

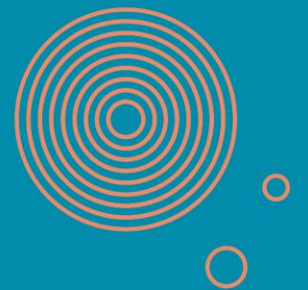
Passive acoustic observations of harbour porpoise

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Harbour porpoise (*Phocoena phocoena*)

- Smallest & most abundant cetacean in the Southern North Sea, distributed in northern shallow seas





Harbour porpoise (*Phocoena phocoena*)

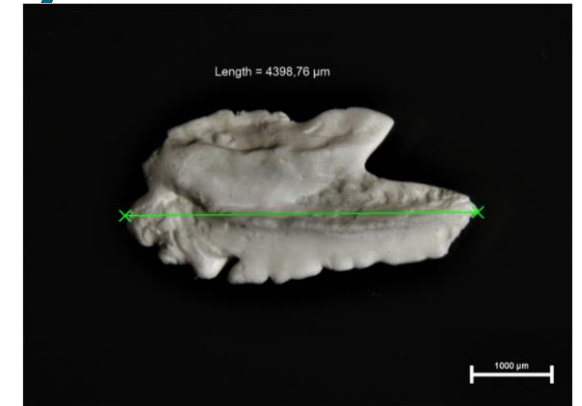
- Smallest & most abundant cetacean in the Southern North Sea, distributed in northern shallow seas
- Protected under national and international law
- Highly mobile
- Seasonal distribution
- Stranding: proxy for population size





Harbour porpoise (*Phocoena phocoena*)

- Top of food web
- Low fat levels: continuous feeding necessary
- Use echolocation for foraging, navigation,...
- Based on stomach content analysis
- Limited changes over time (1997-2018)
- Important seasonal differences
- Most likely to starve in summer
- (15% of stomachs empty)





