



## NextOcean: Earth Observation Services for Sustainable Fishing and Aquaculture

Pedro Ribeiro










## Legacy from e-shape

Deimos led the Water showcase, with 7 pilot applications

 e-shape's co-design framework allowed for including stakeholders needs in the development process and empowering them as 'co-owners' of the result

 Sustainability and communication transversal activities greatly supported different forms of commercial exploitation

 DIAS services limitations were not compatible with operational needs, both in terms of coverage and reliability

 Difficulty in accessing sensitive proprietary data hinders the accuracy and scalability of applications & services

Fishing services developed by Deimos in e-shape were integrated as commercial services within NextOcean



# e-shape

[e-shape.eu/](https://e-shape.eu/)  
[helpdesk.e-shape.eu/](https://helpdesk.e-shape.eu/)

4 years - 37 pilots  
EU contribution ≈ 15 M€

### SHOWCASES



climate



water



agriculture



ecosystem



disaster



health



renewable  
energy sources

Pilots

### Showcase 5 - Pilots

Pilot 5.1 | Improved historical water availability & quality information service

Pilot 5.2 | Satellite Earth Observation-derived water bodies & floodwater record over Europe

Pilot 5.3 | Dive - Diver Information on Visibility in Europe

Pilot 5.4 | Sargassum detection for seasonal planning

Pilot 5.5 | **Monitoring fishing activity**

Pilot 5.6 | EO based phytoplankton biomass for WFD reporting

Pilot 5.7 Rheticus® AquaculturePlus



The e-shape project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 820852

# EUROGEO WORKSHOP 2023



## Service Providers



## Technical Integration



## Business Development



## Alpha Users



NextOcean is working to co-develop a suite of Earth observation based services for **sustainable fisheries and aquaculture**.

Services will enable valuable insights into the performance and impact of operations to enable informed management decisions

[www.NextOcean.eu](http://www.NextOcean.eu)



@NextOcean\_EO



NextOcean-EO



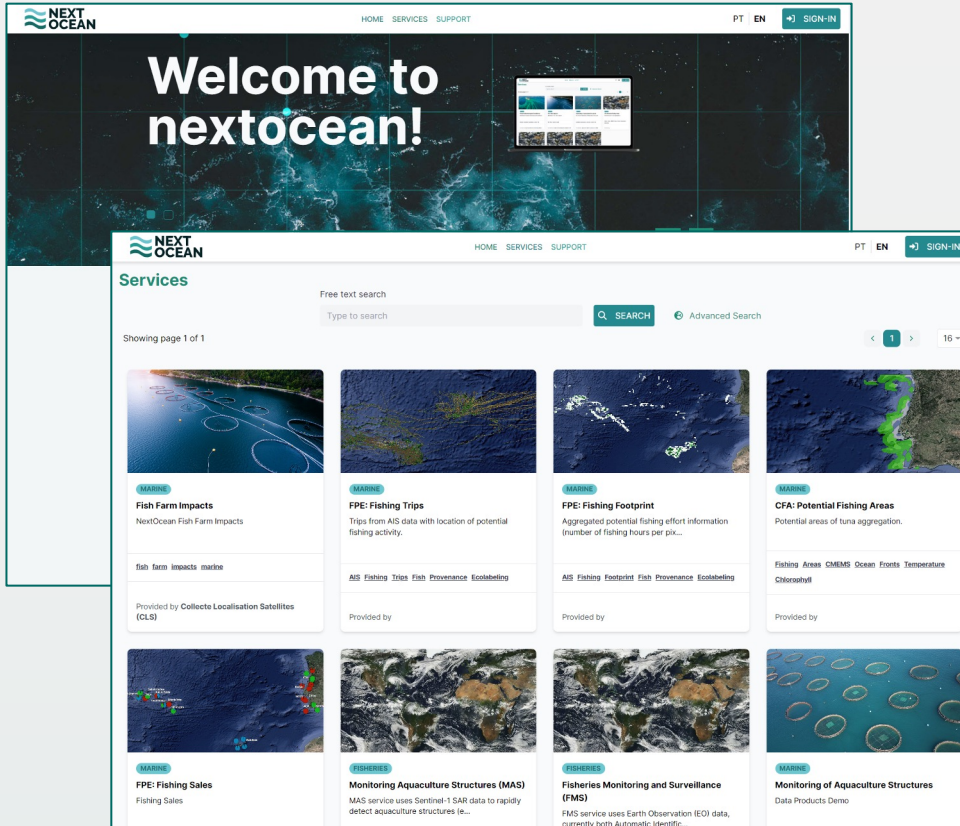
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**BOLZANO 2-4 OCTOBER 2023**





