



VIII CLGE Conference of the European Surveyor “BLUE SURVEYING”

BLUE SURVEYING – You can help build the Capacity

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Introduction – Blue Surveying

- Blue Surveying has a critical role to play in acquiring and delivering good quality data sets.
- Data that is collected along the coast, on and over rivers, lakes and reservoirs can often be of value for new stakeholders, not all of which are immediately involved.
- Converting data for a wider use group requires the adoption of standards and a knowledge of potential benefits and opportunities.
- But there is a problem – **Capacity**





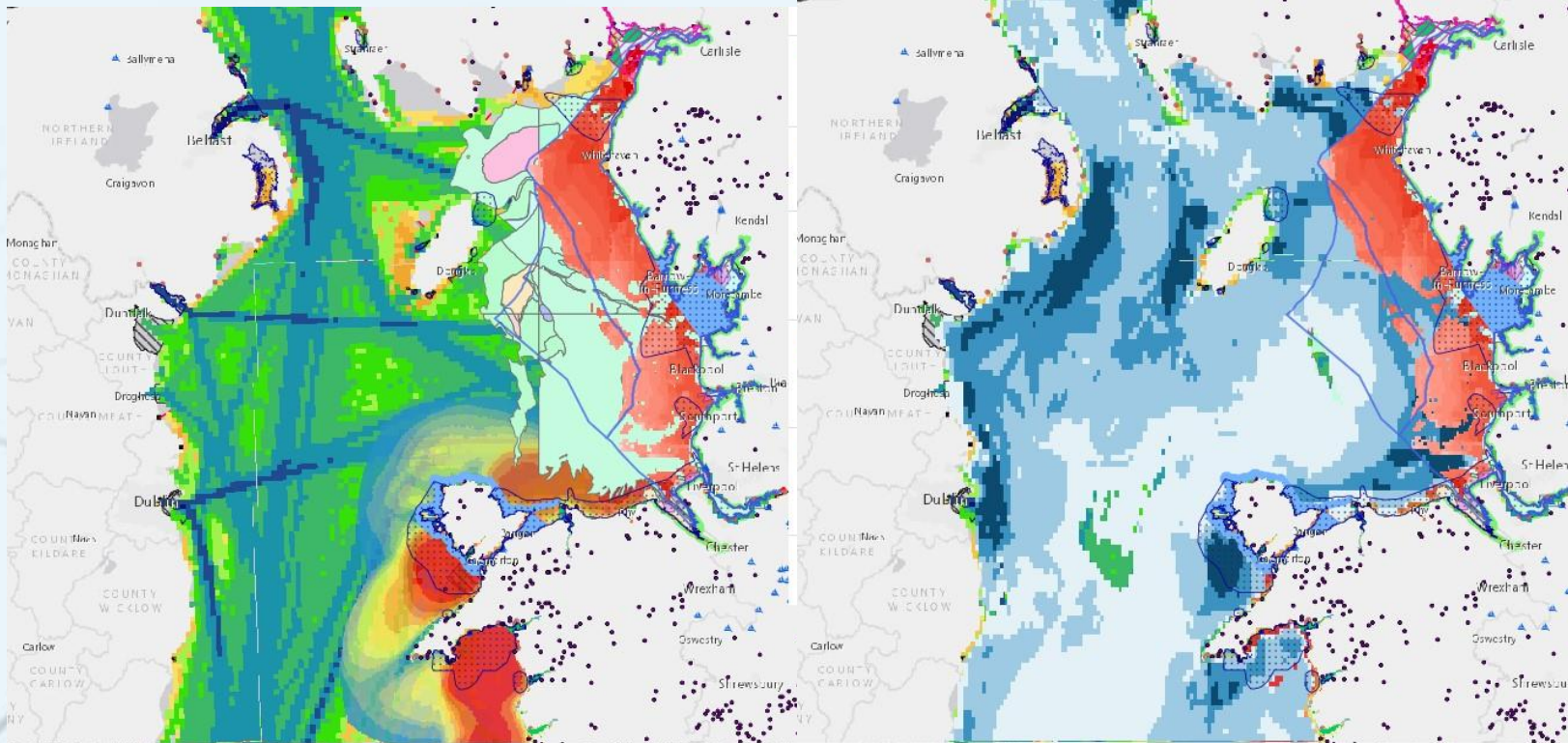
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Blue Surveying is in demand: Our environment is under threat