Harbour porpoise: field observations



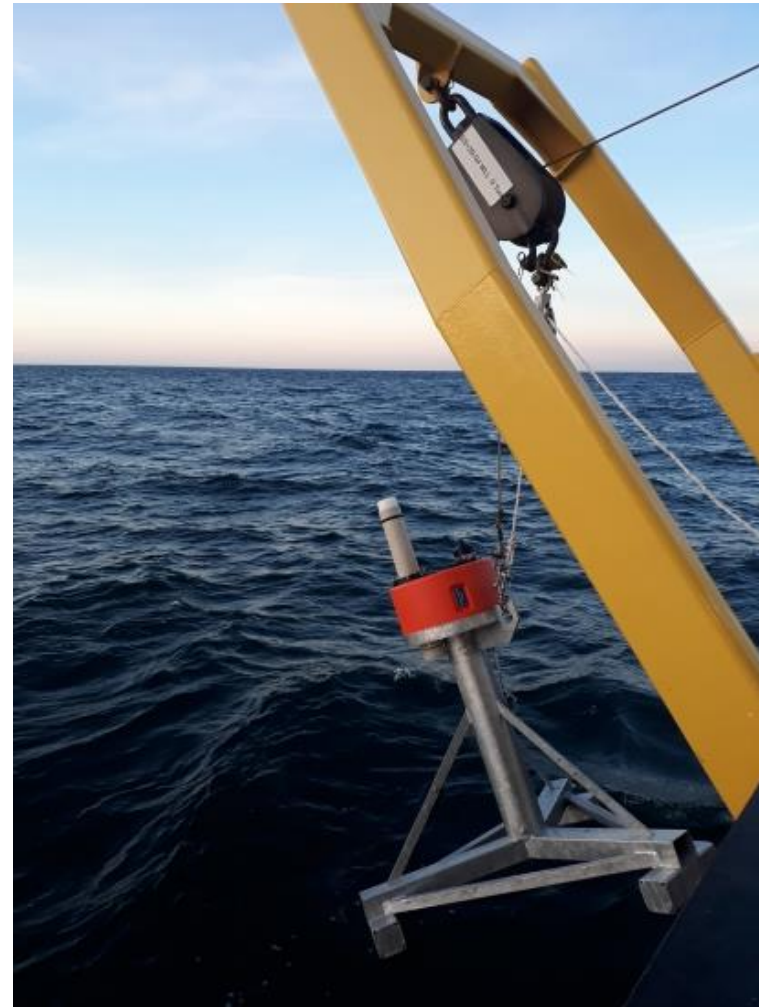
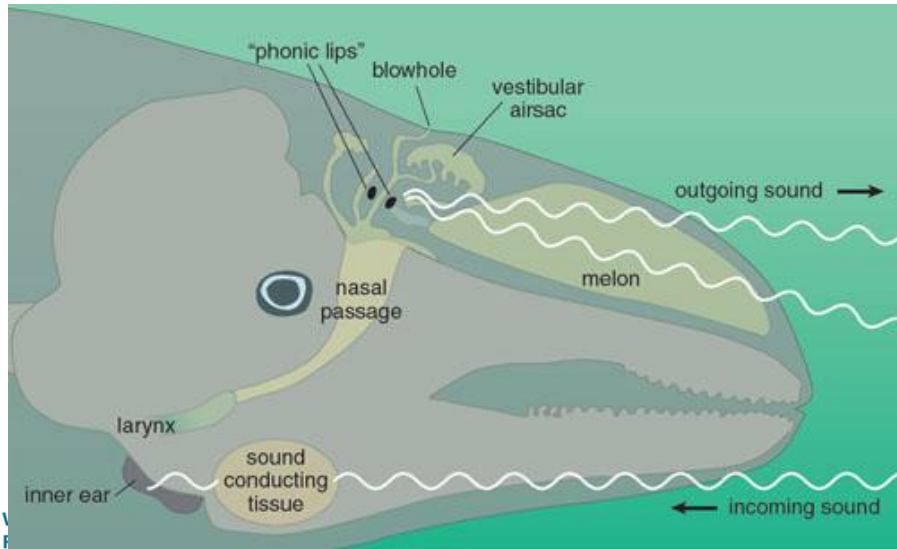
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