RIOB
Réseau International des Organismes de Bassin

INBO
International Network of Basin Organizations

RIOC
Red Internacional de Organismos de Cuenca

# From ground to orbit
# Combining in-situ and satellite monitoring of water to improve basin management

INBO webinar / Introduction

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OiEau
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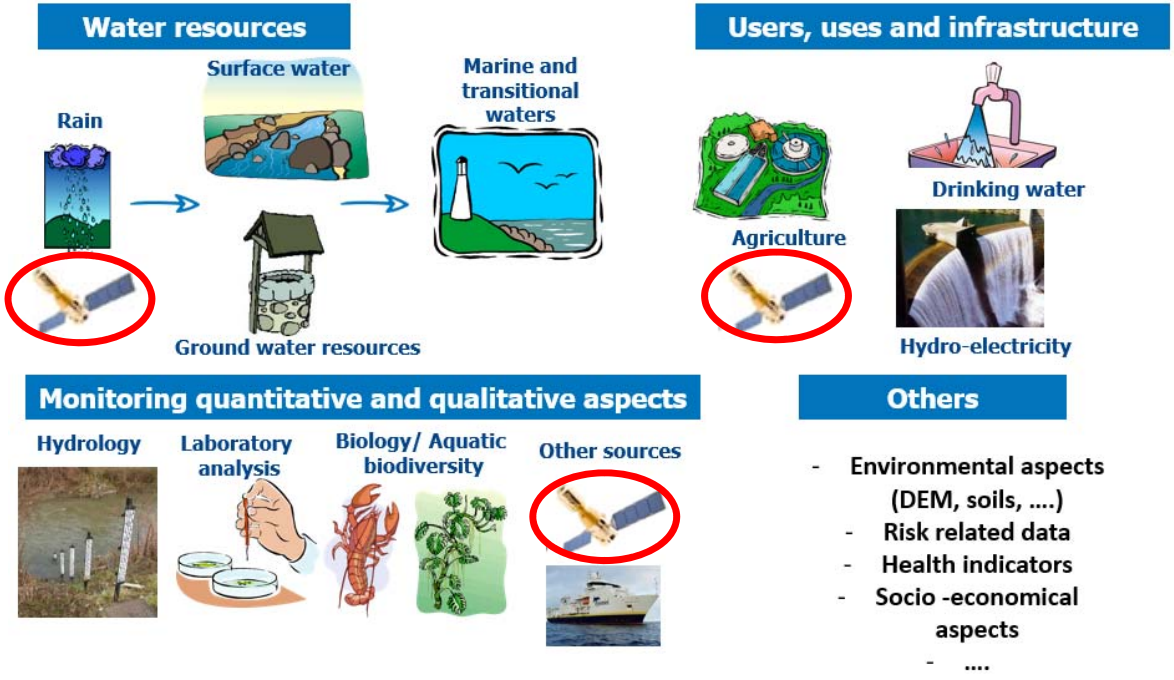
# Water resource management requires data on many topics for many uses