Multiple Stakeholders have interests in Sea Areas



Sea routes (Green), & coastal activities

Fish habitat Areas (blue) & Activities

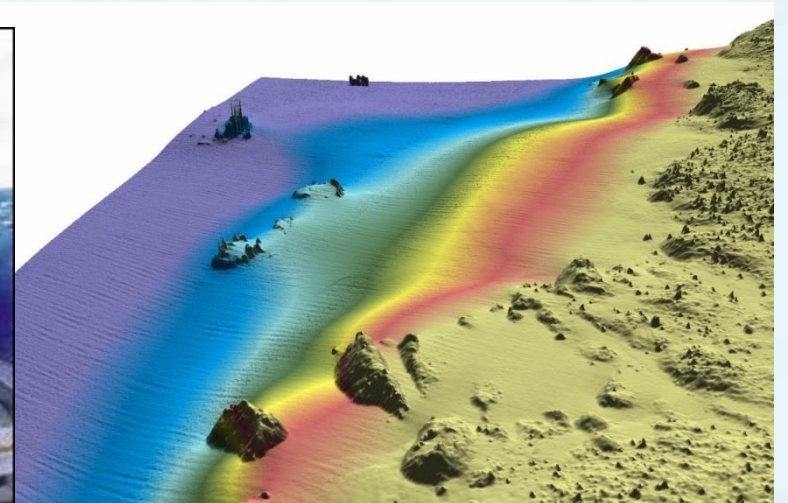




Blue Economy

Every human activity conducted in, on or under the sea depends on knowing the depth and the nature of the seafloor, the identification of any hazards that might exist and an understanding of the tides and the currents.

Obtaining and disseminating this hydrographic knowledge is the role of the world’s hydrographers.





Blue Economy

Activities

- Sustainable aquaculture (e.g. shellfish, crustaceans, seaweed)
- Blue carbon
 - e.g. Mangrove forests, seagrass
- Offshore renewable energy
 - Wind, tidal, wave, OTEC
- Sustainable tourism & recreation
 - Coastal tourism, cruise industry, eco
- Biotechnology (marine genetic resources)
 - Pharmaceuticals, nutraceuticals, industrial
- Ocean monitoring and surveillance
 - Environment, enforcement, hazard prediction
- Science and technology
 - e.g. ship design, sensors

