

Pan-European Very High Resolution Image Mosaic 2018 - True Colour (2 m), Oct. 2021

The pan-European Very High Resolution (VHR) Image Mosaic 2018 is a seamless mosaic of the VHR 2018 dataset, based on watershed segmentation of image overlaps.

The input data consists of a mix of Pleiades, SPOT, DOVE, Kompsat-4, Deimos-2, SuperView, and TripleSat images. The input imagery has been colour balanced against the Sentinel-2 based HR mosaic from 2018. Colour balancing is done through iterative histogram matching, where the first iteration is used to identify clouds and snow, and the second iteration re-balances, with the bright objects masked out. Cloud cover has been minimized through an innovative approach to cloud masking, which relies on automatically identifying and de-prioritizing overly bright areas in the resulting mosaic. Some clouds and snow remain, as all pixels have to have a value, meaning that if no cloud or snow free images were available for a given area, the bright pixels will remain.

The mosaic primarily is used as input data in the production of various Copernicus Land Monitoring Service (CLMS) datasets and services, such as land cover maps and high resolution layers on land cover characteristic and can be also useful for CLMS users for visualizations and classifications on land.

The input imagery for the creation of the mosaic is provided by ESA. Due to license restrictions, VHR Image Mosaic 2018 is only available as a web service (WMS), and not for data download.

Simple

Date (Creation)	2021-10-07T00:00:00				
Date (Publication)	2021-10-07T00:00:00				
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Point of contact

No information provided.

Maintenance and update frequency	As needed
GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"> Orthoimagery
Keywords	
Keywords	
GEMET	<ul style="list-style-type: none"> general environmental policy mosaic raster satellite image

Continents, countries, sea regions of the world.	<ul style="list-style-type: none"> • United Kingdom • EEA38 (from 2020)
Spatial scope	<ul style="list-style-type: none"> • European
Temporal resolution	<ul style="list-style-type: none"> • As needed
EEA topics	<ul style="list-style-type: none"> • Land use
Access constraints	Other restrictions
Other constraints	Other restrictions
Use constraints	<p>This dataset is based on inputs from several Copernicus Contributing Missions. Hence, the following license conditions apply: ESA-User license for the use of Copernicus Contributing Missions data - Data Warehouse phase 2 (2014-2020):</p> <p>https://spacedata.copernicus.eu/documents/20126/0/CSCDA_ESA_User_Licence_last_uploaded_2020_02_10.pdf/b879907e-bd00-688e-bf42-bf27a00d70cb?t=15813353917_52</p>
Other constraints	
Spatial representation type	Grid
Distance	2 m
Language of dataset	English
Topic category	<ul style="list-style-type: none"> • Environment • Imagery base maps earth cover



Begin date	2017-05-01		
End date	2019-09-30		
Coordinate reference system identifier	EPSG:3035		
Distribution format	• GeoTIFF ()		
OnLine resource	<div>ProtocolOGC:WMS</div> <div>WWW:LINK-1.0-http--link</div>	<div>Linkagehttps://image.discomap.eea.europa.eu/arcgis/services/GioLand/VHR_2018_WM/ImageServer/WMSServer?request=GetCapabilities&service=WMS</div>	<div>Name</div> <div>Download (requires authentication)</div>
OnLine resource	<div>ProtocolESRI:REST</div>	<div>Linkagehttps://image.discomap.eea.europa.eu/arcgis/rest/services/GioLand/VHR_2018_WM/ImageServer</div>	<div>Name</div>
Hierarchy level	Dataset		

Conformance result

Date (Publication)	2010-12-08
Explanation	See the referenced specification
Statement	<p>The input data consists of a mix of Pleiades, SPOT, DOVE, Komsat-4, Deimos-2, SuperView, and TripleSat images.</p> <p>The processing steps were as follows:</p>

1. Resampling of all data to common resolution (2m)
2. Pre-normalization of DOVE frames
3. Merging of tiled datasets, such as DOVE frames and large SPOT images.
4. Iterative colour balancing against the Sentinel-2 HR ARD mosaic, supported by water, snow, and cloud masking.
5. Watershed segmentation on the morphological gradient to create seamlines.
6. Cropping against seamlines and cloud-optimization for easy presentation.

The list of steps outline above was implemented in custom Python code.

Metadata

File identifier	455be6a0-d6cf-42c3-a28f-e024abc8227f XML			
Metadata language	English			
Character set	UTF8			
Hierarchy level	Dataset			
Date stamp	2024-02-06T16:45:57.376Z			
Metadata standard name	ISO 19115/19139			
Metadata standard version	1.0			
Metadata author	Organisation name	Individual name	Electronic mail address	Website Role
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Overviews



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