Maritime Spatial Planning: Transboundary Cooperation in the Celtic Seas

Future-oriented Approaches to Spatial Management

Co-funded by the European Union

AGENCE FRANÇAISE POUR LA BIODIVERSITÉ

Department of Agriculture, Environment and Rural Affairs

Marine Institute

marinescotland Scottish Government

SHOM

UCC University College Cork, Ireland

UNIVERSITY OF LIVERPOOL

Co-funded by the European Union

Scenarios for Maritime Spatial Planning in the Celtic Seas

Dr. Lynne McGowan

Department of Geography and Planning,

University of Liverpool

Introduction

- Context – future spatial demands
- The SIMCelt approach to scenario building
- Celtic Seas 2050: Scenarios workshop
- Issues for the future

Co-funded by the European Union

Future Spatial Demands and Scenarios

Objective:

- To investigate current and future spatial demands of key maritime sectors, with reference to cross-border issues

This will involve:

- Analysis of existing spatial constraints, demands and expectations for growth of key sectors
- Considering information that appears critical to informing decisions in relation to future demands, e.g. economic and social evaluations
- Use of *exploratory* scenarios
- *Stakeholder input*

Future Spatial Demands and Scenarios

- Limiting scope – 6 maritime sectors chosen for analysis
  - Ports and shipping
  - Offshore wind energy
  - Wave and tidal energy
  - Cables and pipelines
  - Aquaculture
  - Marine conservation

All have either a) a distinct transboundary dimension,

or b) growing spatial footprint

Initial Findings

SIMCelt

Co-funded by the European Union

Implications of Brexit

- Shipping – economic climate, customs and tariffs
- Offshore wind energy – interconnectors and wind farms built for exporting energy

Drivers of Change (Some examples)

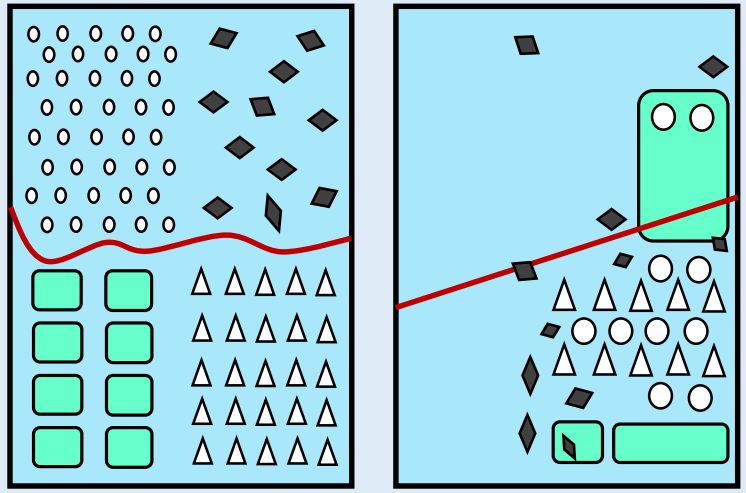
- Technological - floating wind turbines in deeper waters (may be closer to borders)
- Cumulative effects - tidal energy (lagoons) and changes to tidal range
- Legal - controls on pollution from shipping (Emissions Control Areas), international commitments to marine conservation

Scenario Building

Spatial Footprint of Activities

- Different sectors will increase/decrease their spatial requirements, resources may be used more or less intensively
- Compatibility with other uses
- Spatial *diffusion* Vs. Spatial *efficiency*

Diffuse



Efficient

Scenario Building

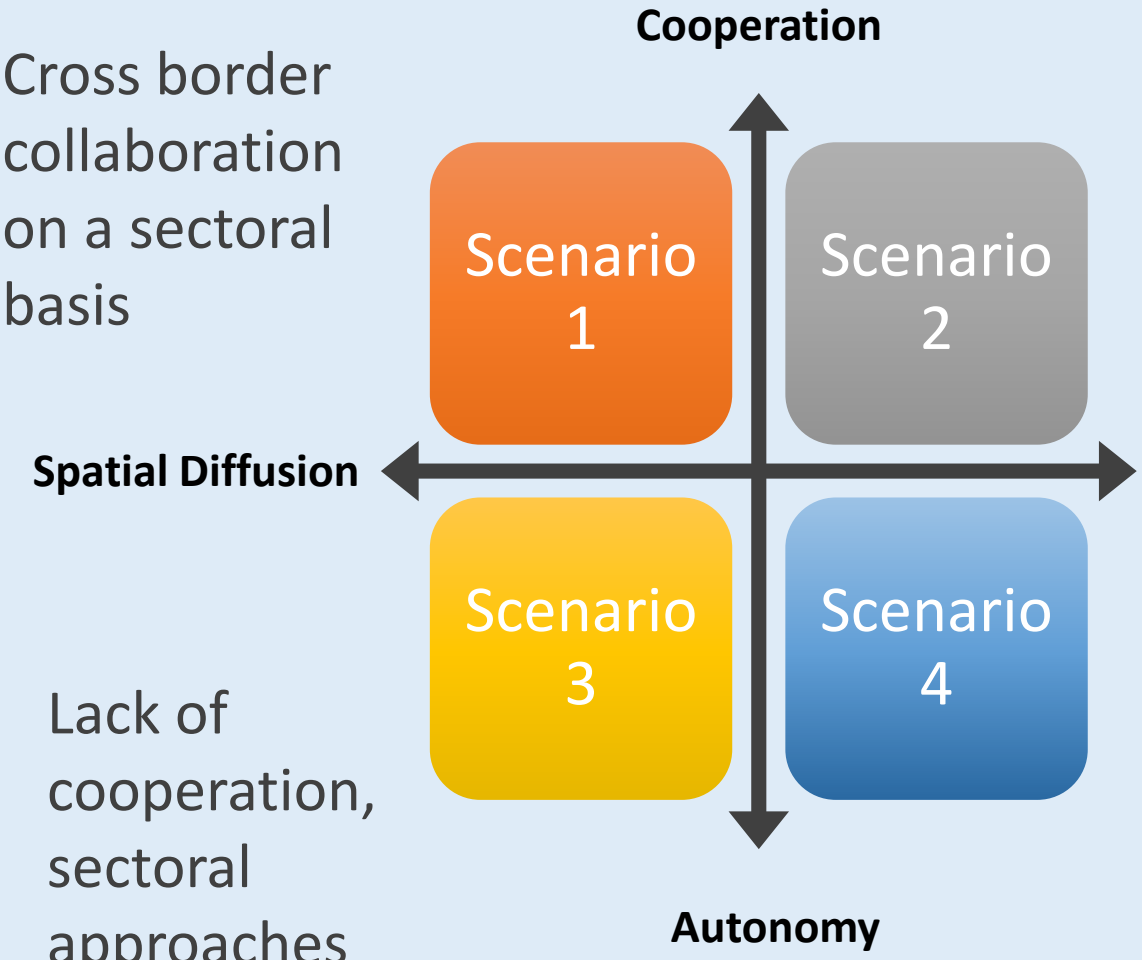
Degree of Cooperation

- For specific cross-border projects, e.g. energy infrastructure
- Administrations' approaches to cooperation on MSP
- *Autonomy* Vs. *Cooperation*

How do we use these ideas to create scenarios?

SIMCelt Scenarios

Cross border collaboration on a sectoral basis



Ecosystem based approach, high degree of cooperation

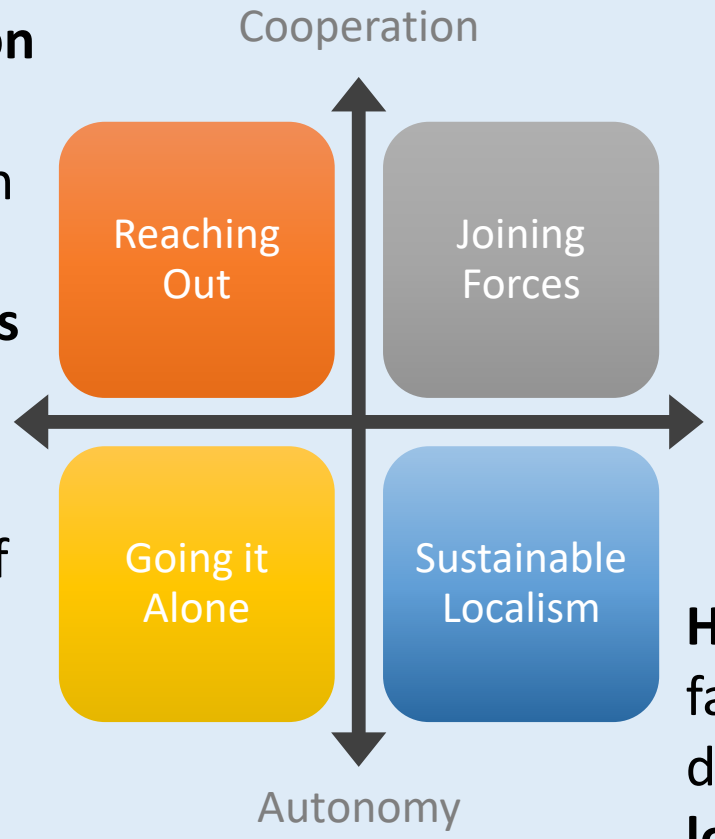
Lack of cooperation, sectoral approaches

Countries concentrate on integration of their own maritime activities, lack of transnational cooperation

SIMCelt Scenarios

Climate change targets and **pollution control** drives change. Information sharing but still **sectoral approaches**

High degree of **environmental protection**. Emphasis on **colocation** of activities where possible



Rapid expansion of maritime sectors, leading to distinct **winners and losers**

High tech approaches favoured and development of **locally distinct**, niche products.

Testing the Scenarios

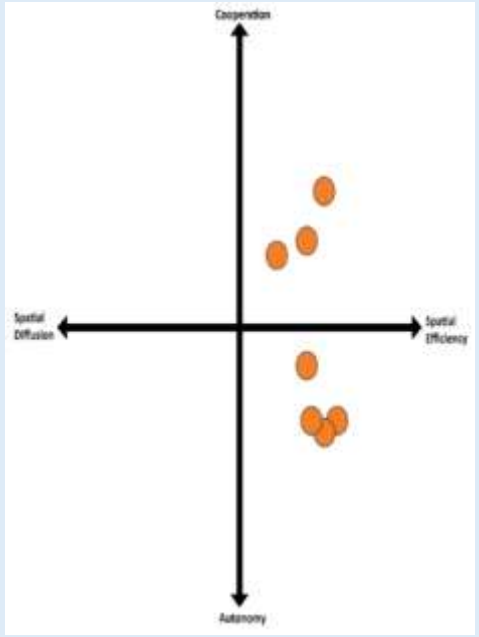
In a workshop setting:

- Are these scenarios plausible?
- Where do participants expect their sector to be by 2050?
- What are the implications of this for other sectors/sea users?
- Do these issues have a transnational dimension?
- If so, is there a planning response? What is it?

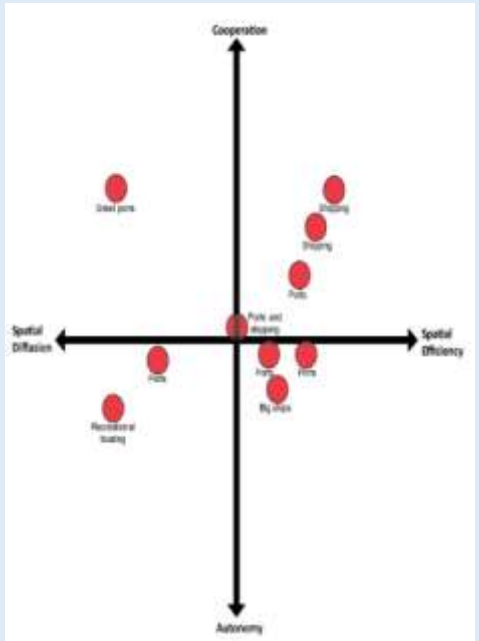
By 2050… Sectoral Ambitions

- In most sectors – direction of travel is the same
- But – differences related to some sub-sectors or different countries

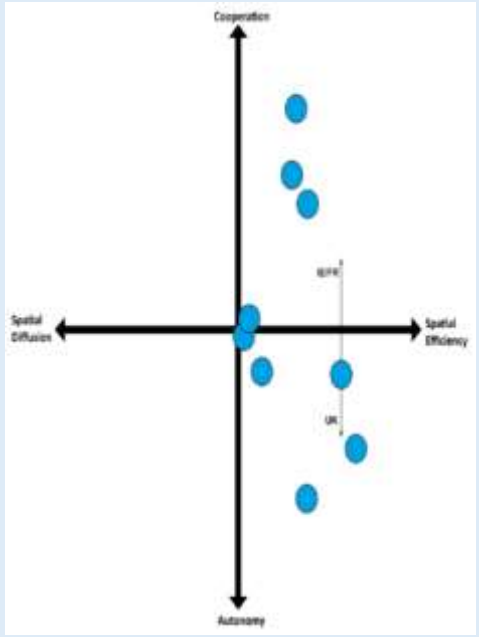
Aquaculture



Ports and Shipping

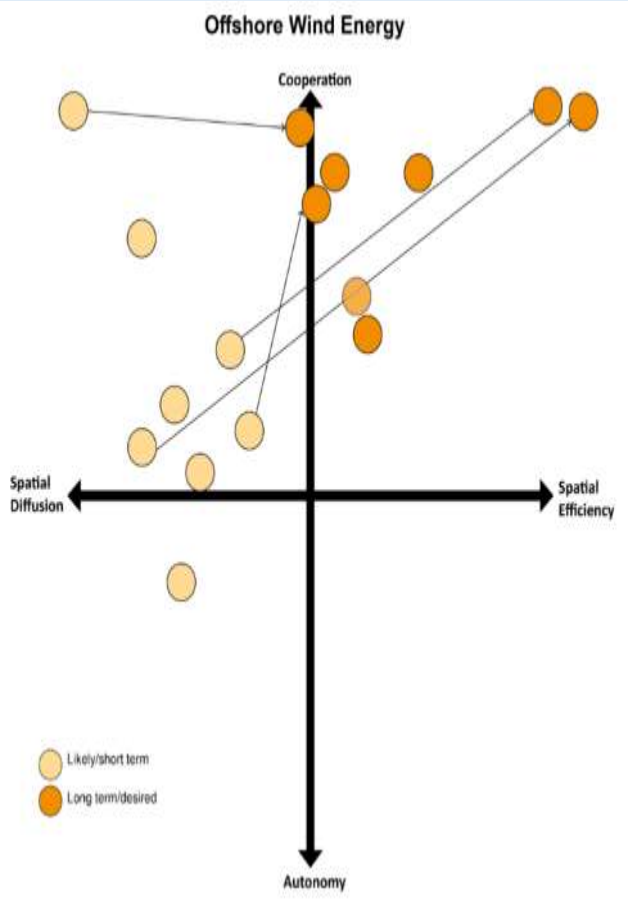


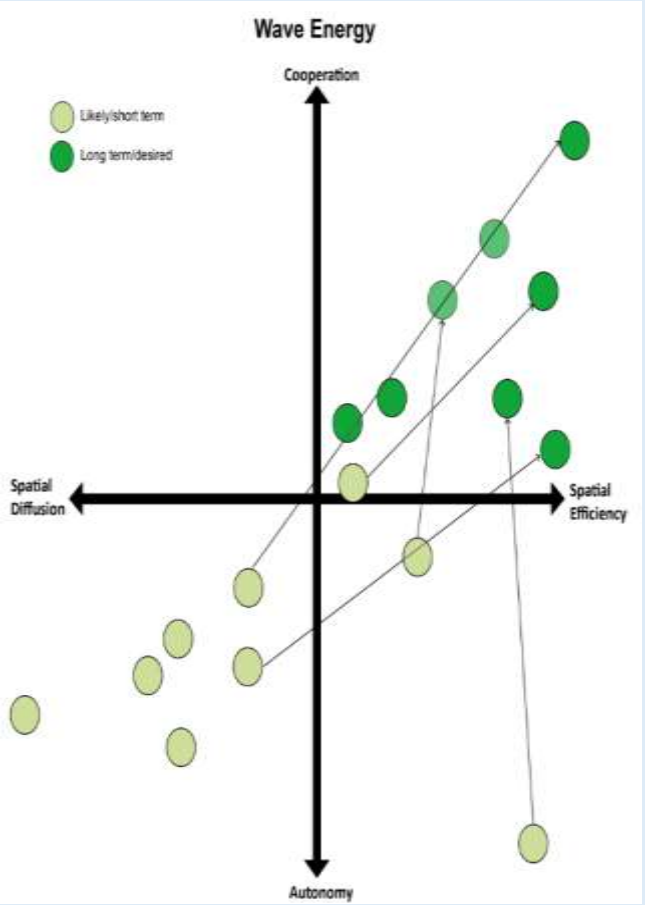
Conservation



By 2050…

- Showing aspirations





Sectoral Interactions

Colocation of aquaculture with marine renewables:

- Location issues – need to map opportunities and constraints
- Who will drive this?

