EEA geospatial data catalogue

European Ground Motion Service: Basic product between 2015 and 2020, Jul. 2022

The European Ground Motion Service (EGMS) is a component of the Copernicus Land Monitoring Service. EGMS provides consistent, regular, standardised, harmonised and reliable information regarding natural and anthropogenic ground motion phenomena over the Copernicus Participating States and across national borders, with millimetre accuracy. This set of metadata describes the first product level of EGMS: Basic.

The EGMS Basic - provides InSAR displacement data provided in the satellite Line-of-Sight (LOS), with annotated geo-localisation and quality measures per measurement point. This product is generated from the interferometric analysis of Sentinel-1 radar images at full resolution. It contains line of sight velocity maps in ascending and descending orbits with annotated geolocalisation and quality parameters per measurement point. The Basic product is referred to a local reference point; therefore, ground motion measurements are meaningful only within a small subset of the full product. It is not possible to compare deformation from adjacent areas belonging to different processing units of the same level.

EGMS Basic is visualised as a vector map of measurement points colour-coded by average line-of-sight velocity and distributed to users in comma-separated values format. Each point is associated with a time series of displacement, i.e. a plot with values of displacement per acquisition of the satellite. The product is generated for both ascending and descending orbits.

The processing of the dataset has taken place in the period from October 2021 to March 2022. The full product portfolio and download will be available by mid-July 2022.

Simple

Date (Creation)	2022-03-05
Date (Publication)	2022-07-15
Edition	01.00
Citation identifier	copernicus_v_3035_20_m_egms-basic_p_2015-2020_v01_r00
Status	Superseded
Point of contact	**Organisation name** / **Individual name** / **Electronic mail address** / **Website** / **Role** European Commission / / / https://commission.europa.eu / Owner Copernicus Land Monitoring Service / / copernicus@eea.europa.eu / https://land.copernicus.eu / Custodian European Environment Agency / / sdi@eea.europa.eu / http://www.eea.europa.eu / Publisher Copernicus Land Monitoring Service helpdesk / / copernicus@eea.europa.eu / https://land.copernicus.eu/en/contact-service-helpdesk / Point of contact
Maintenance and update frequency	Annually
GEMET - INSPIRE themes, version 1.0	• Natural risk zones
Keywords	
Continents, countries, sea regions of the world.	• Norway • EU27 (from 2020) • Iceland • United Kingdom
Keywords	
GEMET	• built environment

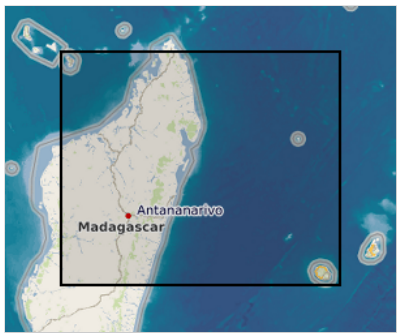
	• infrastructure • geo-referenced data • urban area • subsidence • landslide • geological process • risk reduction • earth observation
Spatial scope	• European
Temporal resolution	• Weekly
EEA topics	• Land use • Buildings and construction • Production and consumption
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	The Copernicus component is governed by Regulation (EU) No 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU. Within the Copernicus component, a portfolio of land monitoring activities has been delegated by the European Union to the European Environment Agency (EEA) and the DG Joint Research Centre of the European Commission. The Copernicus land monitoring products and services are made available on a principle of full, open and free access, as established by the Commission Delegated Regulation (EU) No 1159/2013 of 12 July 2013. Free, full and open access to the products and services of the Copernicus Land Monitoring Service is made on the conditions that: 1. When distributing or communicating Copernicus Land Monitoring Service products and services (data, software scripts, web services, user and methodological documentation and similar) to the public, users shall inform the public of the source of these products and services. 2. Where the Copernicus Land Monitoring Service products and services have been adapted or modified by the user, the user shall clearly state this. 3. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the European Union.
Aggregate Datasetindentifier	41cc308a-4519-411c-afe2-ea3d028d935d
Association Type	Cross reference
Spatial representation type	Vector
Distance	20 m
Language of dataset	English
Character set	UTF8
Topic category	• Geoscientific information

71.21	N	27.60	S	34.76	E	-31.30	W

Begin date	2015-02-01
End date	2020-12-31

16.90	N	1.05	S	-51.28	E	-62.00	W

-12.45	N	-21.60	S	56.25	E	44.75	W



Coordinate reference system identifier	EPSG:3035
Coordinate reference system identifier	EPSG:32738
Coordinate reference system identifier	EPSG:32740
Coordinate reference system identifier	EPSG:32620
Coordinate reference system identifier	EPSG:32622
Distribution format	• ascii (.csv, .txt, .sql) ( )

OnLine resource

Protocol	Linkage	Name
WWW:DOWNLOAD-1.0-http--download	https://egms.land.copernicus.eu/	European Ground Motion Service platform
WWW:LINK-1.0-http--link	https://land.copernicus.eu/user-corner/technical-library/egms-product-user-manual	Product User Manual
WWW:LINK-1.0-http--link	https://land.copernicus.eu/user-corner/technical-library/egms-algorithm-theoretical-basis-document	Algorithm Theoretical Basis Document
WWW:LINK-1.0-http--link	https://land.copernicus.eu/user-corner/technical-library/egms-quality-assurance-control-report	Quality Assurance & Control Report – Harmonisation Tests
WWW:LINK-1.0-http--link	https://land.copernicus.eu/user-corner/technical-library/egms-quality-control-report	Quality Assurance & Control Report 1, 2
WWW:LINK-1.0-http--link	https://ieeexplore.ieee.org/abstract/document/9553562	Scientific paper
WWW:LINK-1.0-http--link	https://land.copernicus.eu/pan-european/european-ground-motion-service	Other useful documents

