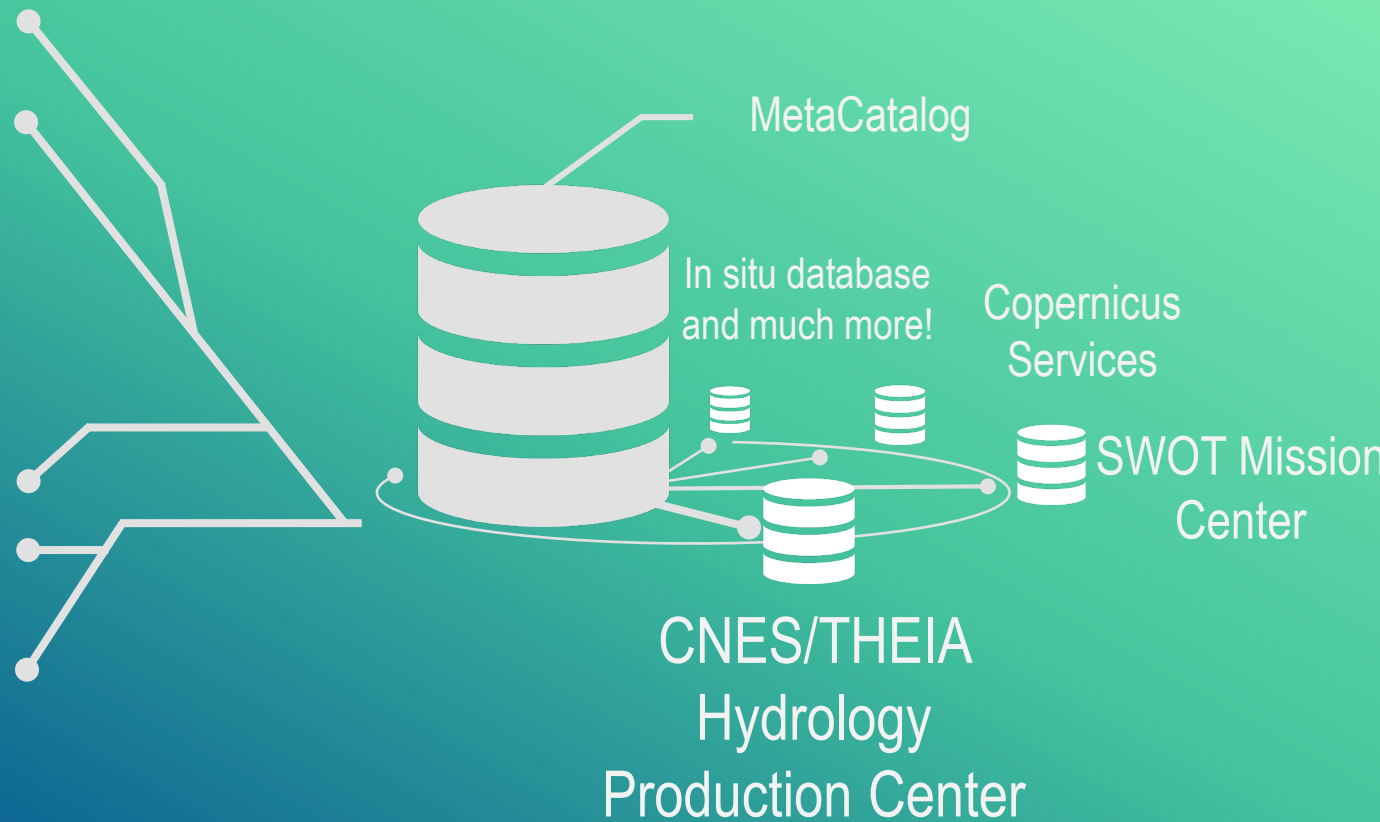
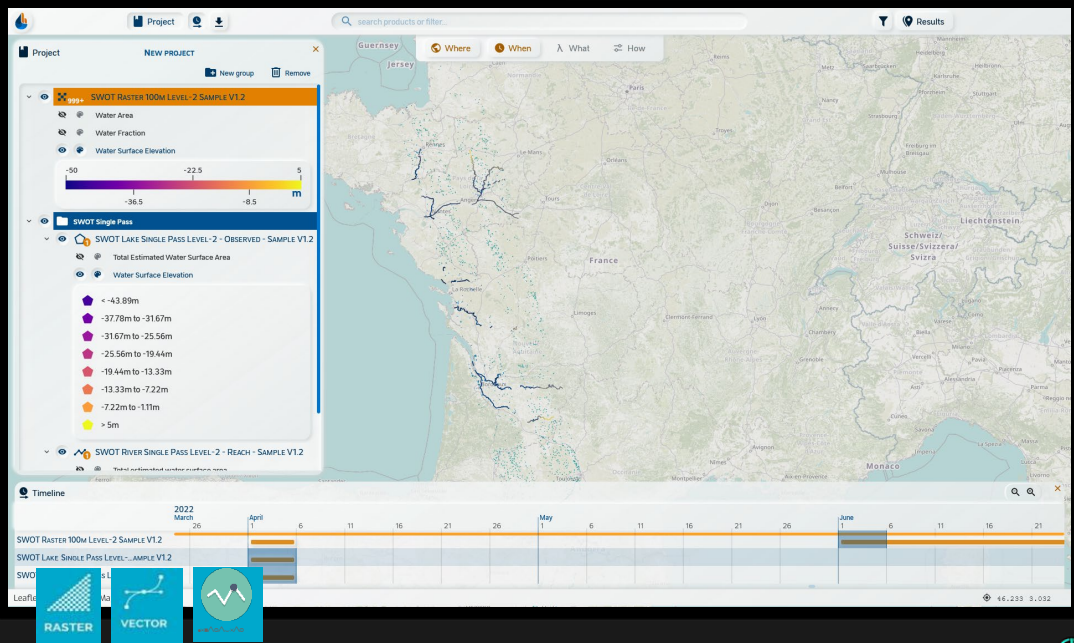


