







Ready for industry-led pelagic acoustic surveys?



 **Small Pelagic Fish:
New Frontiers in Science
and Sustainable
Management**
November 7 - 11, 2022
Lisbon, Portugal

ENDORSED BY
    
2021 United Nations Decade
of Ocean Science
for Sustainable Development
2030

Steven Mackinson
Chief Scientific Officer

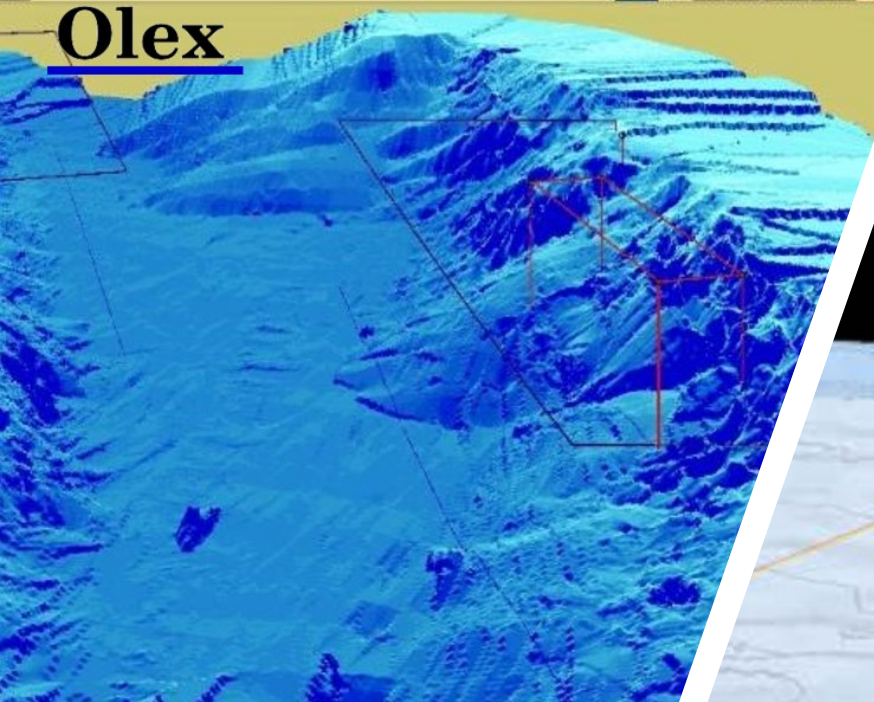
SPFA 
SCOTTISH PELAGIC
FISHERMEN'S ASSOCIATION



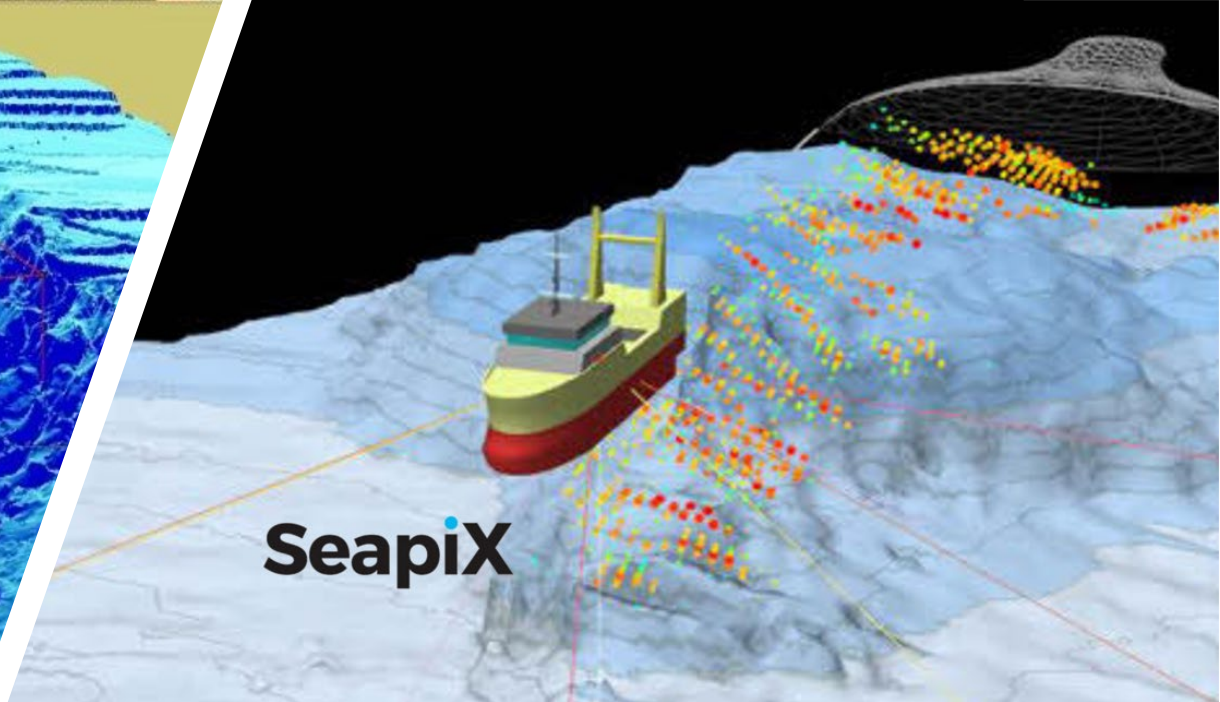
Point 1. Pelagic vessels are good acoustic research platforms



