EODASH,
Euro Data Cube &
EOxHub

EOX IT Services https://eox.at
office@eox.at @eox_a
2023-06-26, FOSS4G

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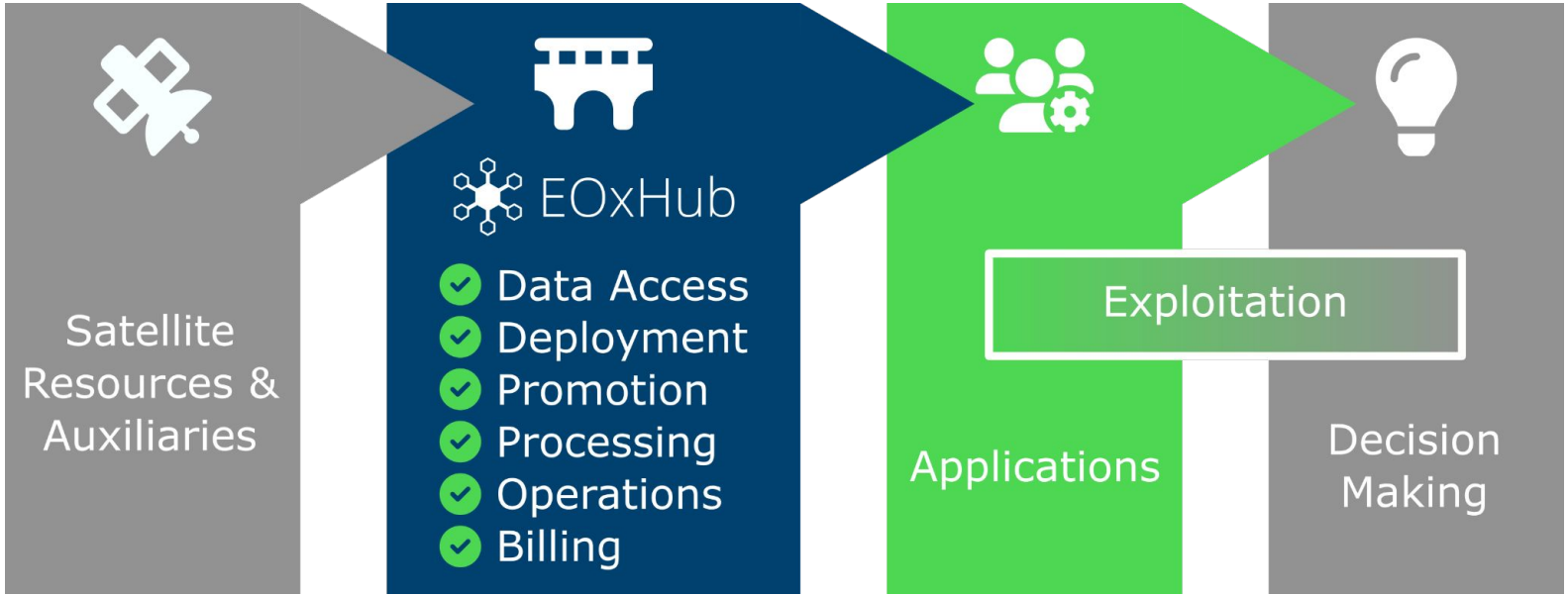
Platform Technology & Services

EOX makes the bridges for comprehensive exploitation of satellite Earth-observation



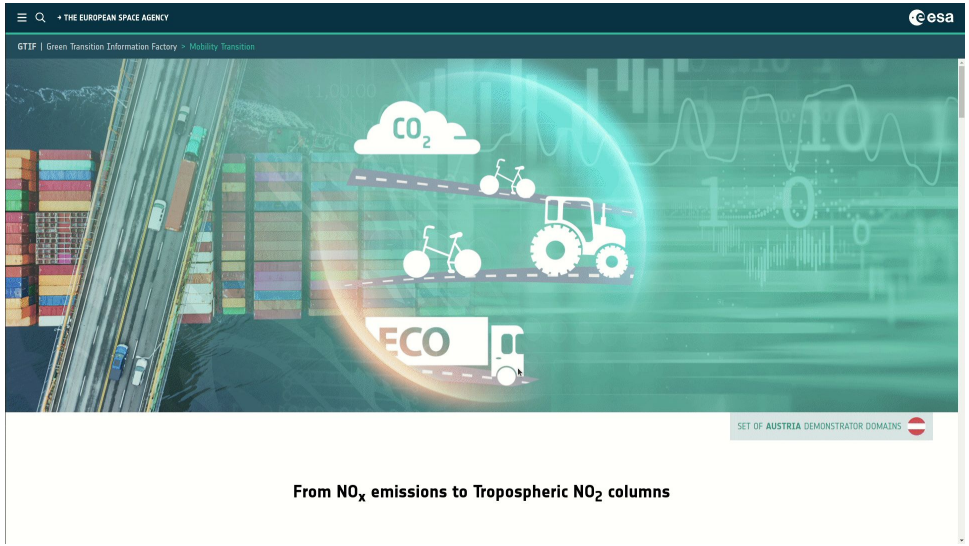
EOX stands for Open Source, Open Standards, Open Data, & Open Science

