



# CLS in Fish-X project

For Earth, from Space

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Fish-X Project: 101060879  
co-funded by the European Union  
HORIZON-CL6-2021-FARM2FORK-01



# CLS 5 Strategic Sectors

## ENVIRONMENTAL MONITORING & CLIMATE



Vision: A **global** company sharing a common **passion**: to design and deploy **space-based solutions** so that we can **understand** and **protect** our planet and **manage** its resources **sustainably**.

## SUSTAINABLE FISHERIES MANAGEMENT



## ENERGY & MINING



## MARITIME SAFETY



## MOBILITY



# CLS NETWORK

**34**  
locations  
**900**  
employees



**CLS FRANCE**  
Toulouse (headquarters)  
Brest  
Bidart  
Lille  
Mediterranean

**SUBSIDIARIES**  
**KINÉIS** Toulouse  
**FULCRUM** London  
**NOVACOM EUROPE** Amsterdam  
**TRE ALTAMIRA** Milano / Barcelona  
**METEODYN** Nantes

● SUBSIDIARIES ● CLS FRANCE ● OFFICES

# CLS solutions for fisheries



- + Ensure compliance of fishing industry with national and regional regulations (RFMO's)
- + Used by FAO (GFCM) and DG Mare
- + All ocean presence and compatibility