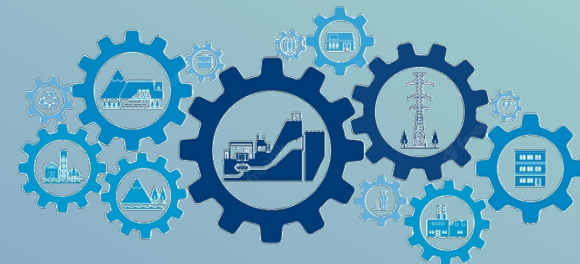
**HYMOTEP: THE CNES/THEIA HYDROLOGY  
PRODUCTION CENTER**

&

**HYDROWEB.NEXT : A THEMATIC DATA HUB  
FOR HYDROLOGY**



- Routine operation of hydrology processing baselines
- Including Surfwater, MAJA, GRS, OBS2CO (waterquality), LIS (Fractional Snow Cover)



Search for your products of interest using various criteria

Search filters

Clear filters

Search "swot" [X] current view [X]

shifting period [X] Water Level [X]

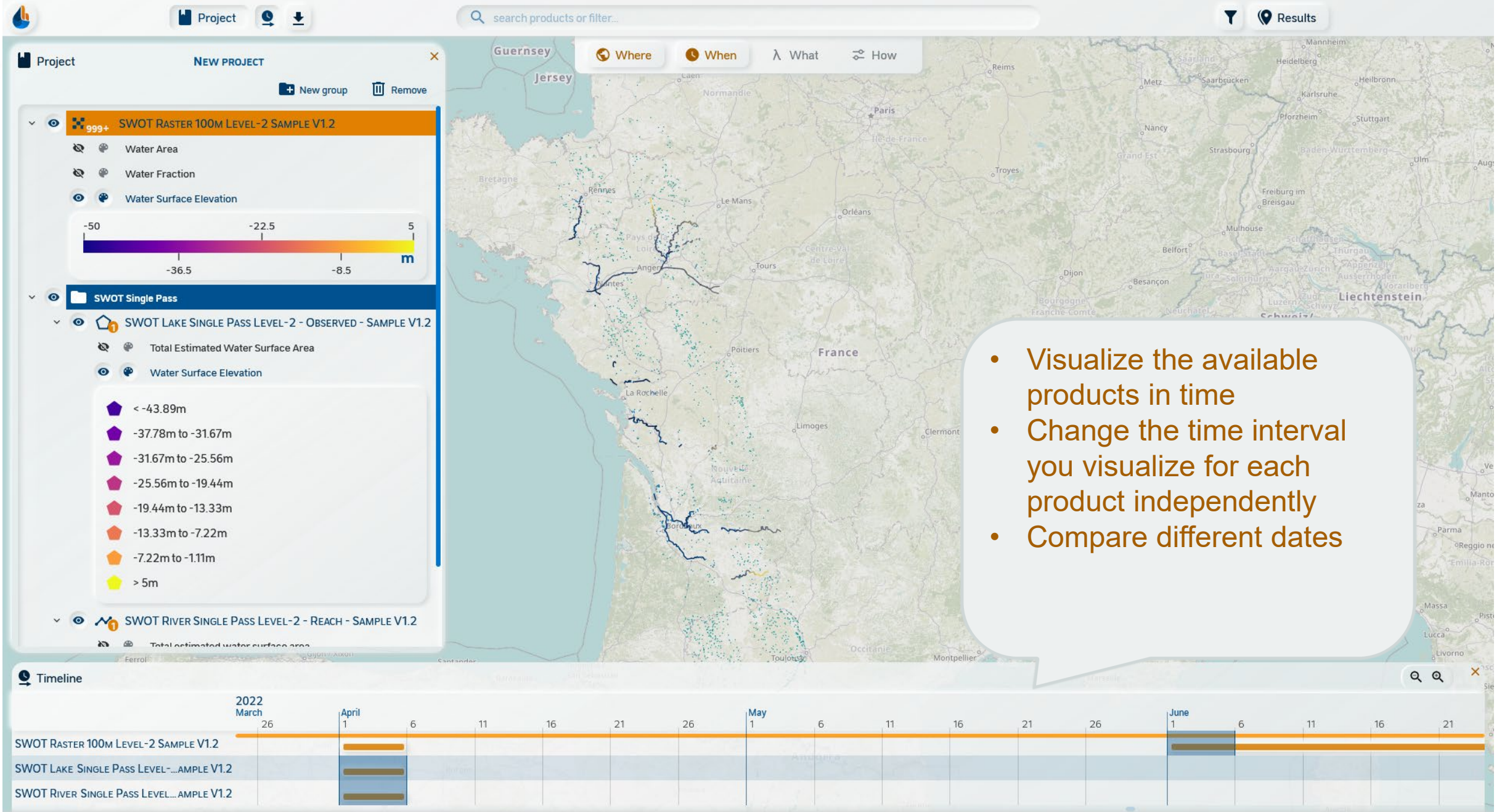
Results found 6 products

- SWOT RASTER 100M LEVEL-2 SAMPLE V1.2**  
Water Area, Water Fraction, Water Surface Elevation  
The SWOT Raster 100m Level-2 product contains rasterized water surface elevation and inundation extent data from the High Rate data stream of the SWOT KaRIn instrument, along with appropriate uncertainties and flags, resampled onto a uniform grid. Data is provided at 100...  
999+ tiles Apache-2.0 21d 100m CNES
- SWOT PIXEL CLOUD LEVEL-2 - SAMPLE V1.2**  
Water Surface Elevation, Water Fraction  
The SWOT Pixel Cloud Level-2 product contains points cloud of water mask pixels ("pixel cloud") with geolocated heights, classification mask, geophysical fields, and flags. The SWOT Pixel Cloud Level-2 product is organized into swath-aligned tiles. Each of these granules nominally contain...  
999+ tiles Apache-2.0 21d 5m CNES
- SWOT RIVER SINGLE PASS LEVEL-2 - REACH - SAMPLE V1.2**  
Total estimated water surface area, Water surface slope with respect to the geoid, River Reach...  