eodash

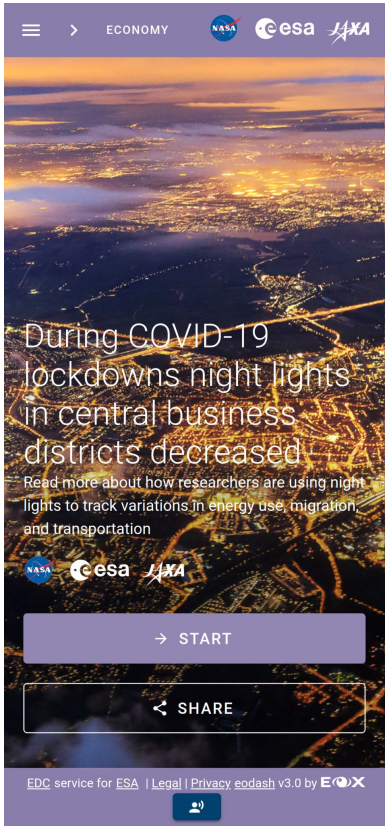
- Rapid Action for Citizens with Earth Observation https://race.esa.int
- EO Dashboard by NASA, JAXA, and ESA https://eodashboard.org
- Open for everyone
- Collaborative features

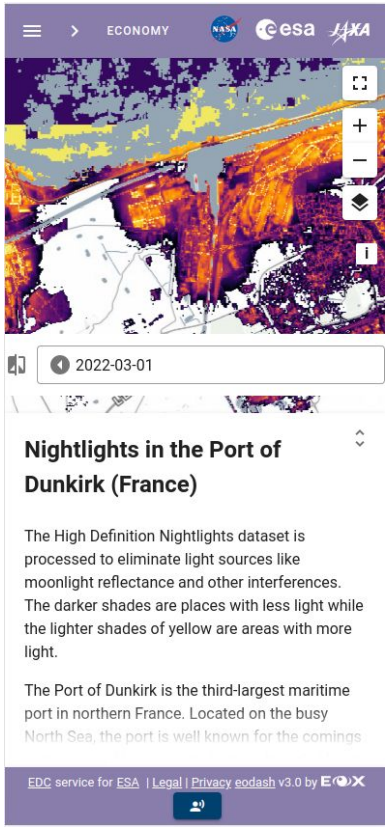
Green Transition Information Factory - GTIF