Olex



SeapiX

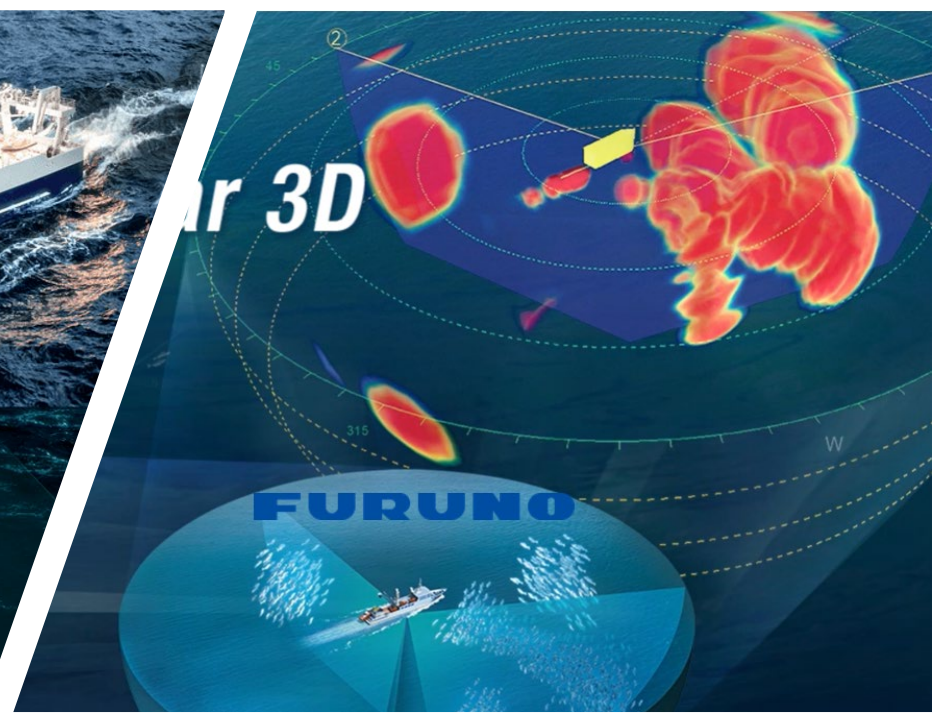