The SWOT River Single Pass Level-2 - Reach product contains vectorized river data - including water surface elevation, water surface slope, river width, water surface area, change in cross-sectional area from a reference value, and discharge - from the High Resolution data stream of...  
1 track Apache-2.0 21d 10km CNES
- SWOT VECTOR PIXEL CLOUD LEVEL-2 - SAMPLE V1.2**  
Water Surface Elevation, Water Fraction  
The SWOT Vector Pixel Cloud Level-2 product contains points cloud of water mask pixels ("pixel cloud") with geolocated heights, classification mask, geophysical fields, and flags. The SWOT Pixel Cloud Level-2 product is organized into swath-aligned tiles. Each of these granules...  
999+ tiles Apache-2.0 21d 5m CNES
- SWOT LAKE SINGLE PASS LEVEL-2 - OBSERVED - SAMPLE V1.2**  
Total Estimated Water Surface Area, Water Surface Elevation  
The SWOT Lake Single Pass Level-2 - Observed product contains vectorized lake data - including water surface elevation, water surface area, and storage change - from the High...

The interface includes a top navigation bar with 'Project', 'Where', 'When', 'What', and 'How' filters. A search bar at the top center contains 'search products or filter...'. On the right, a 'Results' panel shows 'found 6 products' with a list of items including 'SWOT RASTER 100M LEVEL-2 SAMPLE V1.2', 'SWOT PIXEL CLOUD LEVEL-2 - SAMPLE V1.2', 'SWOT RIVER SINGLE PASS LEVEL-2 - REACH - SAMPLE V1.2', and 'SWOT VECTOR PIXEL CLOUD LEVEL-2 - SAMPLE V1.2'. Each product entry includes a description and technical details like '364 tiles', 'Apache-2.0', '21d', '100m', and 'CNES'.