Story- & Scrollytelling



From NO_x emissions to Tropospheric NO_2 columns





VEDA APIs

Dashboard

Users

Analysis Platforms

STAC API

EDC GEODB

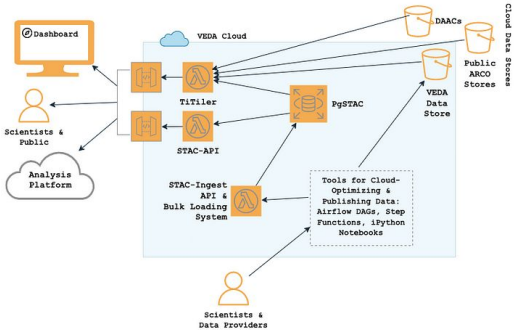
sentinelhub by SINERGISE

EOxHub
- Data Mgmt.
- Notebooks
- Apps/Tools
- BYOA

EDC

Dash-board Data

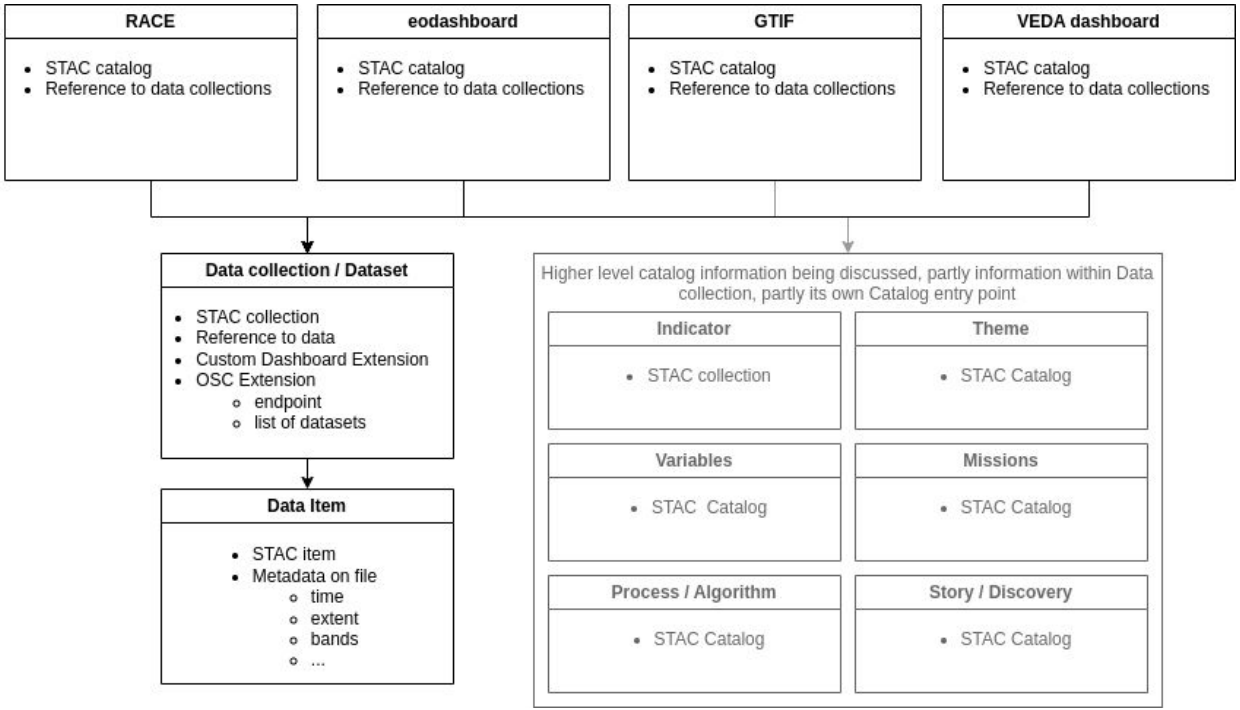
Public ARCO Data



VEDA Architecture

Source: https://github.com/NASA-IMPACT/VEDA/wiki/Components

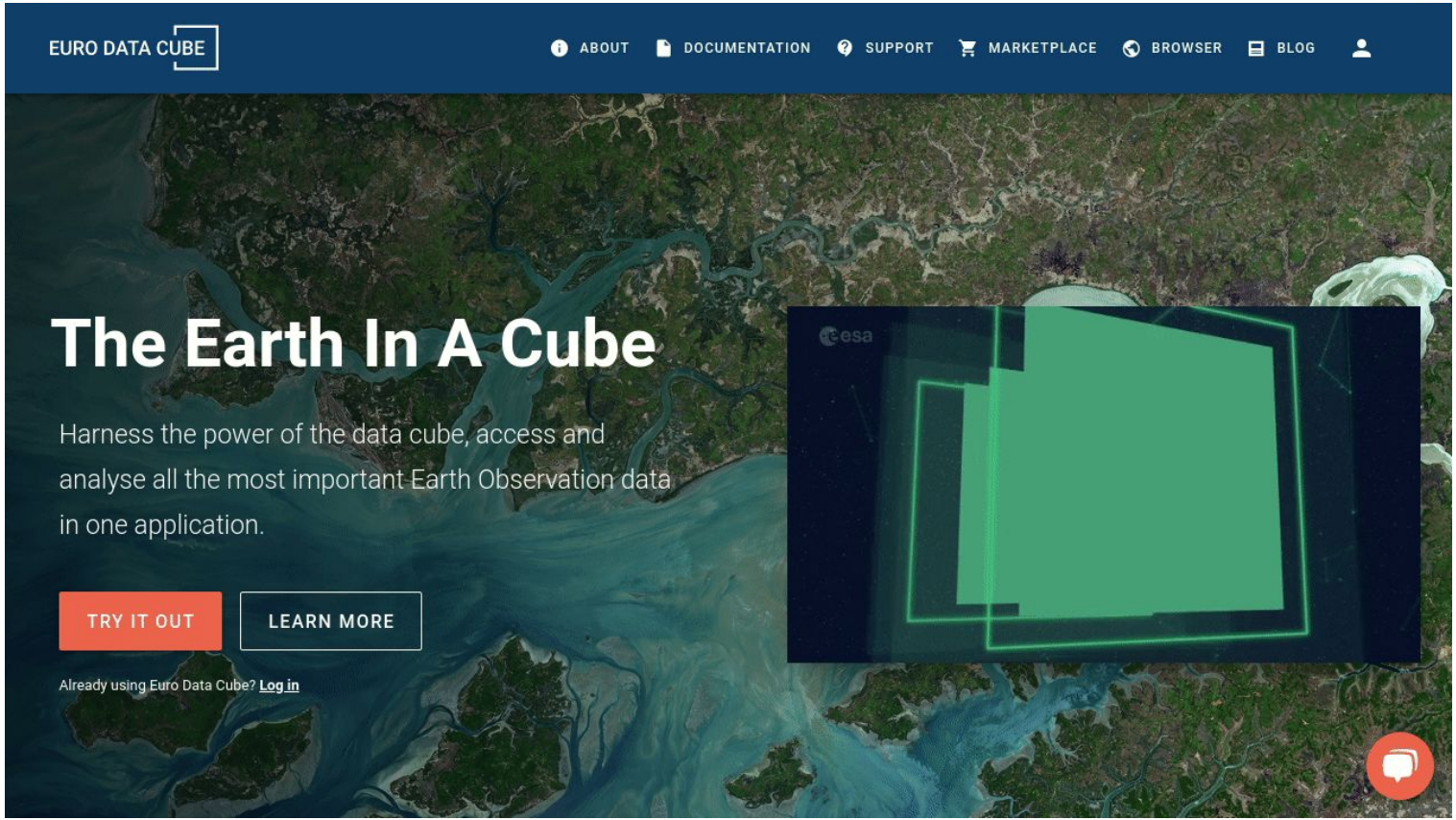
STAC Structure



Open Source

- Source code - https://github.com/eurodatacube/eodash
- Based on Vue.js, Vuetify, OpenLayers, EOxElements, Chart.js, geotiff.js, etc.

