European Commission

Copernicus DIAS

User-friendly Access to Copernicus Data and Information

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www.copernicus.eu

Space

Copernicus
Europe's eyes on Earth

Copernicus / EO data challenge

Copernicus Data Context :

- Massive amounts of data
- Full, free and open access
- Issue: Ease of access and use

Over 10 Petabyte/year of new data with just Sentinel-1, -2 and -3 fully operational

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Technological Context :

- Different types of dissemination infrastructures across Europe
  - Centralised EC/ESA hubs
  - Member States' Collaborative GS
  - Private EU and non-EU initiatives
- ICT and EO cross-fertilization
- Mature cloud and virtual machines technology
- Interoperability with non-EO datasets
- Growth and jobs in downstream sector

Data Access

New Copernicus data approach

Dual approach:

1. Strengthening **Copernicus Distribution Services**
   - Improved robustness, availability and data throughput

2. Setting up several **Data Access and Information Services (DIAS)**
   - Access to all Copernicus data and information collocated with computing resources
   - Allowing Big Data analytics without the need to download the data and information
   - Allowing data fusion with non-Copernicus, non-EO data and information

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What is the Copernicus DIAS?

- 5 DIAS platforms
  - Full set of Copernicus data and information
  - Ability to process and combine it with data from other sources (space and non-space)
  - Develop and host new applications in the cloud

Data Access

DIAS: several user profiles

5 DIAS providers: Ensure availability of Sentinels data and Services information to accommodate third party services and data. Responsible for the provision of the DIAS underlying IT infrastructure and provider of IT resources to third parties.

Third-parties: Service providers who autonomously negotiate with DIAS provider(s) for infrastructure and services to be deployed in terms of storage, processing or service support for their own developments and operations.

End user: Any user accessing a front-office service supported by the DIAS framework.

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Launch of the DIAS

- 20 June 2018: Launch of the 5 DIAS in Baveno
- Next steps:
  - Gradual and incremental deployment process

Data Access

W h o ?

THE DIAS & WHERE TO REACH THEM

CREODIAS

WWW.CREODIAS.EU

sobloo

WWW.SOBLOO.EU

mundi WEB SERVICES

WWW.MUNDIWEBSERVICES.COM

ONDA

WWW.ONDA-DIAS.EU

WEkEO

WWW.WEKEO.EU

Why 5 DIAS?

- Competition supports creativity and quality service.

- Differences between the DIAS:
  - Different ancillary and complementary content, e.g. other EO and non-EO data
  - Different offer of tools
  - Different pricing policies
  - Different user experience
  - Different evolution regard generic/thematic focuses

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ALL SATELLITE DATA AVAILABLE HERE

Over 9 PB of data, and it will grow to more than 20 PB by 2020

Easy integration of additional data sets

Learn more

FREE DATA DISCOVERY

FREE DATA BROWSER

FREE DATA DOWNLOAD

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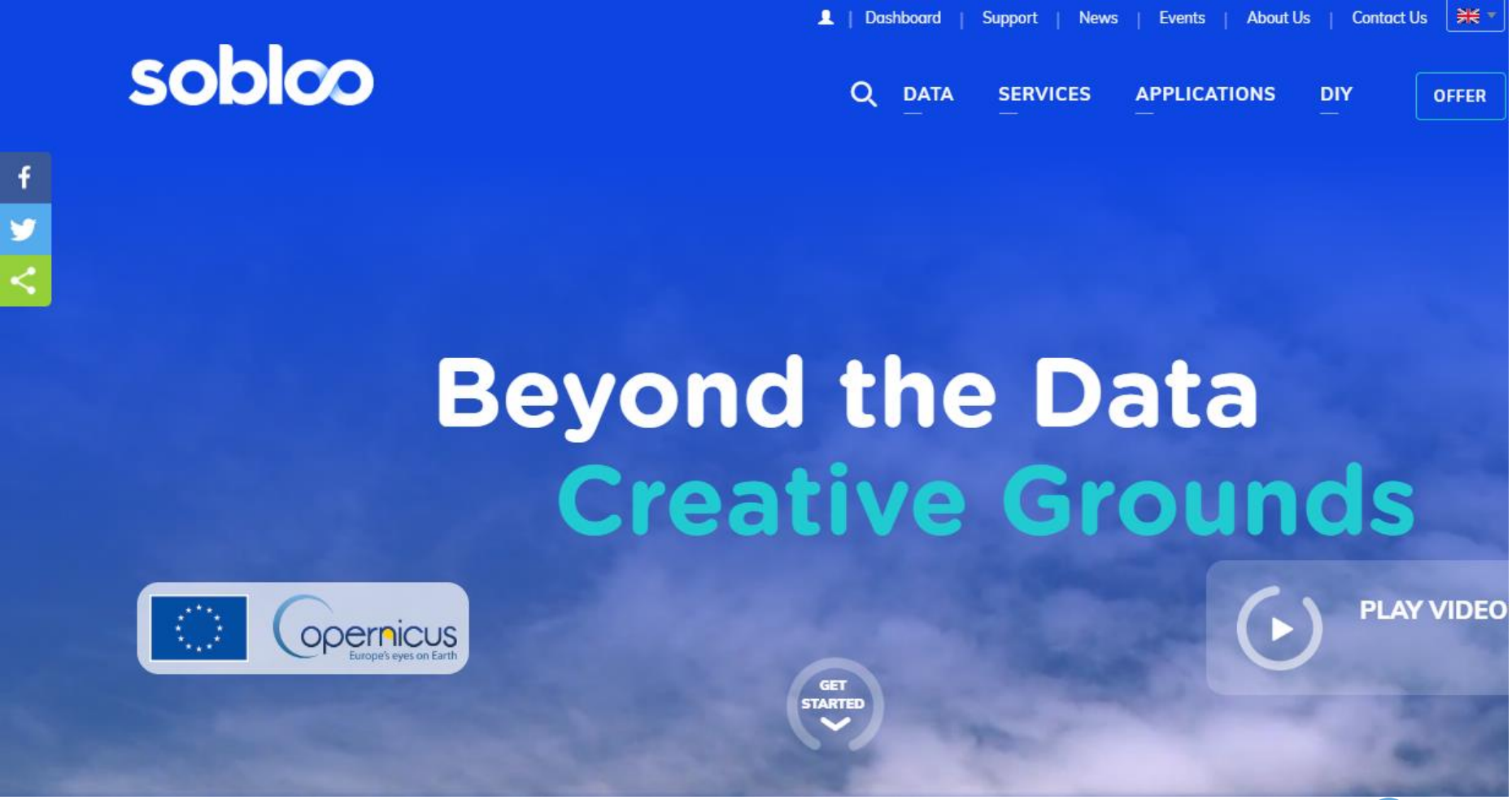
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DATA
SERVICES
APPLICATIONS
DIY
OFFER
Beyond the Data
Creative Grounds
Copernicus
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PLAY VIDEO
GET STARTED