On the left, a 'Project' panel titled 'NEW PROJECT' shows a list of layers: 'SWOT RASTER 100M LEVEL-2 SAMPLE V1.2' (with sub-layers 'Water Area', 'Water Fraction', 'Water Surface Elevation'), 'SWOT Single Pass', and 'SWOT LAKE SINGLE PASS LEVEL-2 - OBSERVED - SAMPLE V1.2' (with sub-layers 'Total Estimated Water Surface Area', 'Water Surface Elevation'). A legend for 'Water Surface Elevation' shows a color scale from -50m to 5m.

- Create a project with your products of interest, it will be saved for next time
- Visualize the corresponding variables on the map with their legend





Project

search products or filter...

Results

lionel.zawadzki@cnes.fr

**Project** **NEW PROJECT**

New group Remove

205 LIS FRACTIONAL SNOW COVER - PRE-OPERATIONAL

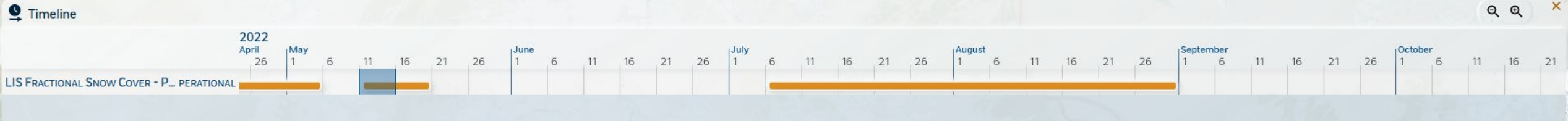
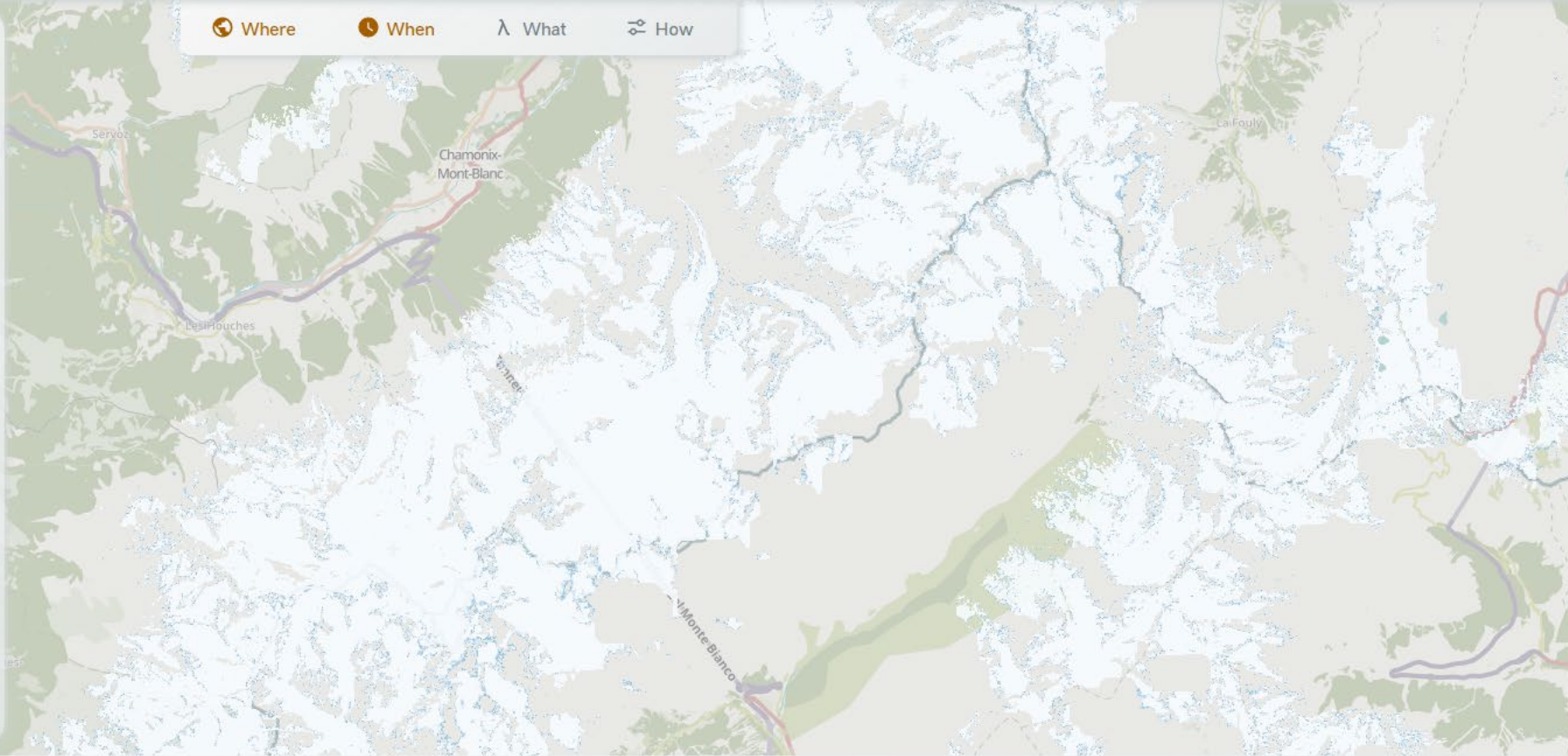
Fractional Snow Cover

