

→ Where to access Earth observation data

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BUSINESS	
APPLICATIONS	

BUSINESS

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TECHNOLOGY

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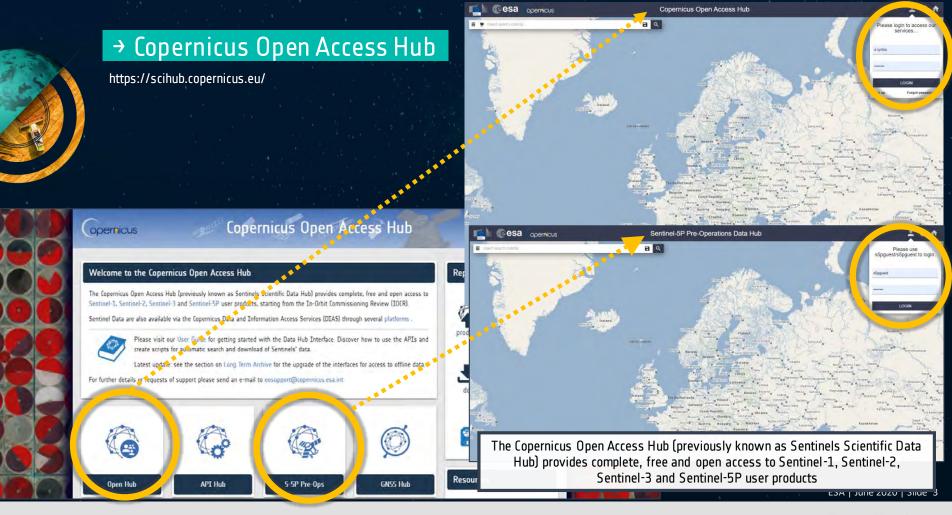
→ Where to access EO data

Free open source platforms

- Copernicus Open Access Hub
- Earth System Lab
- ESA Thematic Exploitation Platforms
- Alaska Satellite Facility
- Copernicus Global Land Service
- Sentinel Data Access Service
- USGS Earth Explorer
- Sentinel Application Platform software
- Open Data Cube

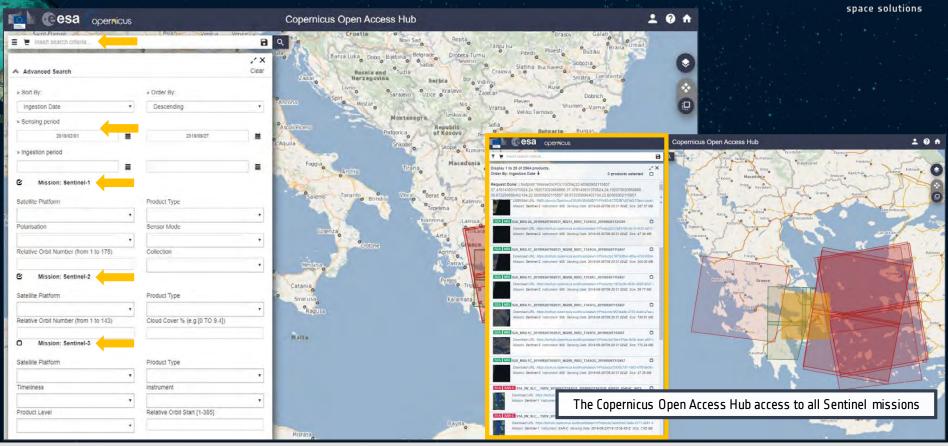


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→ Copernicus Open Access Hub

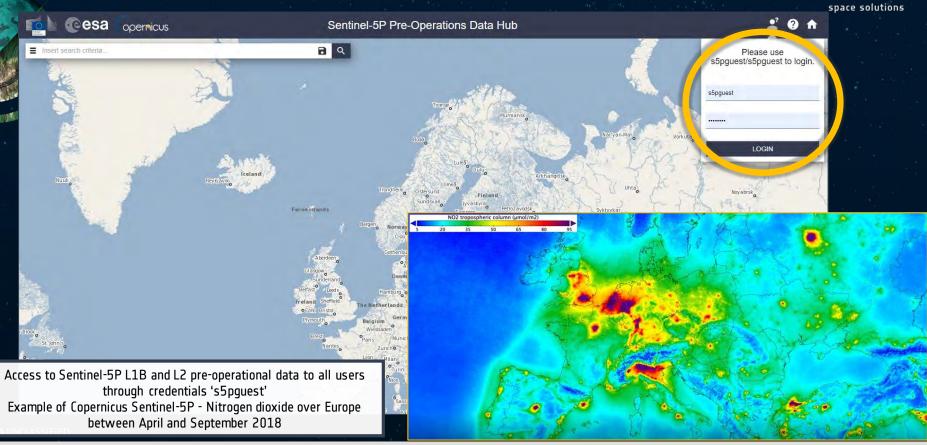


European Space Agency

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→ Copernicus Open Access Hub