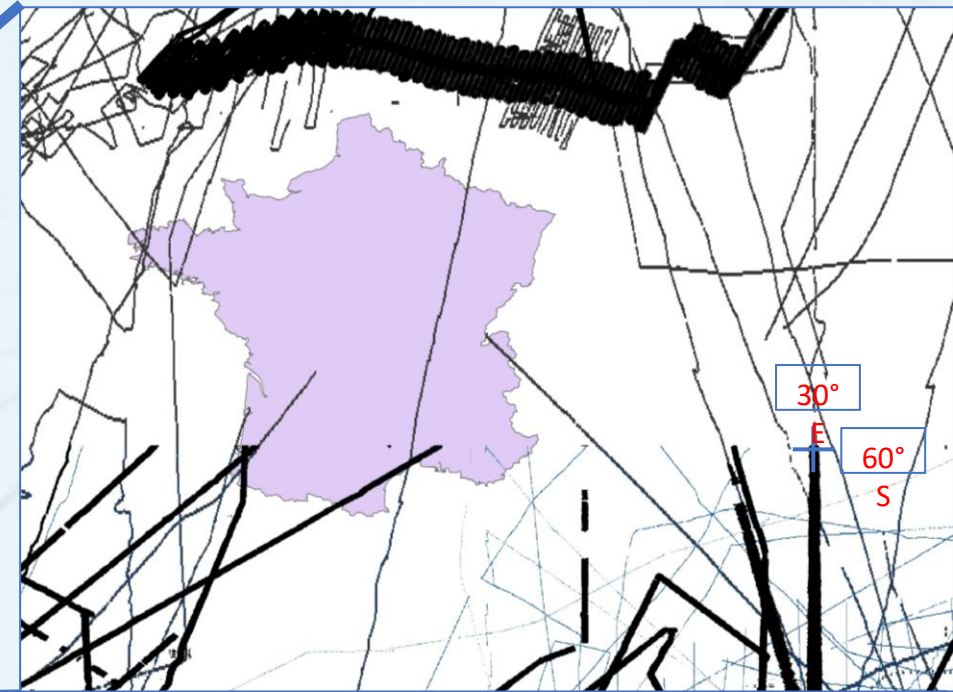
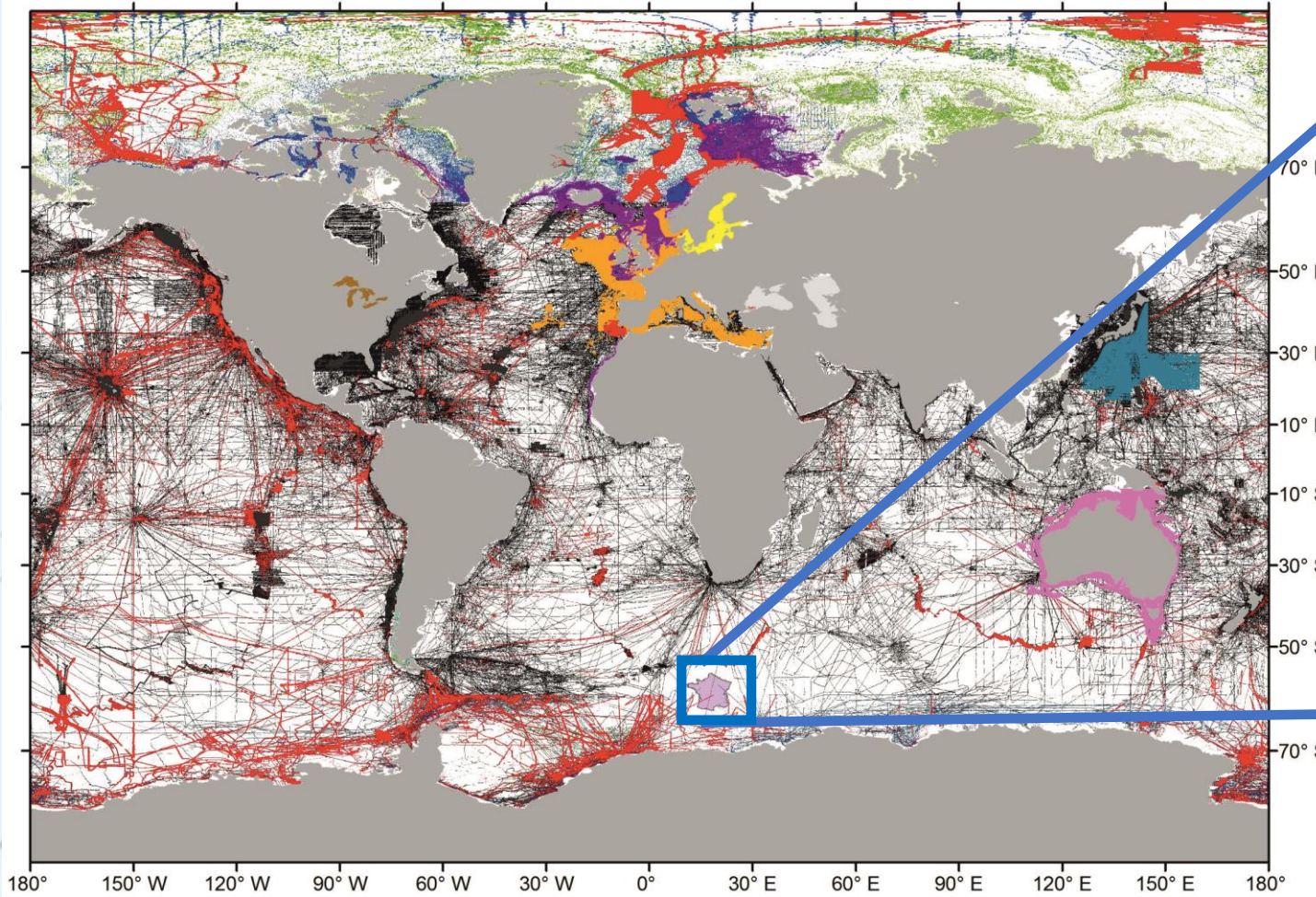
Barriers

- Access to quality science and information to facilitate the sustainable use of marine resources.
- Lack of data on the relative value of different maritime activities including a valuation (monetary and non-monetary) of nature's contribution to people.
- Fragmentation of governance.
- Insufficient human and institutional capacity.
- Failure to recognise the economic and environmental importance of the ocean.
- Lack of consultation with local communities or consideration of their needs.