## NextOcean Store & Service Portfolio

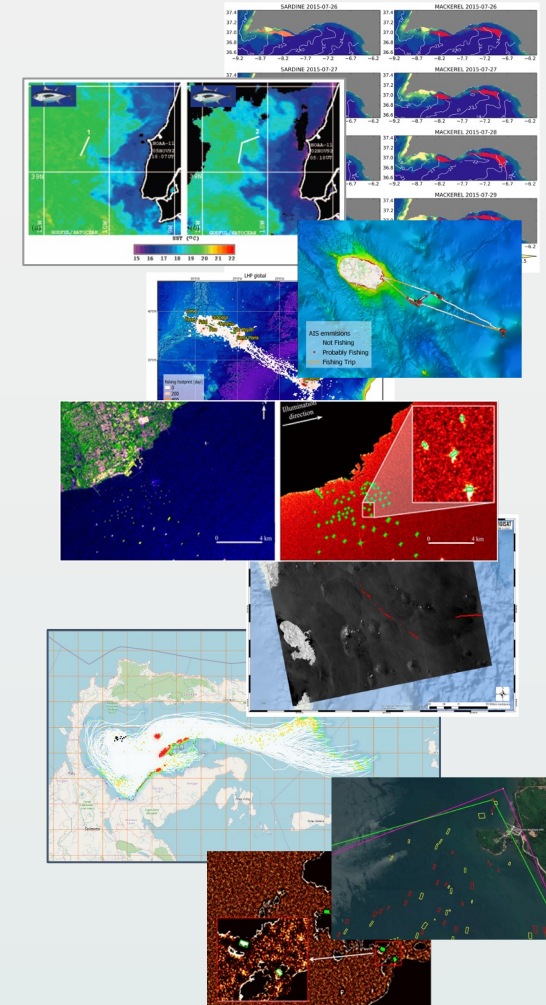


### Fisheries:

- Characterisation of Fishing Areas
- Fish Provenance and Ecolabeling
- Fisheries Monitoring & Surveillance

### Aquaculture:

- Monitoring of Aquaculture Structures
- Site Risk Assessment
- Fish Farm Impacts



<https://nextocean.services4eo.com>



## Value proposition

For the **consumers**:

A user-friendly one-stop-shop for quick access to a range of accurate, high resolution, up-to-date and competitively priced individual and bundled EO services with proven success in fishing and aquaculture.

For the **service providers**:

To provide a simple, automated platform, with low operating and sales costs, for selling individual or bundled EO services in fishing and aquaculture, reaching new customers globally.





## Key Methods & Tools

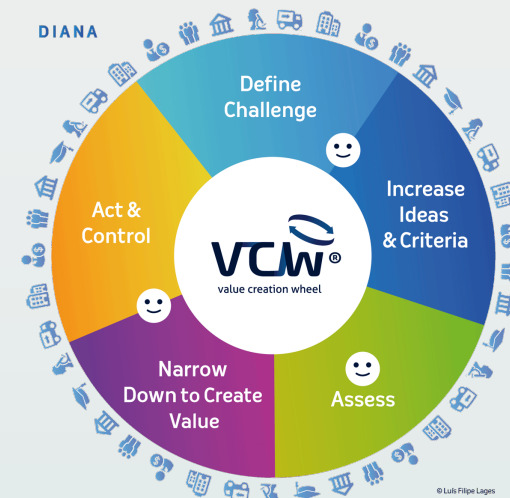
### Co-design with users



### EO exploitation platforms



### Value Creation Wheel





## Main challenges

- Technical framework
  - EO limitations (resolution, revisit time)
  - 24/7 operations in cloud infrastructure
  - help desk support





