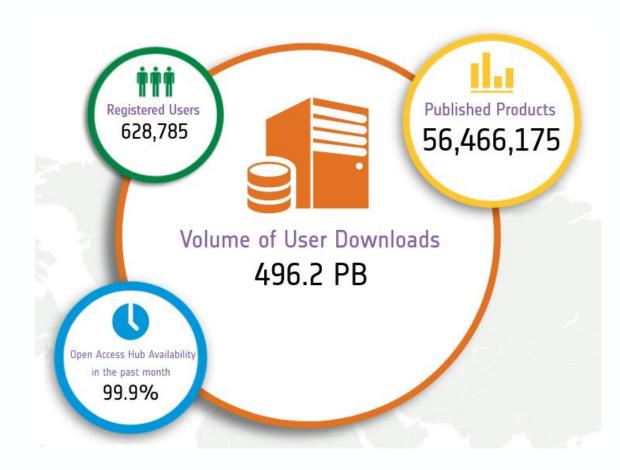


Copernicus Data Access: ESA Data Access





Statistics: 5th December 2022

ESA Data Access Services: key and critical elements of the Copernicus Space Component

Front-end services that provide free and open access to the Sentinel Data to various user communities

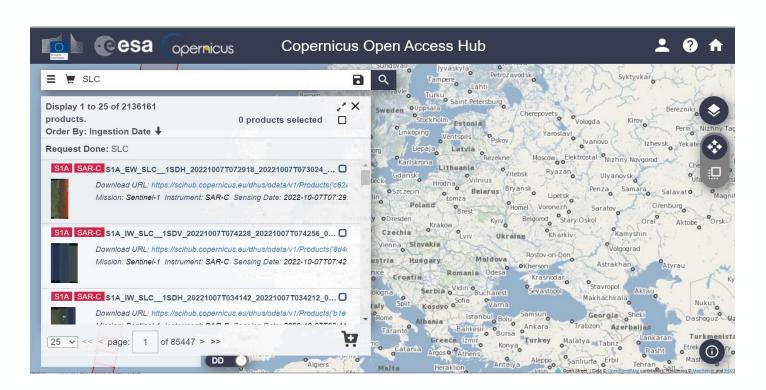
One of the largest distributors of Earth Observation Data worldwide

Copernicus Data Access: ESA's Current Distribution Scheme



ESA offers **open and free access** for all users to Sentinel user level data: immediate access to the most recent as well as deferred access to the complete historic dataset

Any user can self-register at https://scihub.copernicus.eu/



Users can set own scripts to automatically search filter (AOI, Mission, Product type etc...) and download products

Access via API to user level data content (full data package or partial contents) essential to allow the integration of Sentinel data within user workflows

A set of dedicated data access hubs are operated targeted at distinct user typologies

Copernicus Data Access: Current Landscape



Large and small private companies are redistributing Sentinel products via free and pay-per-use schemes

Collaborative mirror sites directly serve around <u>13,000 users</u> (status end 2021)











Since 2016, international partners mirror sites have started disseminating towards own national communities

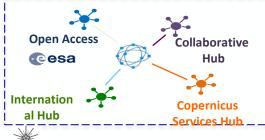




amazon webservices













Copernicus Services are providing their higher level products to <u>hundreds of</u> thousands of users

Since 2018 DIAS platforms allow for Cloud Computing with local access to Copernicus Sentinels Data

Copernicus Data Access: New Service Consortium for '23'





The new Copernicus Data Access Service Contract was signed today between @esa and @tsystemsCom, which leads a consortium of @CloudFerro, @sinergise, @VITO_RS_, @acri_st, @DLR_en, @rheagroup.

I am pleased to see such an effort to unify European competences for a common goal.



DG DEFIS #StrongerTogether and 3 others

3:34 pm · 2 Dec 2022

8 Retweets 5 Quote Tweets 68 Likes

Tweet your reply

T Systems















Thanks to @ESA_EO and @defis_eu for believing in our team.

And to all the partners... the hard work begins now!