Shipping routes

- A hard constraint that is unlikely to change
- Increase in underwater noise?

Conservation

- Common interest in water quality for all sectors
- Potential for trade-offs with port development

Future Issues

Some are already issues of concern:

- Potential for INNs from shipping
- Colocation of activities – aquaculture, offshore wind, conservation
- Port diversification
- Energy grids and storage

Looking further ahead:

- Shipping lanes for autonomous vessels?
- Ecological engineering
- New sectors?

Key Messages/Recommendations

Scenarios are a useful tool for discussion about:

- What we want our seas to look like
- Interactions between sectors
- What MSP can realistically do to help achieve goals

Looking to the future:

- Aspirations towards greater cooperation and spatial efficiency are high, but there are considerable barriers to overcome
- Scaling up of new activities, external forces
- Need for cooperation mechanisms to support dealing with issues on a transnational scale

SIMCelt

Co-funded by the European Union

L.McGowan@liverpool.ac.uk

Agence des aires marines protégées

Department of Agriculture, Environment and Rural Affairs

MaREI Centre for Marine and Renewable Energy

UCC University College Cork, Ireland

Marine Institute

marinescotland

SHOM

UNIVERSITY OF LIVERPOOL


SIMCelt

SIMCelt

Co-funded by the European Union

Comparative analysis of National Strategies for Marine Conservation in the Celtic Sea Region

France, Ireland and United Kingdom

Neil Alloncle and Ana Vitoria Tereza de Magalhães

French Agency for Biodiversity

AGENCE FRANÇAISE POUR LA BIODIVERSITÉ
Établissement public du ministère de l'Environnement

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

MaREI Centre for Marine and Renewable Energy

UCC University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Marine Institute
Foras na Mara

marinescotland
Scottish Government
Riaghaltas na h-Alba
gov.scot

SHOM
L'océan en référence

UNIVERSITY OF LIVERPOOL

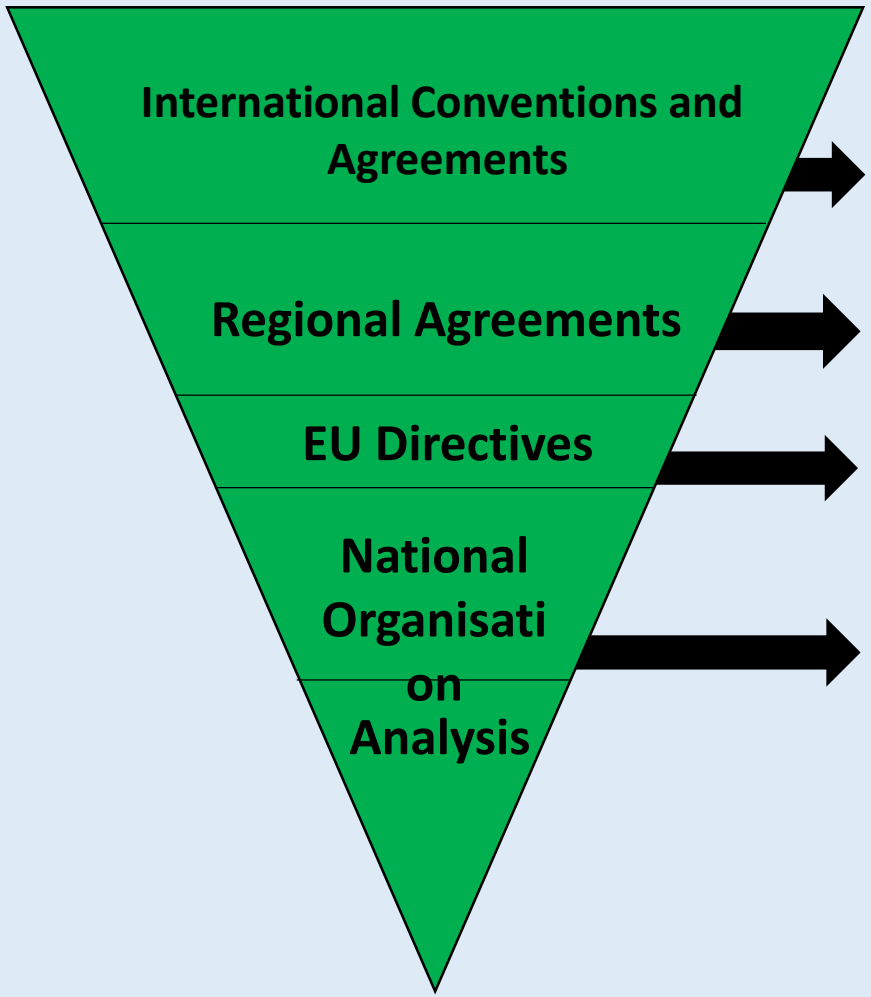
Key messages

Objective

Identify similarities and differences on MPAs to ensure synchrony on marine protection at the Celtic Sea Region

- MPA = Effective tool to protect the marine environment
- Various types of MPAs are present in each level of protection (International to National)
- Differences exist between national conservation systems (FR, IE and UK)
- Connection between MSP and MPAs

Strategies for marine conservation
International, Regional | EU and National



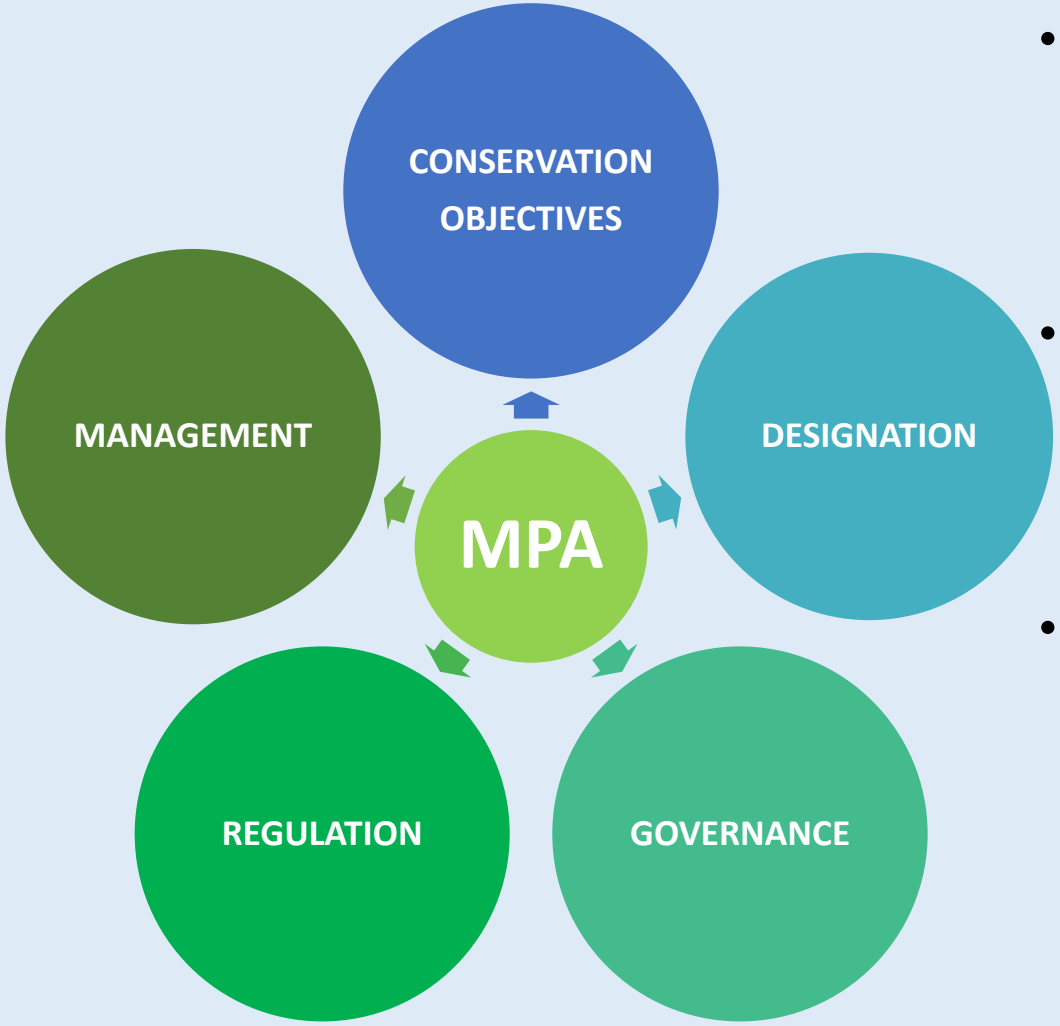
UNCLOS, CBD (Nagoya & Cartagena Protocol), Bonn Convention, CITES, Espoo, ASCOBANS, UNESCO World Heritage and Biosphere Reserves , Ramsar sites

OSPAR

Natura 2000 Network (Habitats and Birds Directives)

National Categories of MPAs (France, Ireland and UK)

Analysis



- **Differences on each type of MPA Category**
- Some MPAs have more than one objective
- Analysis serve as approach to facilitate **:**
  - **synergy between MPA and MSP**
  - **cooperation and transboundary MSP**

MPA Categories

International:	UNESCO Biosphere Reserves and World Heritage Ramsar sites Natura 2000 network OSPAR MPAS

National:

France	Ireland	United Kingdom
National Parks	-	Sites of Special Interest
Nature Reserves	-	Marine Conservation Zones
Marine National Park	-	Nature Conservation MPAs
Natura 2000*	-	
Maritime Public Domain	-	
Biotope Protection Zone	-	

* Recognised by the French Law, as a national category.

Co-funded by the European Union

General Remarks

- Different **objectives** exist for each **MPA Category**
- All MPAs have in common the aim to **protect the environment**
- **Each** MPA however has **different environmental targets**

Marine Parks (FR): Sustainable development | Biotope (FR): Reach GES

- Main differences on **management between countries**
  - France: Dedicated manager provided to each site, the State plays a major role – Maritime Prefects
  - Ireland: Management made by NPWS
  - UK: Roles and responsabilities are different in each country (England, Wales, NI and Scotland)

Co-funded by the European Union

Results

Has reched Aichi Targets

Has not reached Aichi Targets

Country	Area in the OSPAR Region III	Designated MPAs	Surface area covered by the current MPA network	Projects designation of MPAs	Surface of water, covered by future
France	43726	54	14,9%		
Ireland	145975	184	3,2%		
UK	197839	445	12,2%		
Total	387550	683	9,1%		

Source: AFB, 2017

CBD Target: 10% surface area of MPAs

Surface coverage: 9,1%

- **Ireland** MPA coverage **is far from the minimum requ… Aichi Targets**
- **Waters beyond 12 NM** are very **poor in protection**

Co-funded by the European Union

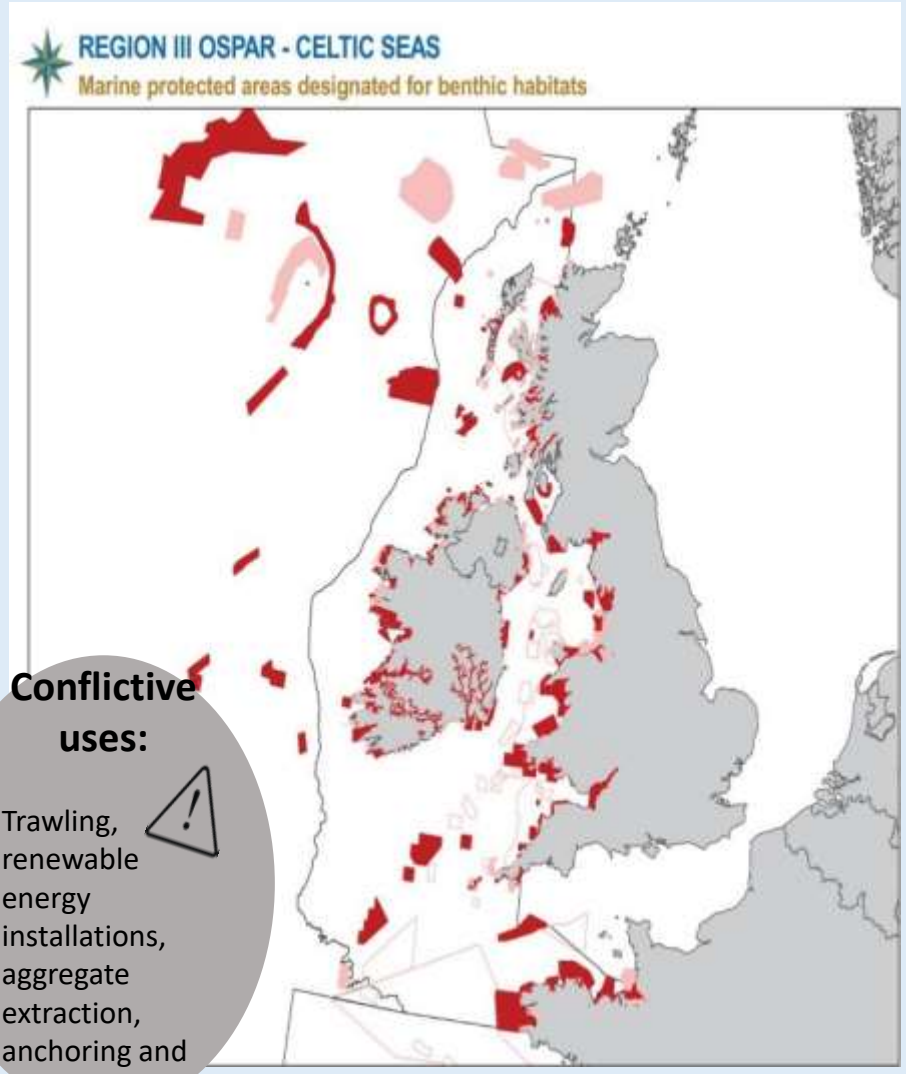
Discussion

MPA objectives addressed through the MSP process

- MSP used as spatial measures for uses regulation
- Aligned with MPA conservation objectives
- Restriction of uses and able multiuse