- Feedback and contributions are welcome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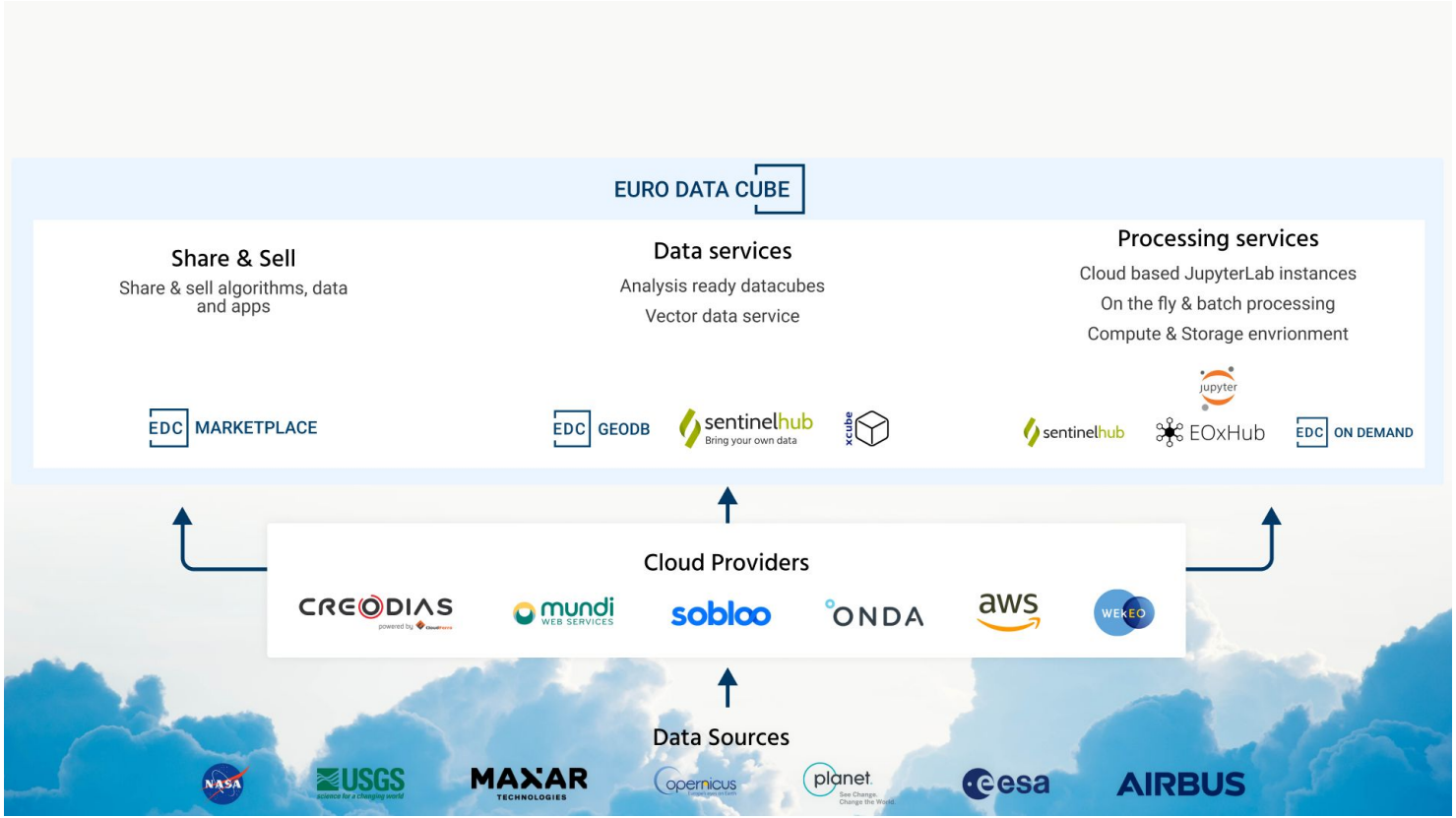
EURO DATA CUBE
Share & Sell
Share & sell algorithms, data and apps
Data services
Analysis ready datacubes