→ Earth System Data Lab (ESDL)



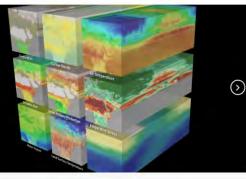
https://www.earthsystemdatalab.net/ https://www.youtube.com/watch?v=9L4-fq48Ev0



Earth in a Box

The Earth System Data Lab (ESDL) is a multi-variate data set of essential Earth System variables on a common grid and sharing a common data model.

SCIENTIFIC BACKGROUND DISCUSS WITH US!



The Earth System Data Lab (ESDL) seeks to be a service to the scientific community to greatly facilitate access and exploitation of multivariate data sets in Earth Sciences.

User Guides and Source Code

For the Earth System Data Lab, we provide dedicated user guides for the APIs in Python and Julia. They provide a complete API reference, some examples for usage, and background information on the ESDL. In addition, the source code of the ESDL can be accessed through the github repository.

Access the documentation of the ESDL Julia API at

Explore the interactions between ocean, land, and atmosphe now also in the ESDL web viewer!

Access the documentation of the ESDL Python API at

//cablab.readthedocs.io/en/latest/ !

net python

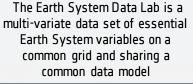


//esa-esdl.github.io/ESDL.jl/latest 1

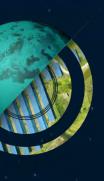


Visit the ESDL github repository at

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//github.com/esa-esdl !



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→ ESA Thematic Exploitation Platforms (TEPs)



https://tep.eo.esa.int/

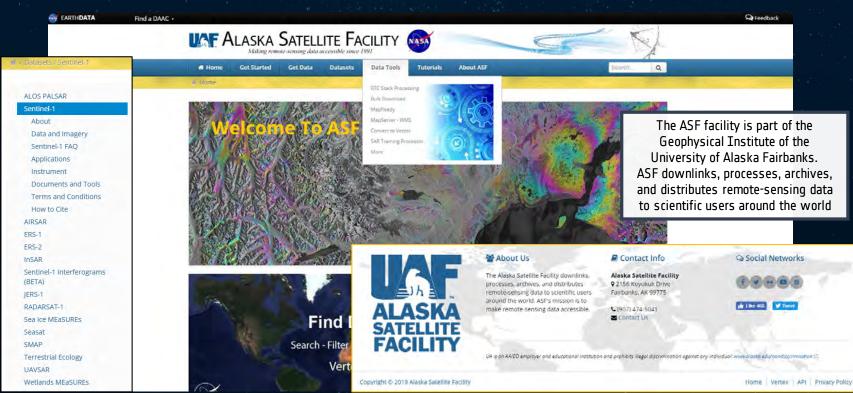


→ Alaska Satellite Facility (ASF)

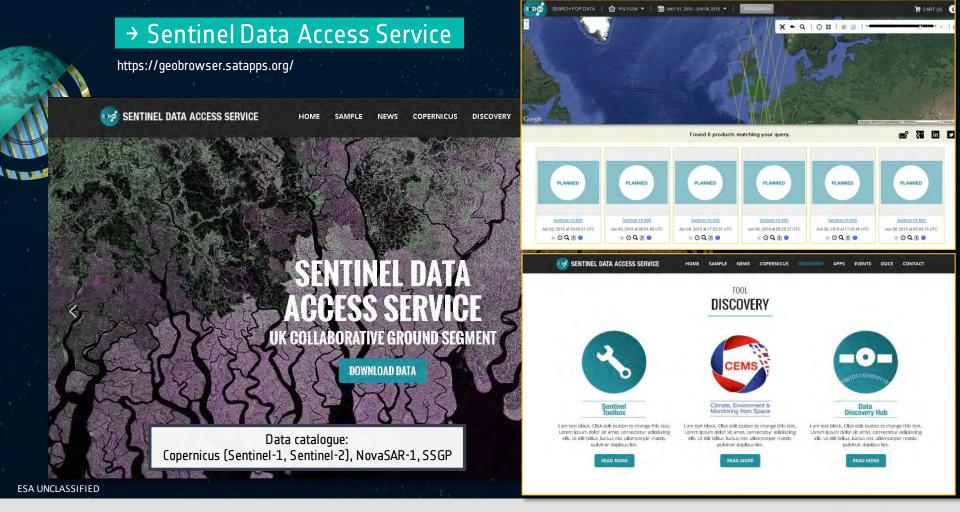


https://www.asf.alaska.edu/ https://www.asf.alaska.edu/asf-tutorials/data-recipes/

