

What are the results
to date and where
are we going now?



Presenting SEAWise at NWWAC
March 15th 2023

SEAWise has received funding from the European Union's Horizon 2020
research and innovation programme under grant agreement No 101000318





Paving the way for the effective implementation of Ecosystem Based Fisheries Management in Europe

Beginning in October 2021 as part of EU's Horizon 2020 programme, SEAwise will work until September 2025 to address the four key challenges facing EBFM today:

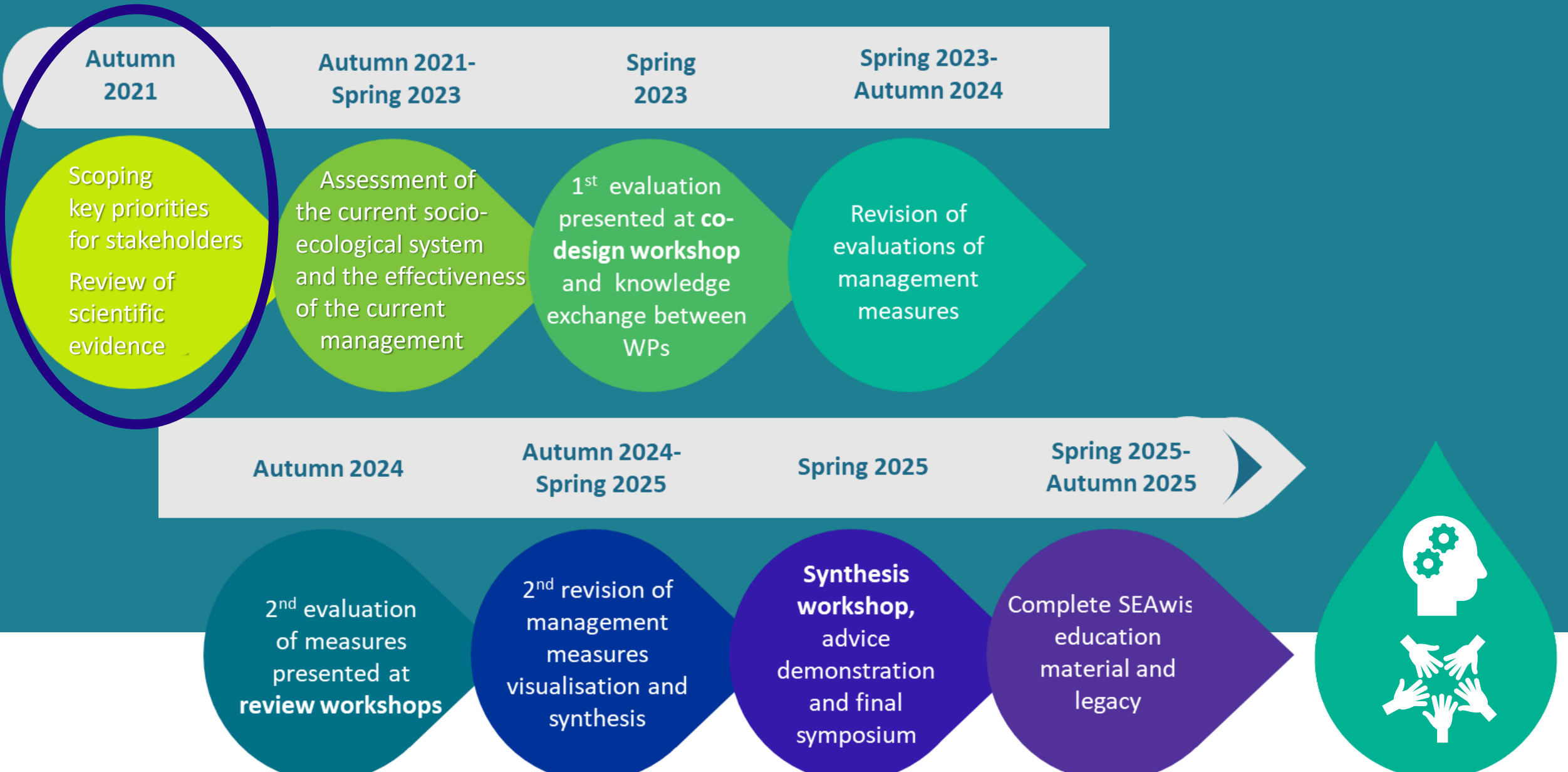
1.
Lack of end-user driven advice

2.
Lack of clear and widely accepted priorities

3.
Gaps in existing knowledge

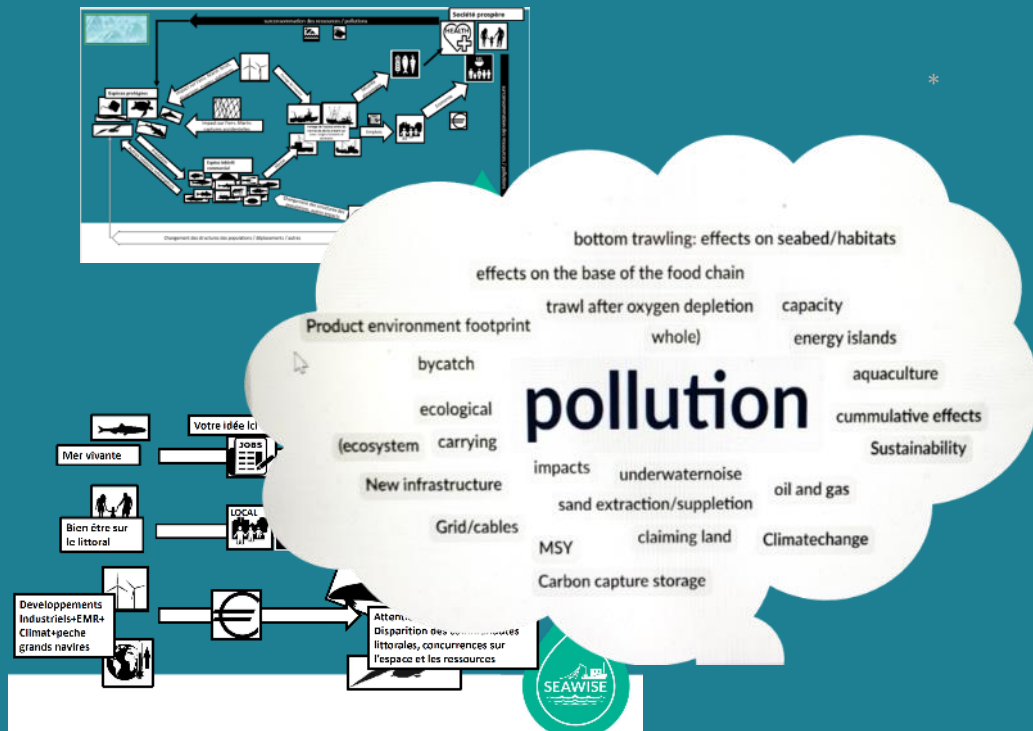
4.
Lack of accurate and adaptive methods

What's the timeline?



What came out of the scoping workshops a year ago?

- Individual and group input together
- LOTS of words!

