



In situ

Towards improved use of NMCA's data and services by Copernicus

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European Environment Agency





In situ

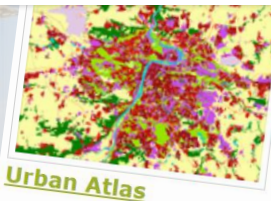
Cooperation and data sharing is key

Latest Copernicus EMS - Mapping Activations

Act. Code	Title	Act. Date	Type	Country/Terr. Feed
EMSR545	Wildfire in Andalusia, Spain	2021-09-09	Wildfire	Spain
EMSR544	Wildfires in Galicia, Spain	2021-09-07	Wildfire	Spain
EMSN106	Wildfire in Ezcaray, Spain	2021-08-30	Wildfire	Spain
EMSN105	Floods in Solingen, Germany	2021-08-27	Flood	Germany
EMSN104	ETA and IOTA hurricanes effects in...	2021-08-19	Storm	Guatemala
EMSR543	Fire in La Palma, Canary Islands, Spain	2021-08-17	Wildfire	Spain
EMSR542	Forest fire in Lavrio, Eastern Attica,...	2021-08-17	Wildfire	Greece
EMSR541	Fire in Var, France	2021-08-17	Wildfire	France
EMSR540	Fire in Western Attica, Greece	2021-08-17	Wildfire	Greece
EMSR539	Fire in Algarve, Portugal	2021-08-17	Wildfire	Portugal

Activation codes: ... Mapping

Authoritative geospatial data make a difference



Urban Atlas



Riparian Zones



Natura 2000 (N2K)



Coastal Zones



EMSR517: Flood in Western Germany

Event Time (UTC): 2021-07-13 16:00

Event Time (LOC): 2021-07-13 18:00

Event Type: Flood (Riverine flood)

Activation Time (UTC): 2021-07-13 17:11

Activation Status: Closed

Affected Countries/Territories:

Germany

Federal States

North Rhine-Westphalia

Rhineland-Palatinate

Lower Saxony

Hesse

Baden-Württemberg

Bavaria

Saarland

Thuringia

Saxony

Saxony-Anhalt

Brandenburg

Berlin

Mecklenburg-Vorpommern

Schleswig-Holstein

Lübeck

Lower Saxony

North Rhine-Westphalia

Rhineland-Palatinate

Lower Saxony

Hesse

Baden-Württemberg

Bavaria

Saarland

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Saxony

Saxony-Anhalt

Brandenburg

Berlin

Mecklenburg-Vorpommern

Schleswig-Holstein

Lübeck

Lower Saxony

North Rhine-Westphalia

Rhineland-Palatinate

Lower Saxony

Hesse

Baden-Württemberg

Bavaria

Saarland

Thuringia

Saxony

Saxony-Anhalt

Brandenburg

Berlin



Activation Reason:
Heavy rains affected Rhineland-Palatinate area where a severe flood event is expected over the next few days along the river Moselle. The German Joint Information and Coordination Center triggered the Copernicus EMS Rapid Mapping Service to monitor the flood evolution over the affected areas.

EMSR518: Flood in Belgium

Event Time (UTC): 2021-07-14 20:00

Event Time (LOC): 2021-07-14 18:00

Event Type: Flood (Riverine flood)

Activation Time (UTC): 2021-07-14 14:00

Activation Status: Closed

Affected Countries/Territories:

Kingdom of Belgium

Kingdom of the Netherlands

Service Output: 4 products (18 maps)

Definition: 4 products (18 maps)

Authorized User:

Belgium/Centre Gouvernemental de Coordination et de Crise

Activation Reason:

Heavy rain affected the Walloon Region in Belgium, where a severe flood event is expected in the Eastern parts over the next days. The National Crisis Center triggered the Copernicus EMS Rapid Mapping Service to monitor the flood evolution over the affected areas.

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In situ

Data from NMCA's are essential for Services



Emergency



Rapid Mapping

Rapid Mapping provides geospatial information within hours or days of a service request in order to support emergency management activities in the immediate aftermath of a disaster.