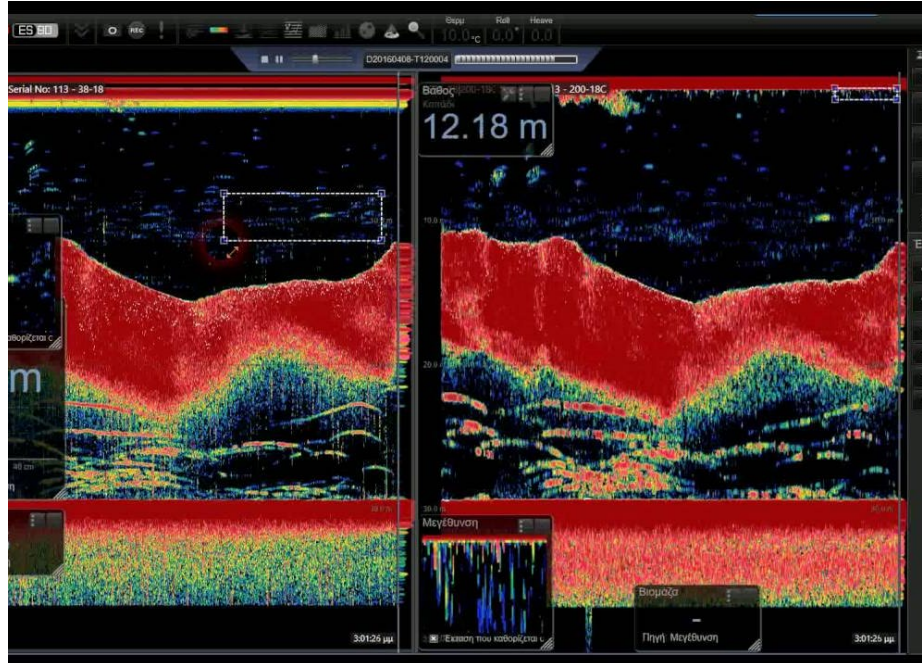
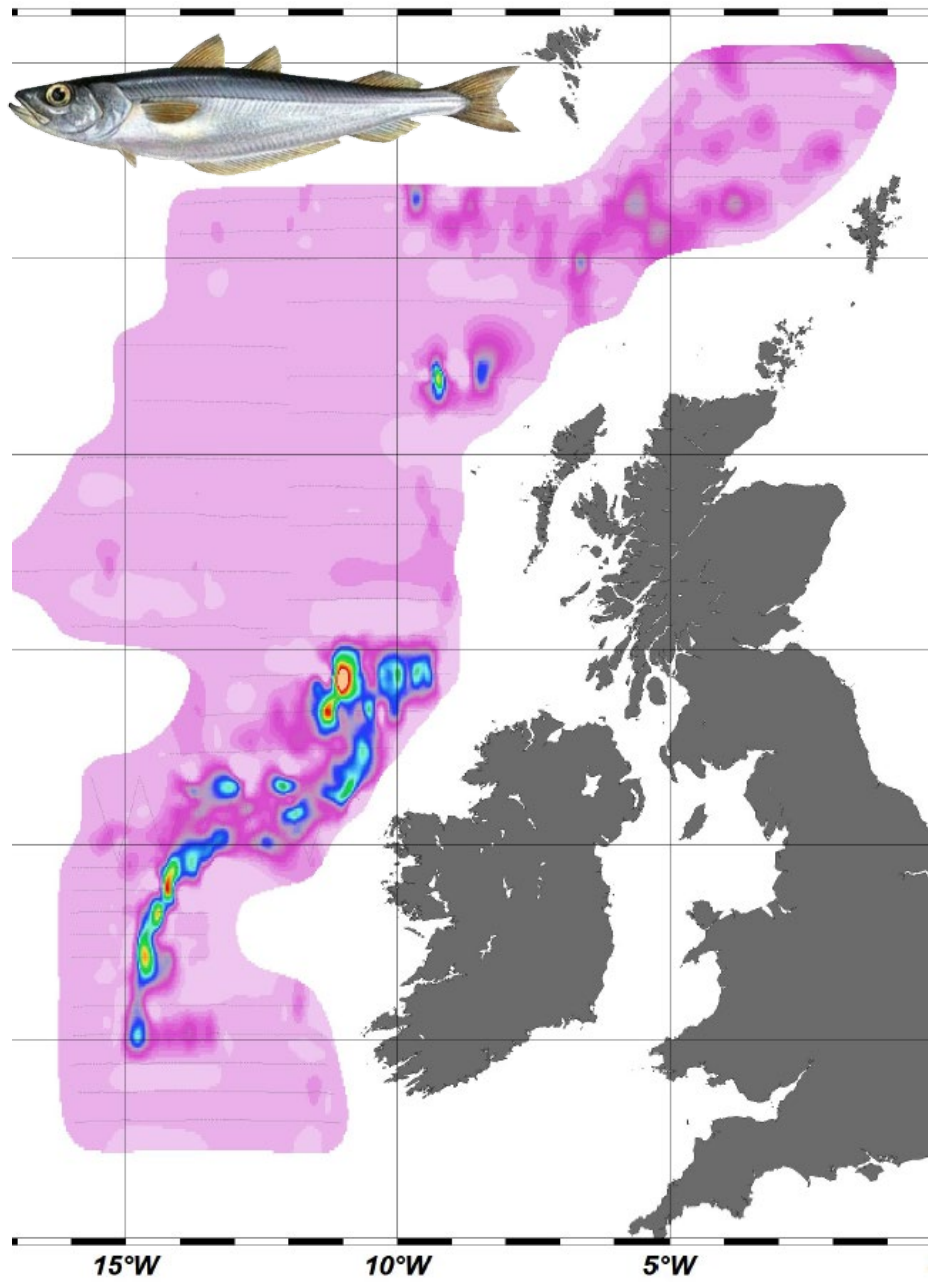
SIMRAD
SN90