Legend:

- At least one MPA is designated for the protection of benthic habitats
- At least one MPA is designated but for another reason than the red layer
- Marine protected area project



Conflictive uses:

Trawling, renewable energy installations, aggregate extraction, anchoring and dreadging

Co-funded by the European Union

Discussion

Taking advantage of the MSFD implementation

- Foster the achievement of Goals
- France: implementation of MSFD and MSP Directive simultaneously
- UK: would be necessary a reconciliation between the MSP and MSFD
- Need for MSFD to address better the MPA objectives

Country	Assessment for MPA designation measure in MSFD PoMs	Fisheries management in MPAs
France		
Ireland		
UK		

Source: Oceana, 2017

Good

Poor

Average

Co-funded by the European Union

Discussion

MPAs as local governance tools

- Participative governance and stakeholder engagement

- **MPAs = Boards and Councils,** tools of local governance

MPAs as spatial measures for uses regulation

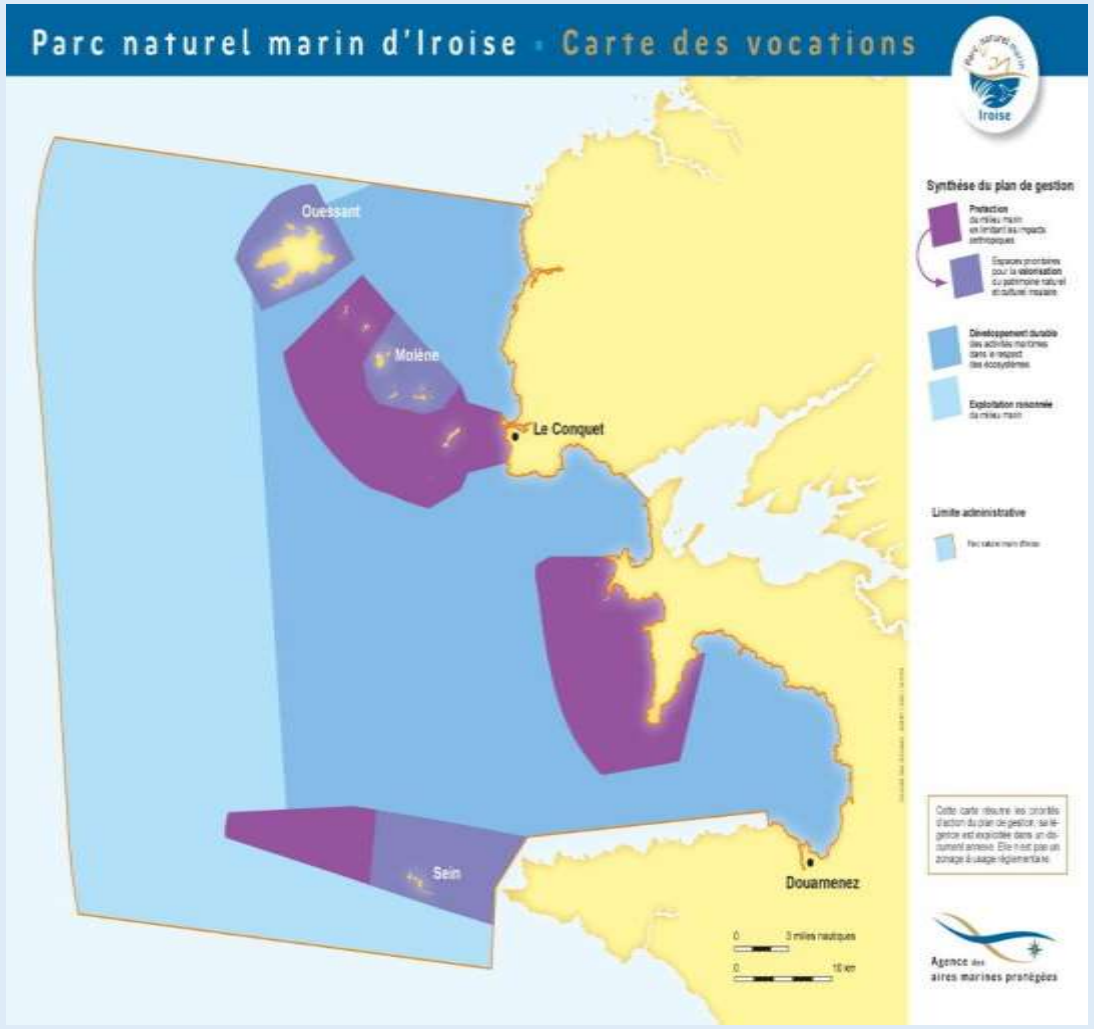
- MPAs = set some rules for maritime sectors

- MPA designation and management can be considered as a fully fledged way to implement MSP by measures

- **Sustainable development** emerges as an important objective for the MPA network

Co-funded by the European Union

Discussion



MSP within MPAs perimeters

- Spatial planning in MPAs works by setting in each zone, the ideal place for determined regulation/management.

- France: Nature Marine Park should contain a map of spatial distribution for management priorities.

Conclusion

- Different MPA categories = Different management processes
- **National categories in France, Ireland and UK are different** in number, conservation objectives, management aspects and governance style
- Aichi Targets: Region below the minimum
- MSP as a spatial planning tool: support the creation of coherent MPAs
  - MPA Objectives integrated with MSP process
  - MSFD + MSP Directives
  - Local governance tools

Co-funded by the European Union

SIMCelt

Co-funded by the European Union

North-East Atlantic MPA Database

NEA MPA database

2012
Interreg MAIA

2015
Interreg PANACHE

2013
OSPAR

Co-funded by the European Union

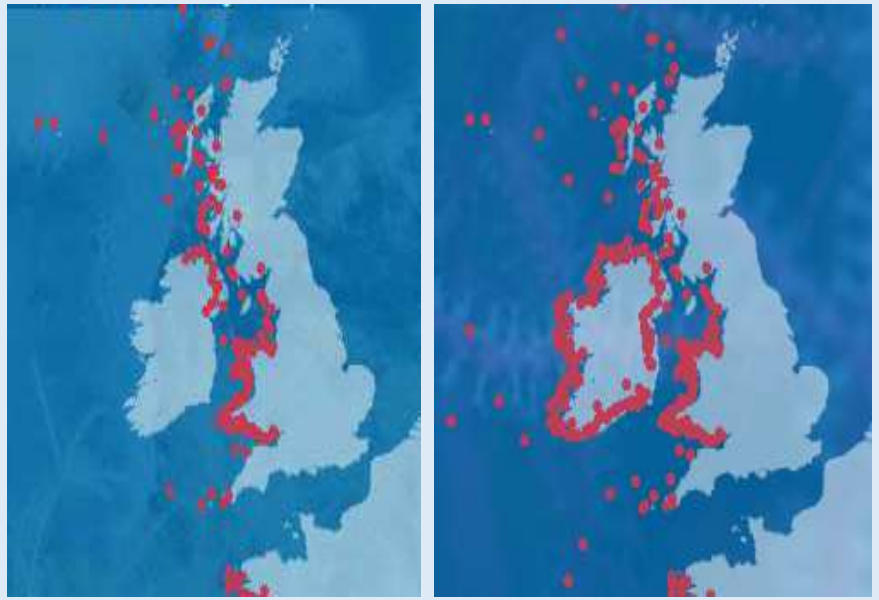
Completion through SIMCelt

Co-funded by the European Union

MPA list updated

286 MPA added

- ✓127 in the UK
- ✓169 in Ireland

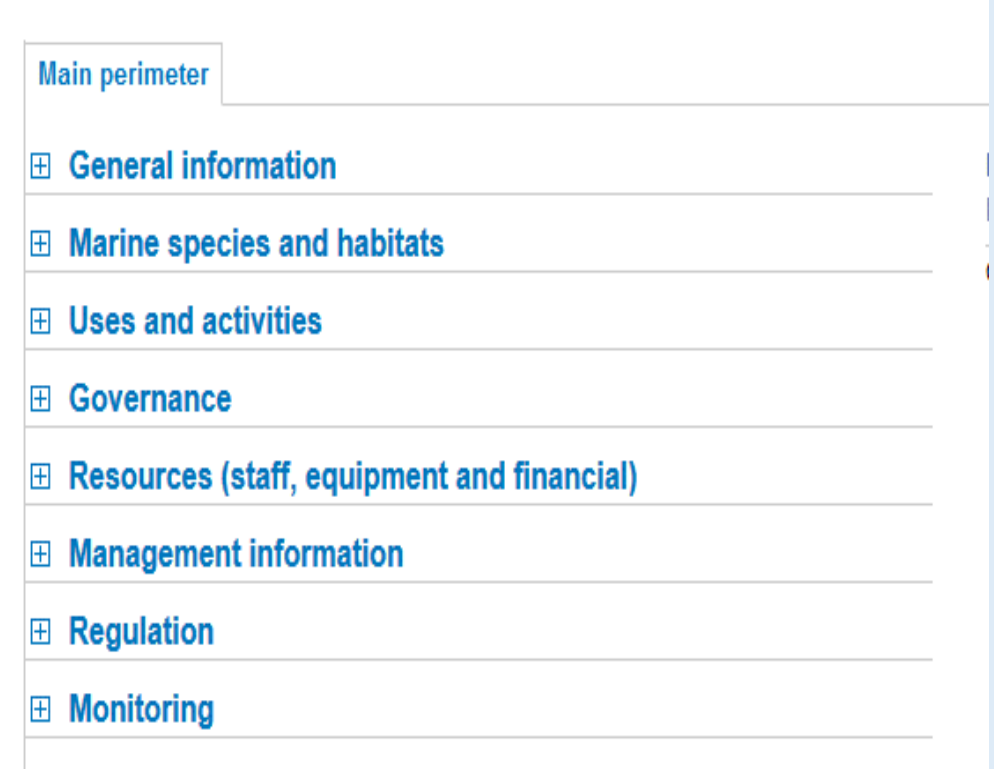


Completion through SIMCelt

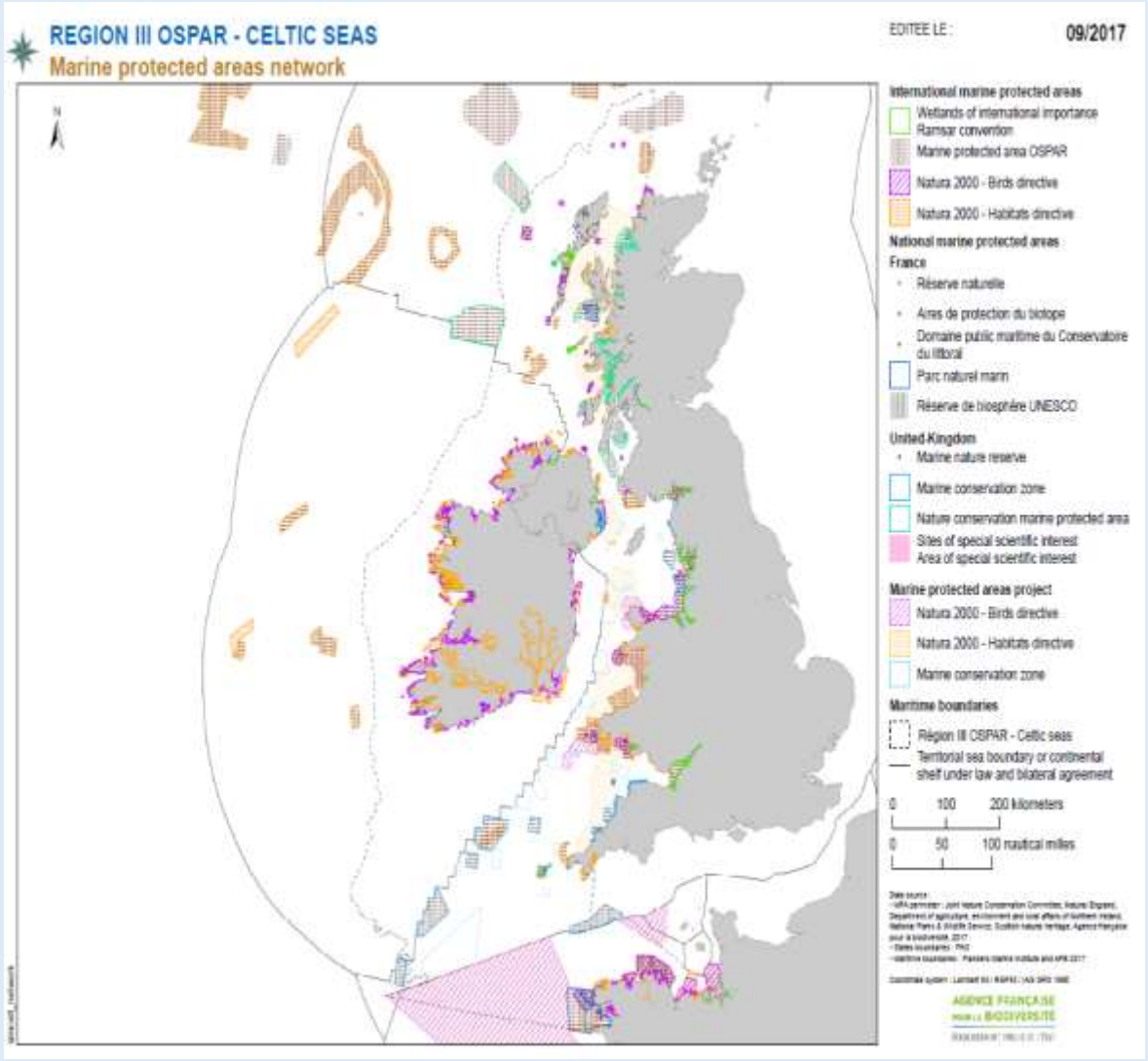
Co-funded by the European Union

MPA information gathered

- ✓ Species and habitats
- ✓ Regulations
- ✓ Governance



Results



✓ Overview of the MPA network at the Celtic Sea scale

✓ Statistics with regards to :

- Categories
- Conservation objectives
- Regulating processes

Data availability

- ✓ maia-network.org
- ✓ data.simcelt.eu

Marine species and habitats

Warning : Non-exhaustive list of species and habitats with statuses manager.