Land



Global Pan-European Local Imagery and reference data

Product portfolio - News and events - Language -

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:



Local



Imagery and reference data



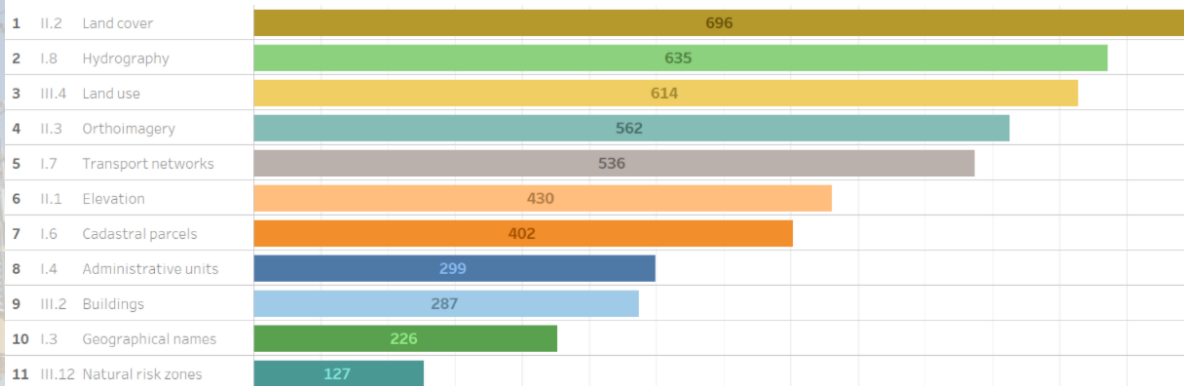
Security



In situ

What data are the Services looking for?

Ranking by INSPIRE themes for Land Monitoring Services

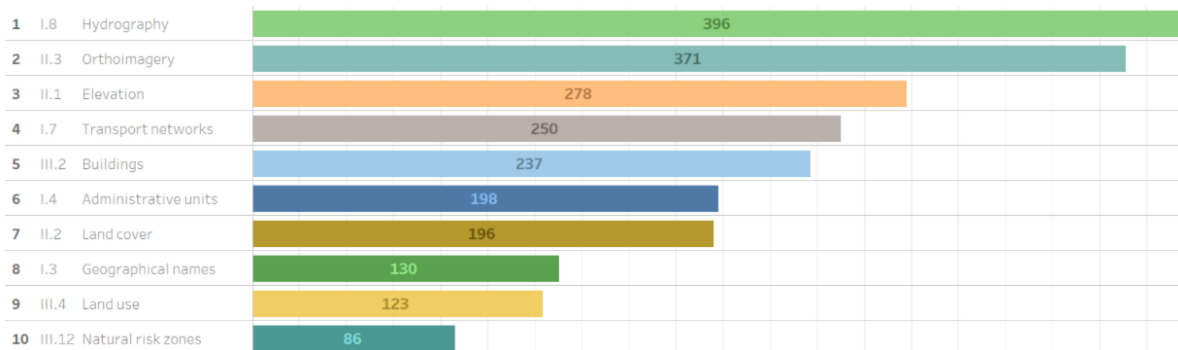


Land



Emergency

Ranking by INSPIRE themes for Emergency Services





In situ

Data are essential – a cross-cutting view

Industry and Utilities	CEMS		CLMS			CSS			Total final scores
	Rapid Mapping	Risk and Recovery	Local Land	Pan-EU Land	Global Land	Border Surveillance	Maritime Surveillance	Support to EU External action	
Level of detail	8	4	NA	NA	NA	NA	NA	2.4	14.4
Area	12	6	NA	NA	NA	NA	NA	3.2	21.2
Data type	4	2	NA	NA	NA	NA	NA	0.8	6.8
Data format	4	2	NA	NA	NA	NA	NA	0.8	6.8
Temporal coverage	12	6	NA	NA					
Update frequency	12	6	NA	NA					
Data policy	12	6	NA	NA					
Dissemination	4	2	NA	NA					
INSPIRE Theme	4	2	NA	NA					

Table 6 – Industry

Aerial Ortho-imagery	CEMS		CLMS			CSS			Total final scores
	Rapid Mapping	Risk and Recovery	Local Land	Pan-EU Land	Global Land	Border Surveillance	Maritime Surveillance	Support to EU External action	
Level of detail	12	9	4.4	4.0	NA	4.0	NA	NA	33.3
Area	12	9	8.7	7.9	NA	4.0	NA	NA	41.7
Data type	4	3	2.2	2.0	NA	1.3	NA	NA	12.5
Data format	4	3	2.2	2.0	NA	1.3			
Temporal coverage	12	9	8.7	7.9	NA	NA			
Update frequency	12	9	6.5	5.9	NA	4.0			
Data policy	12	9	8.7	7.9	NA	NA			
Dissemination	4	3	6.5	5.9	NA	1.3			
INSPIRE Theme	4	3	2.2	2.0	NA	1.3			