Mr 3D

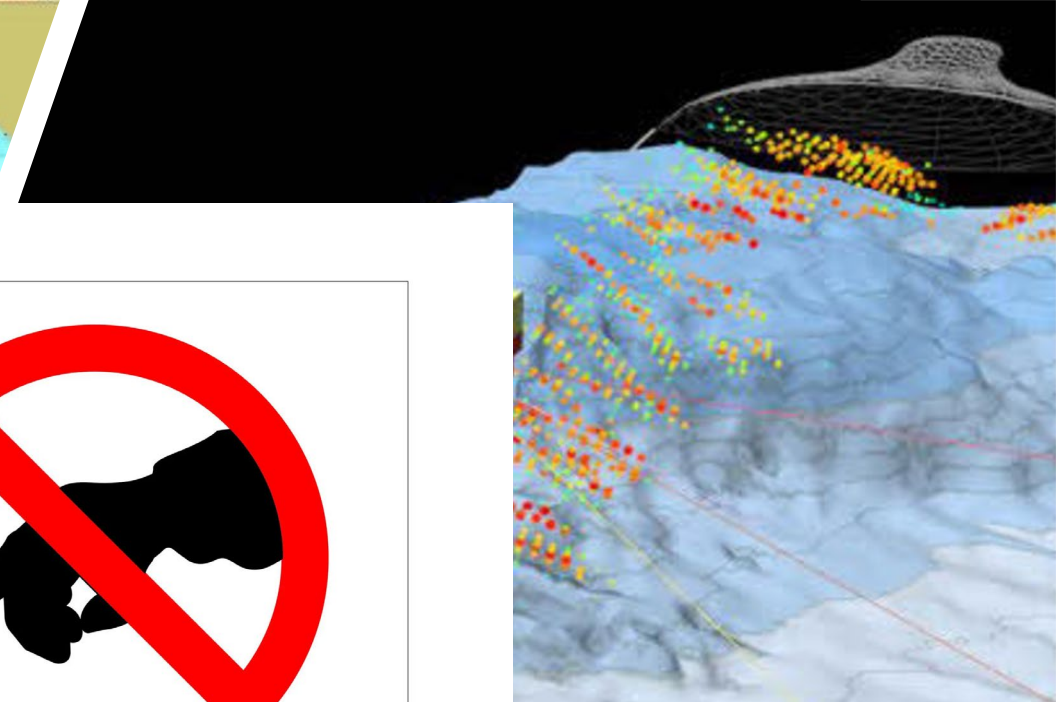
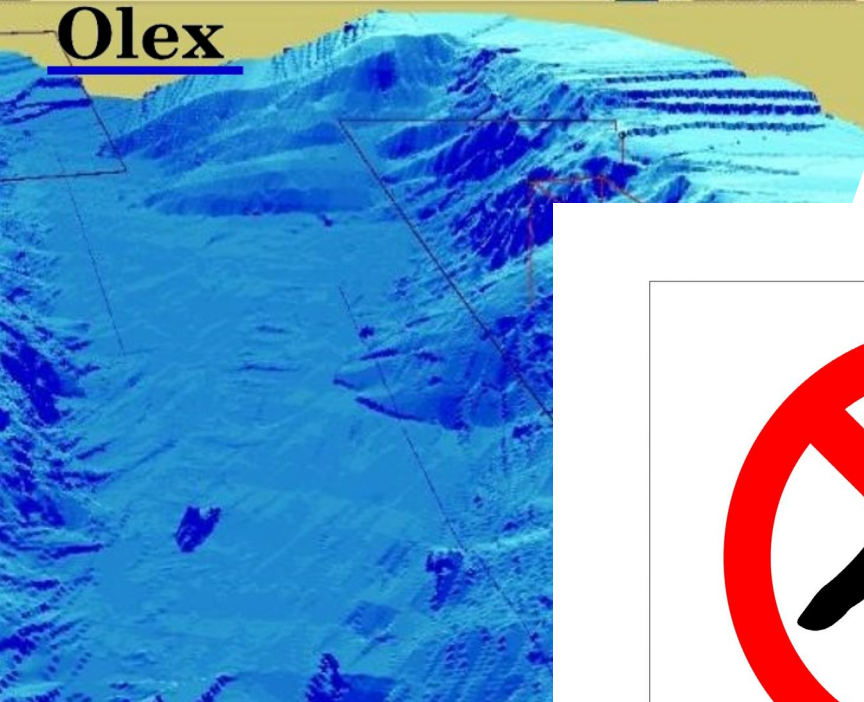
FURUNO