FSC Blues

0.01 50 100

25 75 0%

3 OBS2CO WATERCOLOR - DEMONSTRATION





Project

search products or filter...

Results

lionel.zawadzki@cnes.fr

**Project** **NEW PROJECT**

New group Remove

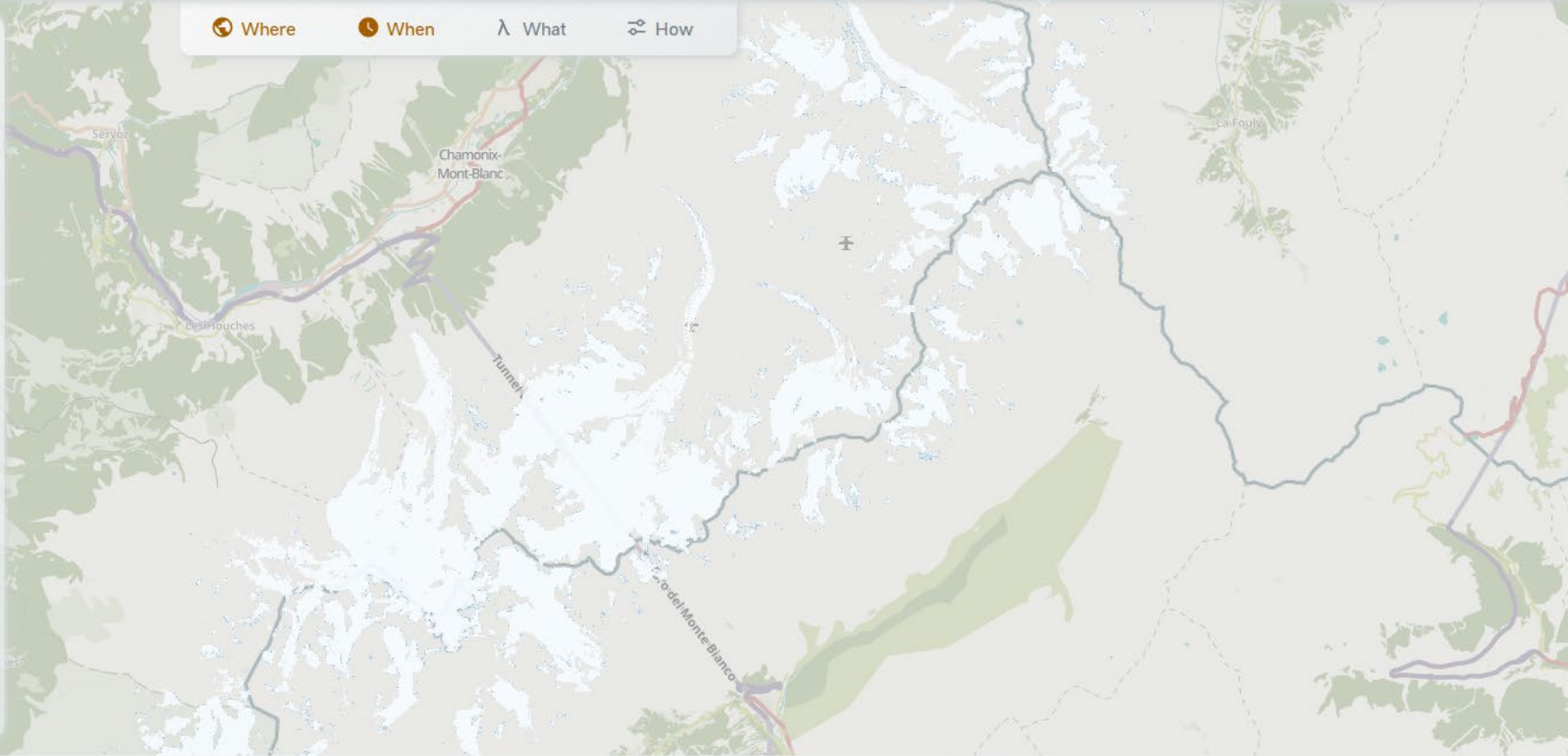
LIS FRACTIONAL SNOW COVER - PRE-OPERATIONAL

Fractional Snow Cover

FSC Blues

0.01 25 50 75 100 0%

OBS2CO WATERCOLOR - DEMONSTRATION





Project

search products or filter...

