EODC
Earth Observation Data Centre

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EODC

- Foundation: 15. May 2014
- Public-Private-Partnership (PPP)

- EODC's aim:
  - Focus on the collaboration between public and private sector
  - Setup and operation of joint IT infrastructure
  - Bridge between science and applications

EODC Offers

- **Infrastructure**
  - Storage
  - Processing power
- **Data**
- **EO Services**
  - IaaS, SaaS
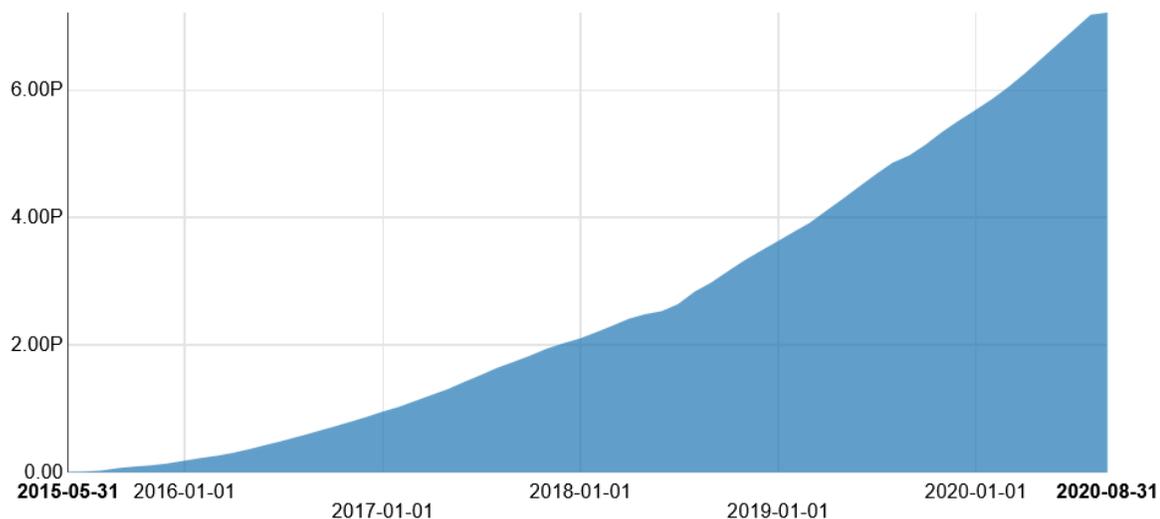 - EO support
- **Cooperation Network**

EODC Cloud ⟷ EODC Storage ⟷ HPC Computing

EO Data Repository

Status 2020-09-06

Global Long-Term Archives

12.300.000 Datasets

7.26 PB Data Volume

Sentinel-1

Sentinel-1 is an imaging radar mission providing continuous all-weather, day-and-night imagery at C-band. It provides high reliability, improved revisit time, geographical coverage and rapid data dissemination to support operational applications in the priority areas of marine monitoring, land monitoring and emergency services.

Our repository includes:

- Sentinel-1A+B L1C GRD HR IW & EW

Learn more >

Sentinel-2

Sentinel-2 is a wide-swath, high-resolution, multi-spectral imaging mission, with a constellation of two polar-orbiting satellites with a 5-days revisiting time. The mission supports Copernicus Land Monitoring studies, including the monitoring of vegetation, soil and water cover, as well as observation of inland waterways and coastal areas.

**Our repository includes:**

- Sentinel-2A+B L1C

Learn more >

Sentinel-3

Sentinel-3 is a multi-instrument mission to measure sea-surface topography, sea and land surface temperature, ocean and land colour. It provides ocean measurement capability with consistent quality, high availability, accuracy and reliability, developed to support GMES ocean, land, atmospheric, emergency, security and cryospheric applications.

Our repository includes:

- Sentinel-3 L1C OLCI EFR & ERR

Learn more >
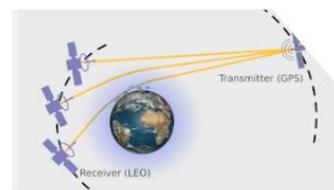
Wegener Center GNSS Radio Occultation Record

The Wegener Center GNSS radio occultation record, OPSv5.6, provides globally distributed upper-air satellite data of high quality from multiple Radio Occultation satellite missions, usable for climate and other high-accuracy applications.

Learn more >

Data discovery tools

To help you find the data you are looking for, we provide an OGC CSW interface, as well as our Earth Observation Meta Data Explorer (eomEX), a simple web-application providing a GUI and an API.

Learn more >

Anything missing?

We are driven by our partners and we listen to our customers. Let us know if you have any special requests for EO data.

Tell us what you need and we will do our best to provide the data you requested.