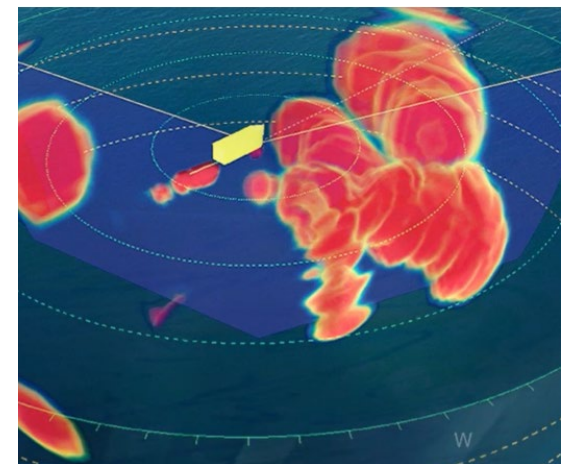


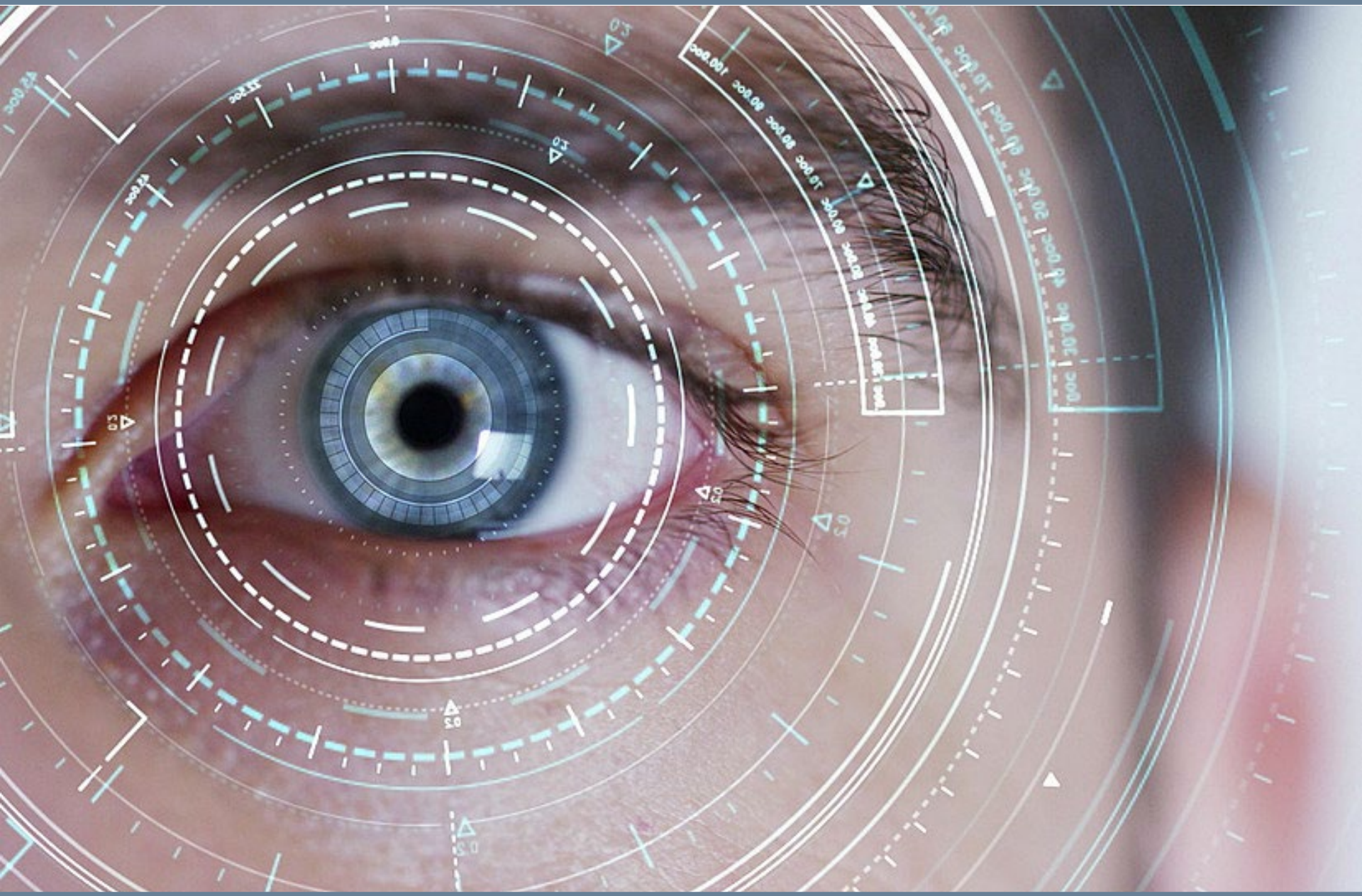
SIMRAD
ES80
=EK80

Olex



Do not touch





Point 2. Pelagic skippers are skilled professionals keen to learn



For the following reasons:

- They want to be good at their job!