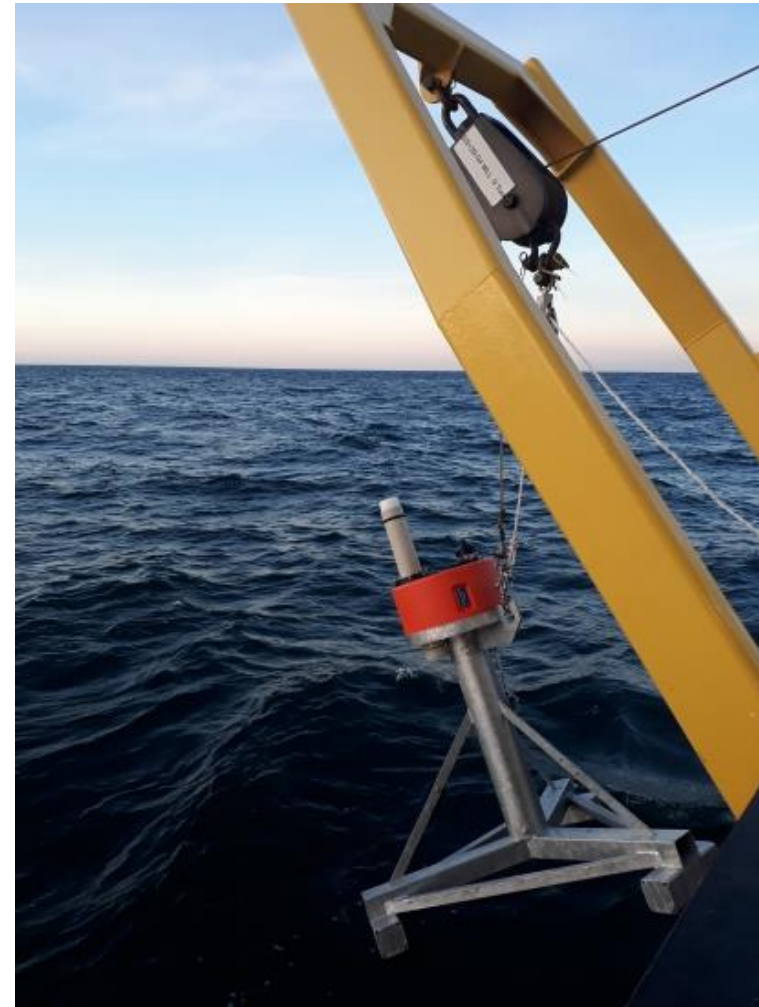
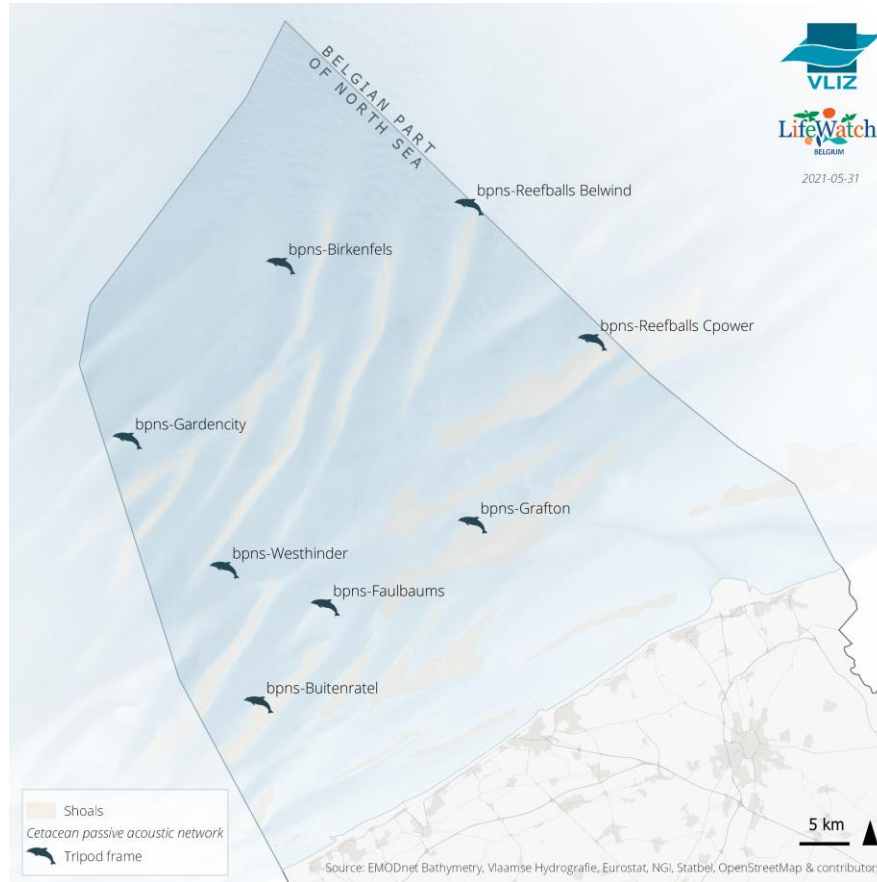
Harbour porpoise (*Phocoena phocoena*): Field observation

