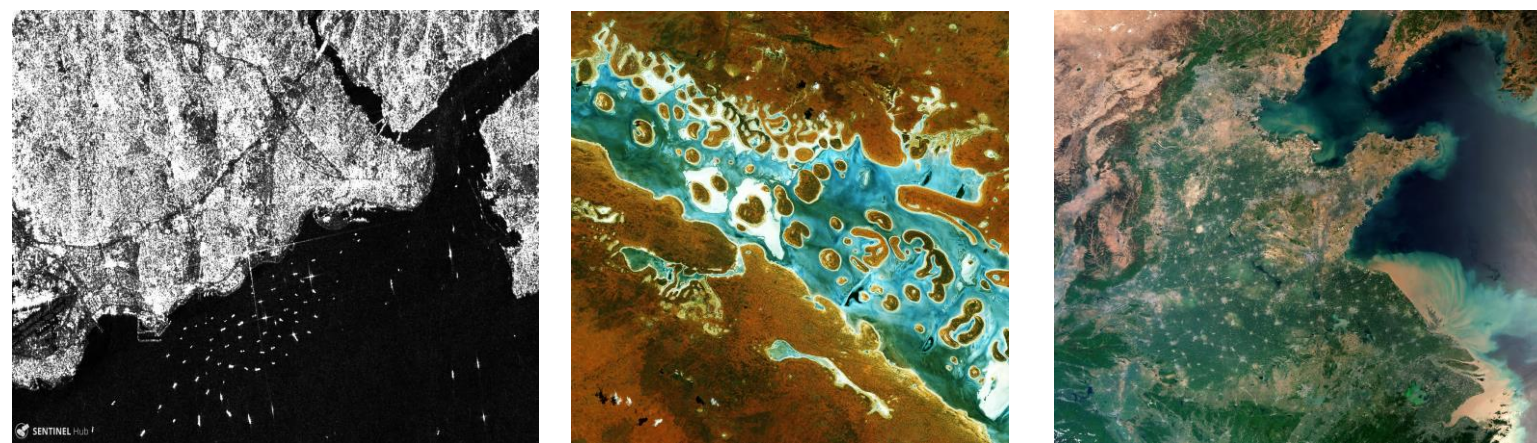# DATA CUBE SERVICE FOR COPERNICUS
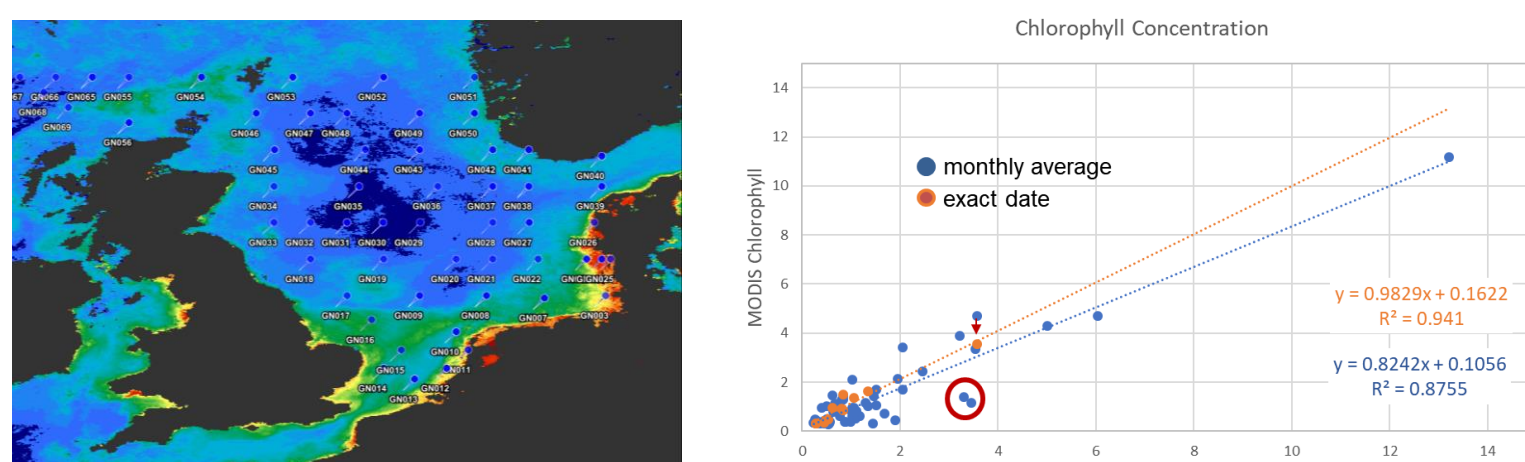
A novel EO data interaction capability