Request data ⊜

EODC Cooperation Network

Principal Cooperation Partners

Federation Partners

Associate Cooperation Partners

Presentation of 2 actual activities

ESA project **openEO platform**

Aim: serve the user with a large scale continental scale Earth observation data analytics solution

H2020 project **C-SCALE** Copernicus - eoSC AnaLytics Engine (INFRAEOSC-07-2020 A6)

C-SCALE will enrich EOSC and its Portal with scalable Big Copernicus Data Analytics federated services

openEO platform

openEO develops an open API to connect R, Python, JavaScript and other clients to big Earth observation cloud back-ends in a simple and unified way.

Funding

openEO is an H2020 project funded under call EO-2-2017: EO Big Data Shift, under grant number 776242. The project runs from Oct 2017 to Sept 2020.

ESA Contract No. 4000131576/20/I-DT

with

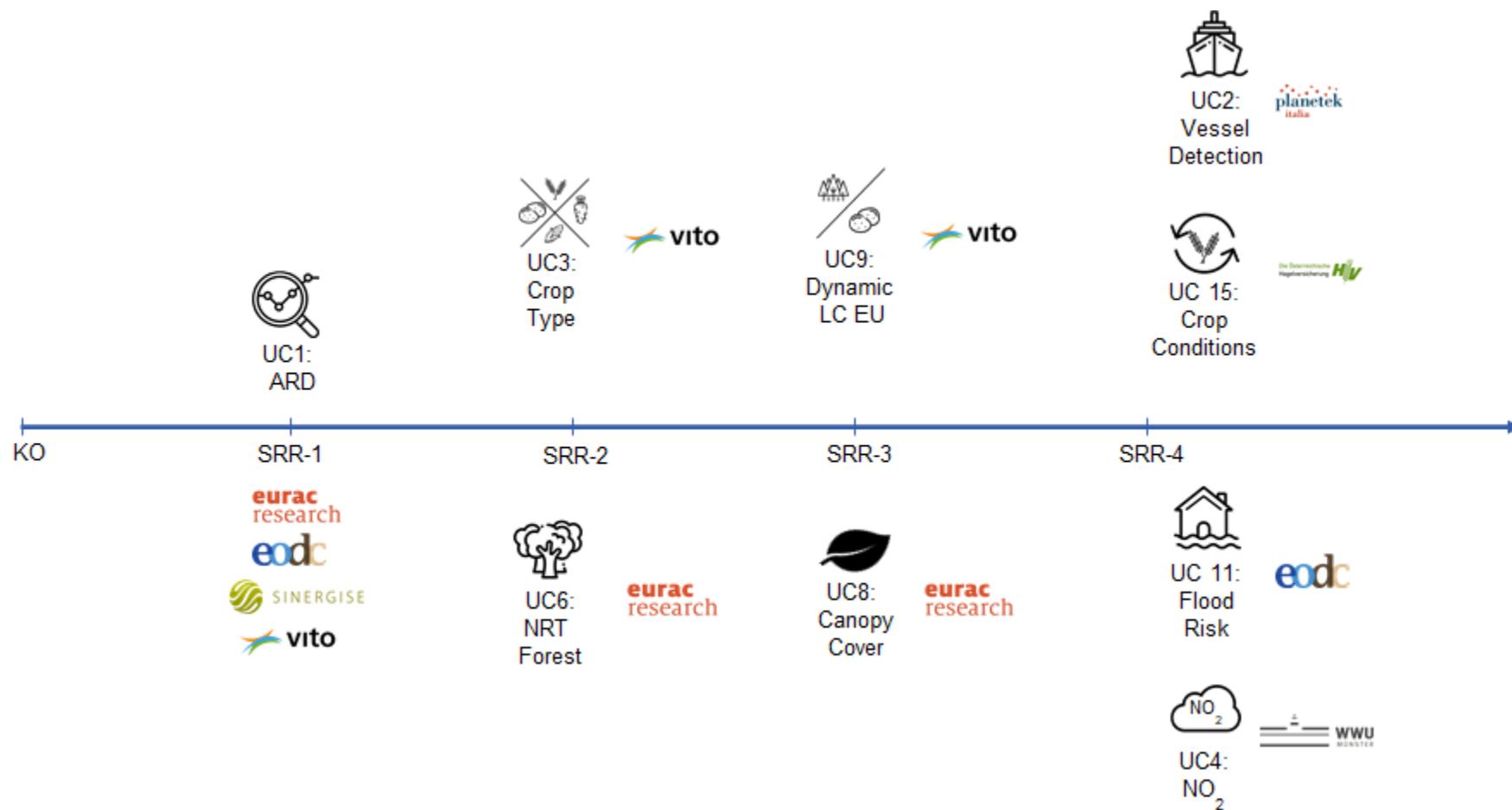EODC Earth Observation Data Centre for Water Resources Monitoring GmbH

openEO platform: a Federated Open Earth Observation Platform

High level overview

First Service Readiness Review and initial public service offering end February 2021 !