## Main challenges

- Technical framework
- Define business model and refine value proposition
  - target customers
  - legal framework
  - cost & pricing models





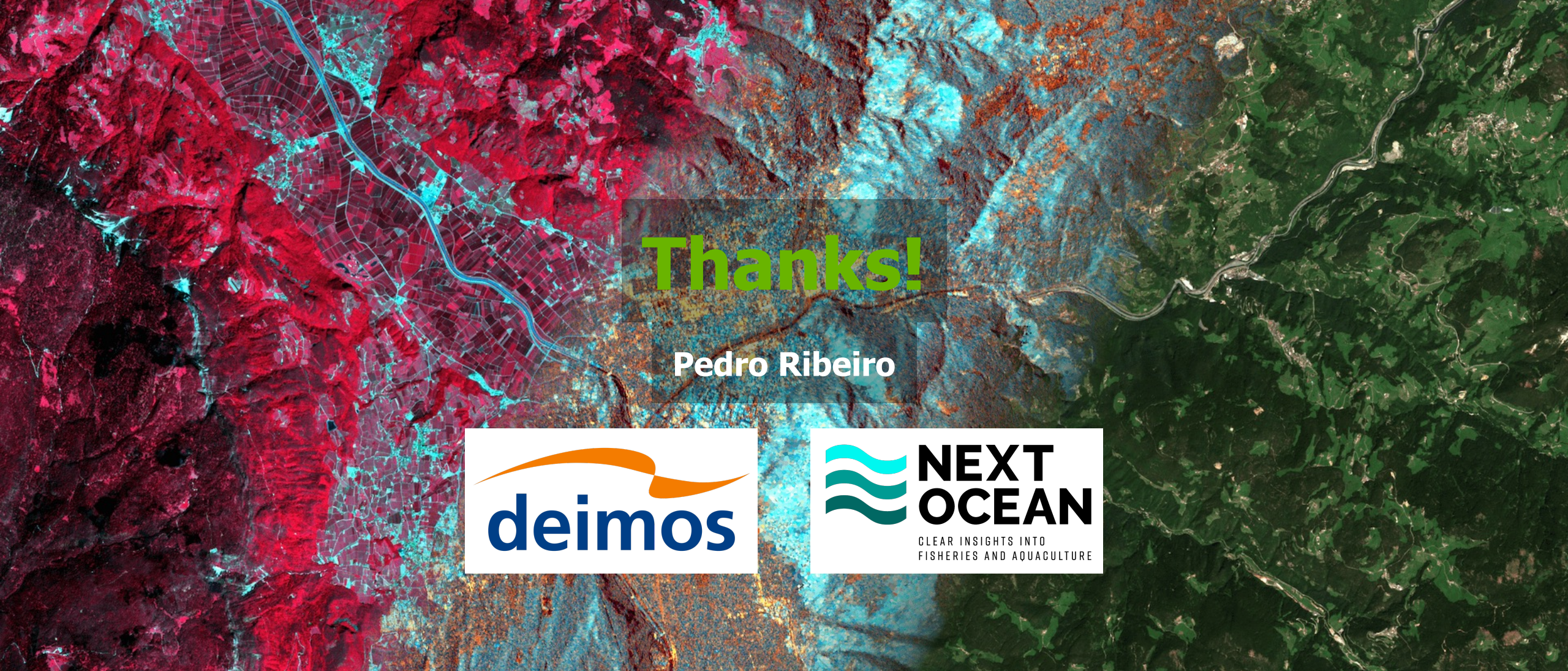


## Main challenges

- Technical framework
- Define business model and refine value proposition
- Bridge the “gap” between potential buyers and service providers
  - use cases definition
  - co-design methods
  - market segmentation & funding options
  - service customisation







# Thanks!

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