Results

lionel.zawadzki@cnes.fr

**Project** **NEW PROJECT**

New group Remove

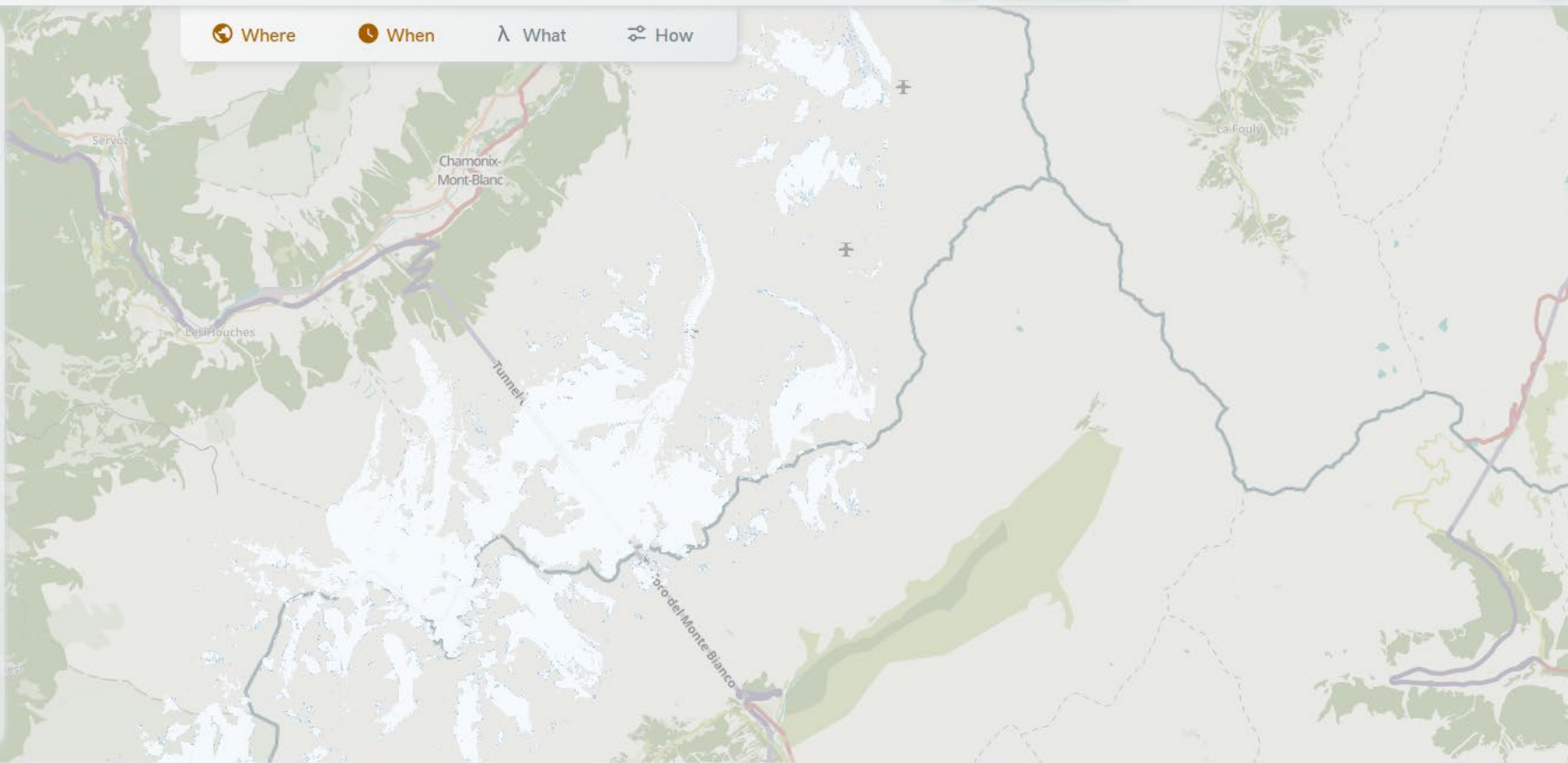
**LIS FRACTIONAL SNOW COVER - PRE-OPERATIONAL**

Fractional Snow Cover