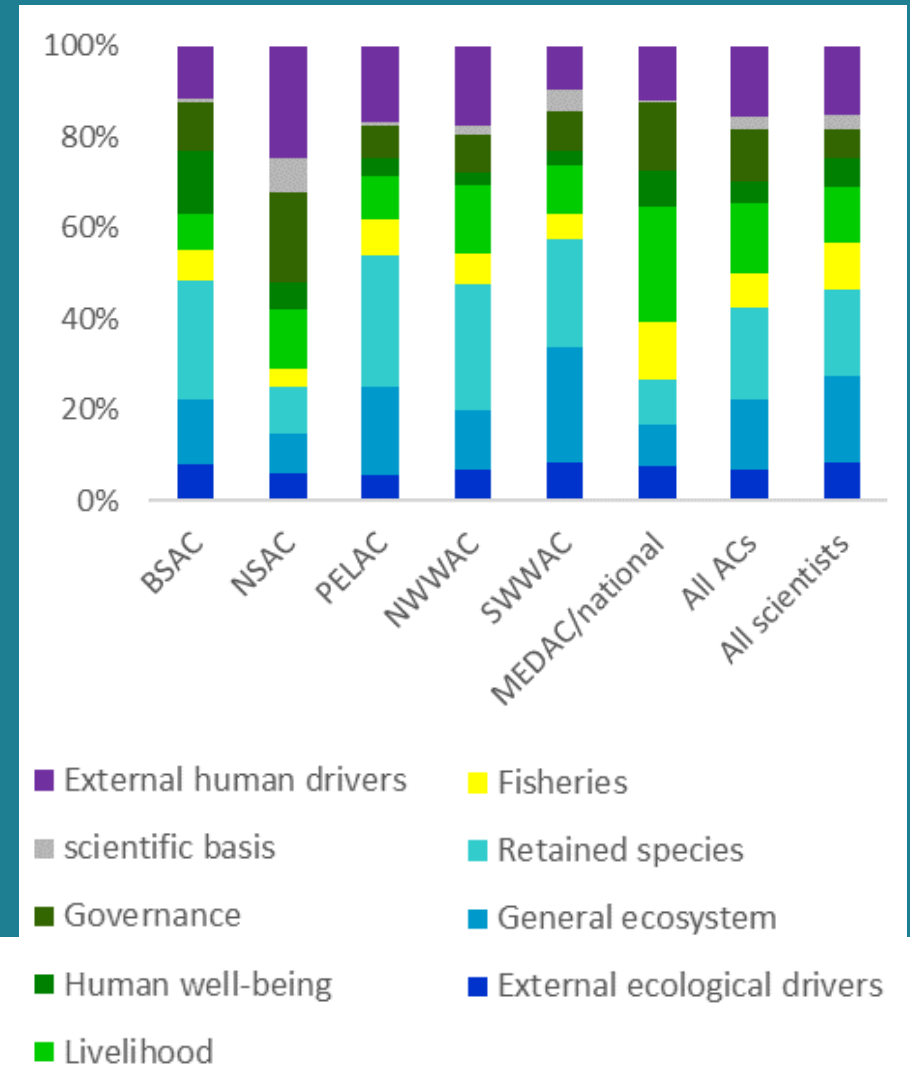
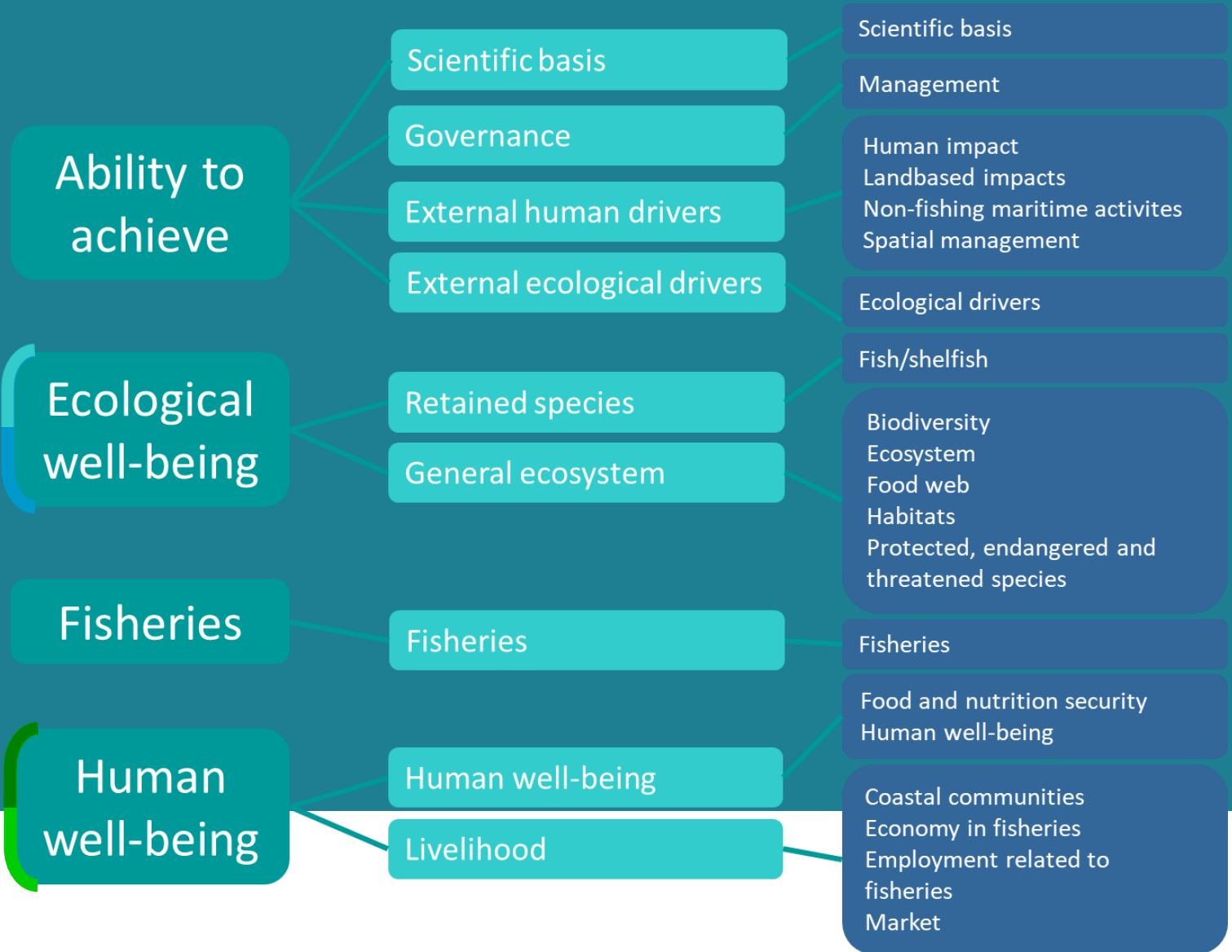