Data and information particularly needed for

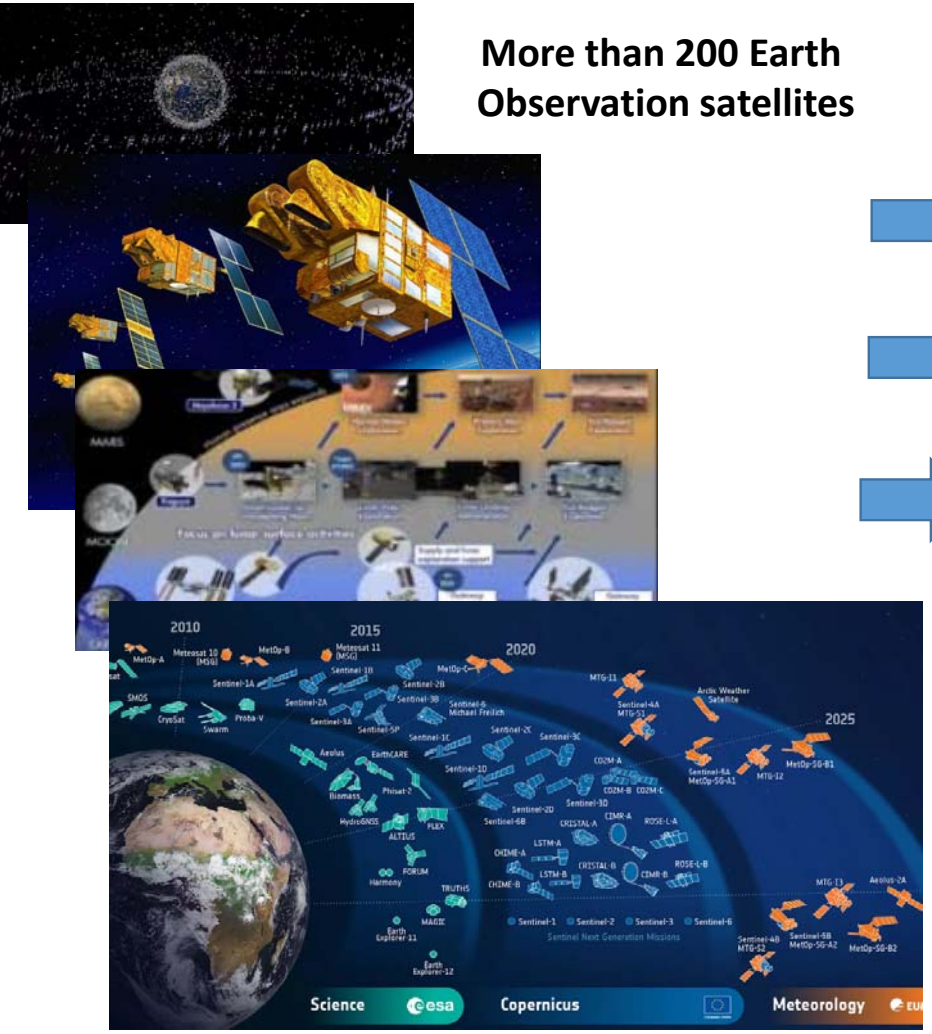
- Sectorial water management
- Integrated Water sector planning
- Climate change adaptation
- Risk management
- Reporting
- Specific decision taking
- Other water sector activities

Many data topics
Many data producers



# Earth observation datasets are now available for a lot of applications

**More than 200 Earth Observation satellites**

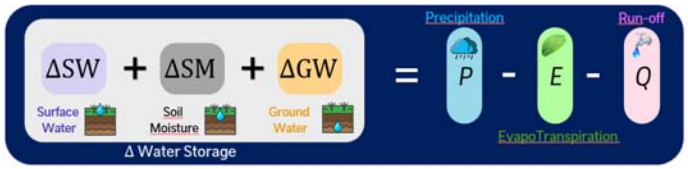



**Various hubs for satellite data access**

- sentinelhub by PLANET LABS
- hydroweb.next
- EARTHDATA
- WMO HydroHub

… other hubs

**Examples of applications**




Water availability/water accounting

Climate change

Floods / Drough

… other applications

# Example of application in hydrology combining SWOT data with in situ data (case of Georgia)

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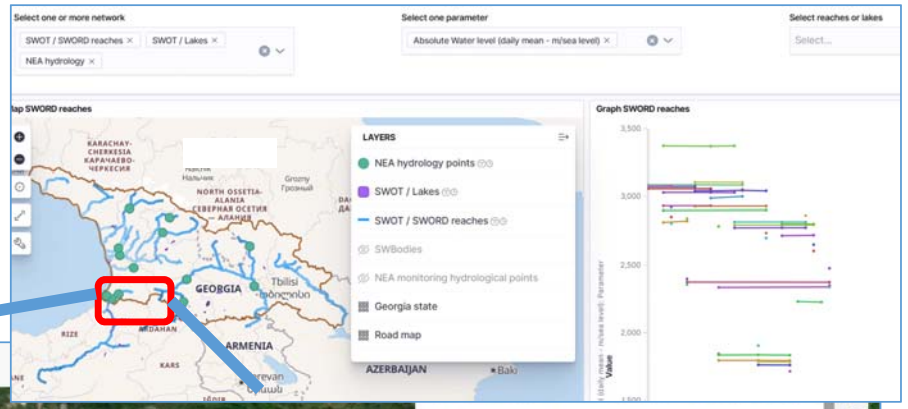
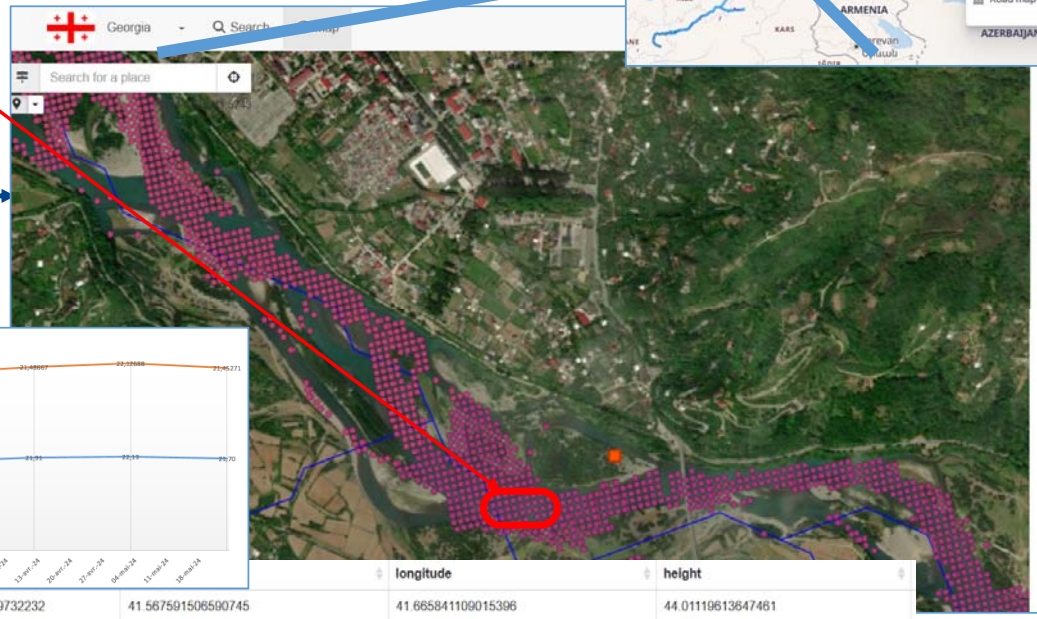
Office International de l'Eau