- Inventory of marine species present with protection status
  - Species present

Class	WoRMS Code	Species pr (and which justified th
Actinopterygii	126281	Anguilla anguilla
	126413	Alosa alosa
	127186	Salmo salar
	223866	Salmo trutta trutta
Aves	137073	Melanitta nigra
	137128	Alca torda

Regulation

- Type of enforcement within the MPA:
  - MPA staff
  - Fisheries control
  - Customs/border control/police
  - ONCFS (Game and wildlife state service)
- Human uses and activities in the MPA subject to regulations:

Governed under voluntary agreement (convention, agreement, etc.)	Permanent
Regulated	Permanent
	Professional purse seine fishing
	Extraction of non-living resources (e.g. aggregates, oil and gas, etc.)

Thank you !

SIMCelt

Co-funded by the European Union

References

- De Magalhaes, A.V.T., Likhacheva K. and Fartaoui M., Alloncle, N.2017. Comparative analysis of national strategies for marine conservation in the Celtic Sea Region. EU Project Grant No.: EASME/EMFF/2014/1.2.1.5/3/SI2.719473 MSP Lot 3. Supporting Implementation of Maritime Spatial Planning in the Celtic Seas (SIMCelt). French Agency for Biodiversity. 54 pp.
- Kenchington, R. A., Ward, T. J., & Hegerl, E. J. (2003). The benefits of marine protected areas. Department of the Environment and Heritage.
- http://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm
- Grip, K. (2017). International marine environmental governance: A review. *Ambio*, *46*(4), 413–427. http://doi.org/10.1007/s13280-016-0847-9
- UNCLOS http://www.un.org/depts/los/convention_agreements/texts/unclos/part12.htm
- CBD https://www.cbd.int/information/parties.shtml
- Nagoya Protocol https://www.cbd.int/abs/
- Cartagena Protocol https://bch.cbd.int/protocol
- http://webissimo.developpement-durable.gouv.fr/IMG/pdf/guide_dsf_vol_1_vf_cle5e9752.pdf
- http://marmoni.balticseaportal.net/wp/wp-content/uploads/2014/11/08_MSP-MSFD_C.Fitzsimmons.pdf
- Idbem
- Ibdem
- http://msp-platform.eu/sites/default/files/download/ireland_07.09.2017.pdf
- www.vliz.be/imisdocs/publications/135435.pdf
- Idem
- https://www.legifrance.gouv.fr/affichCodeArticle.do?idArticle=LEGIARTI000006833650&cidTexte=LEGITEXT000006074220

Co-funded by the European Union


SIMCelt

Co-funded by the European Union

Ecosystems Services in Transboundary Marine Spatial Planning

Aoibheann Rooney

Department of Agriculture, Environment and Rural Affairs, Northern Ireland

The Challenge:

To understand the concept, including economic valuation of services, in a sufficiently practical way that it can be applied by maritime planners