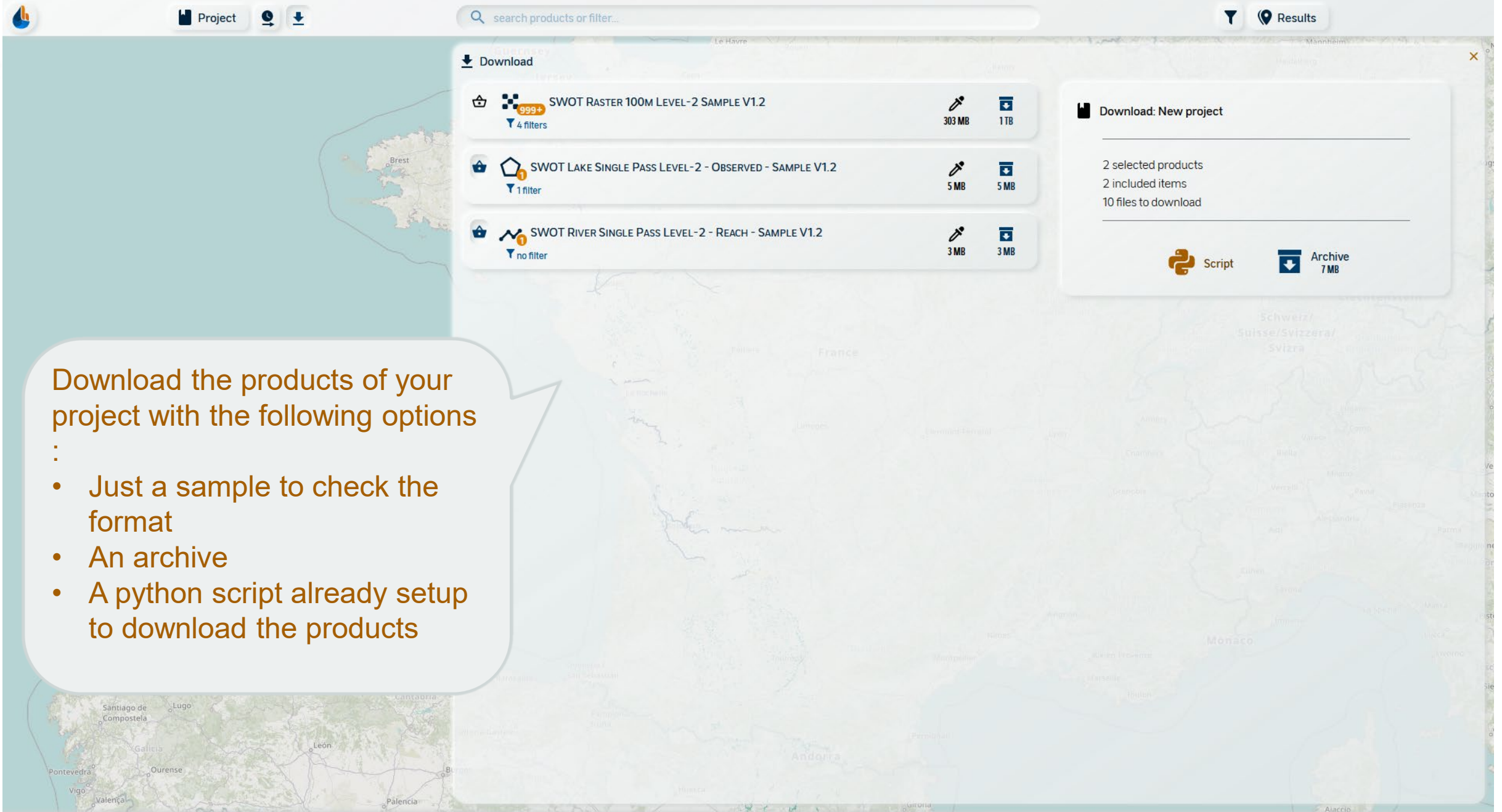
FSC Blues

0.01 25 50 75 100 0%

**OBS2CO WATERCOLOR - DEMONSTRATION**







Download the products of your project with the following options :