 - Efficiency = £
 - Skill = kudos
- 'Scientific-fishers' - experiment and want to understand
- Naturalists at heart



BORN TO FISH.

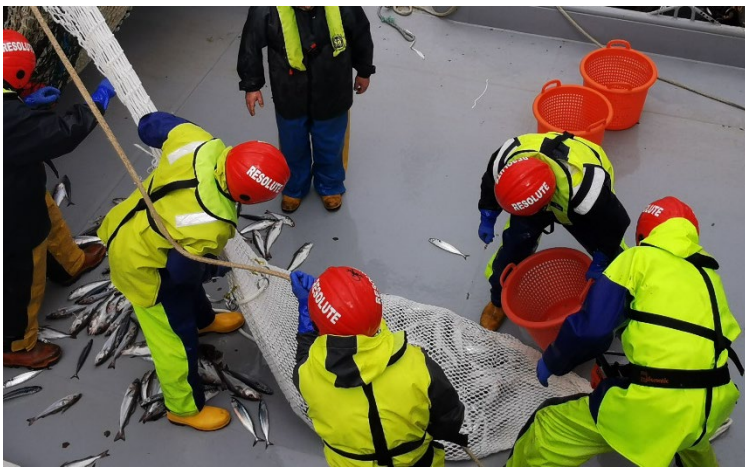
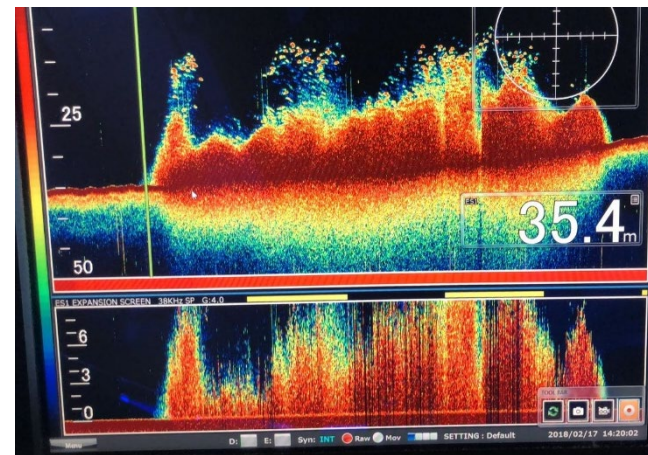
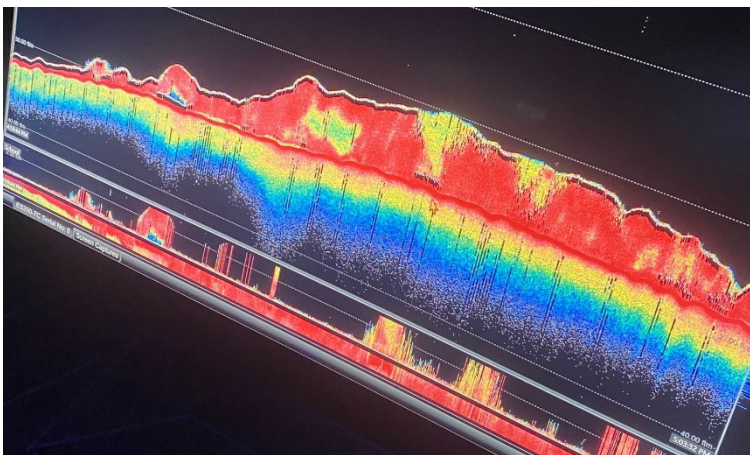