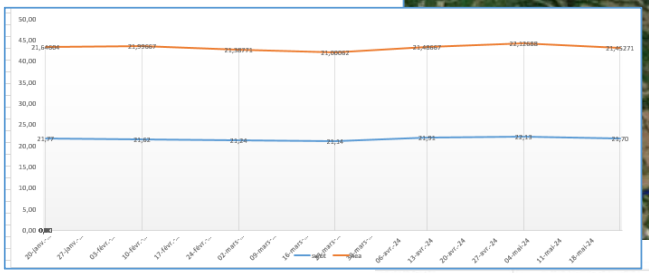
**SWOT**

hydroweb.next

**National data management platform**



| | longitude | height |
|---|---|---|
| 59732232 | 41.567591506590745 | 41.665841109015396 | 44.01119613647461 |

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International Office for Water

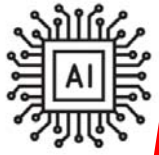
# Example of exploitation of satellite data for surface water quality control in Brazil

**Sentinel 2**

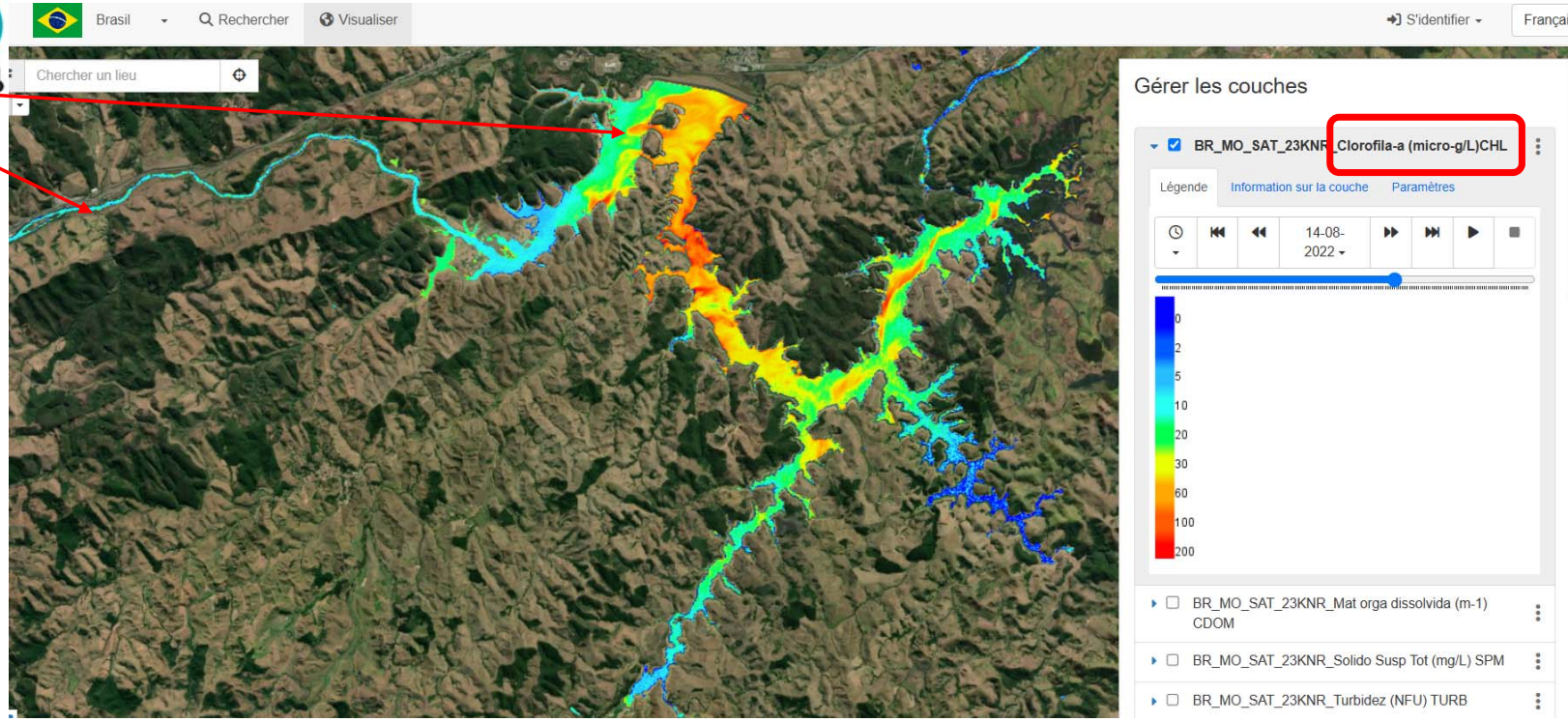
CNES/IRD data processing

**4 parameters:**

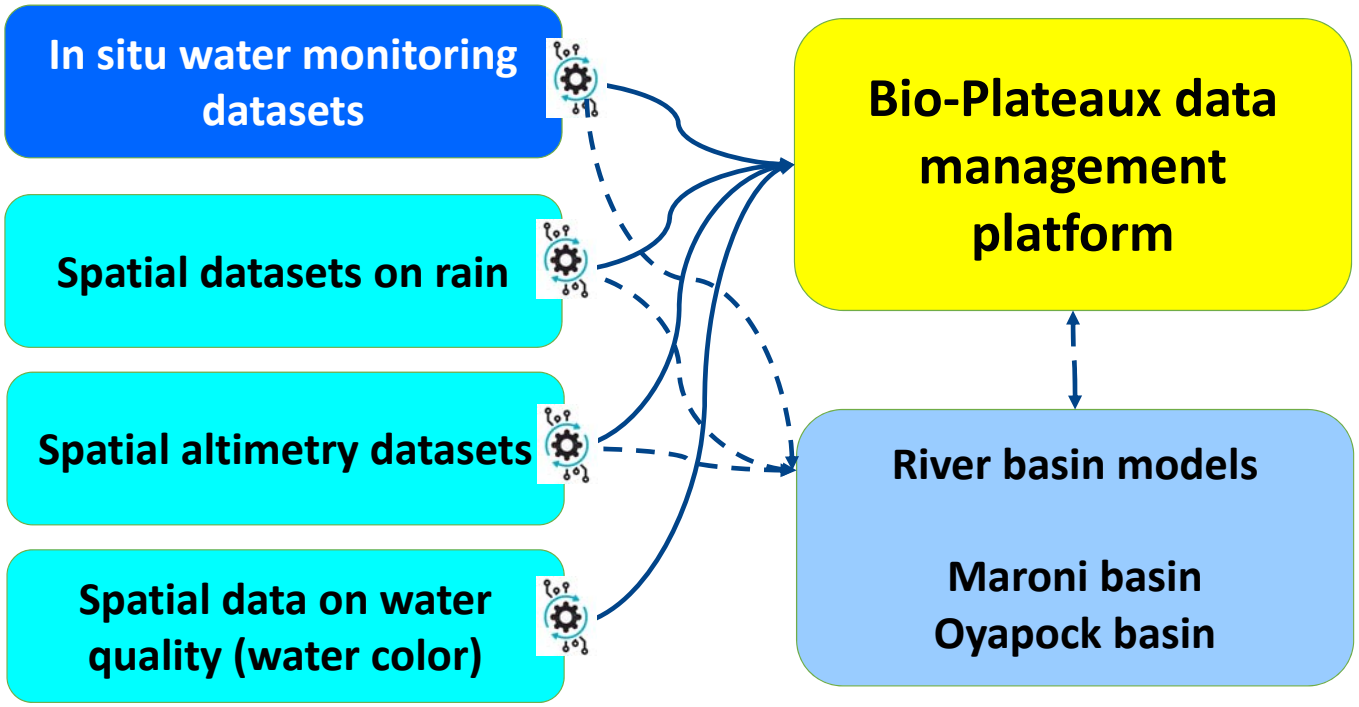
- **Chlorophyll a**
- **Suspended matters**
- **Dissolved organic matter**
- **Turbidity**



