EEA geospatial data catalogue

European Ground Motion Service: Basic 2015-2021 (vector), Europe, yearly, Feb. 2023

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 August 2022 to January 2023.

Simple

Date (Creation)	2022-08-01
Date (Publication)	2023-02-15
Edition	01.00
Citation identifier	copernicus_v_3035_20_m_egms-basic_p_2015-2021_v01_r00
Code	10.2909/1aeea29f-cea2-4494-af80-789a038a87b8
Status	Superseded

Point of contact

Organisation name	Individual name	Electronic mail address	Website	Role
European Environment Agency		copernicus@eea.europa.eu	https://land.copernicus.eu	Distributor
European Environment Agency		copernicus@eea.europa.eu	https://land.copernicus.eu	Custodian
European Environment Agency		copernicus@eea.europa.eu	https://land.copernicus.eu	Point of contact

Point of contact

No information provided.

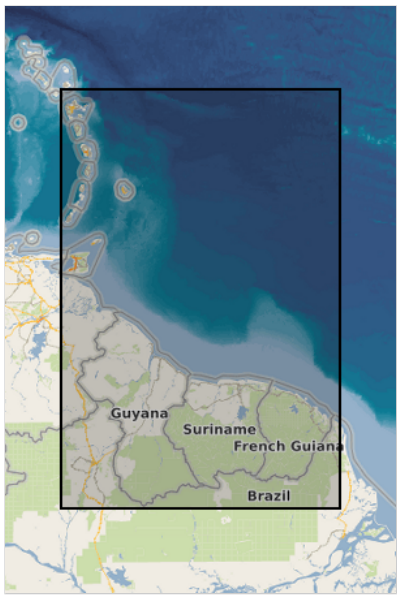
Maintenance and update frequency	Annually
GEMET - INSPIRE themes, version 1.0	• Natural risk zones
Keywords	
Continents, countries, sea regions of the world.	• EU27 (from 2020) • United Kingdom • Iceland • Norway
Keywords	

GEMET	• risk reduction • built environment • infrastructure • subsidence • landslide • urban area • geological process • geo-referenced data • earth observation
Spatial scope	• European
Temporal resolution	• Weekly
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	The Copernicus programme 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 programme, a portfolio of land monitoring activities has been delegated by the European Union to the EEA. The land monitoring products and services are made available through the Copernicus land portal on a principle of full, open and free access, as established by the Copernicus data and information policy Regulation (EU) No 1159/2013 of 12 July 2013. The Copernicus data and information policy is in line with the EEA policy of open and easy access to the data, information and applications derived from the activities described in its management plan. Free, full and open access to this data set is made on the conditions that: 1.When distributing or communicating Copernicus dedicated data and Copernicus service information to the public, users shall inform the public of the source of that data and information. 2.Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the Union. 3.Where that data or information has been adapted or modified, the user shall clearly state this. 4.The data remain the sole property of the European Union. Any information and data produced in the framework of the action shall be the sole property of the European Union. Any communication and publication by the beneficiary shall acknowledge that the data were produced “with funding by the European Union”.
Aggregate Datasetindentifier	bef2507a-13cf-44c0-a809-0a1566f27631
Association Type	Cross reference
Spatial representation type	Vector
Distance	20 m
Language of dataset	English
Character set	UTF8
Topic category	• Geoscientific information

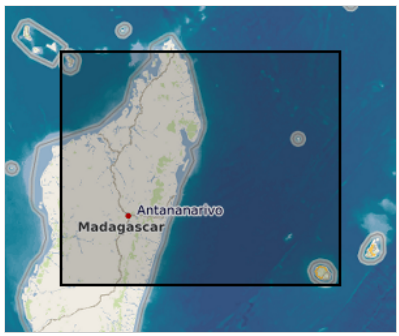
71.21	N	27.60	S	34.76	E	-31.30	W

Begin date	2015-02-01
End date	2021-12-31

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:32788
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/	EGMS Explorer
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-assurance-control-report	Quality Assurance & Control Report for the first update
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

OnLine resource

Protocol	Linkage	Name
DOI	https://doi.org/10.2909/1aeea29f-cea2-4494-af80-789a038a87b8	