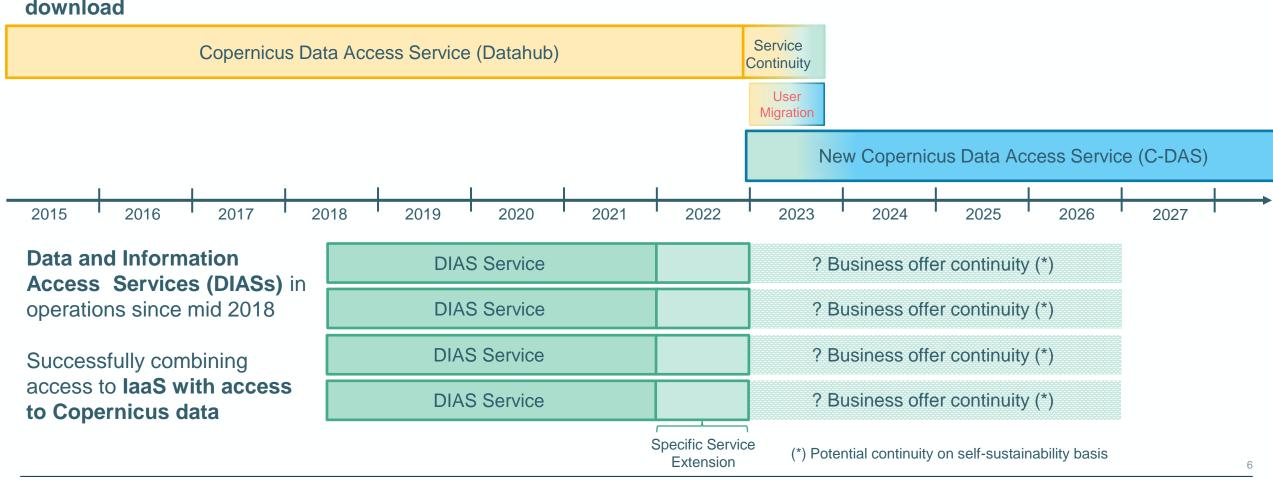
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ESA Timeline for evolution of the Data Access Landscape



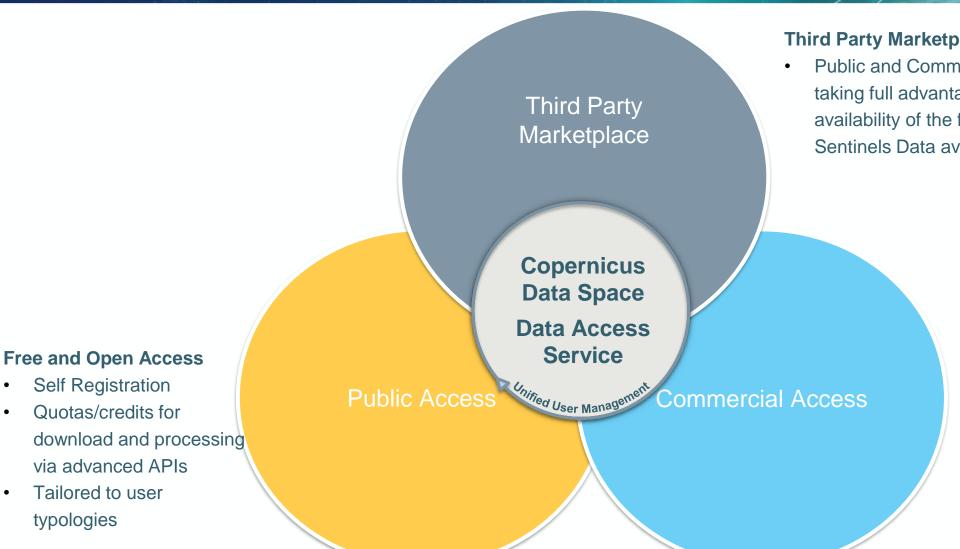
Copernicus Data Access Service in operations since 2014

Successfully ensuring massive daily data publication and user download



Data Access at the heart of an Open Ecosystem





Third Party Marketplace

Public and Commercial Services taking full advantage of the availability of the full Copernicus Sentinels Data availability

Commercial Access

- Access via laaS, PaaS, SaaS ...
- Complementary datasets at commercial conditions
- Full public price list for needs beyond the public access