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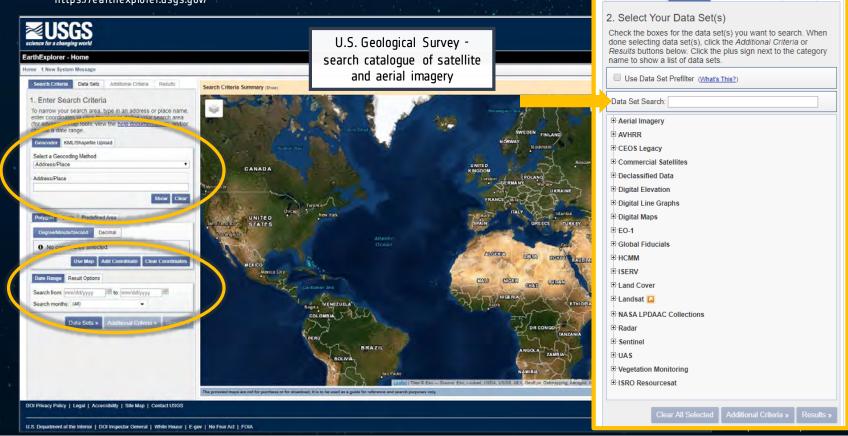




→ USGS Earth Explorer

https://earthexplorer.usqs.gov/

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EarthExplorer - Home

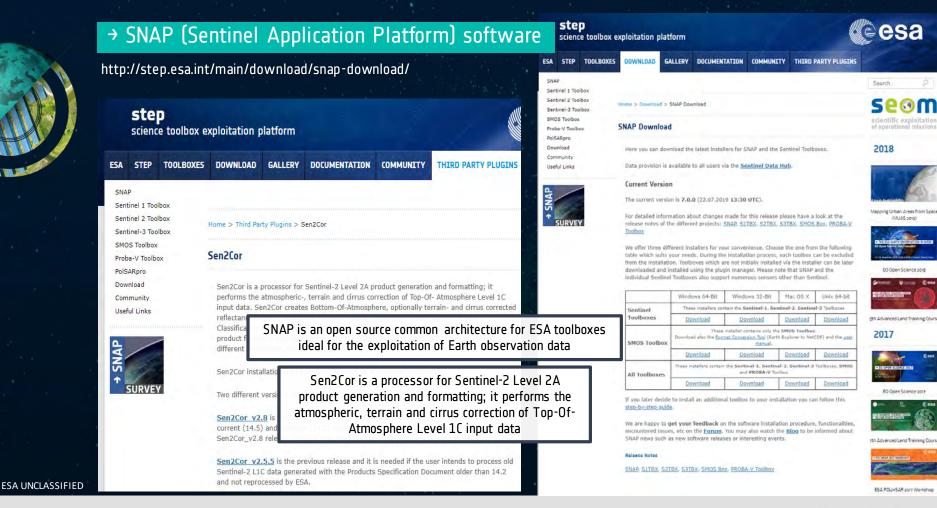
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Home 1 New System Message Search Criteria

Data Sets

Additional Criteria

Results





→ Open Data Cube (ODC)

https://www.opendatacube.org/



Open Data Cube

The Open Data Cube (ODC) is an Open Source Geospatial Data Management and Analysis Software project that helps you harness the power of Satellite data. At its core, the ODC is a set of Python libraries and PostgreSQL database that helps you work with geospatial rester data. See our Girthdo repository <u>herebo</u>.

The ODC seeks to increase the value and impact of global Earth observation satellite data by providing an open and freely accessible exploitation architecture. The ODC project seeks to foster a community to develop, sustain, and grow the technology and the breadth and depth of its applications for societal benefit.