Mundi Web Services

A space of new opportunities

Your one-stop shop for setting up an Earth Observation service. No need to hunt around for data, tools, infrastructure, and bring it all together. It's already here! Just open your office, upload your image processing algorithms, buy what you need through the Marketplace, and start working. You can do it all yourself, or we can do it for you. Click on the video to see an example of what we can achieve together.

Mundi : A space of new opportunities

Mundi combines real-time earth observation data from Copernicus with data from several sources and turn them into products for companies through easy cloud functions and support.

GET STARTED

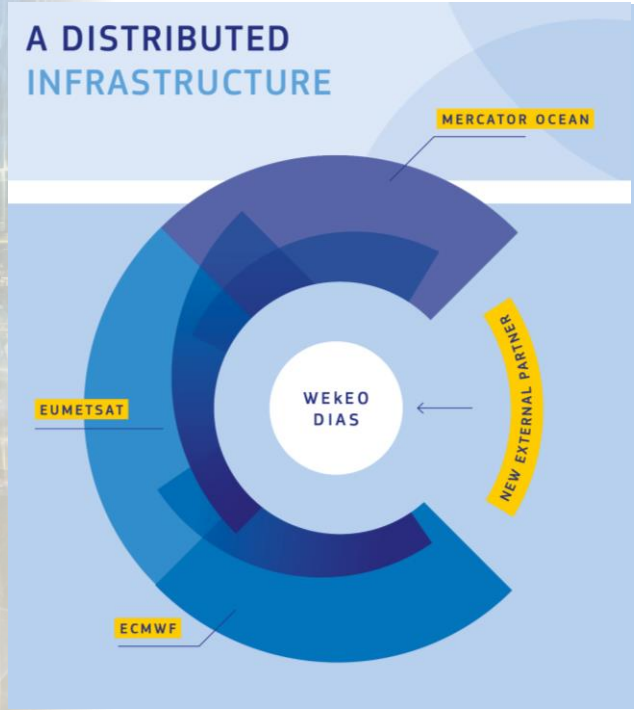
Curated Data Collection

Mundi integrates a large scope of earth observation and non EO data. The collection is regularly enriched to offer all material to build and operate your service. You can find free and licensed products according to your needs.

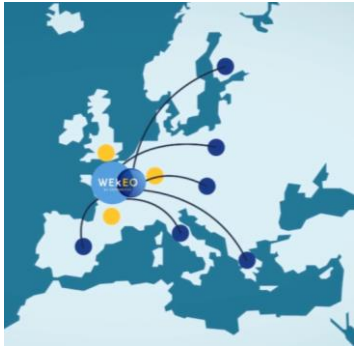
DATA

Data Access

WEKEO : A DISTRIBUTED INFRASTRUCTURE



The Most up-to-date Copernicus Data & An Expanding Data Offer in the future.



- **WEkEO's distributed infrastructure relies on the Copernicus organisation** already in place in the 3 centers: infrastructure and data from the 3 centers are not duplicated but rather linked together, reducing costs for the European tax payer and avoiding the need for new energy-consuming infrastructure.

- This approach gives users direct access to work with the **most up-to-date Copernicus data** instead of having to rely on copied, archive datasets.