Co-funded by the European Union

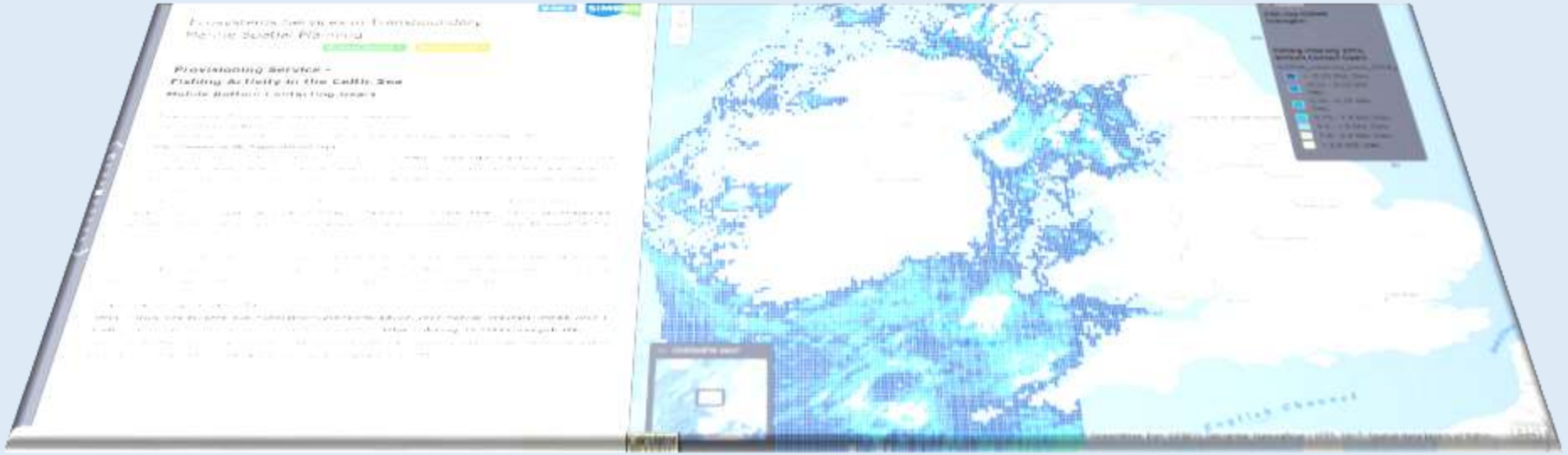
Socio-Economic Marine Research Unit

SIMCelt

Co-funded by the European Union

esri
THE SCIENCE OF WHERE

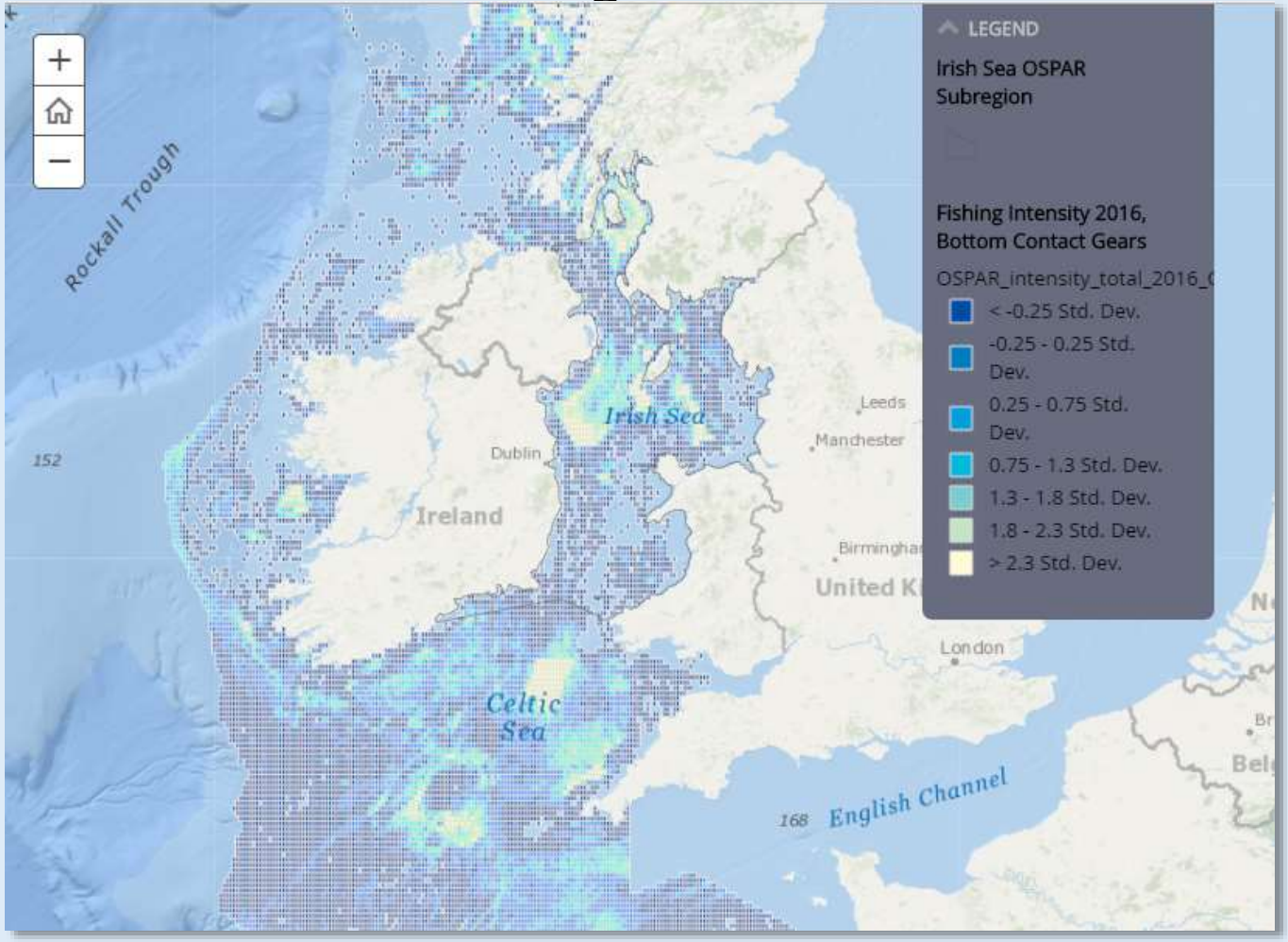
Story Maps



Provisioning Service

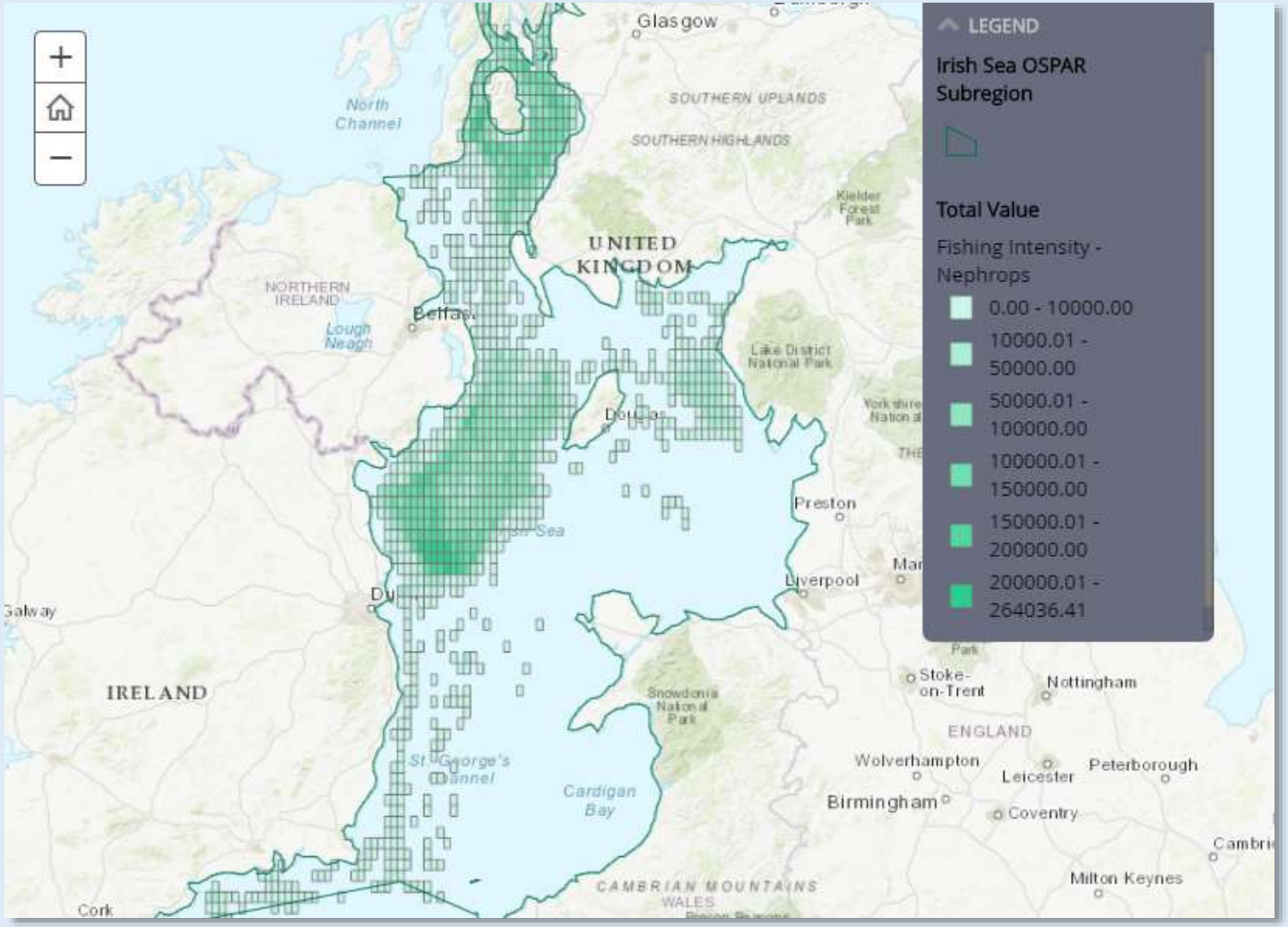
Fishing Activity in the Celtic Sea

Mobile Bottom Contacting Gears

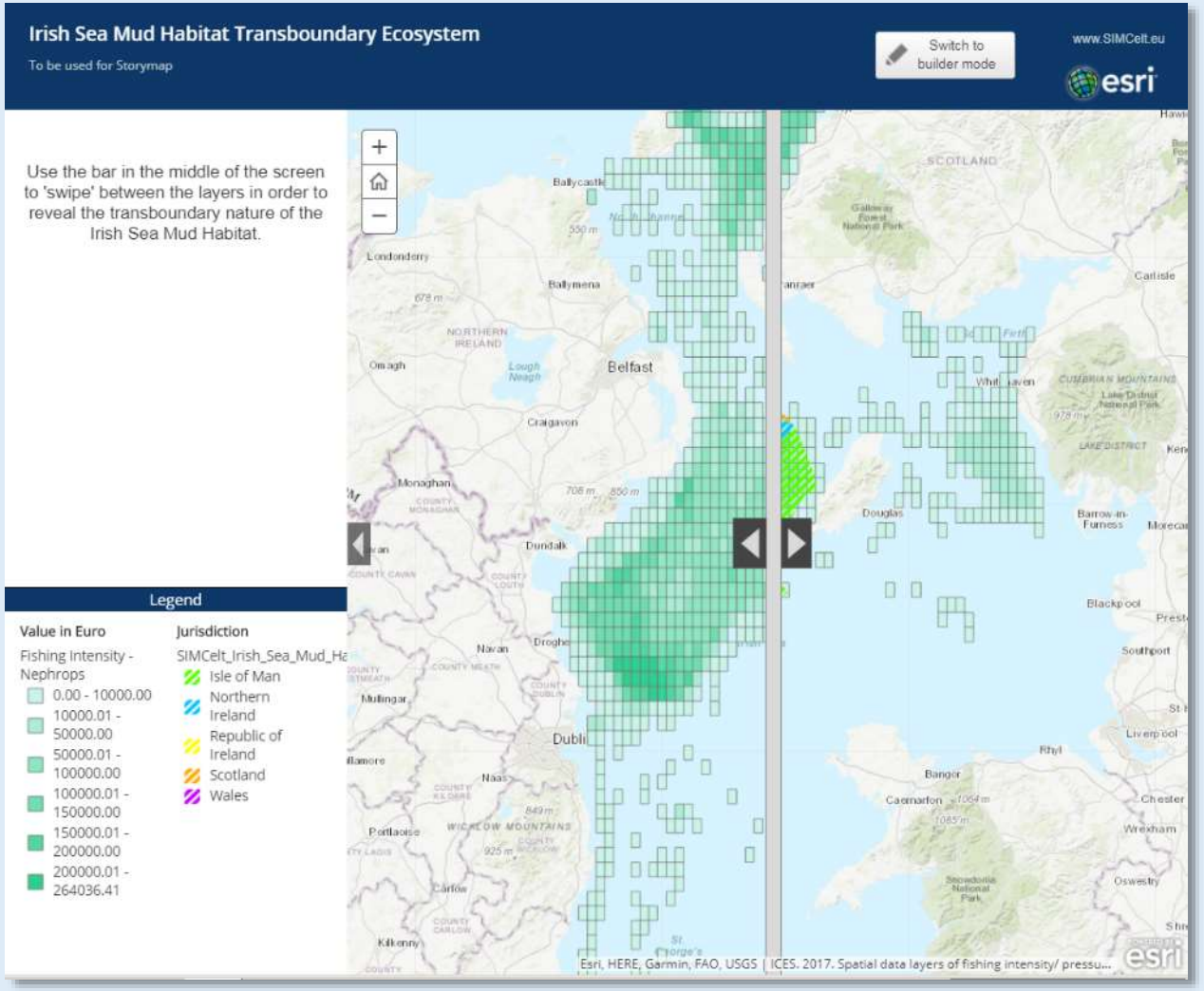


Provisioning Service

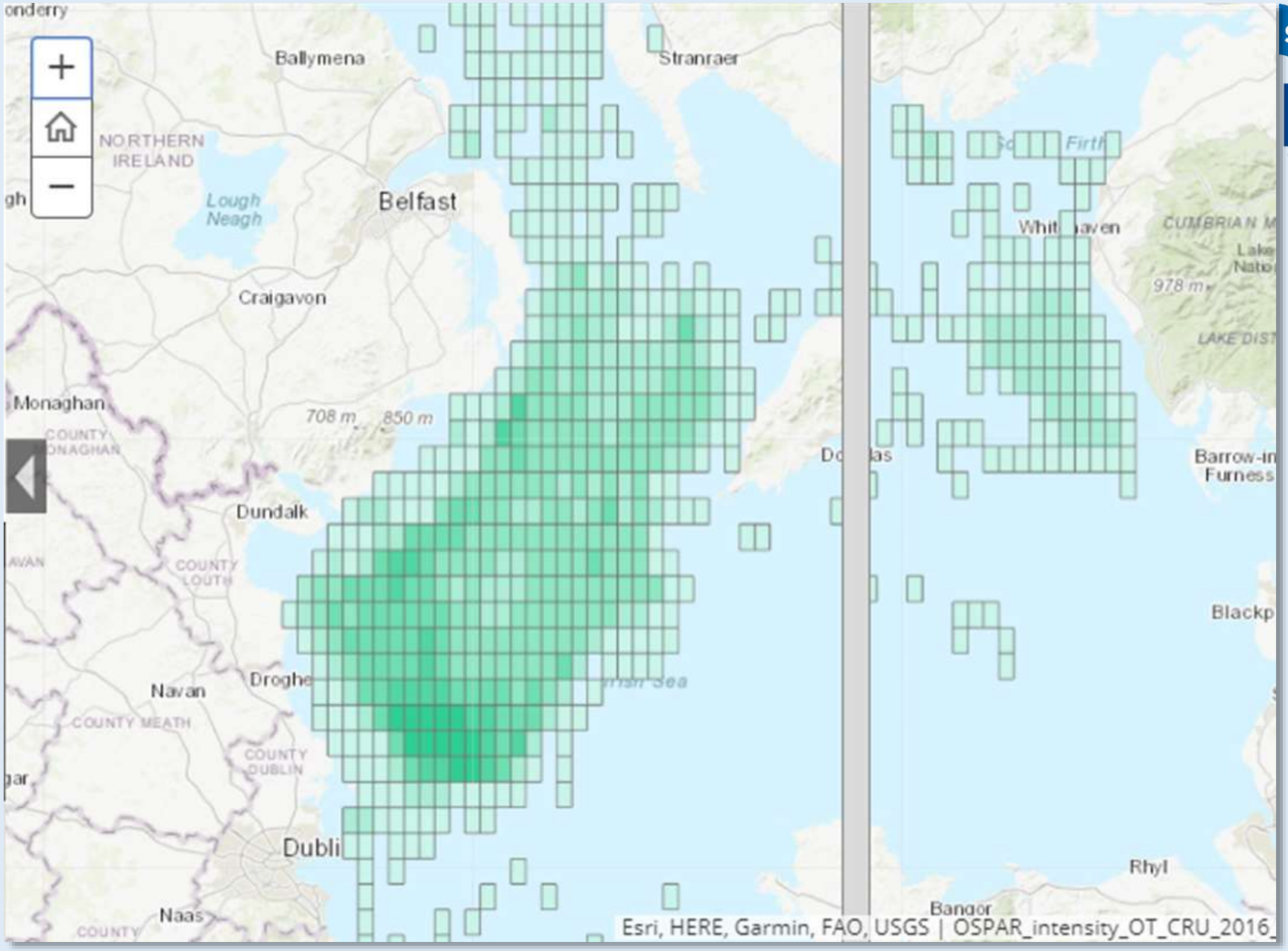
Nephrops Fishing Activity in the Irish Sea