Point 3.
Knowledge
transfer is rapid
and empowering

- Understand how surveys work
- Reduce misconceptions about scientists, surveys and their results (through interrogation!)
- Understand relevance to management
- (Sometimes) learn more about how to optimise their acoustic settings
- Learn about other non-target fish
- Develop respect for scientists



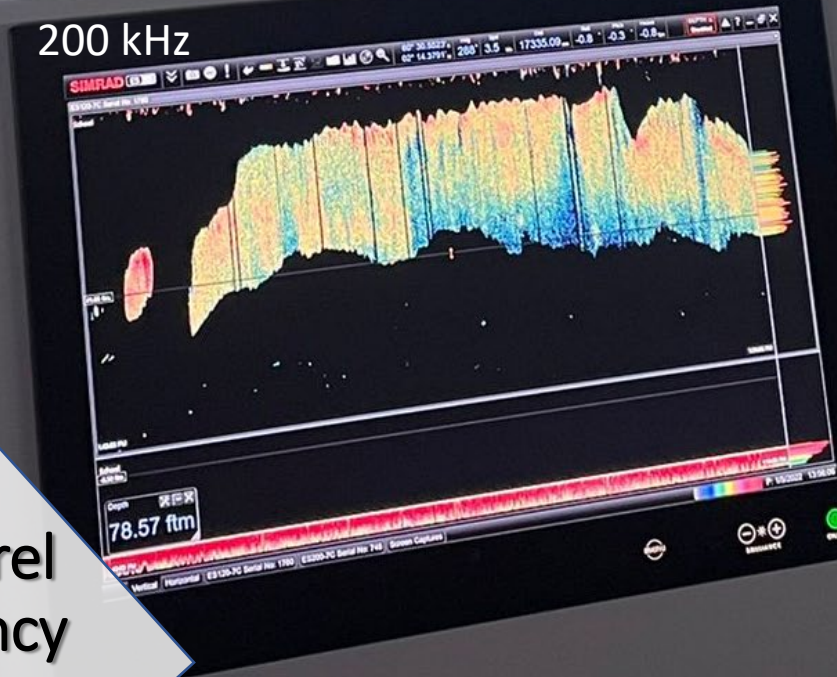
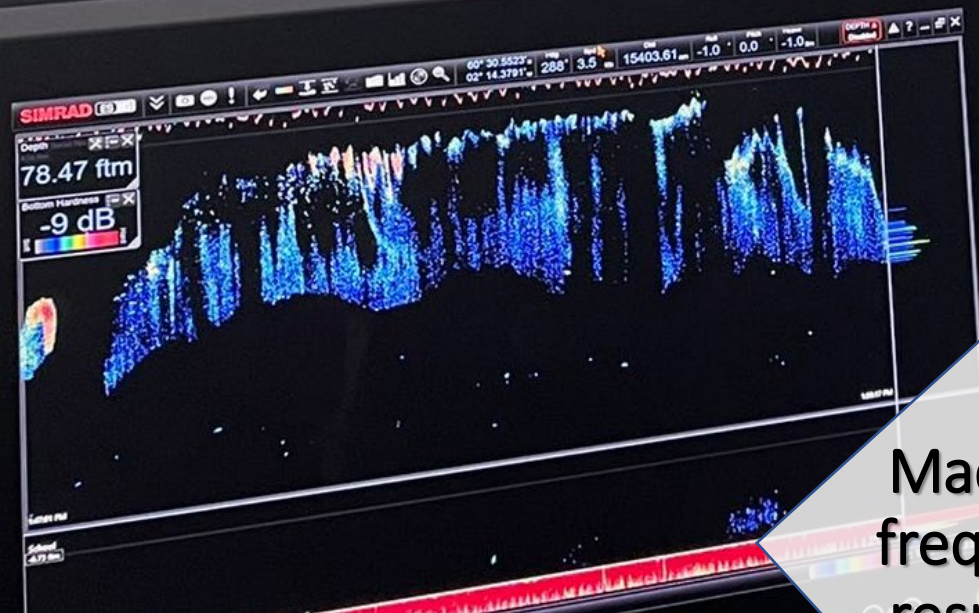
- Learn about fish distribution patterns - relevant to good survey design
- Get challenged to question why they do things in a certain way – and whether that is the best way
- Lessons in practical and useful problem-solving skills
- Learn how to interpret fish marks and behaviour
- Develop respect for fishermen