Data Access Service – Main Services



Data Discovery and Retrieval

Traceability Service

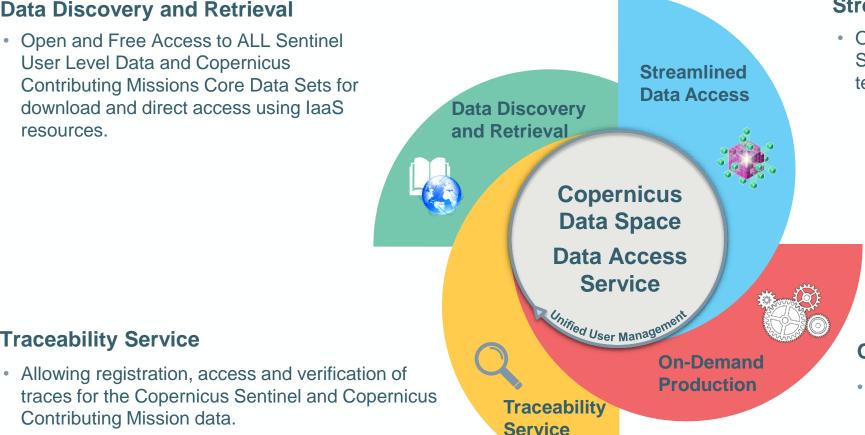
services).

Contributing Mission data.

Open to the entire Ecosystem for trace registration and

verification (e.g. free use by other ESA Ground Segment

 Open and Free Access to ALL Sentinel User Level Data and Copernicus Contributing Missions Core Data Sets for download and direct access using laaS resources.



Streamlined Data Access

 Open and Free Harmonised access to specific Sentinel Data collections, allowing efficient temporal and spatial access via dedicated APIs

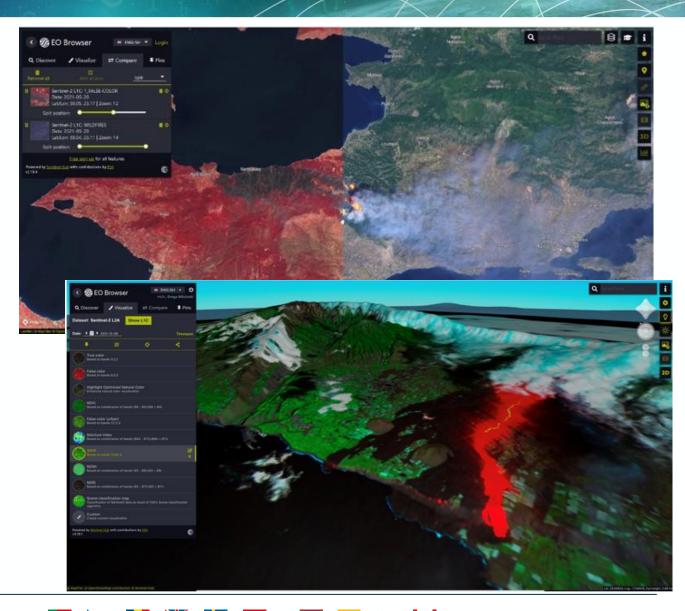
On-Demand Production Service

- Open and free access to on-demand Sentinel-1/2/3 L1 and L2 User Level Data for different processing baselines.
- Using the ESA operational processors.

Data Discovery and Retrieval Highlights



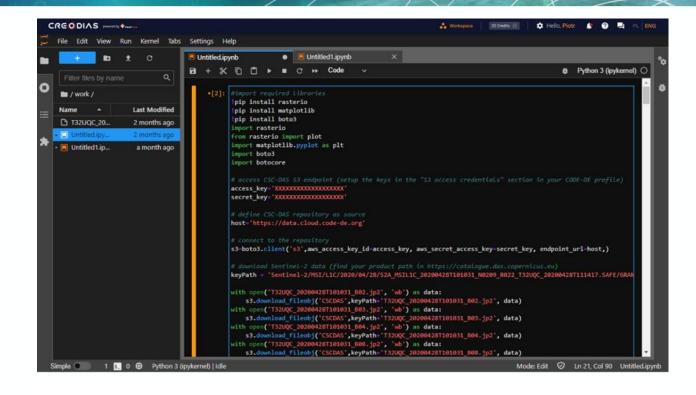
- Open and Free Access to ALL Sentinel User Level
 Data and Copernicus Contributing Missions Core Data
 Sets for download and direct access using laaS
 resources.
- Full archive of Sentinels Level-1 and Level-2 available for immediate access
- Discovery, View and Download via GUI and API
- Full Featured Browser Application
 - Basic and Advanced search functions
 - Advanced Visualisation to full resolution of data
 - Download of full data package or components
- Rich set of APIs
 - OpenSearch, OData, STAC, S3