ODC ECOSYSTEM GEOSPATIAL DATA MANAGEMENT & ANALYSIS SOFTWARE



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→ Where to access EO data

Partially open-source EO platforms

- EO Browser Sentinel Hub
- DIAS Copernicus Data & Information Access Services
- Google Earth Engine
- Earth on AWS



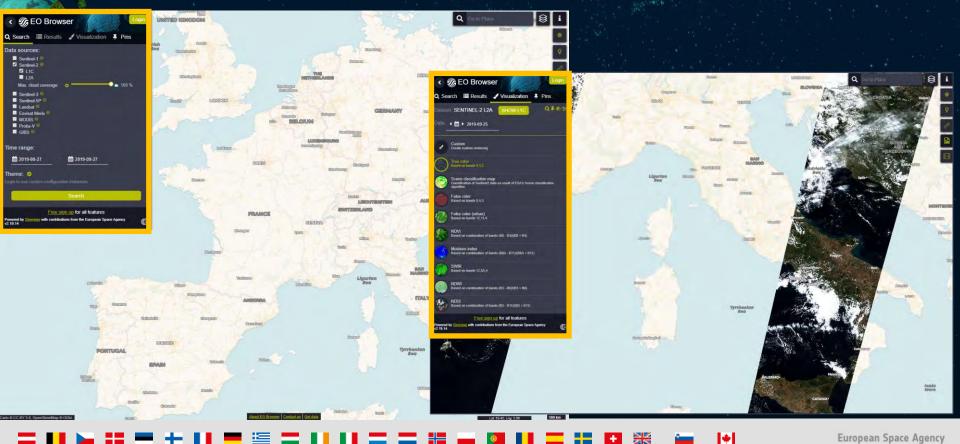
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→ EO Browser - SENTINEL Hub

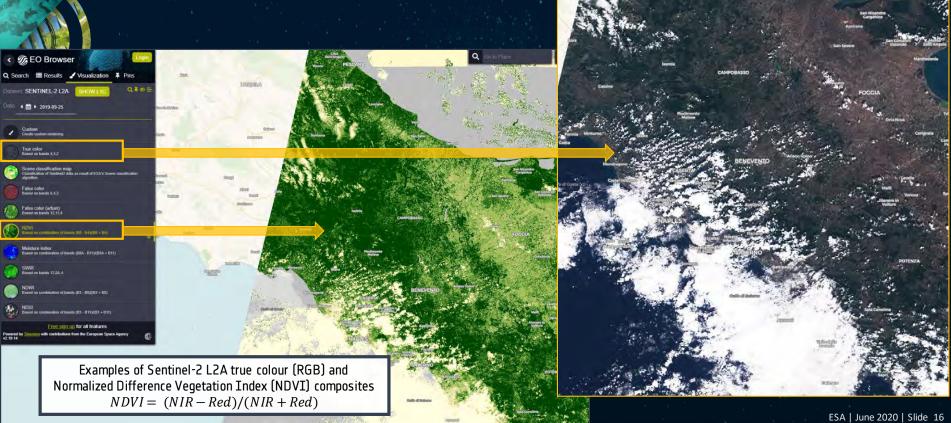
https://apps.sentinel-hub.com/eo-browser/





→ EO Browser - SENTINEL Hub

https://apps.sentinel-hub.com/eo-browser/



→ DIAS - Copernicus Data & Information Access Services



https://www.copernicus.eu/en/access-data/dias



THE DIAS & WHERE TO REACH THEM CREODIAS sobloc WWW.CREDDIAS.EU UNUW SOBLOD F C mundi ONDA WWW.MUNDIWEBSERVICES.COM WWWWEKED E WWW/ONDA-DIAS FL A WORLD ALL-IN-ONE A WEALTH ACCESS OF SERVICES OF OPPORTUNITIES TO ACTUMAN E INFORMAT

DIAS

Conventional Data Access Hubs

To facilitate and standardise access to data, the European Commission has fur centralised access to Copernicus data and information, as well as to process Information Access Services.

The five DIAS online platforms allow users to discover, manipulate, process and o provide access to Copernicus Sentinel data, as well as to the information prod cloud-based tools (open source and/or on a pay-per-use basis).

Each of the five competitive platforms also provides access to additional comme in terms of support or priority. Thanks to a single access point for the entire Copt and host their own applications in the cloud, while removing the need to download bulky files from several

locally.