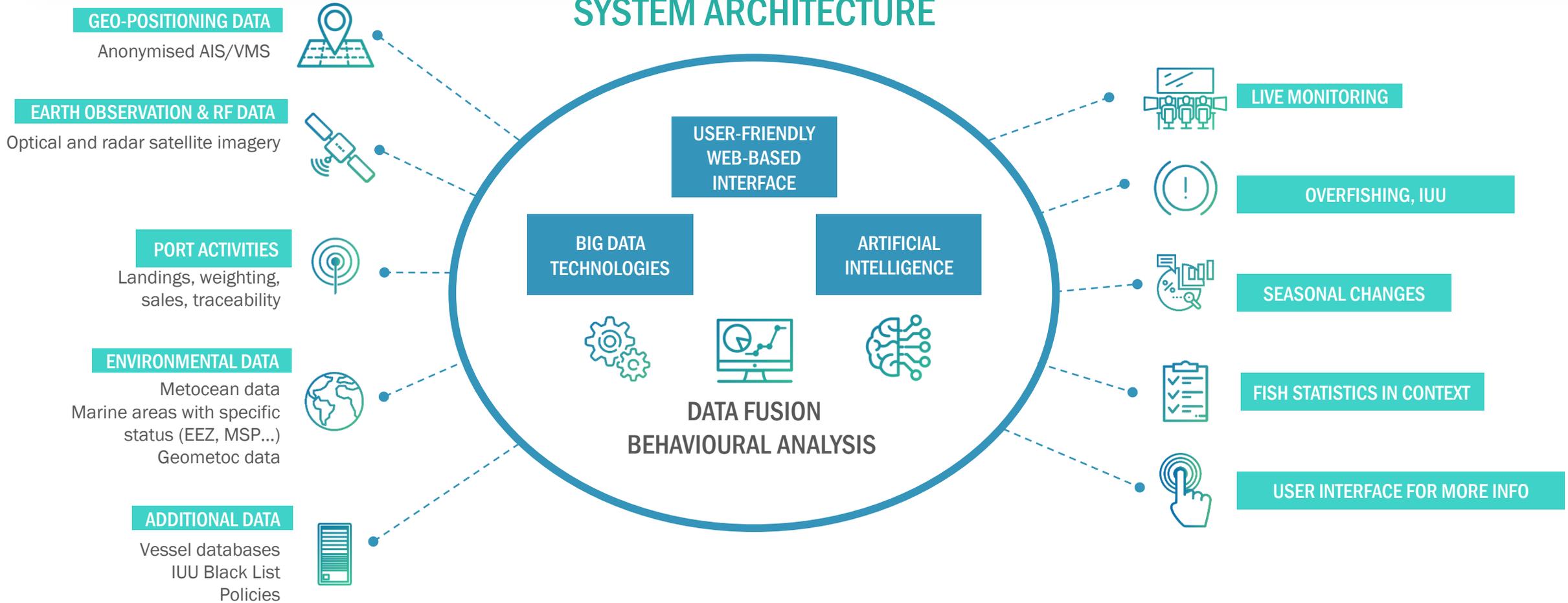
# Fish-X develops the Insight platform

## The online Insight Platform

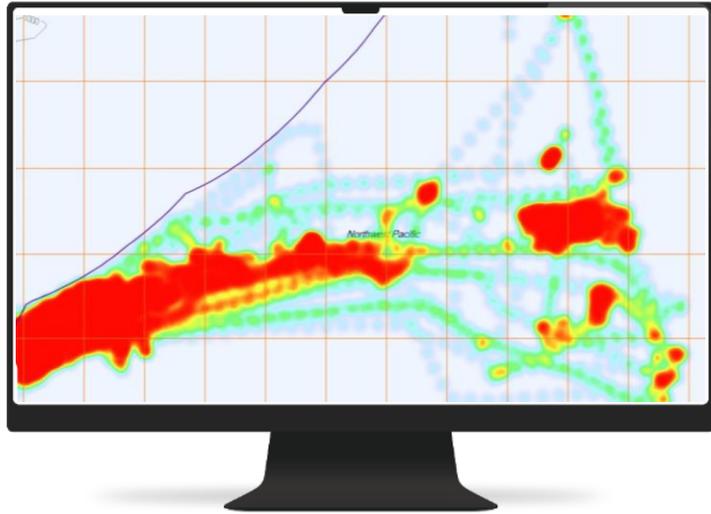
- Very simple user interface, no long menus, no need for user manual.
- Platform based on marine charts.
- Travel in space: zoom in and out to places of interest
- Travel in time: see how fishing is changing over seasons and years.
- Platform hosting various sources of fisheries data (fishing vessel distribution, fish stock status, others) ready for institutions, science, general audience.
- All data are aggregated to protect fishermen privacy (no vessel name or individual track will be displayed)
- No commercial use.
- Link to other systems: logbooks, landings, first sales, electronic declarations, observer data, traceability data from 3<sup>rd</sup> party systems.
- We are looking for partnerships by European companies and institutions to share data (near realtime or historical data)

# Fish-X Insight platform architecture

## SYSTEM ARCHITECTURE



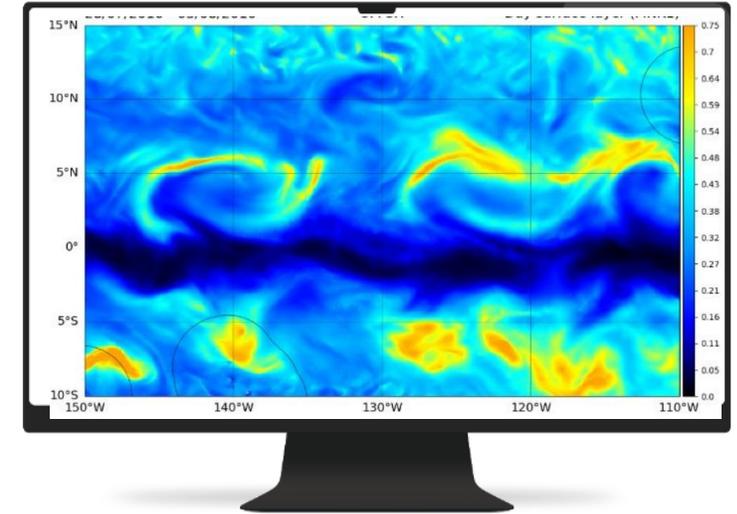
# Fish-X Insight platform data contents



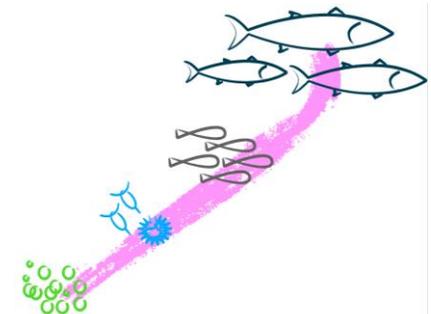
Aggregated fishing effort

## Examples of contents

- Vessel tracking data,
- Catch reporting,
- Reports on discards,
- Electronic Monitoring events
- Port operations,
- Monitoring of small-scale, recreational, and long-distance fleet,
- Fishing gear related information (tracking / in-situ data),
- Fish stock contextual data (biomass, level of sustainability)



Micronekton maps  
(food for large pelagic fish)



# Fish-X Insight platform to be benchmarked with Global Fishing Watch

The image shows a screenshot of the Global Fishing Watch (GFW) web application. The interface is in French. On the left, there is a sidebar with various filters and controls. The main area displays a satellite-style map of Europe and Africa, overlaid with a heatmap representing SAR (Synthetic Aperture Radar) detections. Two yellow circular markers with numbers '17' and '8' are placed on the map. A text box on the right side of the map contains the following text: "A major difference with GFW: no vessel identity will be displayed in Fish-X". At the bottom of the map, there is a timeline slider showing the period from 21 MARS 2022 to 10 JUIN 2022. The bottom right corner of the interface includes the text "NASA | Natural Earth | GADM".

Global Fishing Watch  
MARINE MANAGER

Erreur de pêche apparent

DETECTIONS

Détection de lumière de nuit ( )

SAR

MATCH  
True

detections  
0 200 1K 7K ≥10K

SAR Footprints

SAR

MATCH  
False

detections  
0 200 1K 7K ≥10K

SAR Footprints

NAVIRES

Les navires sélectionnés dans la recherche ou en cliquant sur la carte de chaleur apparaîtront ici.

ÉVÈNEMENTS

Encounter Events. (AIS)

ENVIRONNEMENT

Sea surface temperature

17

8

100 nm

21 MARS 2022 - 10 JUIN 2022

MARS 2022

AVRIL 2022

MAI 2022

JUIN 2022

NASA | Natural Earth | GADM

A major difference with GFW:  
no vessel identity will be  
displayed in Fish-X

# Initiate demonstrations with small scale fisher groups

Pilot projects with support of WWF and Sciaena in Greece, Croatia, Portugal.





Thank you for your  
attention

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