Ease the integration, preparation and processing of various data sources for coastal downstream applications
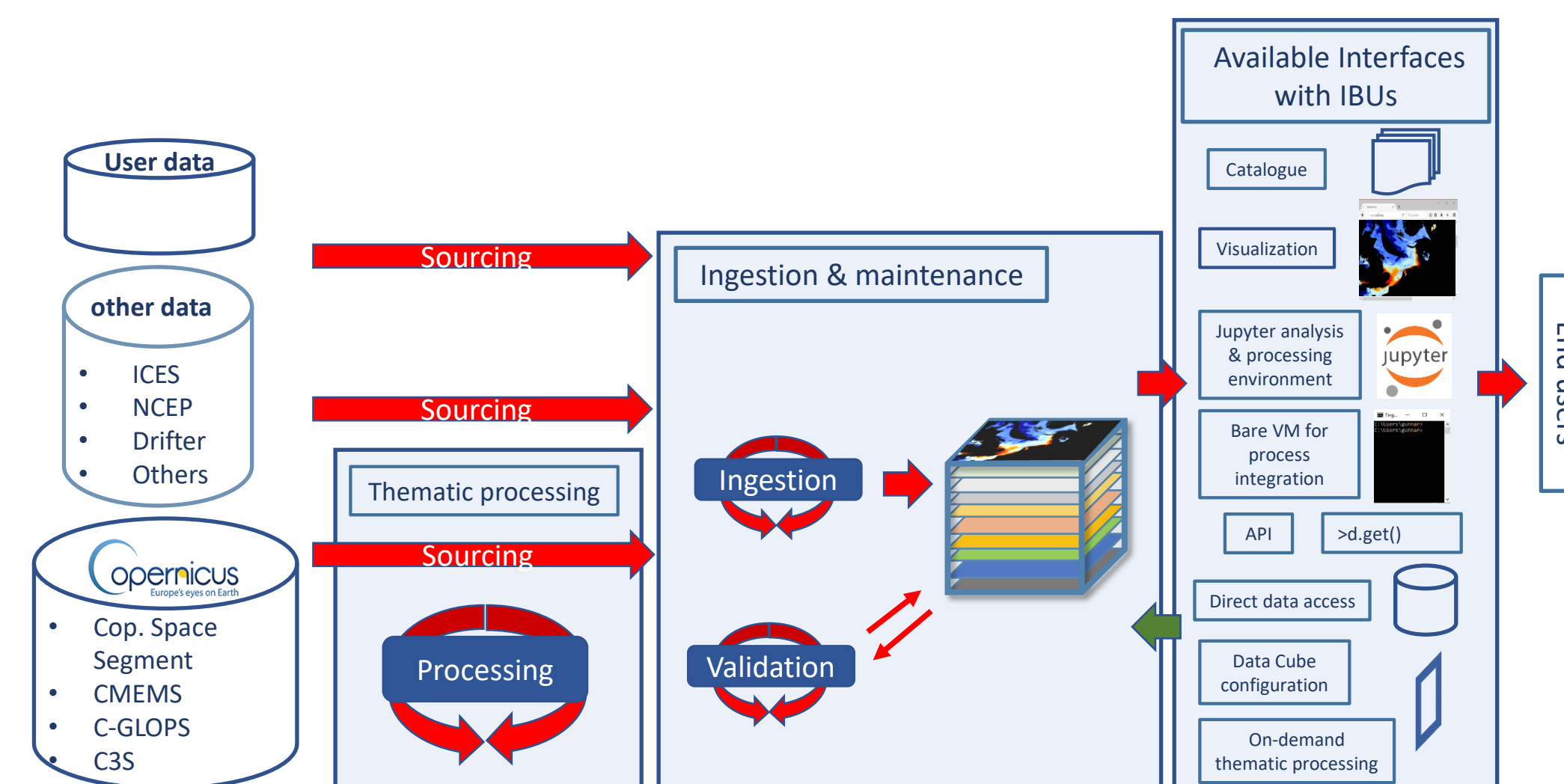
- **Sentinel 1, 2 and 3** products from ESA and Eumetsat
- Landsat-8, Proba-V and other satellite data

- Water quality processing of **high resolution**, **medium resolution** and **geostationary data** from **HIGHROC** processing chain
- **Validated** HIGHROC data and validation tools
- User provided, **individually configured processing chains**