Vector data service
Processing services
Cloud based JupyterLab instances
On the fly & batch processing
Compute & Storage envrionment
EDC MARKETPLACE
EDC GEODB
sentinelhub
Bring your own data
xcube
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CREODIAS
mundi WEB SERVICES
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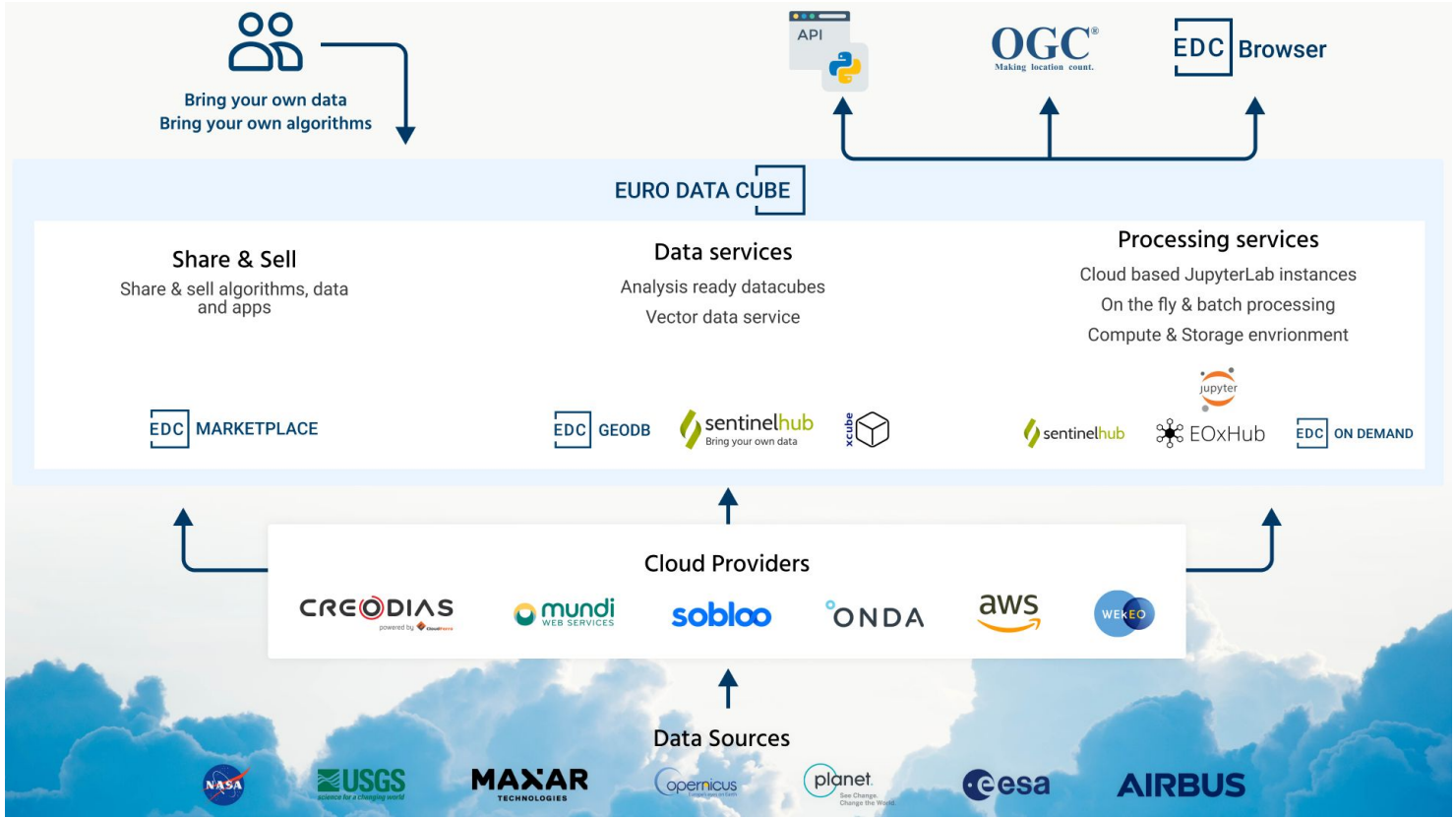
Bring your own data
Bring your own algorithms
API
OGC
Making location count.
EDC Browser