How little data there is some areas





Building Capacity

- Do you currently have any activity that relates directly to water bodies? If so, who do you assign to water related surveys?
- Have you qualified personnel who are knowledgeable and competent for specialist water related projects?
- International FIG/IHO/ICA (IBSC) are preferred, or National qualifications.
- Do you engage with universities and colleges to source new professionals and to explain any skills gaps?
- As a Stakeholder you can influence courses to include water themed modules with competencies and Learning Outcomes.





Considerations and Conclusions

- Training and education can offer a strong base locally.
- Access to training is restricted by a lack of courses and their availability.
- To meet local, national and regional plans and opportunities, Blue Surveying offers a base to inform decision makers.
- Expanding into Blue Surveying is a sector you can build and develop capacity.





Countries with Recognized Courses – only 12 in Europe



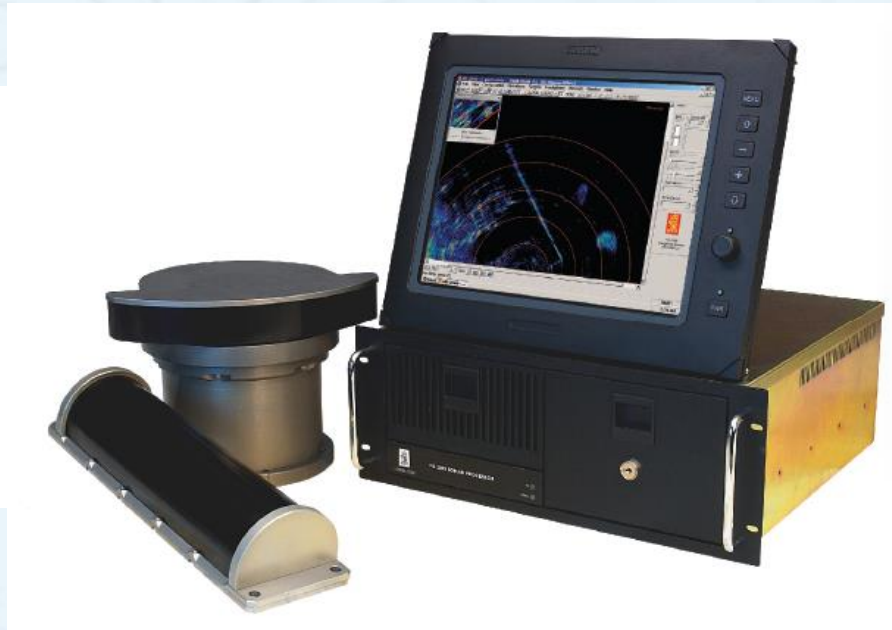
In Europe, of 12 courses operating, 5 are primarily for the military.

There is lots of potential for more courses!



Effective Education

- Partnering with software & equipment providers
 - Important to bring hardware and software into the curriculum
 - Investment in a future *sustained* capacity through people





Considerations

- **Administering Marine Areas is being developed on a regional level in the EU**
- **A long running strategy is being developed to enable benefits across all member states**
- **Expertise is not always available so collaboration is key and Blue Surveying is a key enabler but requires more capacity.**
- **How will you develop and expand your capability to service Blue Surveying?**





Consideration

- Private and commercial surveyors can increase knowledge of Blue Surveying of our water and marine areas by developing awareness, knowledge, capability, competencies and expertise
- and
- Companies should encourage academic facilities to develop modular courses to support the expanding demand for Blue Surveying – beyond training to **CAPACITY**





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"BLUE SURVEYING"

You can help Build & Develop Capacity

Avoid risk and storms and help to create more Capacity

Storms ahead?



or

Plain Sailing!!



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