Table 3 – Aerial Ortho-imagery final scores

Land Cover / Land use	CEMS		CLMS			CSS			Total final scores
	Rapid Mapping	Risk and Recovery	Local Land	Pan-EU Land	Global Land	Border Surveillance	Maritime Surveillance	Support to EU External action	
Level of detail	8	3.8	10.8	7.7	1.1	NA	NA	6.7	38.1
Area	12	5.6	14.4	10.2	1.4	NA	1.2	6.7	51.5
Data type	4	1.9	3.6	2.6	0.4	NA	0.8	2.2	15.5
Data format	4	1.9	3.6	2.6	0.4	NA	0.8	2.2	15.5
Temporal coverage	12	5.6	10.8	7.7	1.4	NA	NA	4.5	42.0
Update frequency	12	5.6	10.8	7.7	1.4	NA	0.4	4.5	42.4
Data policy	12	5.6	7.2	7.7	1.1	NA	0.4	2.2	36.2
Dissemination	4	1.9	7.2	5.1	0.4	NA	0.4	2.2	21.2
INSPIRE Theme	4	1.9	7.2	5.1	0.4	NA	0.8	4.5	23.9

Table 7 - Land cover/Land use final scores table



In situ

EEA's main cross-cutting activities

**Maintain an
overview of the
Copernicus In
Situ Component**

**Improve access
to selected in
situ data**

**Raise awareness
about the
Copernicus In
Situ Component**

This work is done in close cooperation with the Copernicus Services

The EEA is supported by the GEOID consortium led by e-geos.
EuroGeographics is member of GEOID.





In situ

The EEA and EuroGeographics

- The EEA has signed an overarching Partnership agreement with EuroGeographics;
- The EEA has signed bilateral agreements with 22 National Mapping Agencies;
- The EEA has evaluated key activities initiated by EuroGeographics with Copernicus' requirements in mind:
 - European Location Services (ELS & OpenELS);
 - Core Reference Data Set prototype.





CORDA and National Mapping Agencies

- CORDA is a controlled and monitored gateway to geospatial data restricted to Copernicus services;
- CORDA gives access to datasets from 256 data providers – almost 2000 datasets and 5900 data services;
- CORDA contains links to more than 430 datasets covering 14 themes produced by mapping agencies in 30 countries.

Country	Provider_Name
Austria	Federal Office of Metrology and Surveying (BEV)
Belgium	National Geographic Institute (NGI) / (IGN)
Switzerland	Federal Directorate of Cadastral Surveying
Switzerland	Swiss Federal Office of Topography
Cyprus	Department of Lands and Surveys of Cyprus
Czechia	Czech Office for Surveying, Mapping and Cadastre (CUZK)
Germany	Federal Agency for Cartography and Geodesy (BKG)
Denmark	The Danish Agency for Data Supply and Efficiency
Estonia	Estonian Land Board
Greece	Mapping and Cadastral
Spain	National Geographical Institute (IGN)
Finland	Geomatics Centre
France	IGN
United Kingdom	Ordnance Survey
United Kingdom	Land Registry

Registration (ANCP)

Cadastral and land registration authority

Geodesy, Cartography and Land Surveying

General Command of the National Geographical Institute

United Kingdom

United Kingdom

Land Registry

Ordnance Survey

Opennic

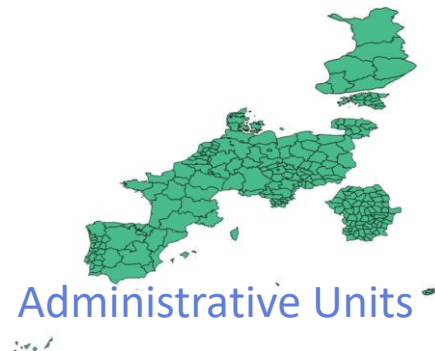




In situ

Multi-Country dataset

Multi-country datasets are based on INSPIRE compliant and compatible data made available according to the INSPIRE Directive





In situ

Take home messages

Current situation

- Individual license agreements limited to the Copernicus Emergency Management Service;
- A Partnership Agreement signed March 2017;
- Scattered news articles on the importance and use of geospatial data by Copernicus.

The future

- One license agreement between the EEA and EuroGeographics with reduced use restrictions for the benefit of all Copernicus services;
- An improved Partnership Agreement reflecting our joint vision on cooperation and data sharing;
- Better recognition of NMCAs essential contributions to Copernicus.



Thank you for your
attention

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