EURO DATA CUBE
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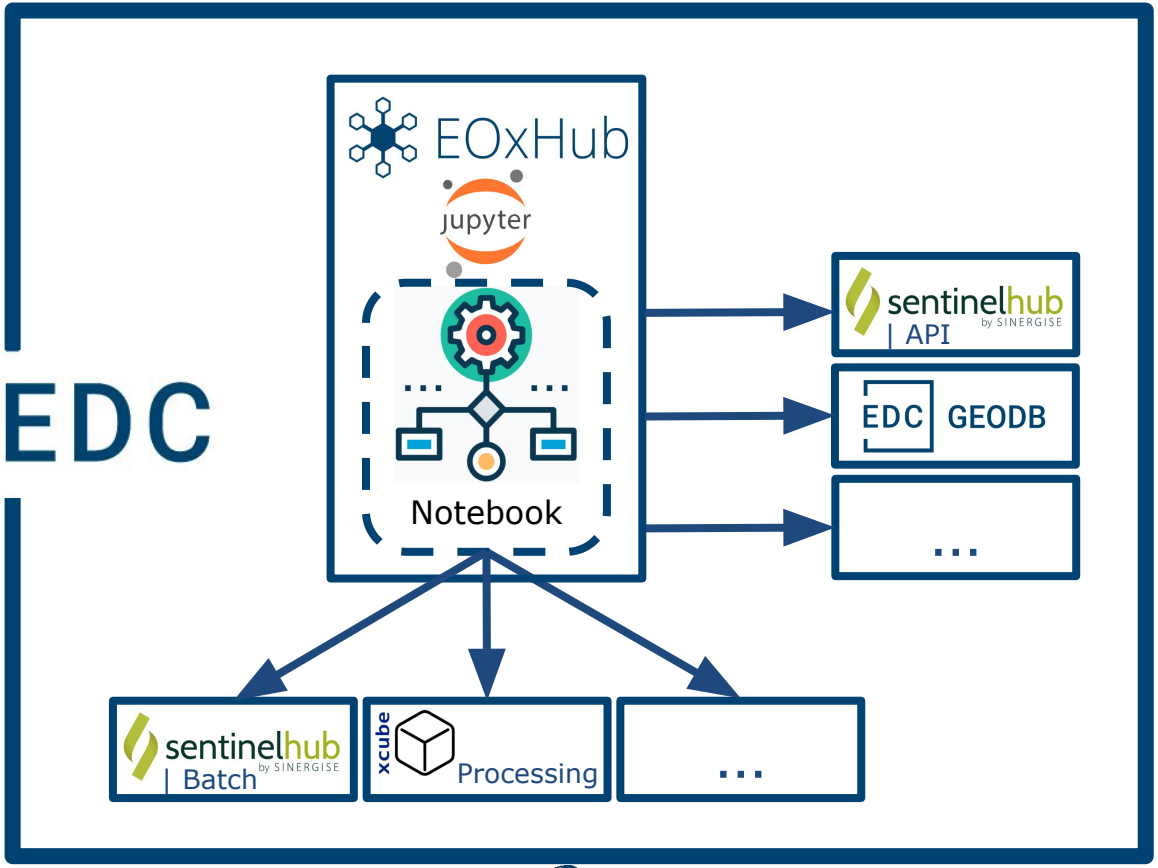
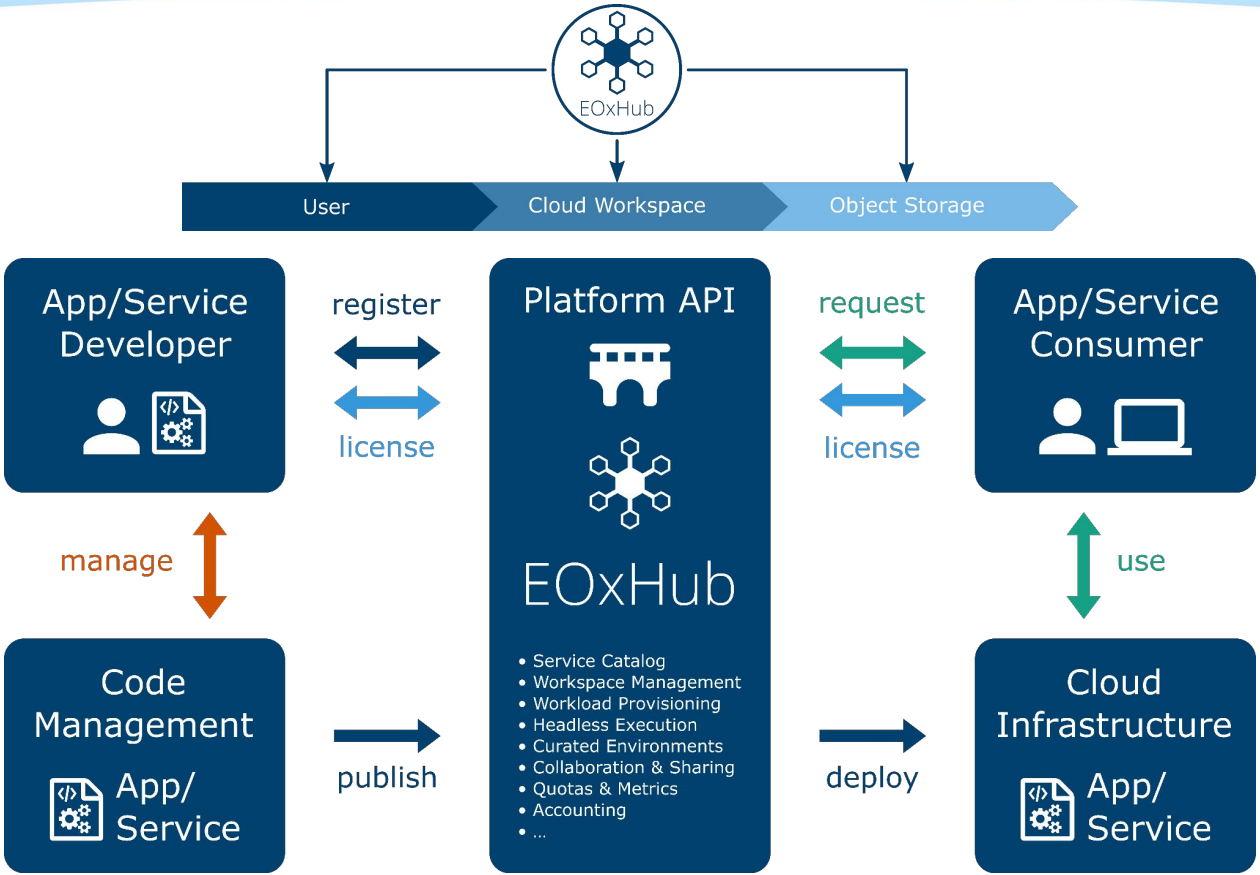
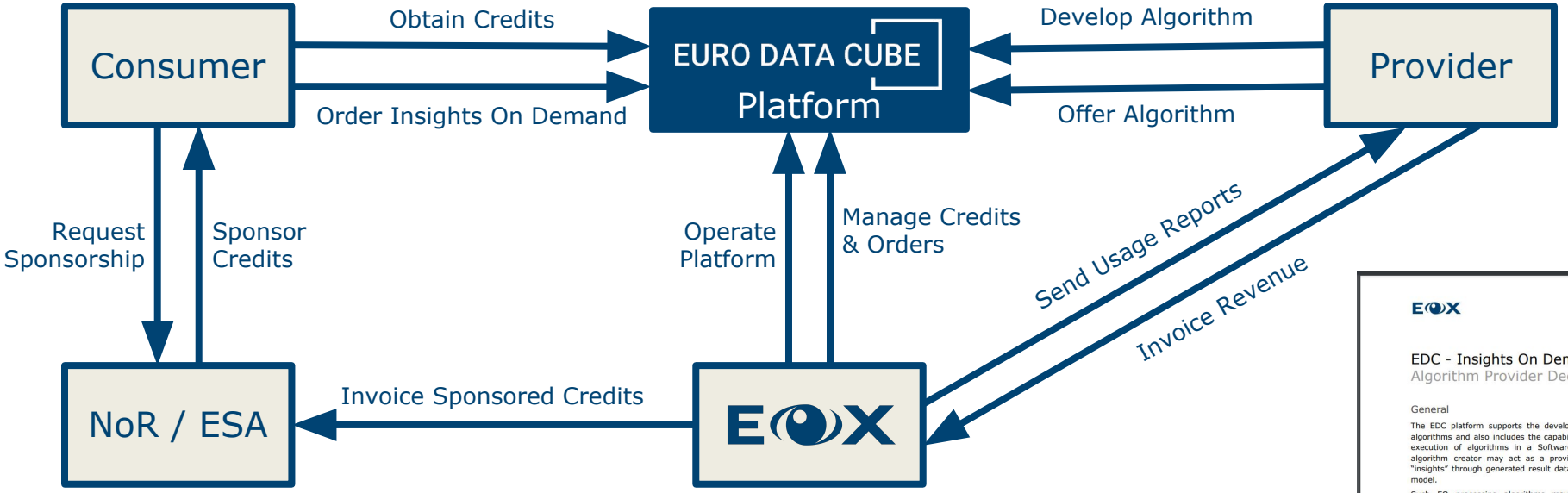
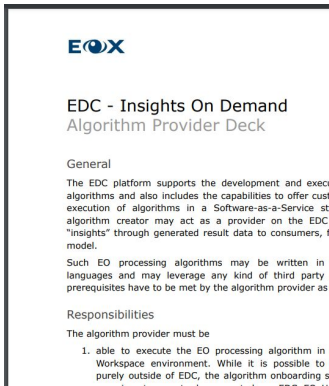