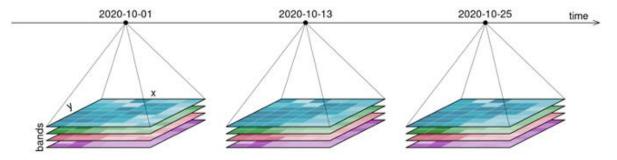


Streamlined Data Access Highlights



- Open and Free Harmonised access allowing efficient temporal and spatial access via dedicated APIs to specific Sentinel Data collections including:
 - Sentinel-1 GRD
 - Sentinel-2 L1C & L2A
 - Sentinel-3 OLCI L1
 - Sentinel-5p NTC L2
- Advanced APIs including
 - OGC WMS/WMTS/WCS
 - SentinelHub's APIs
 - Process, Statistical, Catalogue
 - OpenEO
- Accessible via Jupyter, laaS





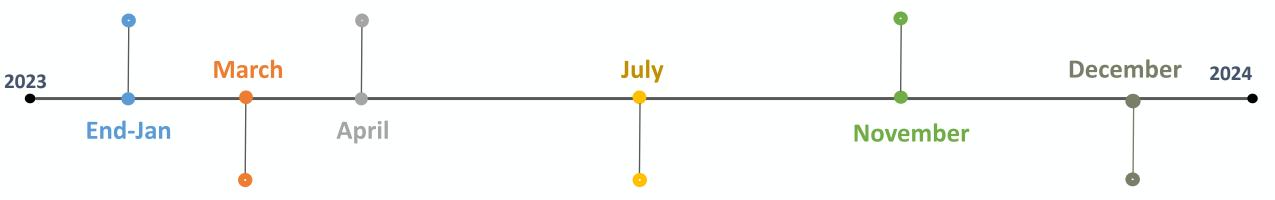
Copernicus Data Access Roadmap Highlights



- Open Access Portal for new user registration
- C-DAS Browser: discovery and download; basic search filters.
- Catalogue: new data catalogue with OData and OpenSearch (resto) API.
- · Download: Full product download.

- New Access APIs: STAC, S3.
- C-DAS Browser: anonymous access and advanced filters.
- Streamlined Data Access APIs available to all registered users, additional datasets:
 - -Sentinel-3 OLCI L1,
 - -Sentinel-5p NTC L2

- Copernicus Contributing Missions Core datasets
- On-Demand Production: for S1, S2 and S3
- Streamlined Data Access / Open EO API:
 - Third Party Data API for purchasing commercial data
 - Integration of collections available via federated access



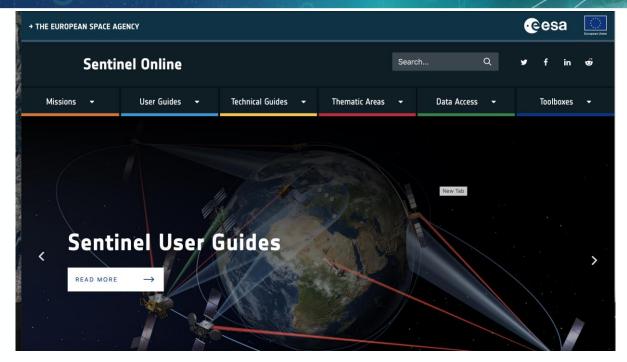
- Streamlined Data Visualisation via C-DAS Browser
 - Support for Sentinel-1 GRD
 - Support for Sentinel-2 L1C/L2A
 - OGC WMS/WMTS/WCS

- Service Desk: Forum opening
- · OpenEO API: operational
- Marketplace: opening
- C-DAS Browser: Download includes partial product, single files

Traceability Service: operational

For more information





https://sentinels.copernicus.eu

- News and further information regarding the ESA data access and the evolution of the Copernicus Data Access Services will be communicated regularly.
- We're looking forward to your feedback as the new services become available