Hierarchy level	Dataset

Conformance result

Date (Publication)	2010-12-08

Explanation	See the referenced specification

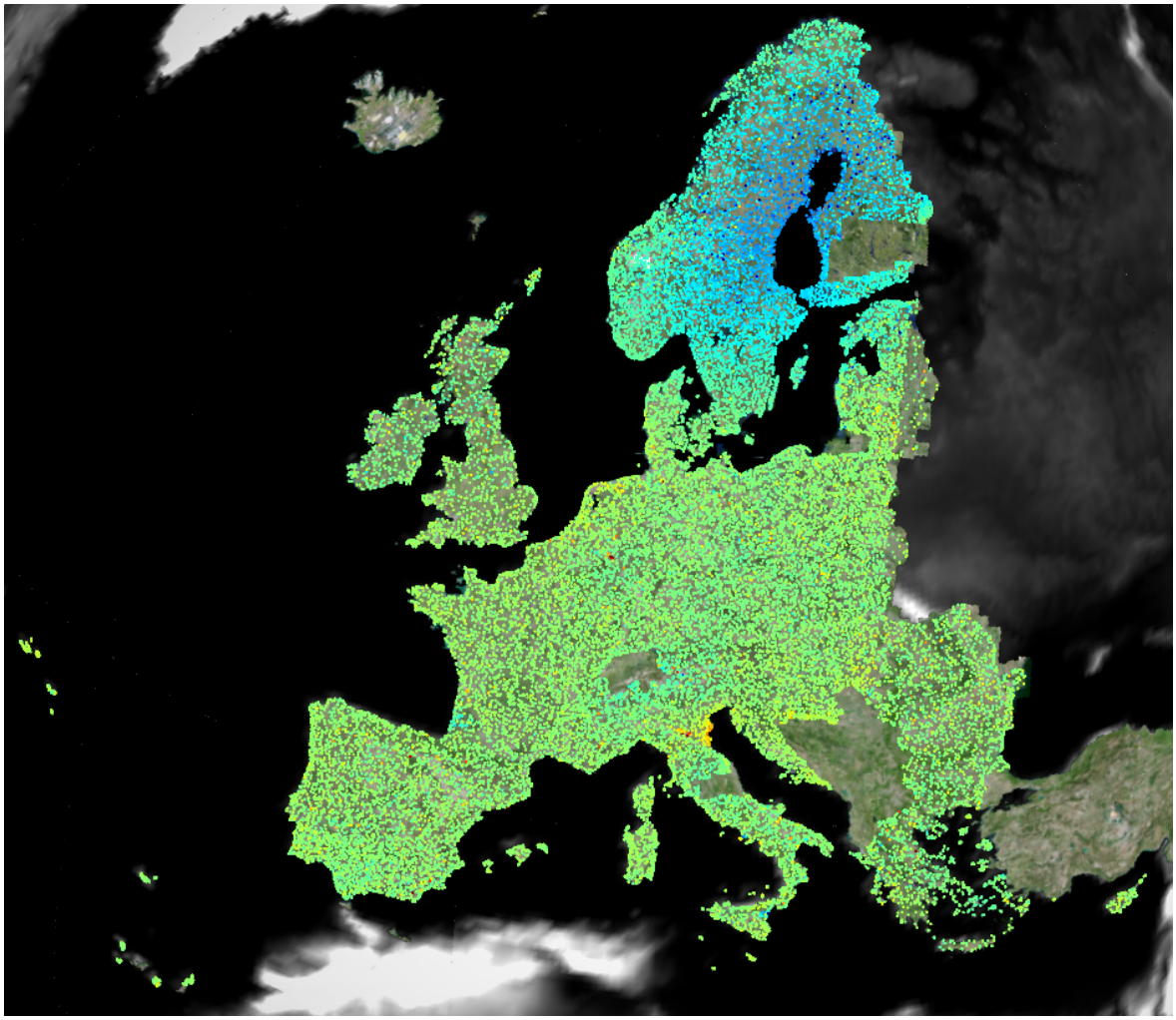
Statement	The Basic product has been produced by means of harmonised and tested multi-temporal satellite interferometric techniques able to detect both persistent and distributed scatterer targets. Data are produced from Sentinel-1 images at full resolution with temporal sampling of 12 days before April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

Metadata

File identifier	1aeea29f-cea2-4494-af80-789a038a87b8 XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2023-10-26T06:38:41.838Z
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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