EDC
EOxHub
jupyter
Notebook
sentinelhub
by SINERGISE
API
EDC
GEODB
...
sentinelhub
by SINERGISE
Batch
xcube
Processing
...


EOxHub
User
Cloud Workspace
Object Storage
App/Service Developer
register
license
Platform API
request
license
App/Service Consumer
manage
use
EOxHub
• Service Catalog
• Workspace Management
• Workload Provisioning
• Headless Execution
• Curated Environments
• Collaboration & Sharing
• Quotas & Metrics
• Accounting
• ...
Code Management
App/ Service
publish
deploy
Cloud Infrastructure
App/ Service

Insights On Demand

Bring Your Own Algorithm





EDC - Insights On Demand

Algorithm Provider Deck

General

The EDC platform supports the development and execu
algorithms and also includes the capabilities to offer cust
execution of algorithms in a Software-as-a-Service st
algorithm creator may act as a provider on the EDC
"insights" through generated result data to consumers, f
model.

Such EO processing algorithms may be written in
languages and may leverage any kind of third party
prerequisites have to be met by the algorithm provider as

Responsibilities

The algorithm provider must be

1. able to execute the EO processing algorithm in
Workspace environment. While it is possible to
purely outside of EDC, the algorithm onboarding s

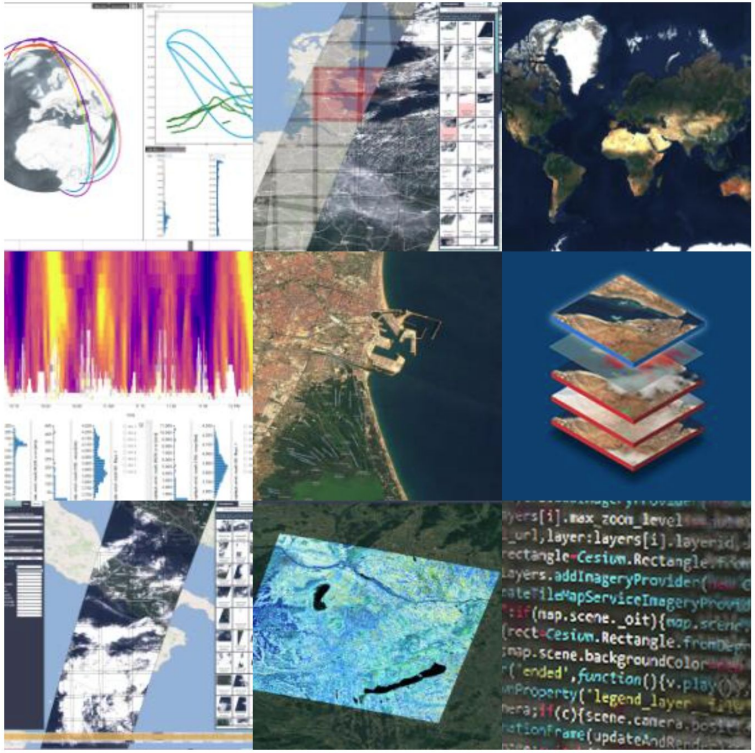
EOxHub as a Product - Capabilities

- Preconfigured hosted **Cloud footprint** - "**Workspace as a Service**" for teams, projects, communities, etc.
- Building upon a **managed JupyterLab** environment
- Optional additional tooling like for **Machine Learning**
- Collection of **Jupyter Notebooks**
- Targeting the **EO domain** - data access
- Running on a **cloud provider of choice** like AWS, OTC, or CreoDIAS
- **Reproduce and share** (BYOA) workflows

ESA’s Network of Resources

- Request sponsoring for EDC resources via https://eurodatacube-nor.hub.eox.at

https://foss4g2023.hub.eox.at



VIEW THE WORLD THROUGH OUR EYES

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