- Passive acoustic monitoring
- Echolocation: seeing by sound





Passive acoustic monitoring



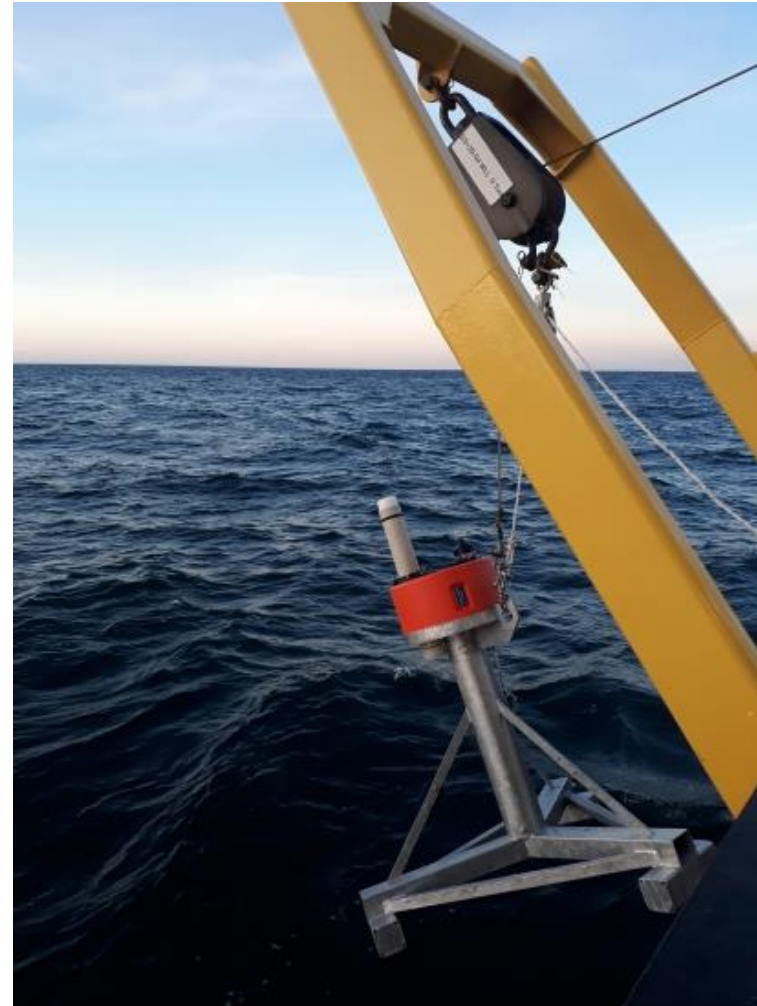