Management and governance
 windfarms
 spatial management
 MPA
 management&governance
 co-management
 management target
 catch management
 control and enforcement
 regulation
 Landing obligation
 ecosystem based management
 trade-offs
 technical measures
 Brexit
 directives&legal agreements
 3rd country fishers
 agreements
 compliance

Landbased and non-fishing maritime activities
 pollution
 litter
 human impact
 non-fishing maritime activities
 noise
 cables and pipes
 carbon emission
 energy
 sediment extraction/reposition
 carbon storage
 landbased impacts
 seismic activities
 aquaculture
 industry
 infrastructure&land claim
 mining
 acidification
 artificialization

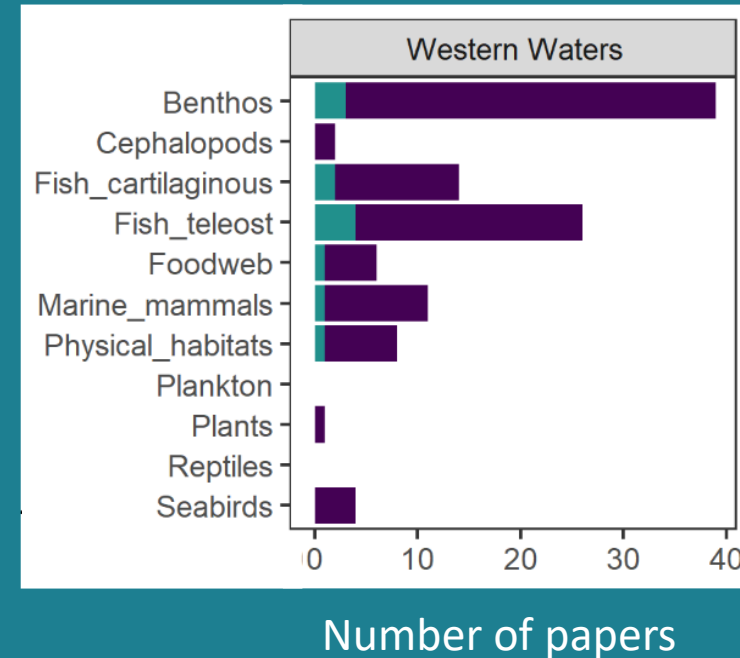


Making sense of 2747 words: classifying them into FAO groups



Does this match the available science?

