozone (O3) concentration for the current year', with a description: 'Near real time ozone concentration measurements transmitted to EEA by national and regional air quality networks' and a link to 'http://www.eea.europa.eu/themes/air/'. The second result is 'AirBase: Validated measurements of the concentration of air pollutants 1969-2011 - version 7, Mar. 2013', with a description: 'AirBase is the European air quality database maintained by the EEA through its European topic centre on Air pollution and Climate Change mitig'.

SEARCH
+ Country/Geography
+ Data Access Conditions
- Earth Observation Catalogs

☒ ALL
☐ EGASKRO
☐ PANGAEA
☐ HIS Central US
☐ Canadian Monitoring N
☒ EEA SDI Catalog
☐ US Data Gov
☐ NASA Global Change M
☐ BYU World Water Data
☐ GEOSS Clearinghouse
☐ WIS GISC DWD

CLEAR SEARCH

Total Results: 412

All Alerts, RSS, and information Feeds Websites and documents

Legend

1 2 3 4 NEXT LAST

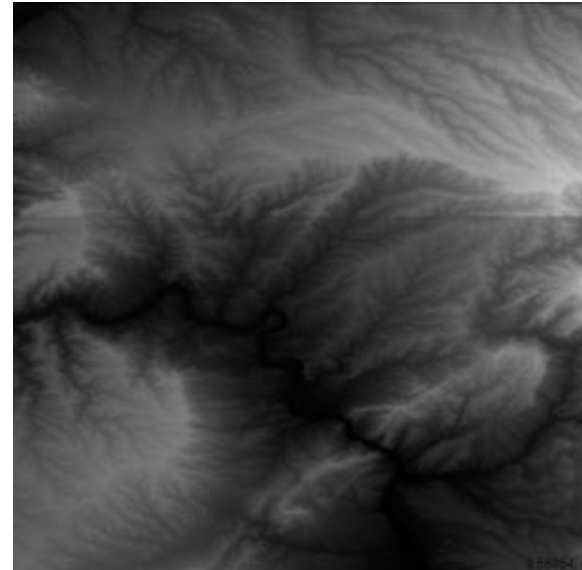
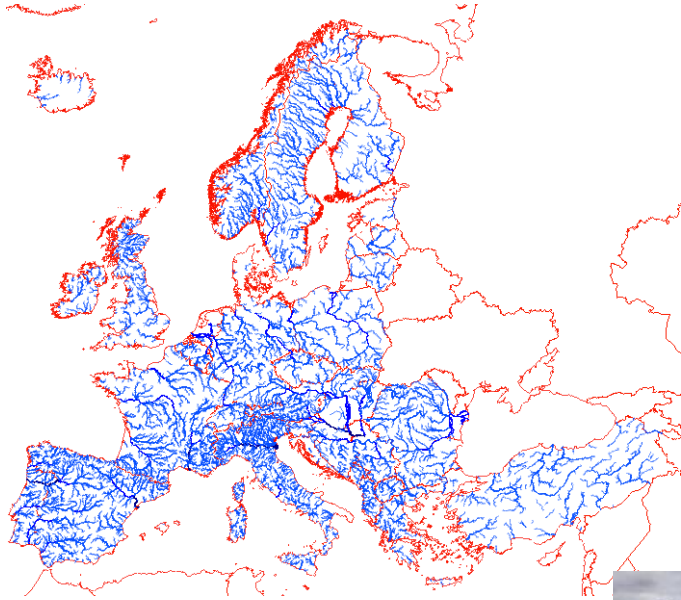
Near real time measurements of ozone (O3) concentration for the current year
Near real time ozone concentration measurements transmitted to EEA by national and regional air quality networks
(<http://www.eea.europa.eu/themes/air/>)
[Click to read more...](#)

AirBase: Validated measurements of the concentration of air pollutants 1969-2011 - version 7, Mar. 2013
AirBase is the European air quality database maintained by the EEA through its European topic centre on Air pollution and Climate Change mitig
[Click to read more...](#)



Reference Data Access component: Access to MS data & pan-European datasets

EU-hydro



EU-DEM



LUCAS

Link with in-situ reference data

- EU-DEM (25m x 25m raster, ETRS-LAEA projection, GEO-TIFF)

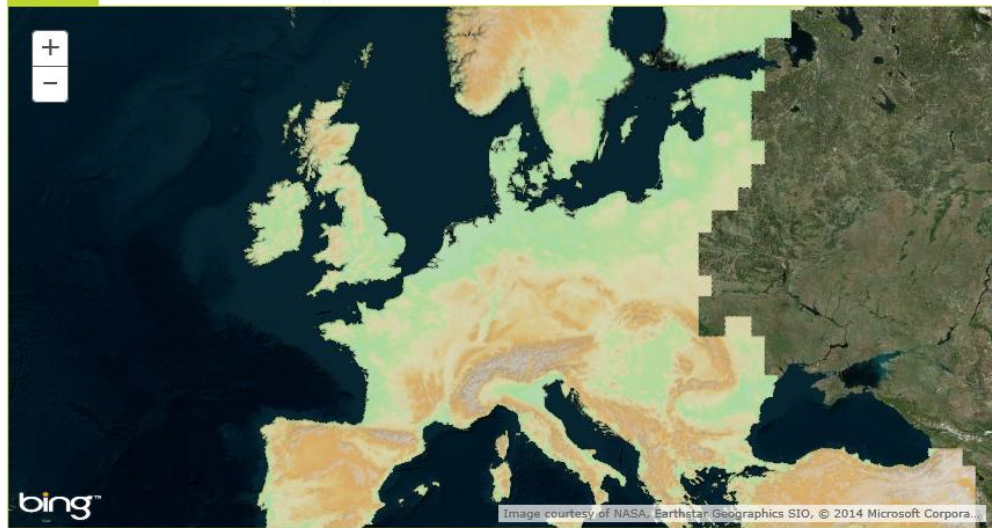
Copernicus Land Monitoring Services

Home Global Pan-European Local In-situ

You are here: Home / In-situ / EU-DEM

EU-DEM

Map View Metadata Download Legend



- EU-Hydro (1:100.000 scale, *under quality assurance*)
- Further plans could include to explore suitability of GEOSS data products

Requirements for using GEOSS data products

GEOSS access conditions are already in line with those of the Copernicus program and EEA

- Free, full and open access

Improved interoperability - supported by

- Standardisation (international)
- INSPIRE (in Europe)

Thank you !

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