- **Copernicus Marine, Land and Climate** Service data
- **In-situ data** from open service (ICES, NCEP, …)
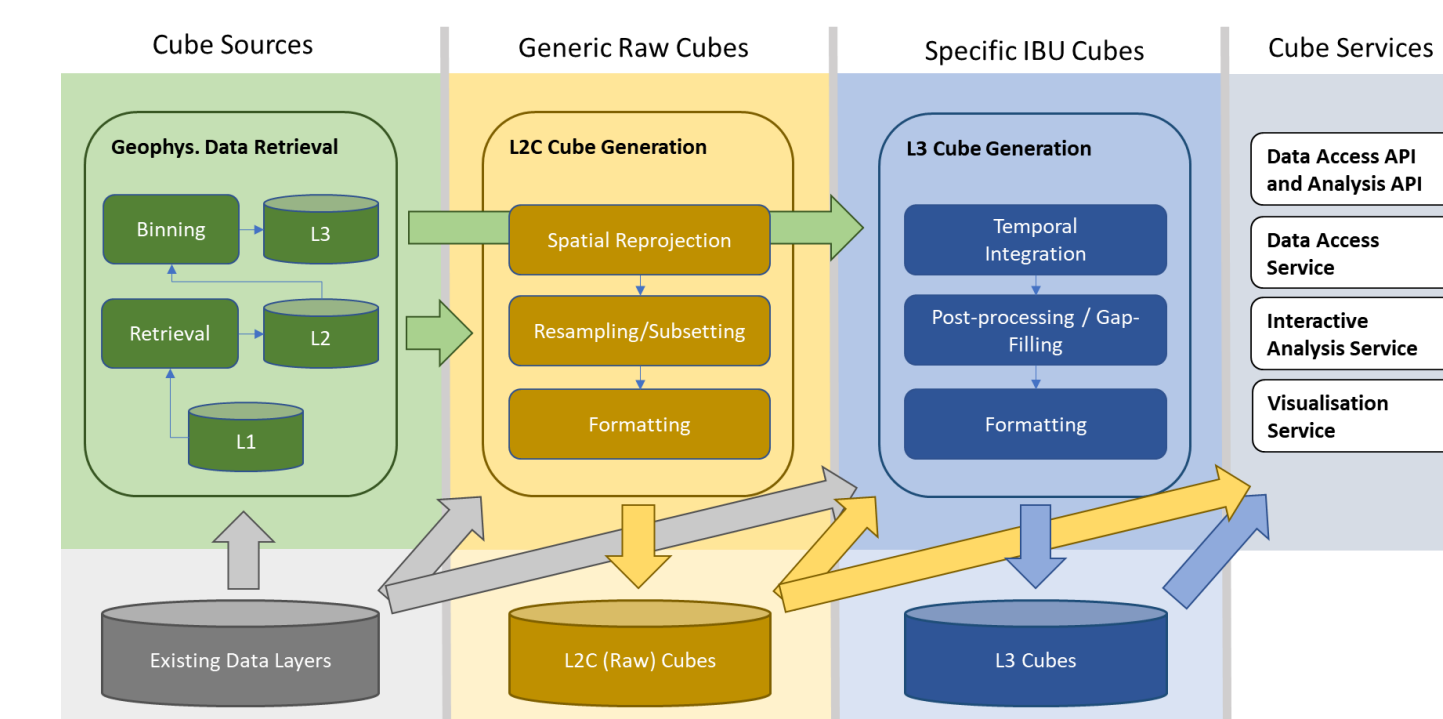- User's **local storage**

E⊟DataBee

- E⊟DataBee is our **datacube software**
- Provided with **accompanying serivices** by water colour and ICT experts **for institutional, research and commercial users** (IBU)
- Deployable on **DIAS, AWS, Calvalus** and **private clouds**.

Technology Stack

Object Storage (OBS) for cloud storage and fast access
Zarr as cloud storage format
Tailor CF conventions to match needs of ARD applied to data cubes
Python **xarray** package as reference API for data analysis & processing

Cube Processing Model

Service Offer

Consultancy
Software Components
- Source data access
- Preprocessing
- Thematic processing, specifically Highroc
- Data Cube core software and API
- Validation tools
- Visualisation

Configuration
- Selection and adaption of software components
- Connecting to selected data sources
- Integration of user supplied processing components

Deployment on selected hardware platform
- Software as a Service (SaaS)
- Processing as a Service (PaaS)

Technical support & training