- Papers and scoping both had climate, fished stocks and MPAs in the top recorded issues
- Bycatch was frequent in scoping but not in papers
- Economic aspects with paper support were landings value, profit, fuel costs, revenue and economically viable fishing
- Windfarms, other non-fishing activities, pollution and food supply/food security were frequent in scoping but not in papers

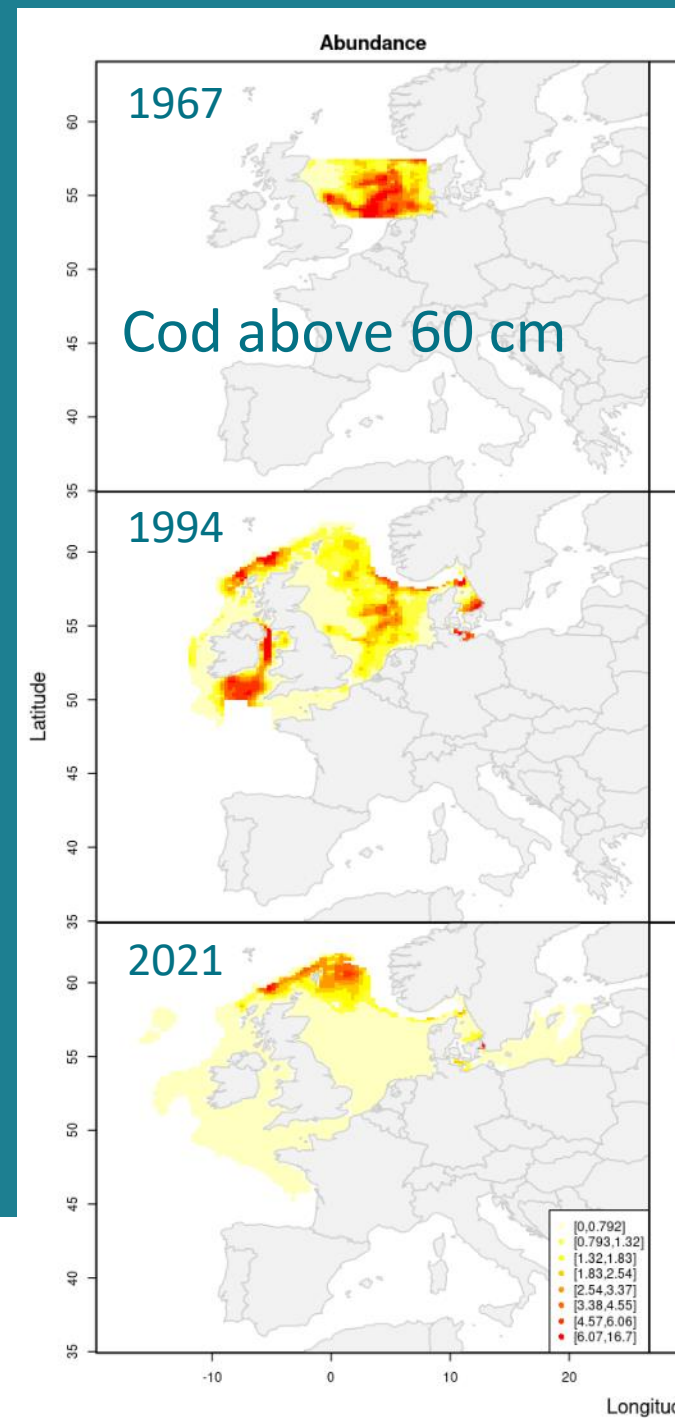


- Find the reports here:
<https://seawiseproject.org/seawise-results/>



What else have we been doing since then?

- Evaluating the efficiency of the current management in attaining objectives - <https://seawiseproject.org/seawise-results/>
- Setting up methods to evaluate how good our models perform
- Improving modelling of:
 - Effects of fish on human health, of management on economic performance of fishing fleets and of fisher behaviour on catches
 - Effects of climate and density on productivity of fished stocks
 - Effects of fishing on bycatch, benthic habitats, food webs and litter
 - Predictions of whether all targets can be attained at the same time
 - Spatial distribution of fish and fishers
- Choosing cases and getting ready to show the results to end users



WHEN will there be something more tangible to discuss?