A Transboundary Marine Ecosystem
The Irish Sea Mud Habitat

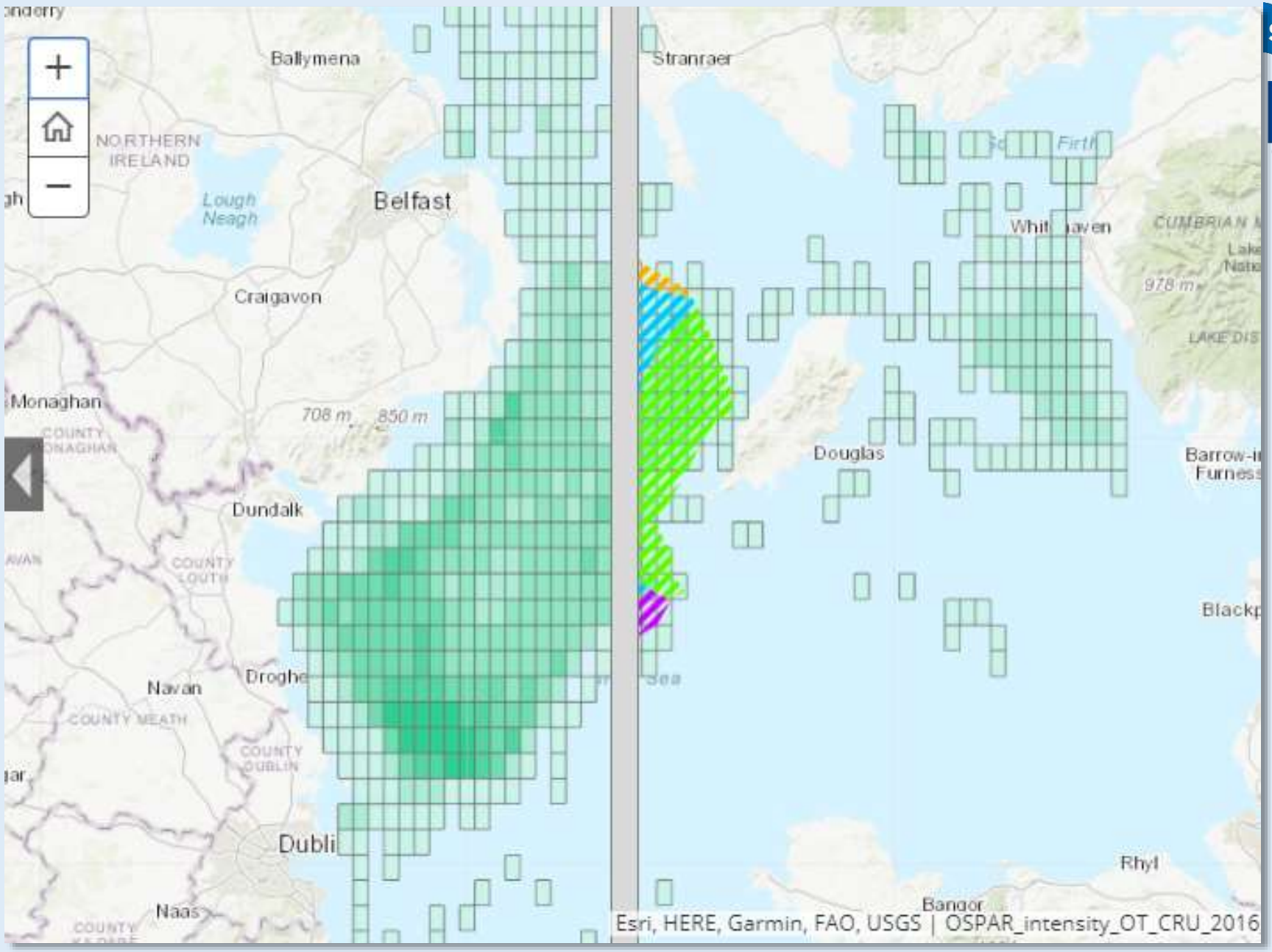


Co-funded by the European Union



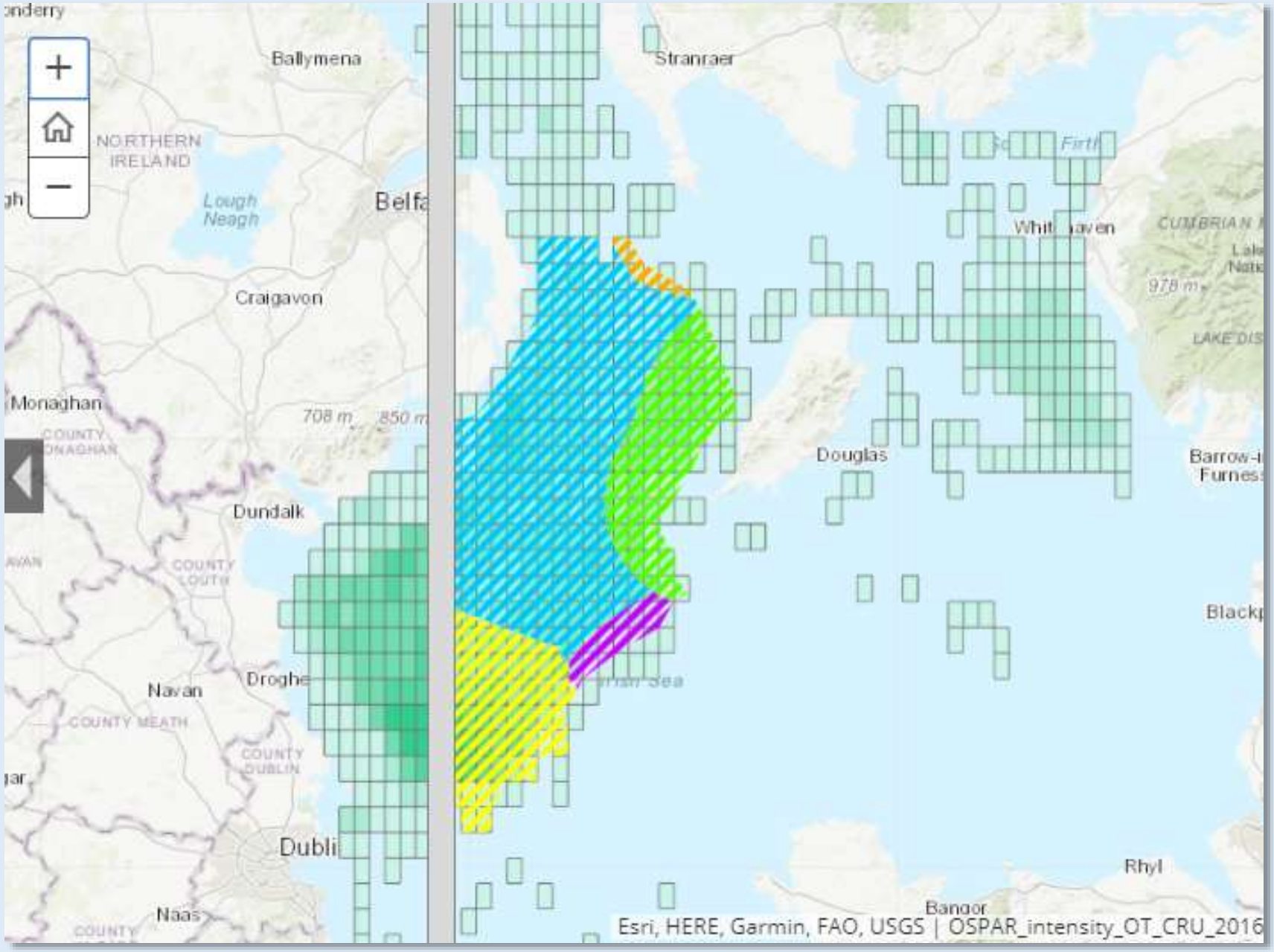
SIMCelt

Co-funded by the European Union



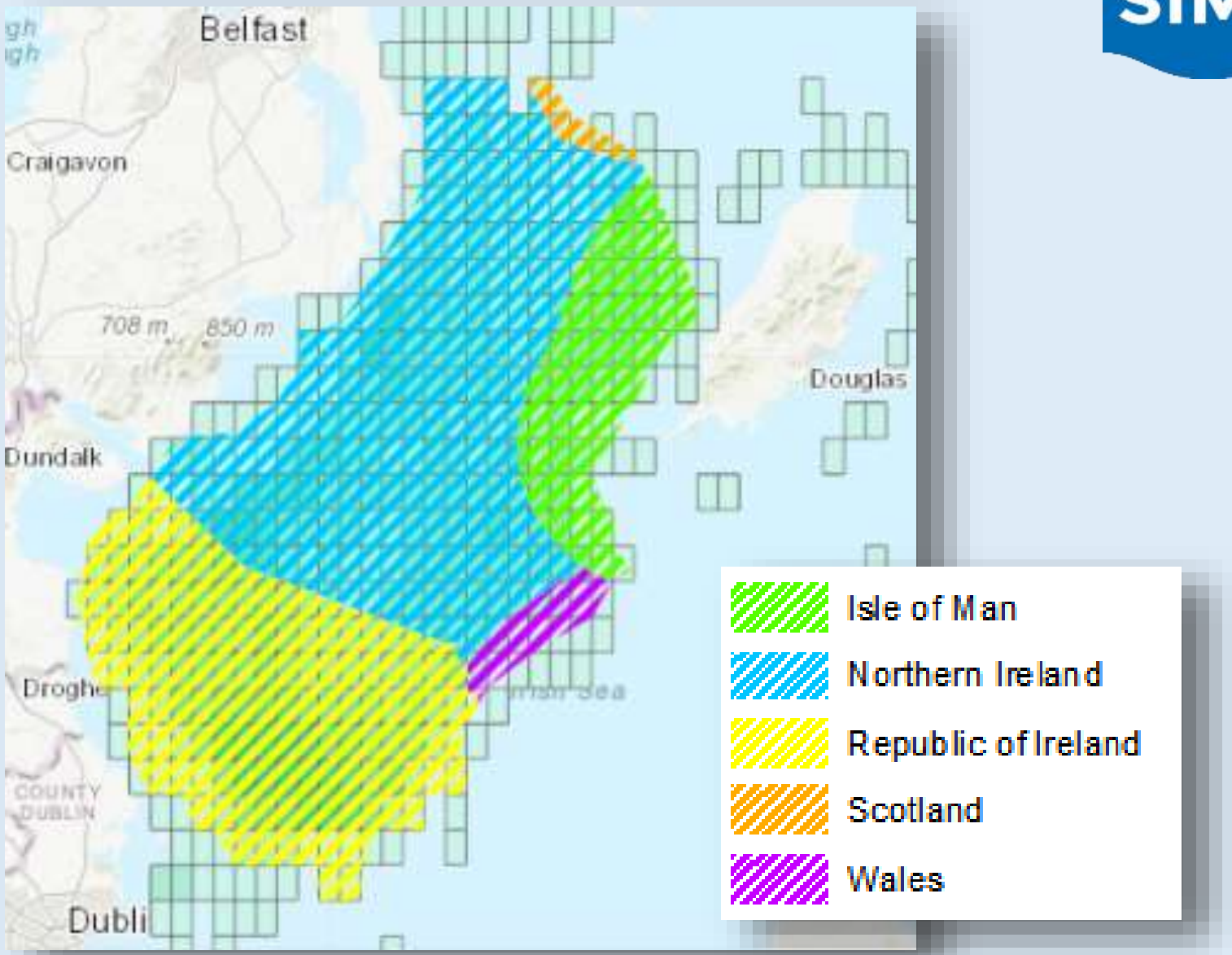
SIMCelt

Co-funded by the European Union



SIMCelt

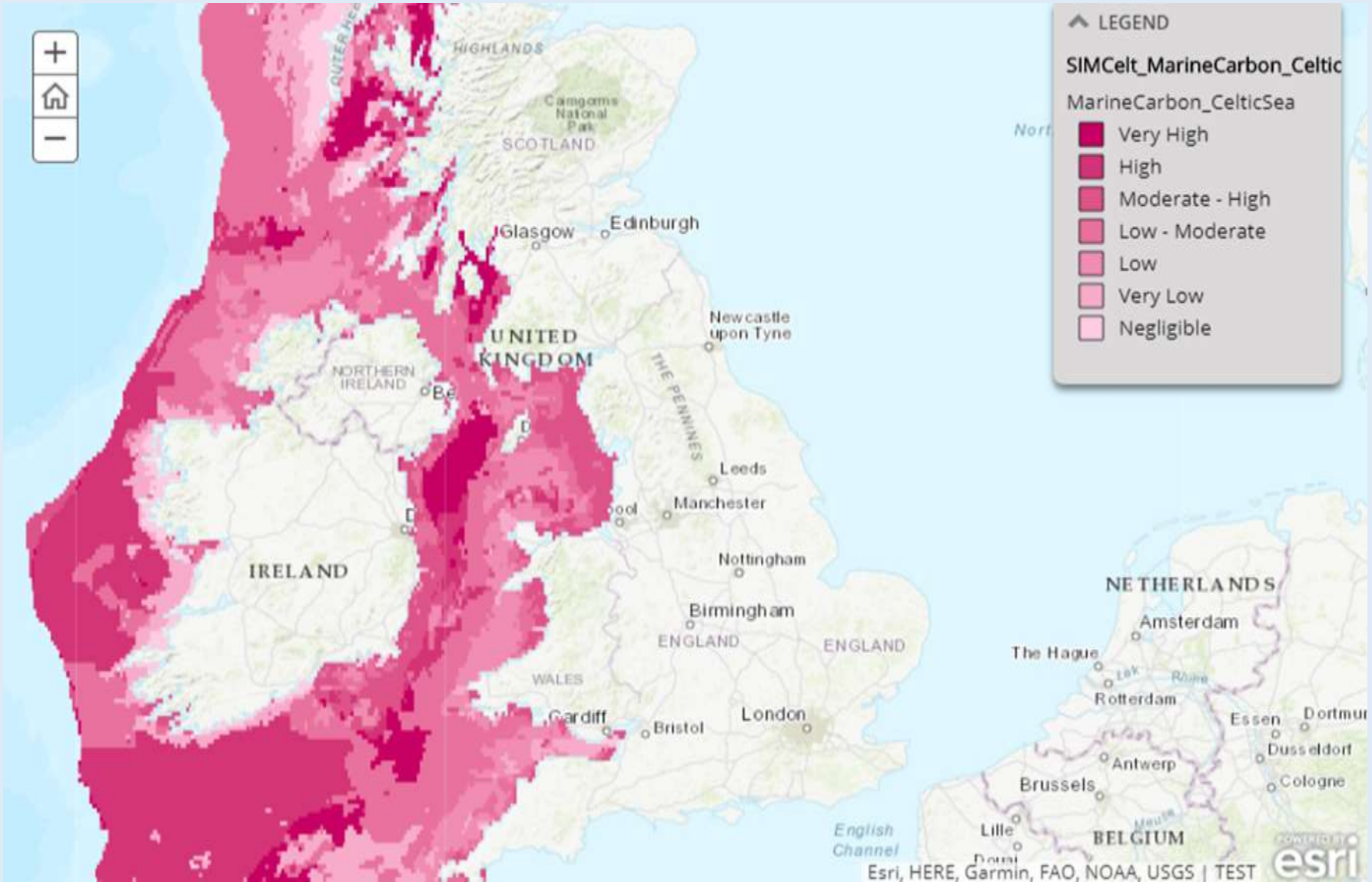
Co-funded by the European Union



SIMCelt
Co-funded by the European Union

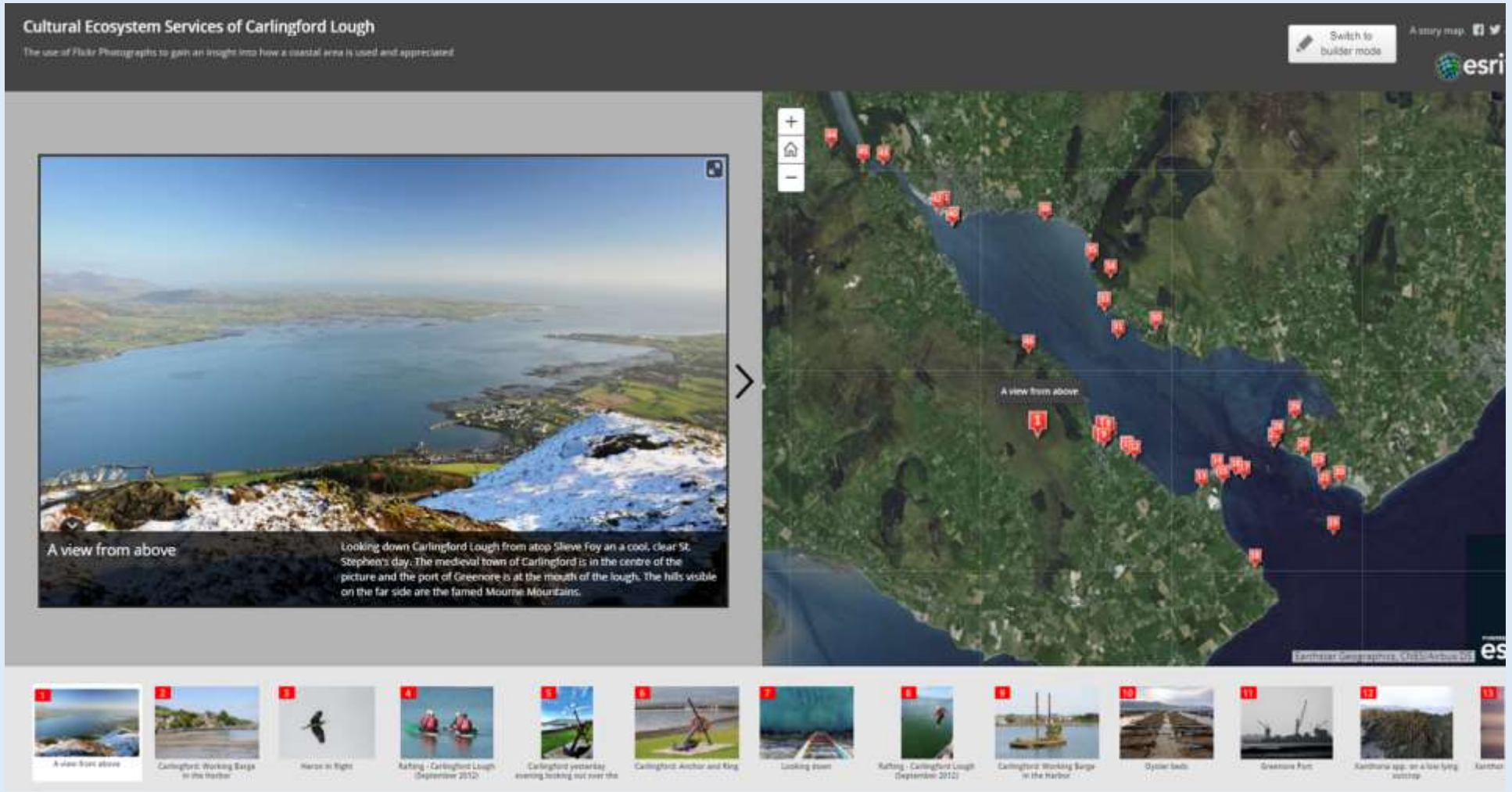
Regulating Service
Marine Sediment Carbon Storage