- Just a sample to check the format
- An archive
- A python script already setup to download the products



```
[1]: from eodag import EODataAccessGateway, SearchResult, setup_logging
      setup_logging(1) # 0: nothing, 1: only progress bars, 2: INFO, 3: DEBUG
      dag = EODataAccessGateway()

Use this code-block to define your search criteria. It defines a list of query-arguments dictionaries. Each query-arguments dictionary will be used to perform a distinct search, whose results will then be concatenated.

• add/remove collections using the productType key (one per query-arguments dictionary)
• add time restrictions using the start and end keys (e.g. "start": "2020-05-01", "end": "2020-05-10T00:00:00Z", UTC ISO8601 format)(one per collection/dictionary)
• add spatial restrictions using the "geom" key (e.g. "geom": "POLYGON ((1 43, 2 43, 2 44, 1 44, 1 43))" WKT string, a bounding-box list [lonmin, latmin, lonmax, latmax] can also be passed )(one per collection/dictionary)
• more query arguments can be used, see https://eodag.readthedocs.io/en/stable/notebooks/api\_user\_guide/4\_search.html?#Search-parameters

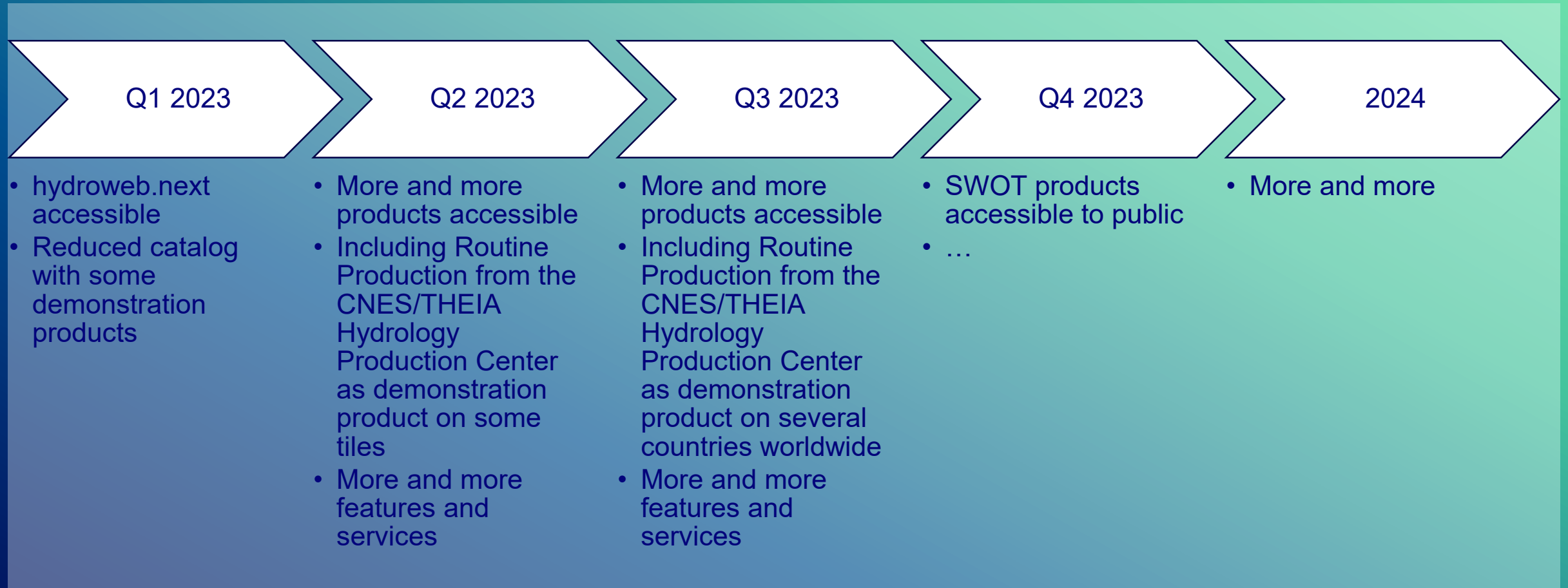
[*]: project_query_args = [
      {
        "productType": "HYDROWEB_RIVERS_OPE",
        "start": "2022-03-31T22:00:00Z",
        "end": "2022-05-01T21:59:59.999Z",
        "geom": "POLYGON ((-13.22 39.46,14.91 39.46,14.91 49.51,-13.22 49.51,-13.22 39.46))"
      },
      {
        "productType": "SWOT_L2_HR_RASTER_100M_SAMPLE_V1_2",
        "start": "2022-03-31T22:00:00Z",
        "end": "2022-05-01T21:59:59.999Z",
        "geom": "POLYGON ((-13.22 39.46,14.91 39.46,14.91 49.51,-13.22 49.51,-13.22 39.46))"
      }
    ]

project_search_results = SearchResult([])
for query_args in project_query_args:
    project_search_results.extend(dag.search_all(**query_args))
## This command actually downloads the matching products
downloaded_paths = dag.download_all(project_search_results)

Downloaded products: 47%
```



The python script is easy to use, easy to modify,  
You just need to install the *eodag* library once  
(available on github or with pip, conda).  
It is all explained in the script  
It also gives you access to all eodag features  
(other catalogs, useful tools)





Where

When

What

How

**Starting January 2023: go to <https://hydroweb.next.theia-land.fr>**

Would you please help us shape the next release of hydroweb.next with more useful products and features ?

Become a beta tester : contact us on [hydroweb-ng@cnes.fr](mailto:hydroweb-ng@cnes.fr)