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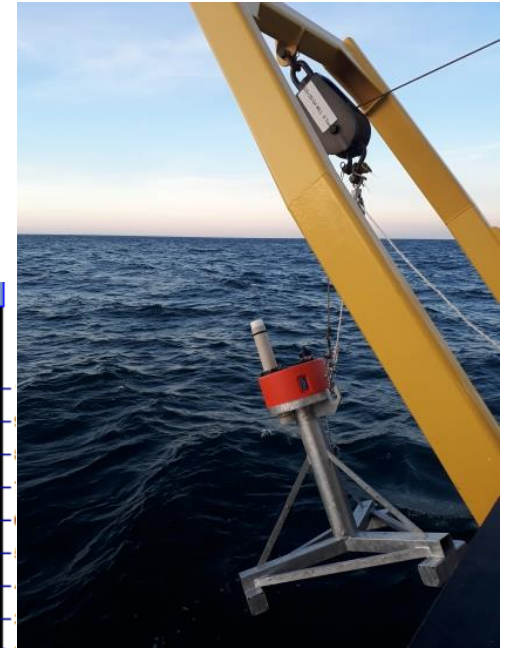
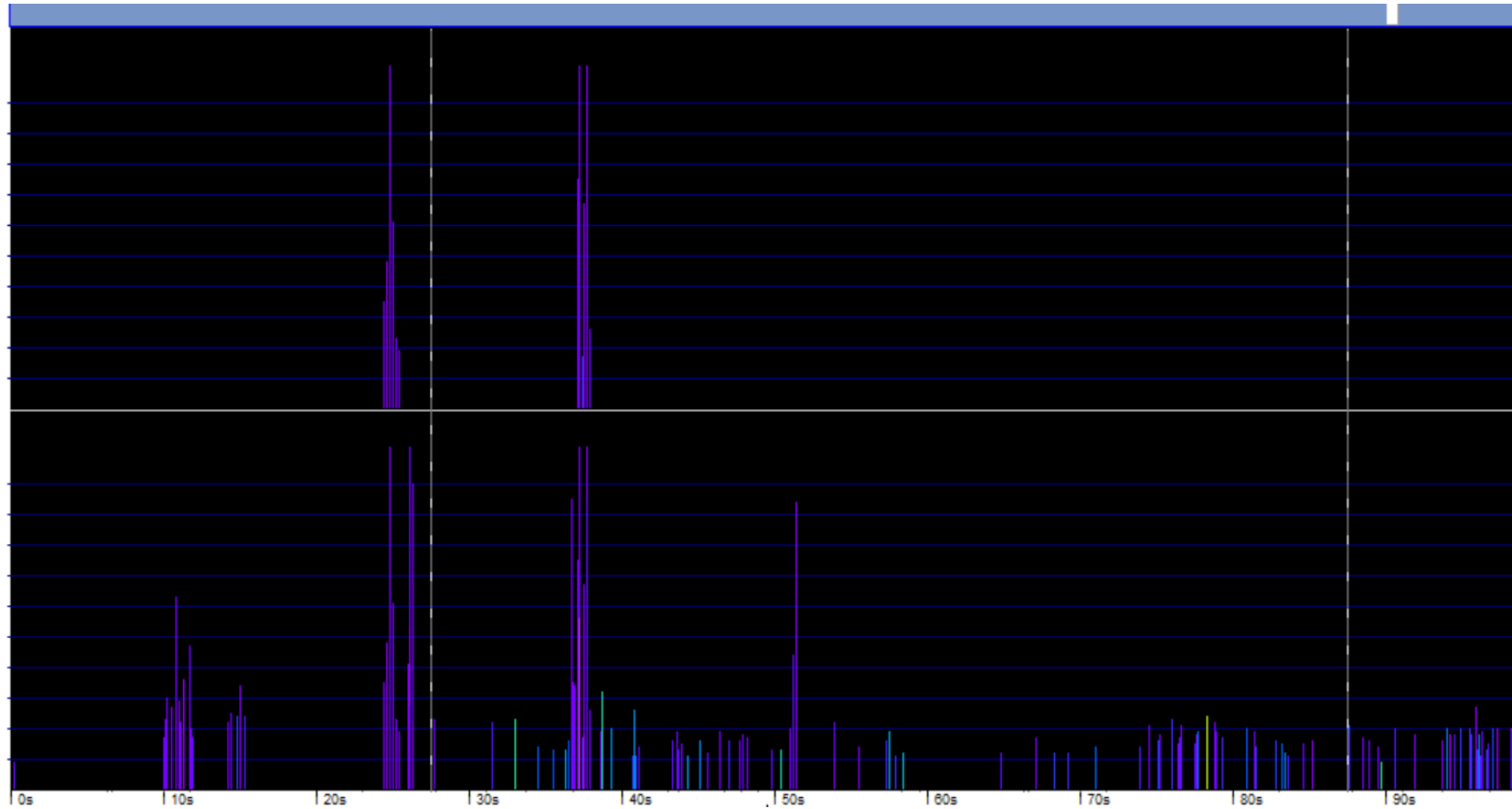
Passive acoustic monitoring