Co-funded by the European Union

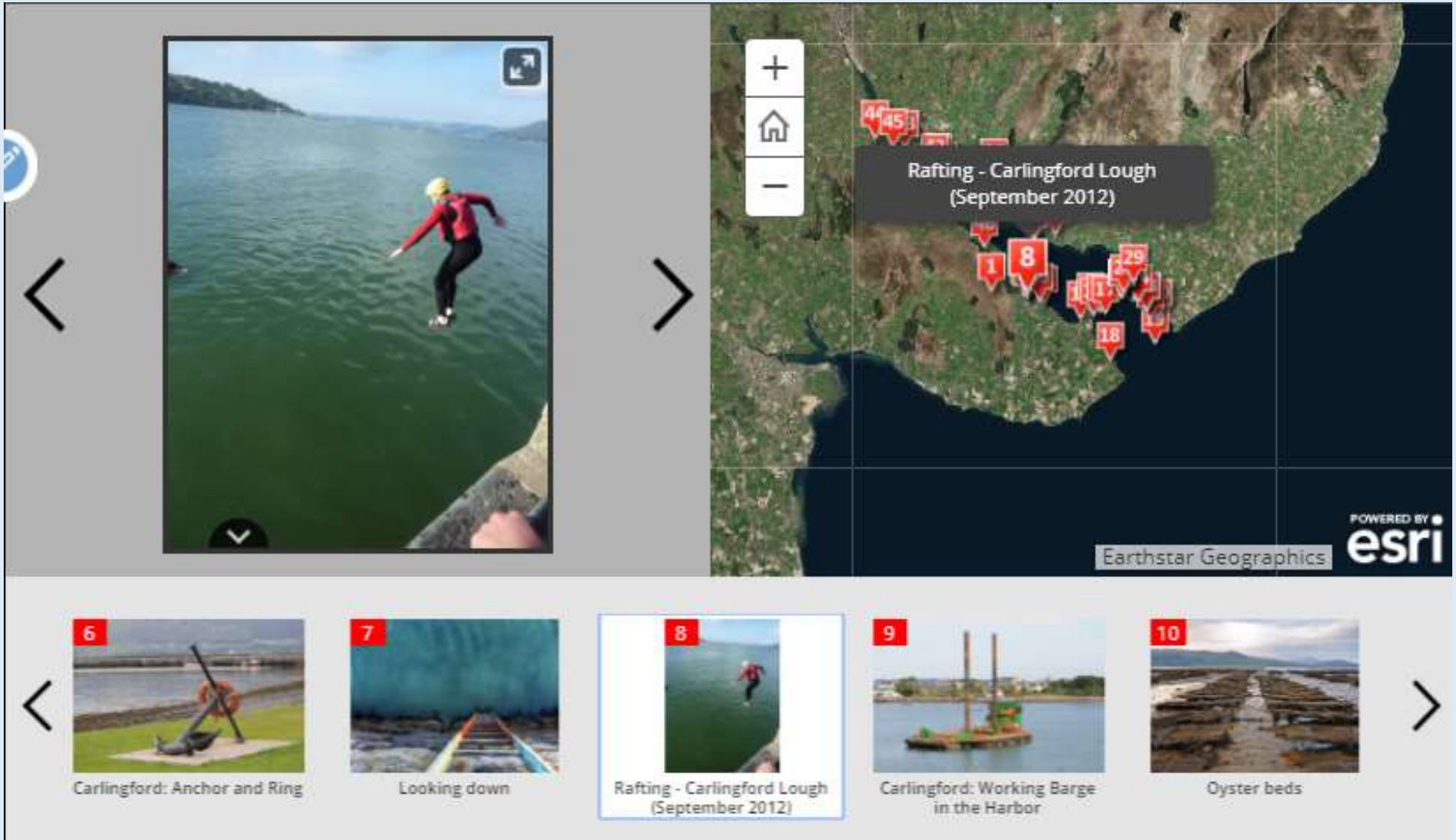


Cultural Services

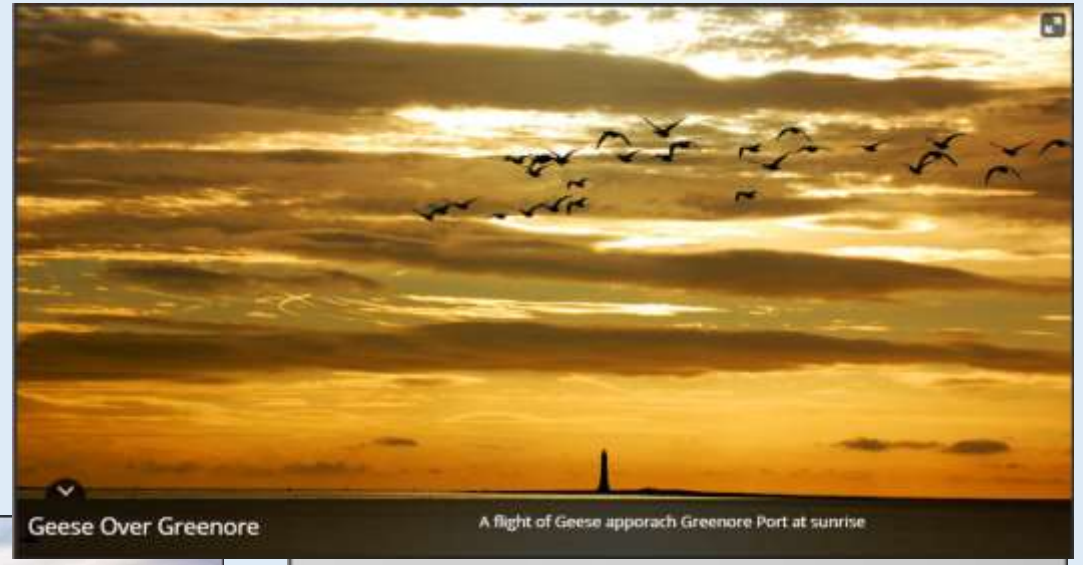
Co-funded by the European Union



Cultural Services

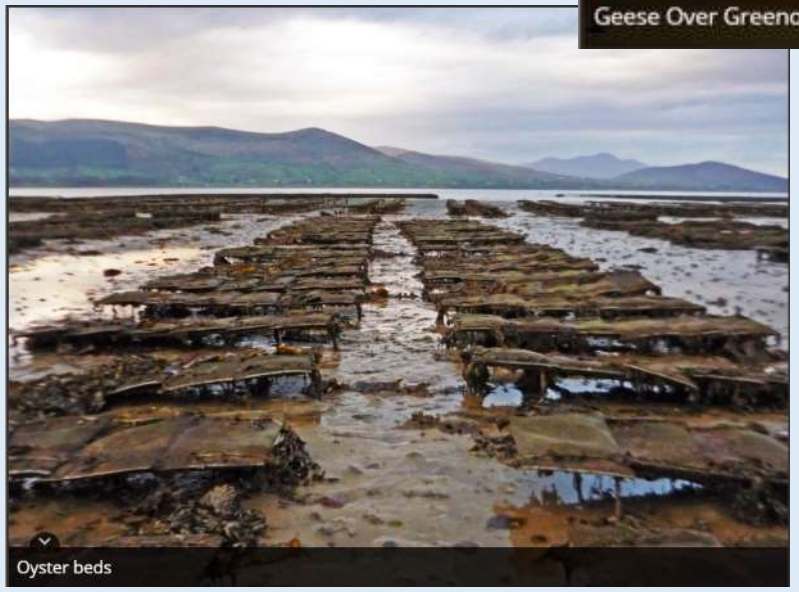


The old lighthouse

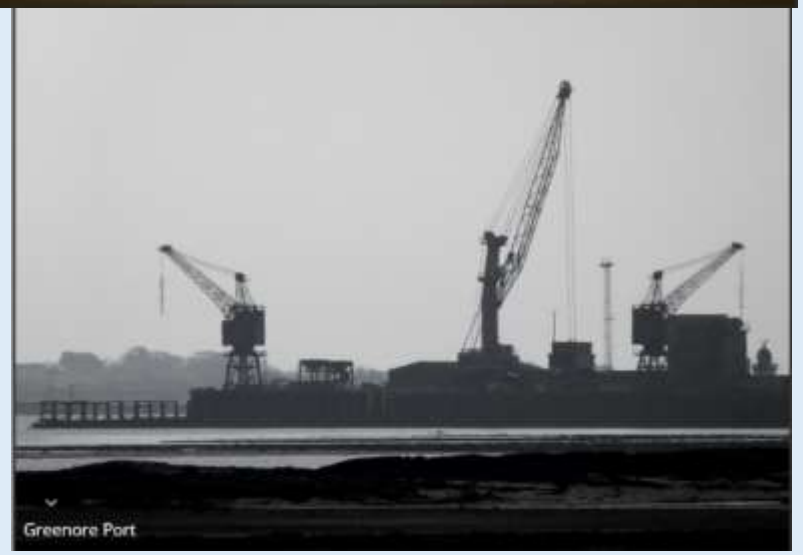


Geese Over Greenore

A flight of Geese apporach Greenore Port at sunrise



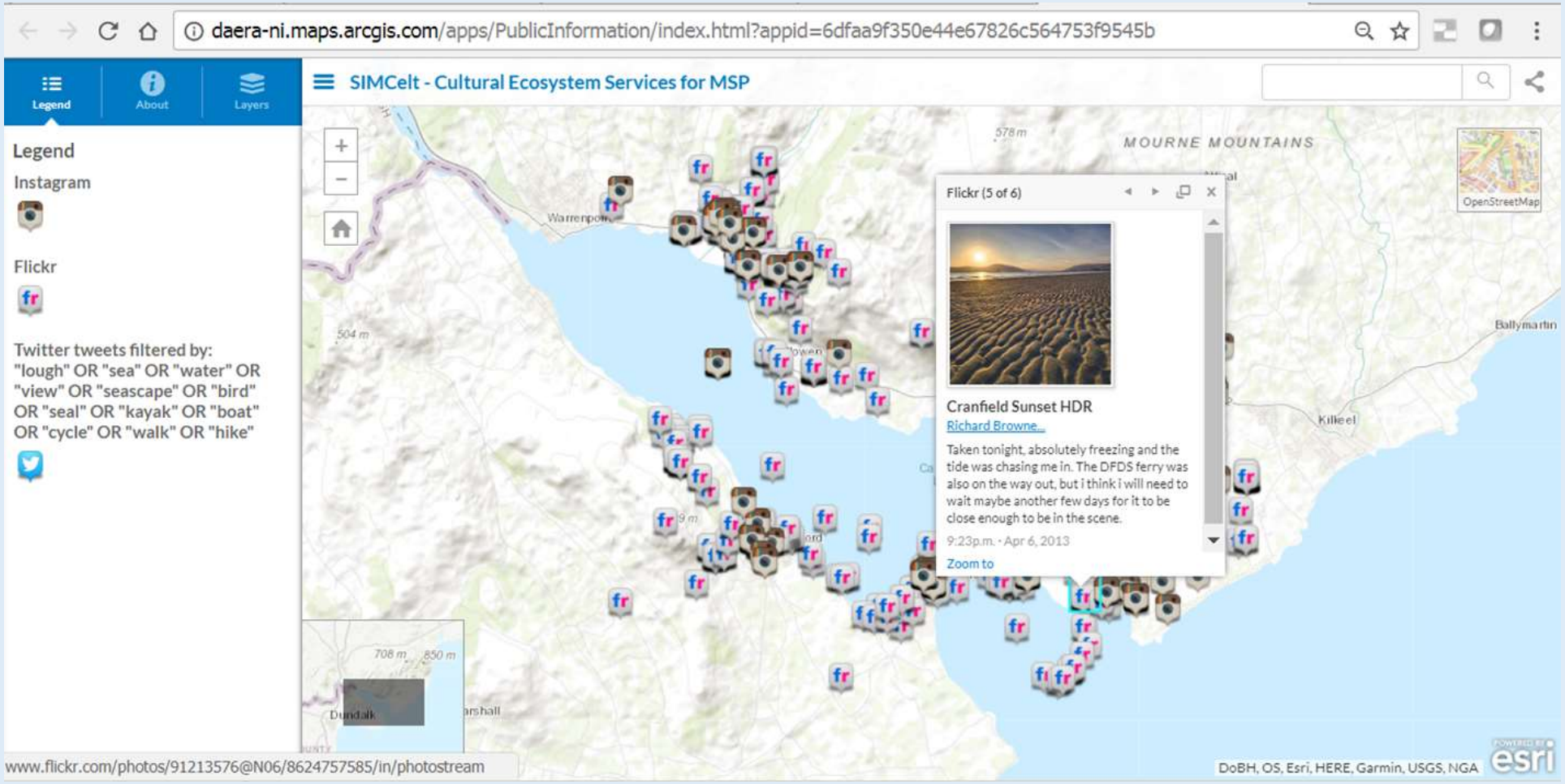
Oyster beds



Greenore Port

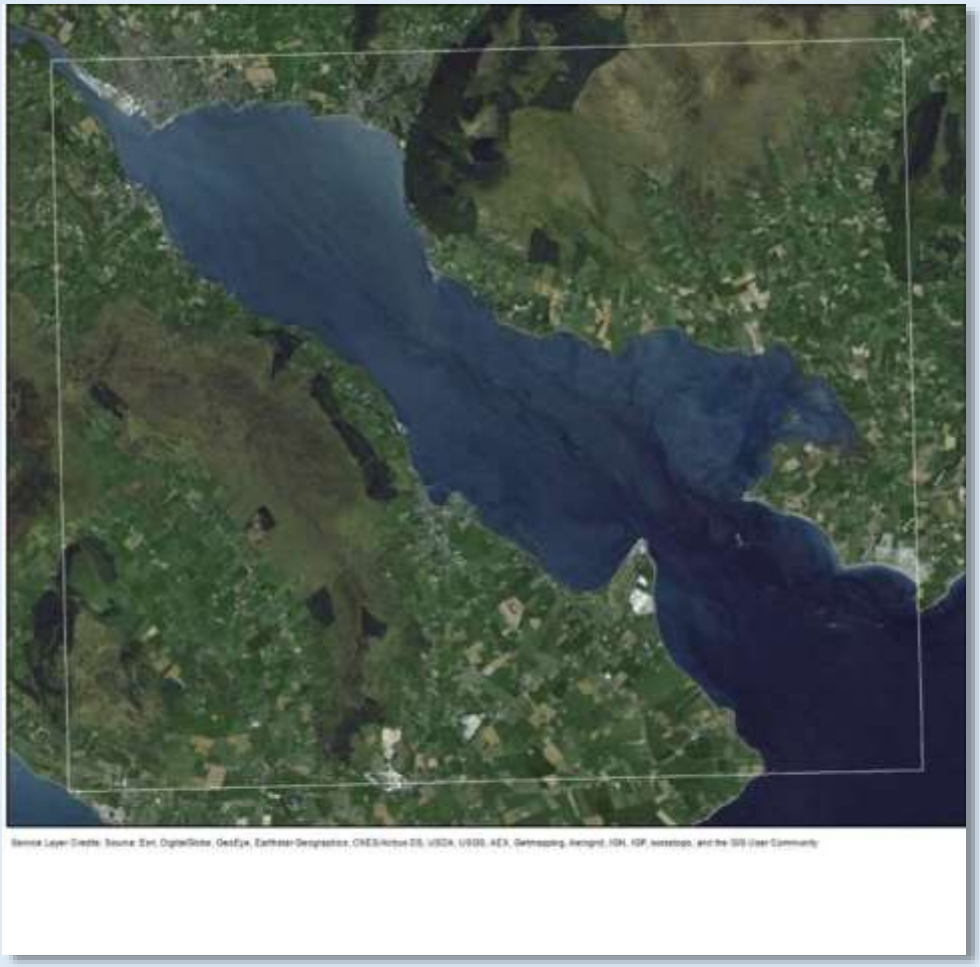
Co-funded by the European Union

Public Information Storymap



Co-funded by the European Union

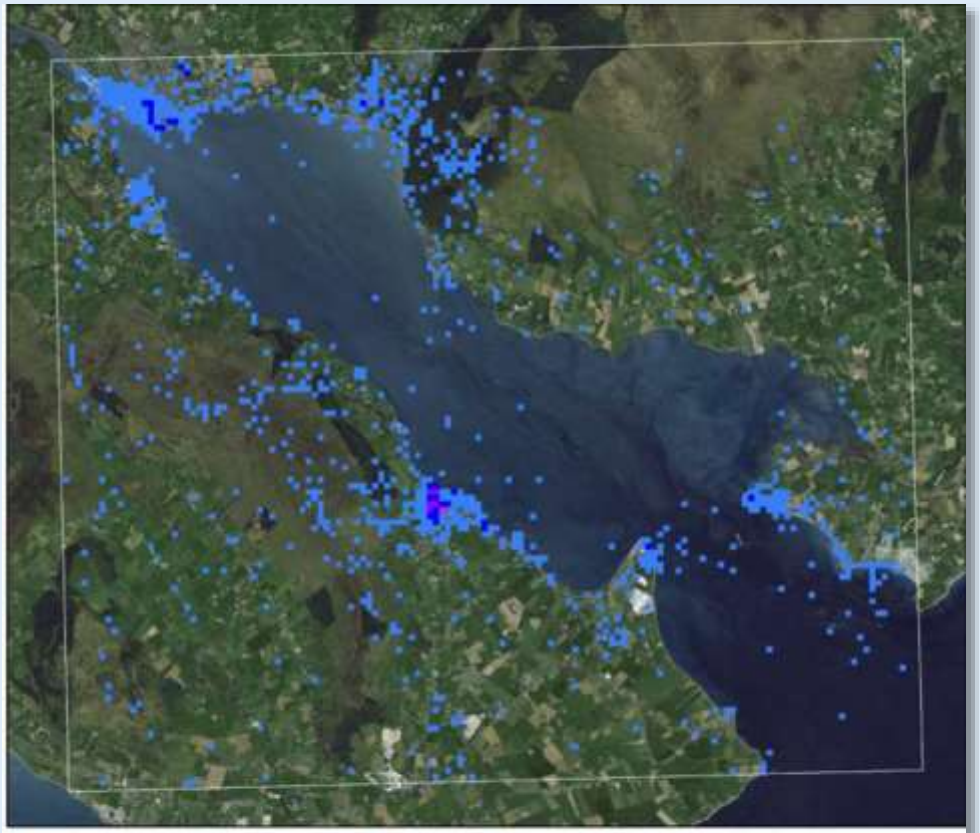
Quantitative Analysis of Flickr Photographs