Hierarchy level	Dataset

Conformance result

Title	
Date (Publication)	

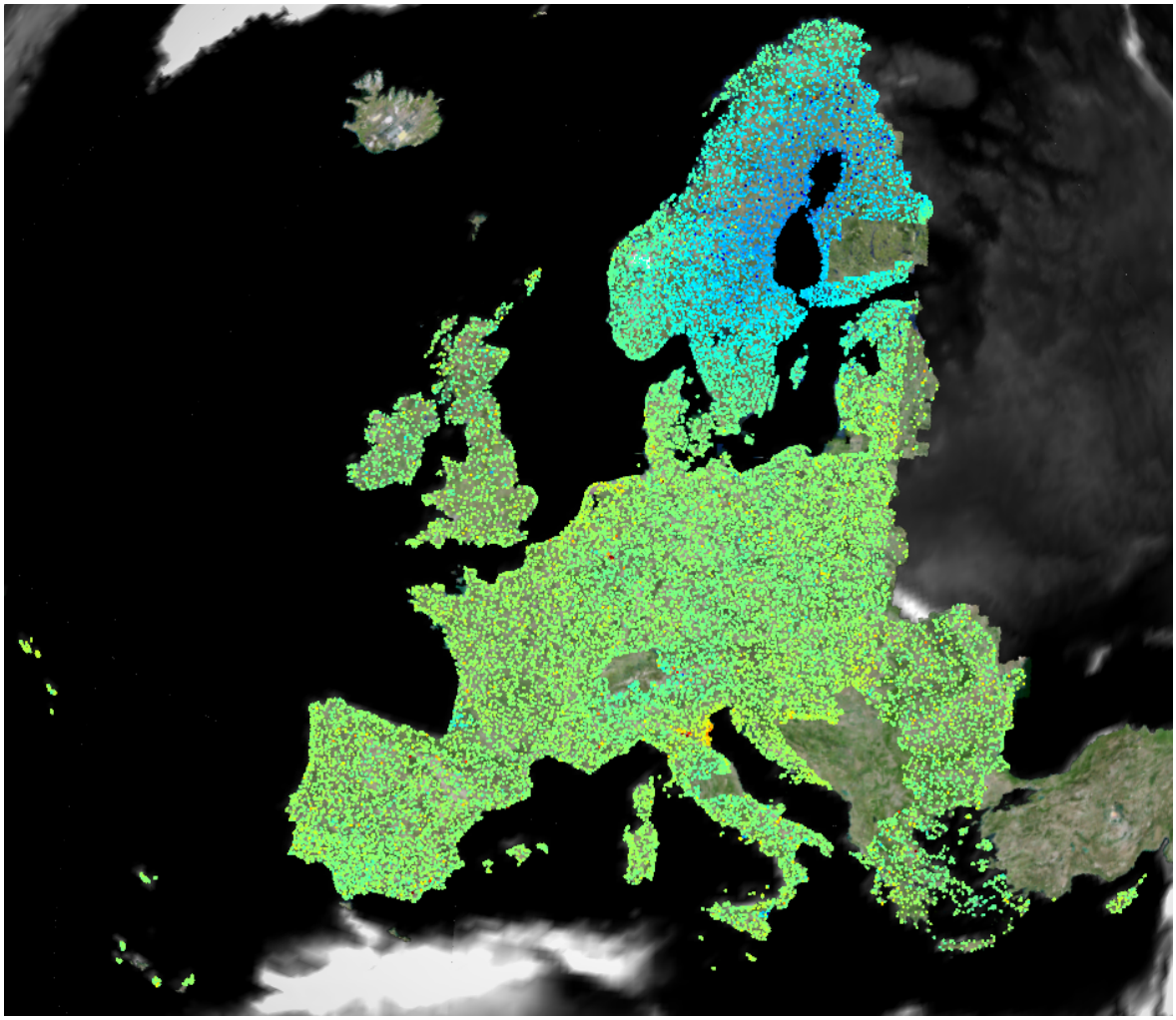
Explanation	See the referenced specification

Statement	The Basic product has been produced by means of harmonised and tested multi-temporal satellite interferometric techniques able to detect both persistent and distributed scatterer targets. Data are produced from Sentinel-1 images at full resolution with temporal sampling of 12 days before April 2016 and 6 days afterwards. Data are automatically quality controlled vis-à-vis technical requirements during the production.

Metadata

File identifier	9bd4186b-7e99-4630-86e0-df4581169a00 XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2024-06-20T15:01:21.252625Z
Metadata standard name	ISO 19115/19139
Metadata standard version	1.0
Metadata author	**Organisation name** / **Individual name** / **Electronic mail address** / **Website** / **Role** European Environment Agency / / sdi@eea.europa.eu / / Point of contact

Overviews



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