- click detector:
 - 4 months continuously logging
 - Parameters stored
- Output:
 - porpoise presence, dolphins, sonar
 - Feeding buzz ratio
- acoustic release = receiver for tagged fish
- Complete recovery of the mooring



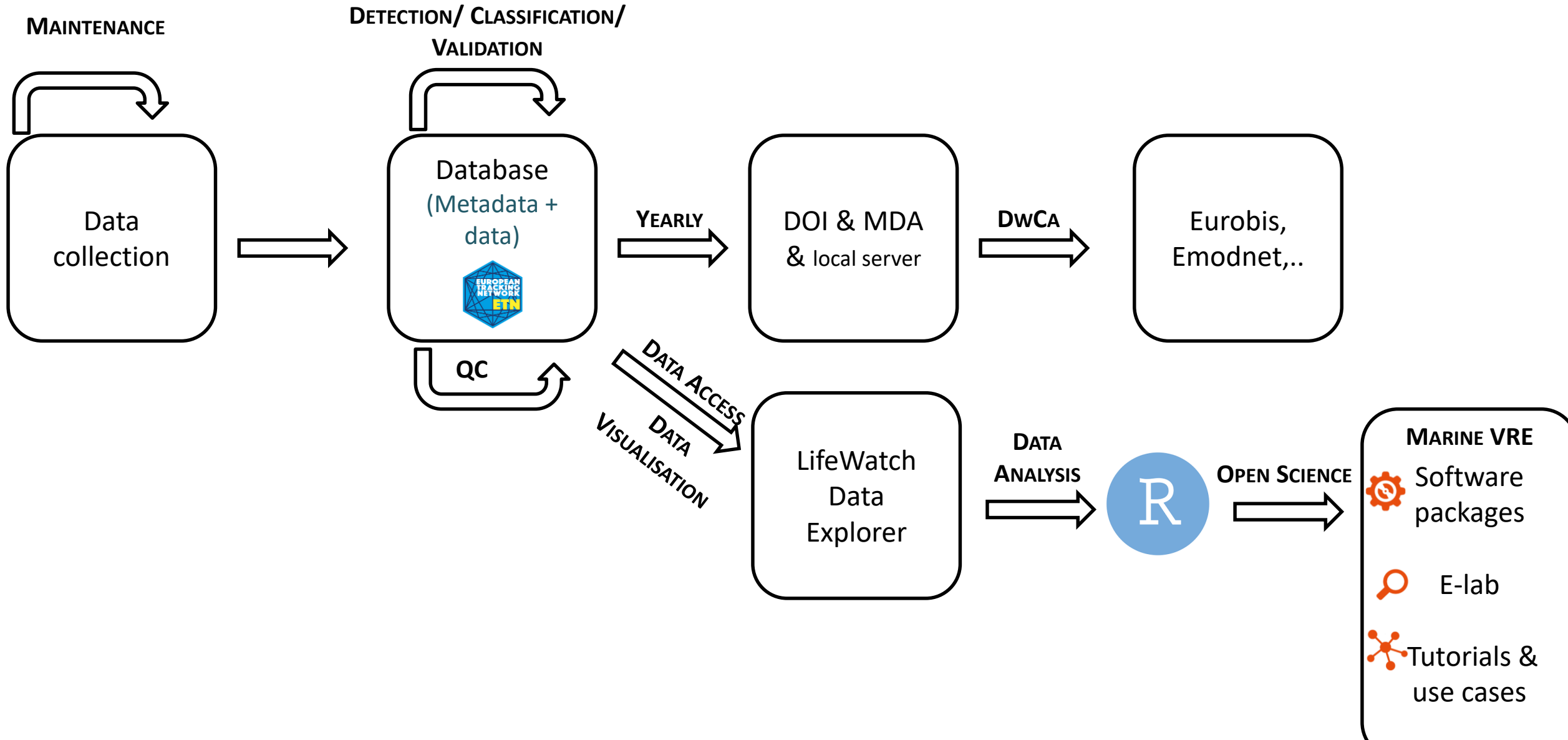


Passive acoustic monitoring



Cetacean passive acoustic sensor network: dataflow

Cetacean passive acoustic sensor network: dataflow



Online repository: ETN- Underwater acoustics

The screenshot displays the ETN web application interface for underwater acoustics. The browser address bar shows the URL <https://lifewatch.be/etn/cpoddeployments/9722>. The application header includes navigation links for Receivers, Deployments, Detections, Upload, and Files, along with user information for Elisabeth Debusschere.

Underwater acoustics Detection data upload

[Browse for files](#)

My processing queue (automatically refreshes every 30 seconds, or click [here](#))
This overview lists all file upload jobs created for you. Processing happens automatically, shortly after uploading the file.