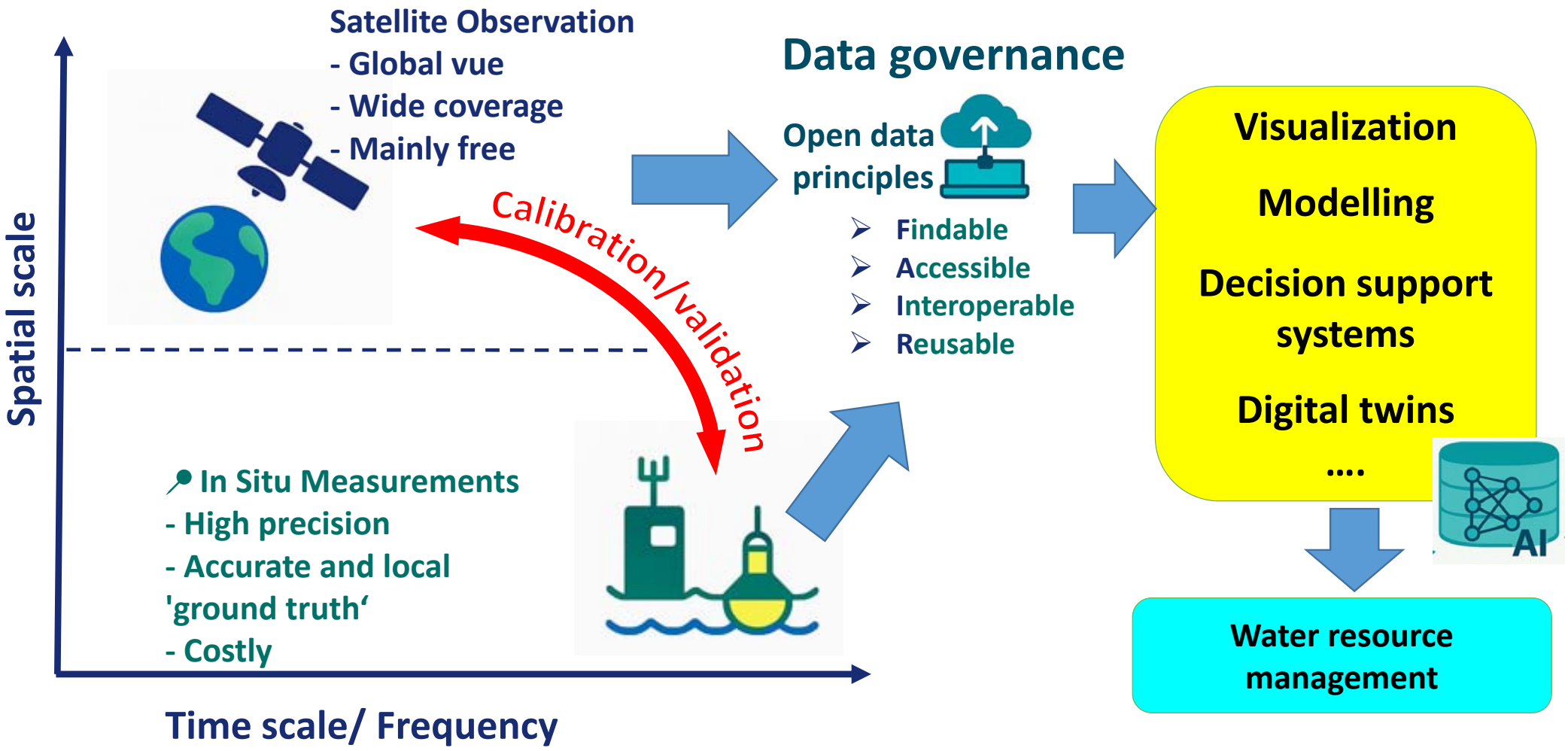

Though automatic detection of pollution emission points



# Projects integrating in situ water monitoring datasets, satellite data on pluviometry/ hydrology/ water quality and modeling tools – Case of the Bio-Plateaux project

# Complementarity of satellite observation and in situ data for water resource management



# Complementarity of satellite observation and in situ data for water resource management