9 use cases in 24 months

The C-SCALE Project

Federate European EO (DIASes, CollG nodes, etc) and e-Infrastructure services to support Copernicus research and operations

The C-SCALE consortium bring together expertise from:

- **EO sector**: EODC, Deltares, VITO, CloudFerro, TUW, CESNET, GRNET
- **e-Infrastructure**: EGI, CESNET, INFN, SURFsara, GRNET, INCD

C-SCALE will **enrich** EOSC and its Portal with scalable Big Copernicus Data Analytics federated services

- Call: INFRAEOSC-07
- Sub-topic: A6
- Coordinator: EODC (Austria)
- Duration: 30 months
- Start date: 1 January 2021
- Budget: 2 M€ (500K€ for VA)

C-SCALE Objectives

Federation principles:

- Services accessible through homogeneous and standard interfaces

- EO data FAIR across the providers

- Burden to join the federation limited

- Adhere to EOSC policies and operational and technical requirements

- Basic and ops features (AAI, accounting, etc.) available through EOSC core services

- Maximise interoperability with other EOSC services
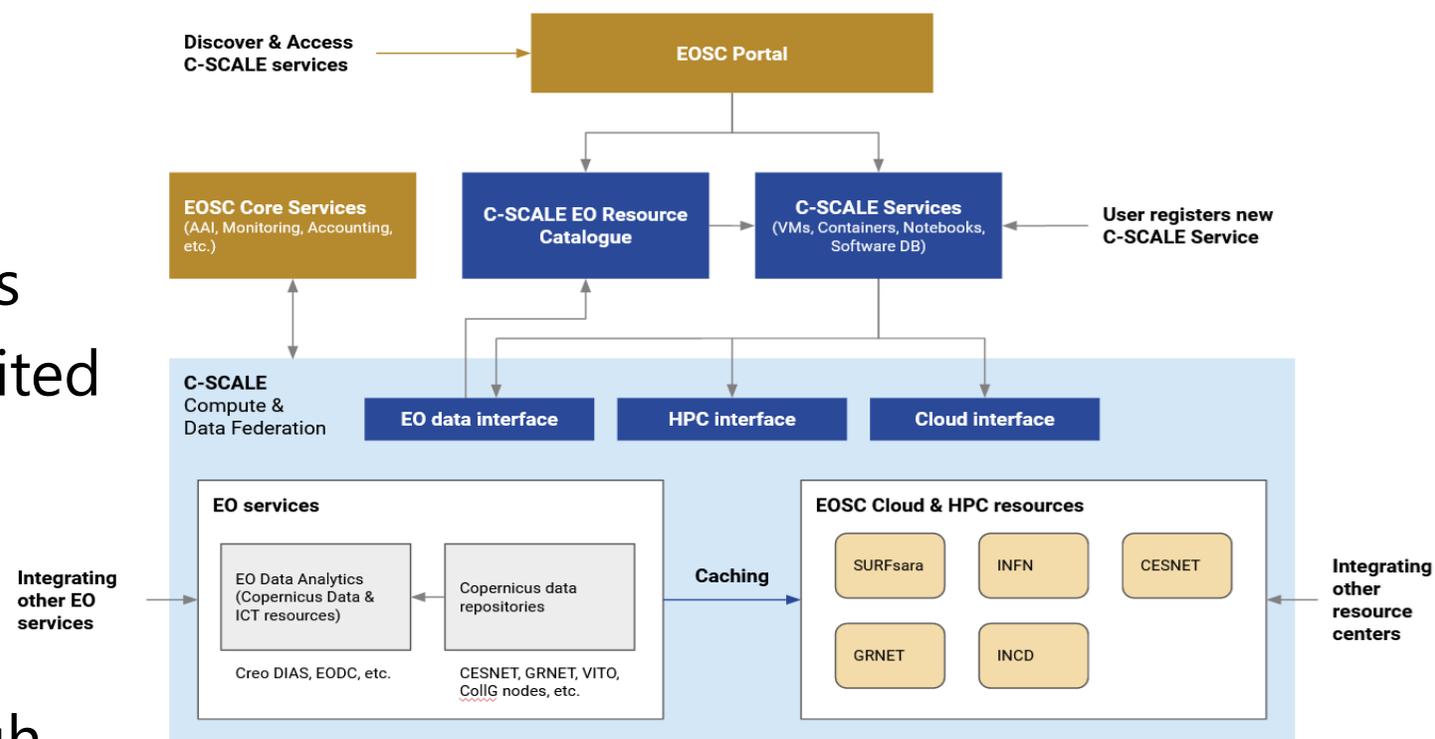
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A Federated Open Earth Observation Platform