File	Manufacturer	(UTC)	Status	Feedback
bpns-Reefballs-cpower 2021 06 23 POD2421 file01 file3 Sonar DetEnv.txt		2021-10-18 09:46	Success	Show logs
bpns-Reefballs-cpower 2021 06 23 POD2421 file01 NB DetEnv.txt		2021-10-18 09:46	Success	Show logs
bpns-Reefballs-cpower 2021 06 23 POD2421 file01 file3 NB DetEnv.txt		2021-10-18 09:45	Success	Show logs
bpns-Reefballs-cpower 2021 06 23 POD2421 file01 Sonar DetEnv.txt		2021-10-18 09:45	Success	Show logs
bpns-Reefballs-cpower 2021 06 23 POD2421 file01 file2 Sonar DetEnv.txt		2021-10-18 09:45	Success	Show logs

Showing 1 to 5 of 1,735 entries

Previous 1 2 3 4 5 ... 347 Next

Data visualization



Lifewatch data explorer

Data source

Map

Data table

Time plots

Plots





Lifewatch data explorer

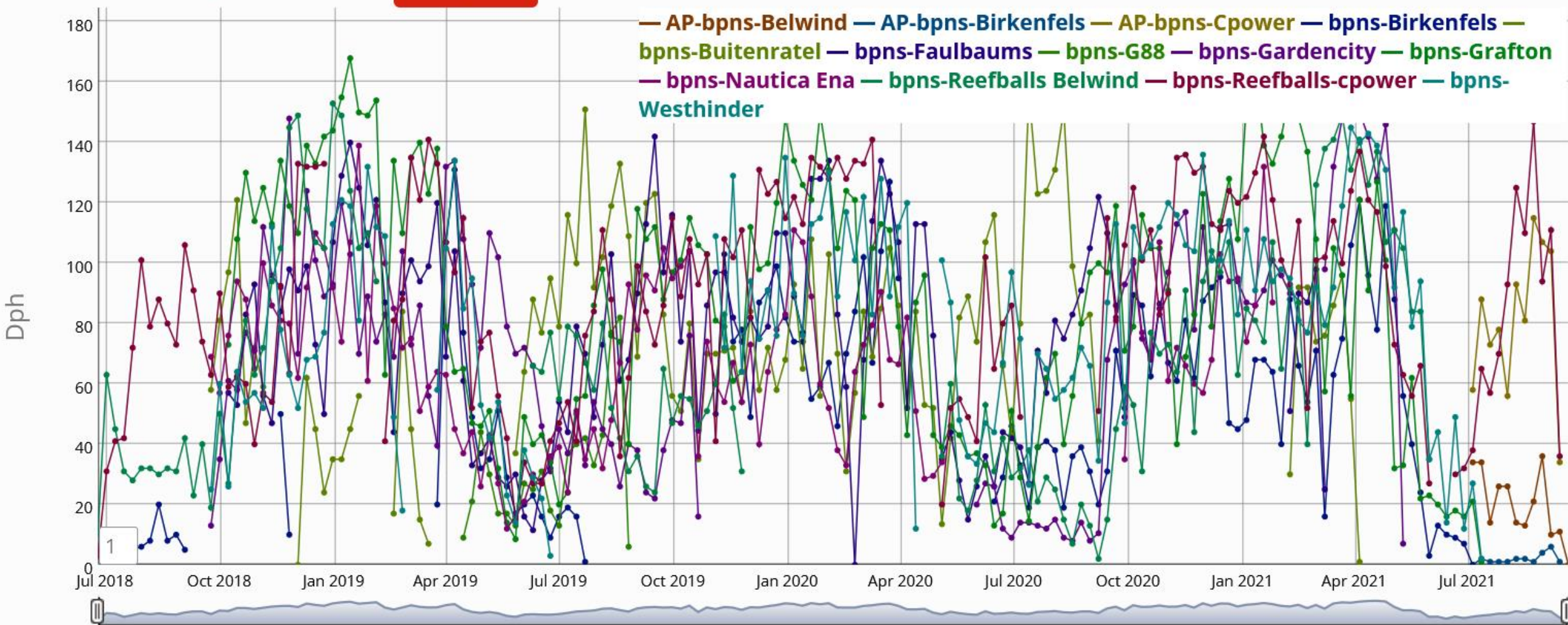
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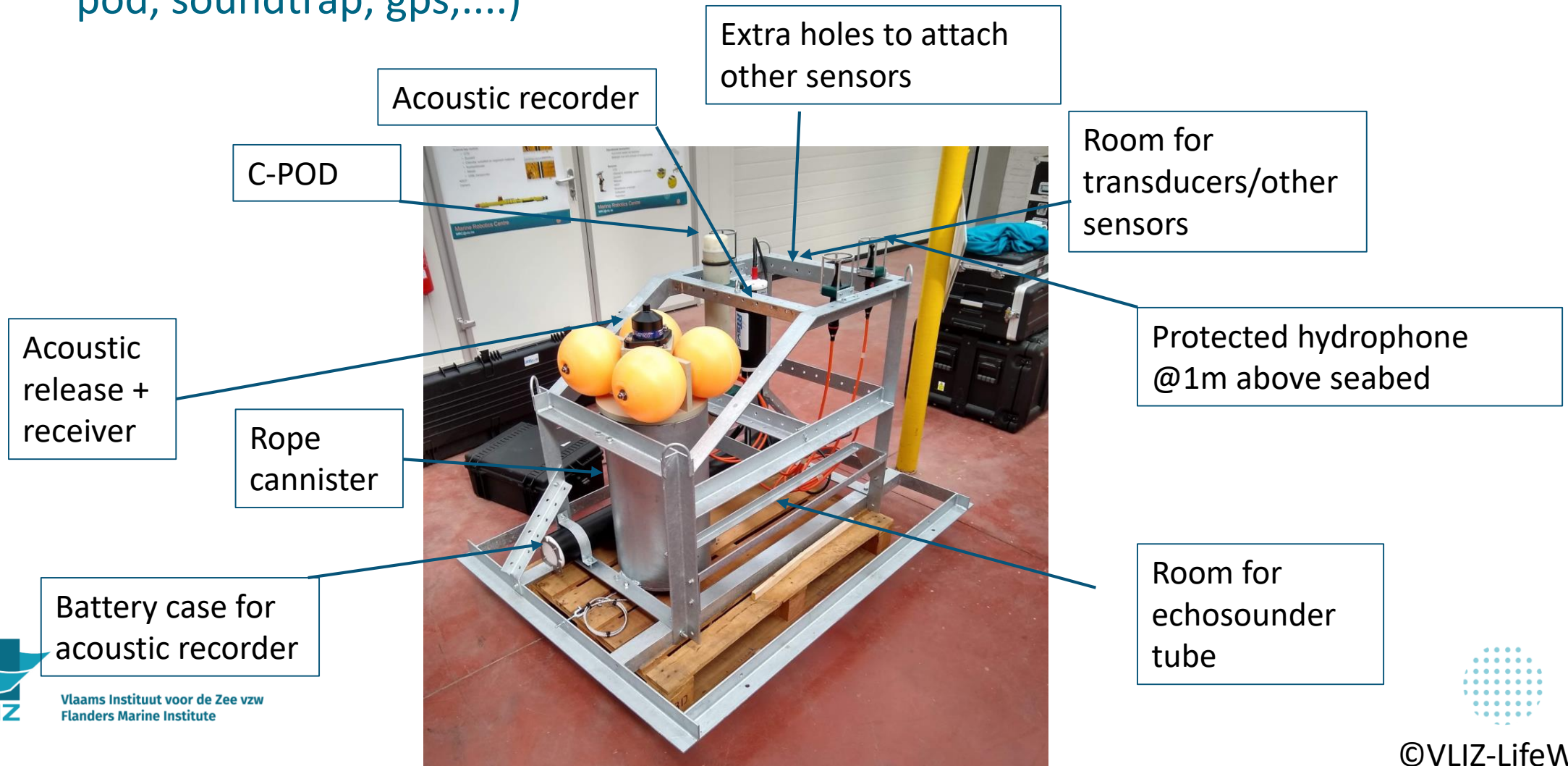
Plots





Vliz subsea Observatory Node

Multi-purpose mooring with acoustic release system for full retrieval. Frame has perturbations to attach all sensors necessary (adcp, hydrophones, echosounder, c-pod, soundtrap, gps,....)





Ongoing and future perspectives

- International and national collaboration
- Feeding behaviour of porpoise across the bpns
- Prey-predator interaction
-



Thank you for the attention



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