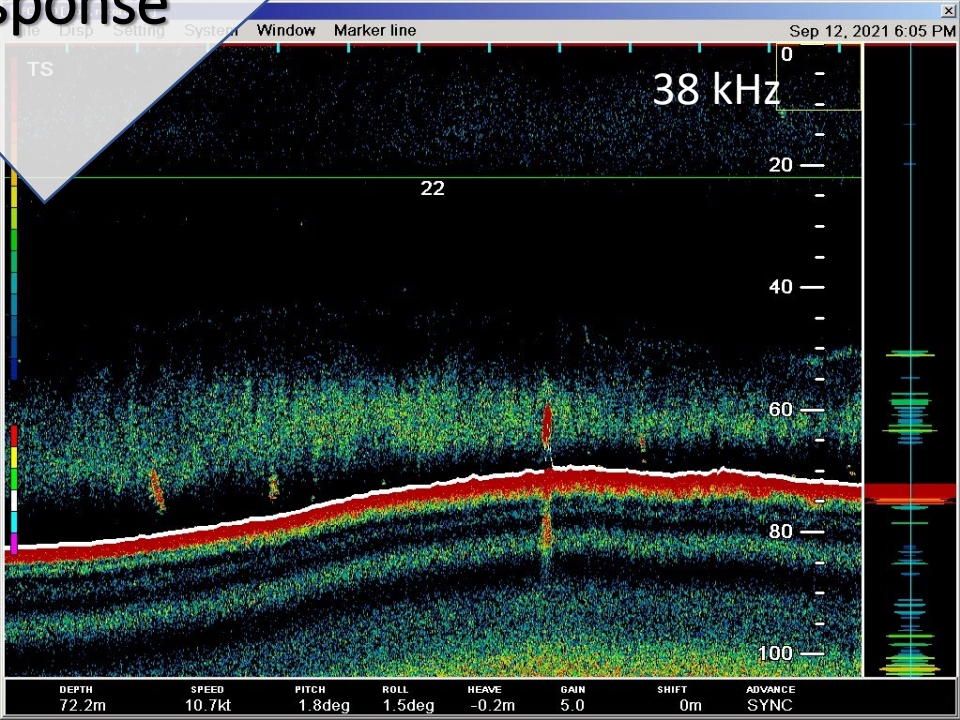
Sampling bag

38 kHz

200 kHz



Mackerel
frequency
response




Point 4. Opportunity to unleash a goldmine of data and knowledge

- Opportunity to do better
- First need to have an awareness of industry
Willingness & Capability
- Speak to your industry partners and think about a co-design process
- Reward – innovation and feel good!







What can you do to capitalise on the opportunities on your doorstep?

Can you envisage a time when fishing vessels do acoustic scientific surveys without the need for a scientist on board?

POSTCARD



Steven Mackinson
Scottish Pelagic Association
Heritage House
Shore Street, Fraserburgh
AB43 9BP