DIAS online platforms allow users to discover, manipulate, process and download Copernicus Sentinel data and information products from Copernicus' six operational services, together with cloud-based tools (open source and/or on a pay-per-use basis) https://www.copernicus.eu/sites/default/files/Copernicus_DIAS_Factsh eet_June2018.pdf

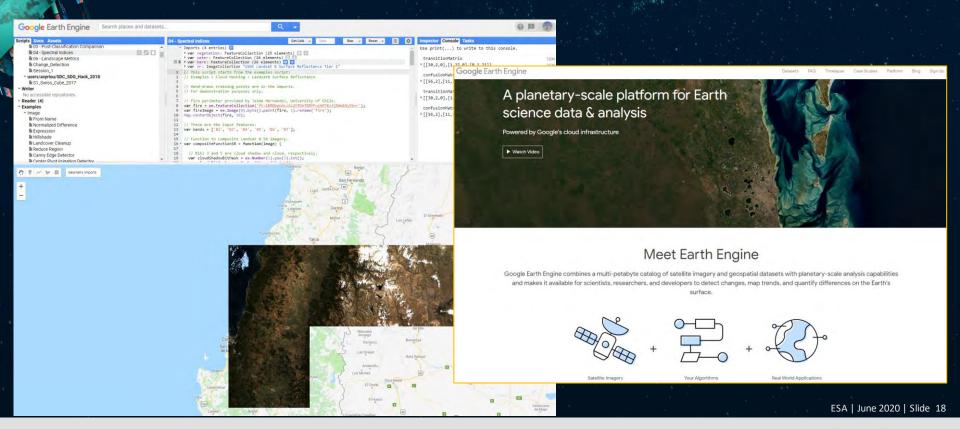
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→ Google Earth Engine

https://earthengine.google.com/platform/





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→ Earth on AWS

https://aws.amazon.com/earth/



space solutions

aws

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Products Solutions Pricing Documentation Learn Partner Network AWS Marketplace Customer Enablement Explore More Q.

Marketplace

disaster response earth observation geospatial natural resource satellite imagery sustainability

The Sentinel-2 mission is a land monitoring constellation of two satellites that provide high resolution optical imagery and provide continuity for the current SPOT and Landsat missions. The mission provides a global coverage of the Earth's land surface every 5 days, making the data of great use in on-going studies. L1C data are available from June 2015 globally. L2A data are available from April 2017 over wider Europe region and globally since December 2018.

Details -

Usage examples

Sentinel-2

- QGIS plugin for Sentinel-2 data by Sinergise
- · EOS Land Viewer by Earth Observing System
- Exploring the Chile wildfires with Landsat and Sentinel-2 imagery by Timothy Whitehead
- Learning Custom Scripts to Make Useful and Beautiful Satellite Images by Monja Šebela
- Integrate imagery from the Sentinel-2 archive into your own apps, maps, and analysis with the Sentinel-2 image service by Esri

See 17 usage examples →

Landsat 8

disaster response earth observation geospatial natural resource satellite imagery sustainability

An ongoing collection of satellite imagery of all land on Earth produced by the Landsat 8 satellite.

Details +

Usage examples

- · Apps for exploring and analyzing Landsat imagery on the fly by Esri
- EOS Land Viewer by Earth Observing System
- Integrate imagery from the full Landsat archive into your own apps, maps, and analysis with Landsat image services by Esri
- Using Vector tiles and AWS Lambda, we can build a really simple API to get Landsat and Sentinel images by Remote Pixel
- Sentinel Playground for Landsat by Sinergise

See 14 usage examples →

Registry of Open Data on AWS

The Registry of Open Data on AWS helps you discover and share datasets that are available via AWS resources. You can find datasets from many different domains, and we have tagged them to make it easy to explore datasets suitable for geospatial workloads.

Image from Landsat 8 satellite, courtesy of the U.S. Geological Surve

Explore Geospatial Datasets

Datasets

Use Cases

Earth on AWS

Build planetary-scale applications in the

cloud with open geospatial data.

Call for Proposals

Use Cases

Below you will find both videos and articles explaining how Earth Observation data on AWS can be used in your startup, enterprise, or research institution.