- Finally, this federative approach can be extended to other selected external partners, so the system has the **potential to continually grow and expand in the future.**

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Data Access

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WEkEO'S ROADMAP

JUNE 2018 | DECEMBER 2018 | APRIL 2019

ESSENTIAL OFFER

ESSENTIAL OFFER is open to all for free.

Before Dec 2018, a fragmented portfolio is available including some Copernicus Sentinel Satellite & Copernicus Services data for free download.

To benefit from ESSENTIAL OFFER, visit our website wekeo.eu or contact us at support@wekeo.eu

ESSENTIAL OFFER is open to all for free.

After Dec 2018, **the full comprehensive portfolio** is available for free download including all Sentinels satellite data, contributing missions and Copernicus Services.

To benefit from ESSENTIAL OFFER, visit our website wekeo.eu or contact us at support@wekeo.eu.

ADVANCED OFFER

Before April 2019, ADVANCED OFFER is open to selected users for a free 6-month period.

To benefit from ADVANCED OFFER, contact us at support@wekeo.eu. Approval will be granted after a competent commission has been consulted.

After April 2019, ADVANCED OFFER is open to all against charges including a free trial period (with limits on resources). Apply for ADVANCED OFFER at support@wekeo.eu.

FEDERATED OFFER

From June 2018 on, FEDERATED OFFER is open to large data & resources providers and subject to

To benefit from FEDERATED OFFER, contact us at support@wekeo.eu.

WEkEO will be fully operational by April 2019 using the three main steps below.

WEkEO uses a stepwise approach minimizing the risks, capitalizing on user feedback, and strongly involving the industry through procurement.

Data Access

Conclusions

- DIAS have been designed to enable applications for communities like the polar community allowing them to serve their own users
- Third parties can benefit from the DIAS directly or through intermediaries of their choice
- DIAS have been designed to offer price competitive services in European settings
- DIAS will be the place where Sentinel 1/2/3/4/5/6 and Copernicus Service information are collocated (of particular importance for polar applications)
- DIAS can serve both small and large scale applications and host EO or non-EO data indifferently

Copernicus Data and Information Access Services will become a major component of Copernicus data and information exploitation

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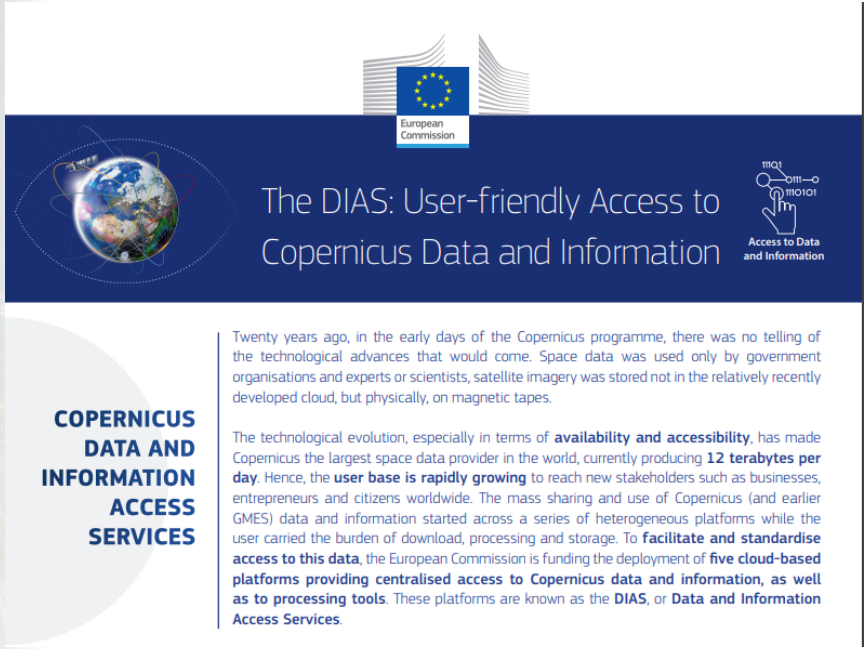
More information



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The DIAS: User-friendly Access to Copernicus Data and Information

Access to Data and Information

COPERNICUS DATA AND INFORMATION ACCESS SERVICES

Twenty years ago, in the early days of the Copernicus programme, there was no telling of the technological advances that would come. Space data was used only by government organisations and experts or scientists, satellite imagery was stored not in the relatively recently developed cloud, but physically, on magnetic tapes.

The technological evolution, especially in terms of **availability and accessibility**, has made Copernicus the largest space data provider in the world, currently producing **12 terabytes per day**. Hence, the **user base is rapidly growing** to reach new stakeholders such as businesses, entrepreneurs and citizens worldwide. The mass sharing and use of Copernicus (and earlier GMES) data and information started across a series of heterogeneous platforms while the user carried the burden of download, processing and storage. To **facilitate and standardise access to this data**, the European Commission is funding the deployment of **five cloud-based platforms providing centralised access to Copernicus data and information, as well as to processing tools**. These platforms are known as the **DIAS**, or **Data and Information Access Services**.

- Copernicus.eu
http://copernicus.eu/data-access
- Copernicus Support Office
support@copernicus.eu

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