- 18 deliverable reports to the Commission due on April 1st 2023

D1.3.1 Report on requirements for transparency and quality control

D1.4 Report guidelines for treatment of variance in forecasts, structural uncertainty, risk communication of and acceptable

D1.6.1 implementation of the EBFM and remaining knowledge gaps throughout the project

D2.2 Carbon footprint, economic and social impacts of management strategies

D2.7 requirements for fisheries governance to be effective

D2.9 health impacts of different fish and fish sizes

D3.2 improved predictive models of recruitment under different environmental scenarios

D3.4 improved predictive models of growth, production and stock quality

D3.6 improved predictive models of natural mortality

D3.8 effects of environmental and ecological factors on stock productivity for online tool

D4.2 bycatch mortality risk of potentially endangered and threatened species of fish, seabirds, reptiles and mammals

D4.4 spatiotemporal benthic effects of fishing on benthic habitats relative to suggested reference levels, both with respect to area impacted and impact intensity

D4.6 effects of fishing on food webs and community diversity aimed at populating the MSFD Descriptor 4 and based on food web and end-to-end modelling

D.5.2 Report on historic and future spatial distribution of fished stocks

D.5.3 fisheries spatial distribution responding to climate-related factors and ecological change

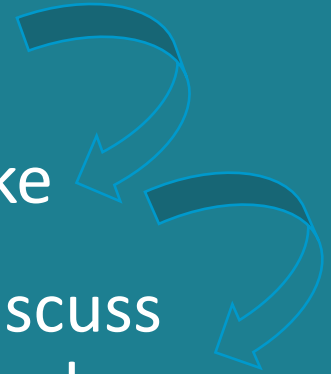
D.5.4 effect of changes in habitat on productivity of fished species

D6.1 Report on the key interactions in European socioecological systems



WHEN will there be something more tangible to discuss?

- 18 deliverable reports to the Commission due on April 1st 2023
- We will make **examples** of how Ecosystem Based Advice can look like
- These will form the basis of a **virtual workshop across regions** to discuss which changes are required to make the presented scientific data and advice useful to you and other users
- We will be in touch with Mo and Mathilde to avoid clashes with already planned NWWAC events



The true experts on the usefulness of advice are the recipients



Thank you for your input
to help us target our
work on advice that is
meaningful to end users!

<https://seawiseproject.org/seawise-results/>





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What does participating in the network entail?

SEAwise network participant(s) within NWWAC are invited to the four SEAwise co-design workshops:

January 2022: Stakeholder scoping of key ecosystem priorities and measures

June 2023: 1st presentation of management strategy evaluation results

Autumn 2024: 2nd presentation of management strategy evaluation results

Spring 2025: Synthesis and advice demonstration in Brussels






We also hope you will attend the SEAwise/ICES/GFCM workshops to determine best approaches to EBFM in autumn 2023 and winter 2025.

Between these meetings, “expert advice users” are invited to comment on key priorities and formats for advice, welcome us to your meetings, attend online meetings, or participate in specific interviews.



**End-user
driven
advice**

What are we working on?

Region	Fisheries evaluated for social and ecological impacts	Fished species evaluated for environmental and health impacts	Ecological effects	Spatial components
Western waters	  <p>Celtic Sea small and large otter trawlers and beam trawlers Bay of Biscay trawlers, longline, gillnet, purse seine and small scale fisheries</p>	 <p>Hake, nephrops, haddock, cod, whiting, anglerfish, megrim, sole, herring, sprat, anchovy, seabass, mackerel, horse mackerel, blue whiting.</p>	 <p>Benthic impact, seabird (great shearwaters and northern gannets), dolphin, elasmobranch and sensitive fish bycatch, food webs, fisheries litter</p>	 <p>Effects of spatial fishing restrictions (Brexit, discard avoidance, habitat protection) and fish distribution changes on Social and Ecological fisheries impacts. Effects of local non-fishing disturbances on stock productivity.</p>

Examples

Climate change impacts

- Productivity
- Food webs
- Biodiversity

Marine spatial planning

- Windparks
- MPAs

Fishing impacts

- Trawling on seabed
- Sensitive PETs

The Western waters