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→ Where to access EO data

Commercial EO platforms

- GDBX
- OneAtlas
- Planet platform
- e-Geos
- Decartes Labs



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→ GBDX

https://www.digitalglobe.com/products/gbdx





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						CONSIGNATION IN	
PRODUCT	S SATELLITE IMAGERY	SUBSCRIPTIONS	INFORMATION PRODUCTS	ANALYTICS	DEFENSE &	US GOVERNM	
Overview	Satellite imagery	EarthWatch	Advanced Elevation Suite	GBDX	SecureWatch	EnhancedV Web-Hosti	
Use cases	Imagery mosaics	FirstLook	Building		Rapid Access Program	Services	
	Short-wave infrared imagery	Spatial on Demand	Footprints		Direct Access		
Hirt -			Telco geodata		Program		

Cloud-based platform which allows users to build, access and run advanced workflows to extract information from satellite imagery GBDX uses Amazon Web Service (AWS) for cloud-based access to a global imagery archive and computational resources

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Actionable in



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→ OneAtlas

https://www.intelligence-airbusds.com/oneatlas/



Documents Contact us

OneAtlas is a unique collaborative environment to easily access premium imagery, perform largescale image processing, extract industry specific insights and benefit from Airbus assets to develop your solutions.

Mobile

Starling

The OneAtlas Services include:

- Living Library
- WorldDEM Streaming
 Change Detection
- Verde

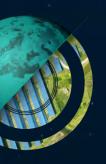
- Basemap
- Earth Monitor
 Ocean Finder
- Occumminder
- Refinerv Scanner

Access to optical and radar satellite imagery, and associated services and solutions

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European Space Agency

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→ Planet Platform

planet

PLATFORM

GET AN API ACCOUNT

https://www.planet.com/products/platform/





PlanetScope, RapidEye

and SkySAT data

INTEGRATED AND BUILT FOR SCALE

Planet's fully-automated, cloud-based imagery platform downloads, processes, and manages 5+ terabytes of data every day. Built for speed and affordability, our platform enables customers to build tools, ingest data, and run analytics at scale.

Fully-automated imagery processing

Planet's imagery pipeline corrects for a variety of factors and delivers analysis-ready data, without costly post-processing or manual intervention.

- Orthorectification removes collection geometry, pointing error, and terrain variability distortions
- Radiometric corrections correct for sensor artifacts and transformation to at-sensor radiance
- Top- and bottom-of-atmosphere corrections reduce spectral inconsistency across time and location





PlanetScope - 3 meter resolution





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European Space Agency

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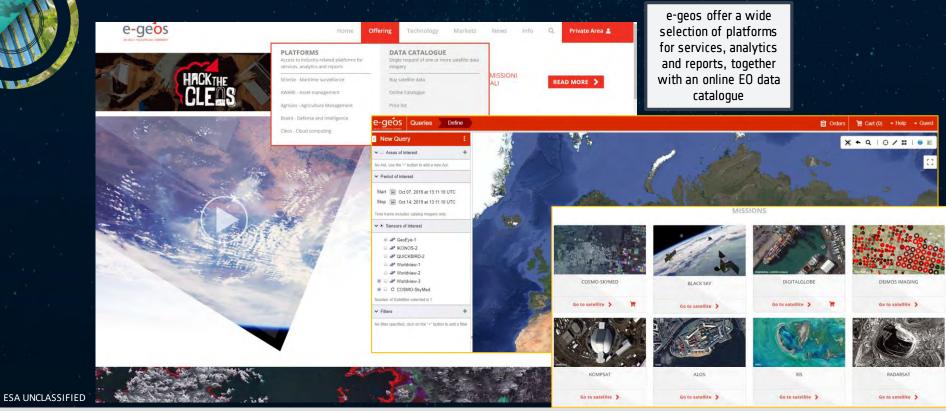


→ e-geos

https://www.e-geos.it/









→ Descartes Labs

https://www.descarteslabs.com/



Platform ~

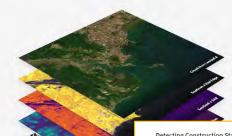
Solutions Demos v Company v

Contact Sales

A data refinery, built to understand our planet

Instant access to science-ready imagery and intelligence from multiple data sources.

Descartes Labs Platform collects data daily from public and commercial sources, cleans it, calibrates it, and stores it in an easy-to-access catalogue, ready for scientific analysis



Detecting Construction Starts

Using synthetic aperture radar (SAR), we

developed a proprietary model that can

identify new construction starts on the

ground on a monthly basis, regardless of

weather conditions. This model enables a

real-time look at changes and trends

impacting infrastructure growth.

Crop Classification in California

Wind Turbine Detection





Leveraging our database of industry leading high-resolution imagery, we built a model that first identifies field

boundaries and then classifies which crops are growing within each field. With this optimized approach, field teams spend less time surveying ground data and more time focusing on business growth opportunities.

built a computer vision model that can

quickly identify all physical wind turbine assets worldwide in just a few hours. This solution automates analysis that would take a fleet of human analysts several months to complete.

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→ Any questions please contact

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