Co-funded by the European Union

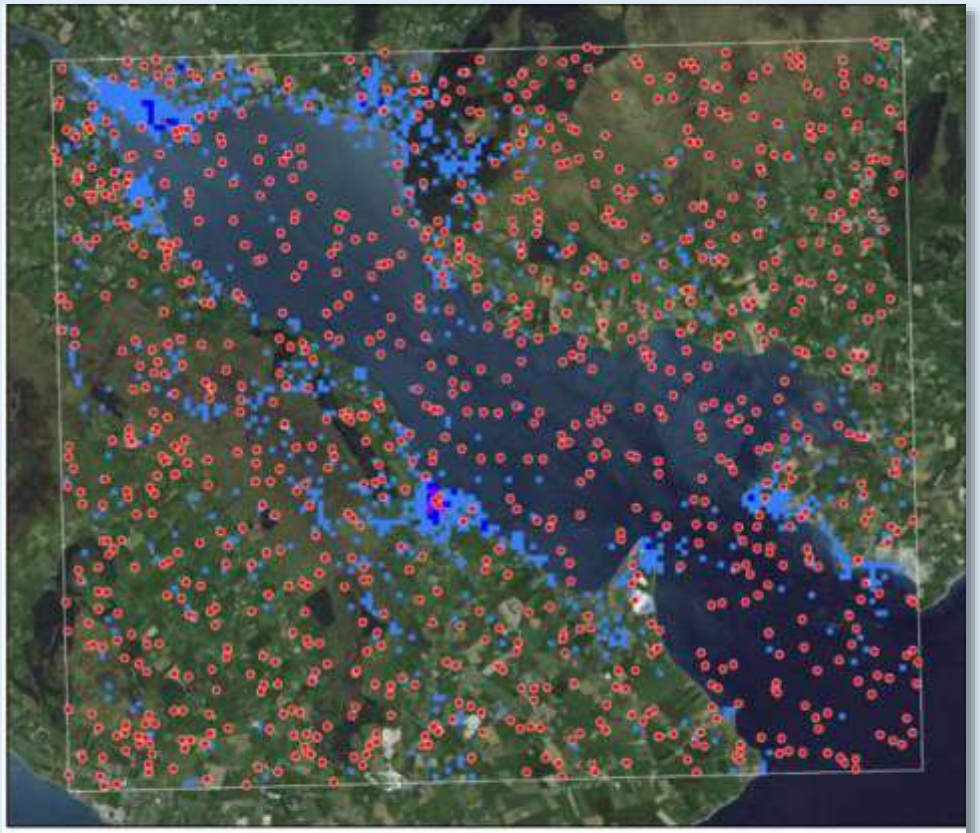
SIMCelt

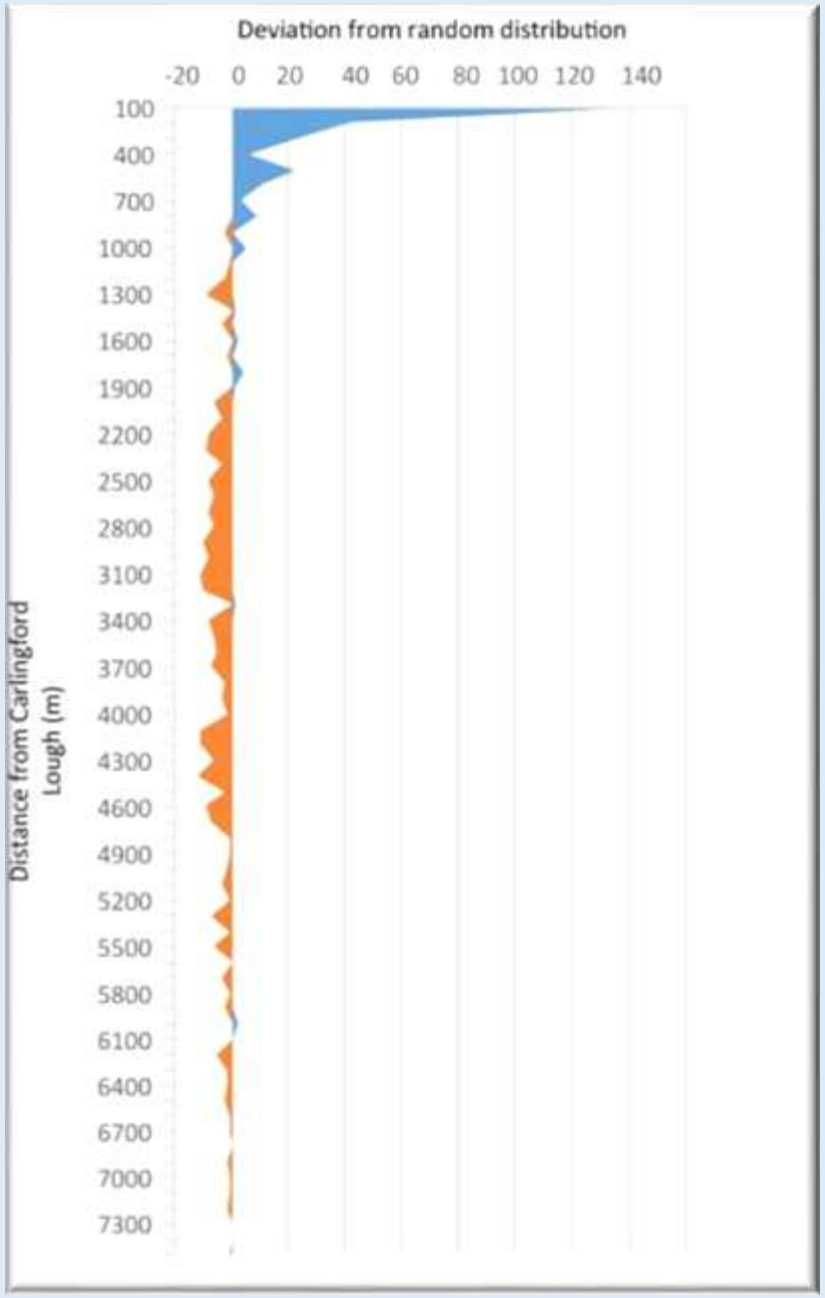
Co-funded by the European Union



SIMCelt

Co-funded by the European Union





SIMCelt

Co-funded by the European Union

An Ecosystems Based Approach for Decision Making

No issues detected × | Edit × | www.SIMCelt.eu

SIMCelt

Co-funded by the European Union

1 Benthic Ecosystems

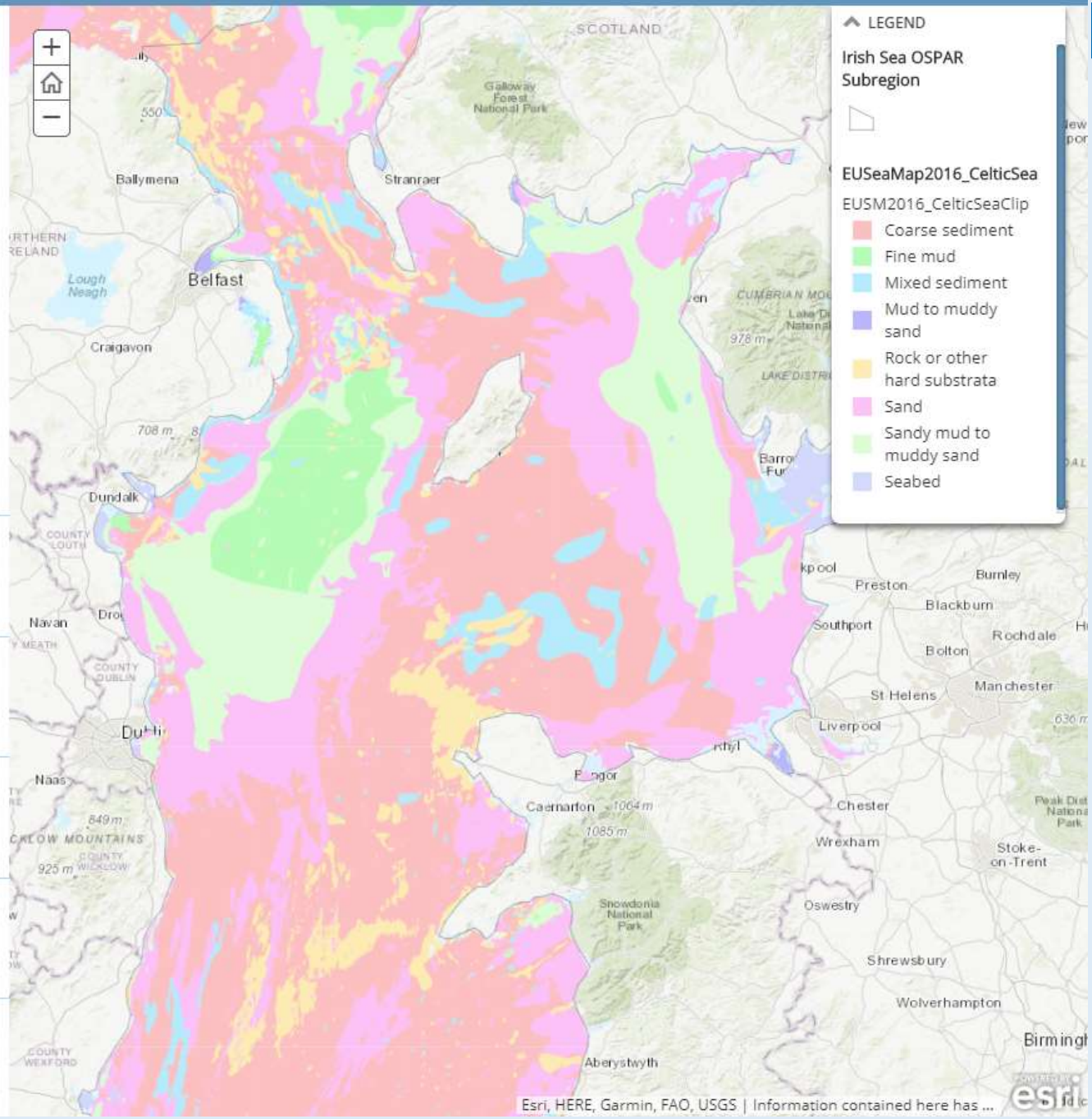
2 Regulating Service - Marine Sediment Carbon Storage

3 Provisioning Service - Fishing

4 Cultural Services

5 Pressure - Surface Fishing Intensity

6 Pressure - Subsurface Fishing Intensity



An Ecosystems Based Approach for Decision Making

No issues detected × | Edit × | www.SIMCelt.eu

1 Benthic Ecosystems

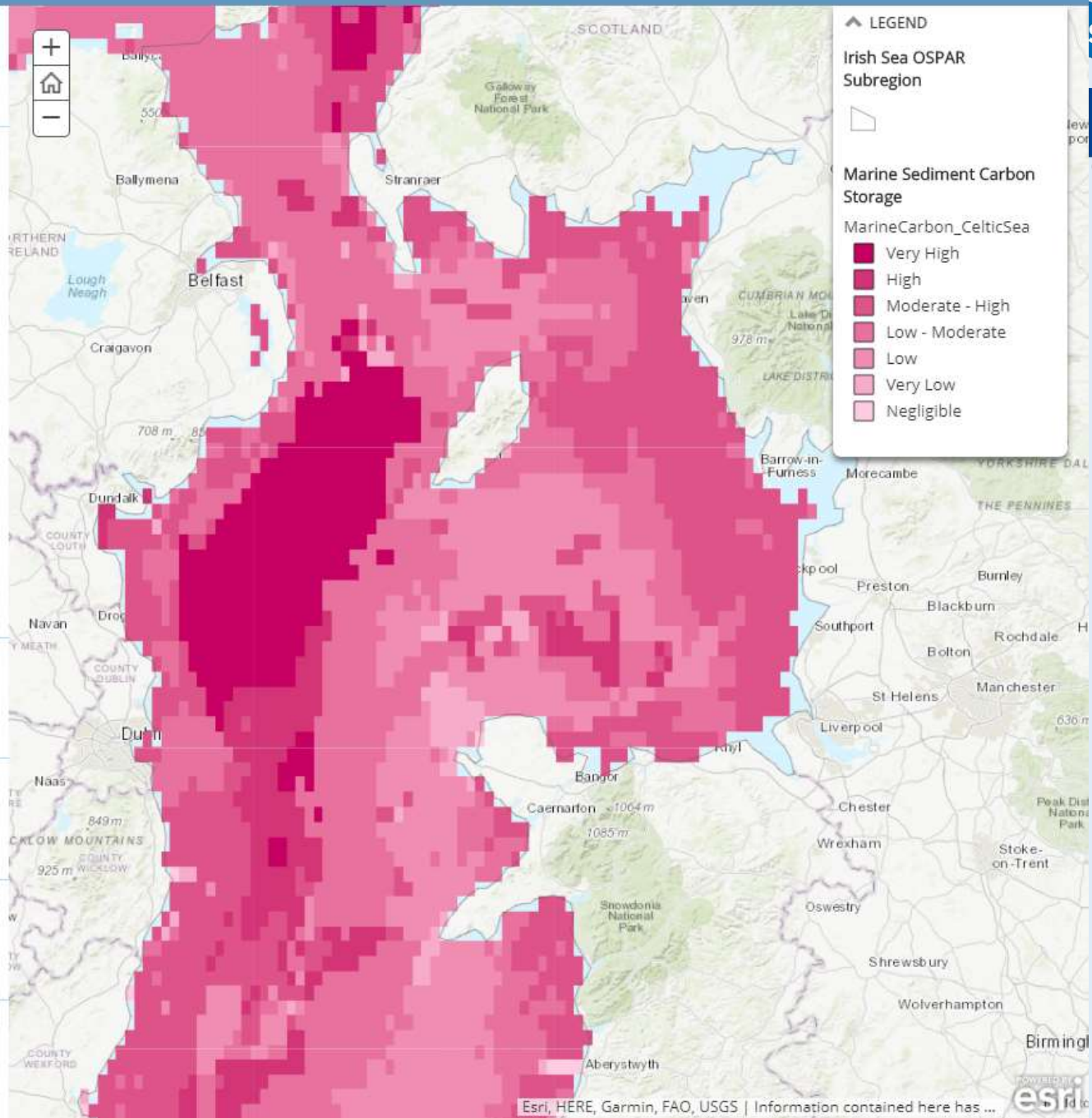
2 Regulating Service - Marine Sediment Carbon Storage

3 Provisioning Service - Fishing

4 Cultural Services

5 Pressure - Surface Fishing Intensity

6 Pressure - Subsurface Fishing Intensity



SIMCelt

Co-funded by the European Union

An Ecosystems Based Approach for Decision Making

No issues detected × | Edit × | www.SIMCelt.eu

SIMCelt

Co-funded by the European Union

1 Benthic Ecosystems

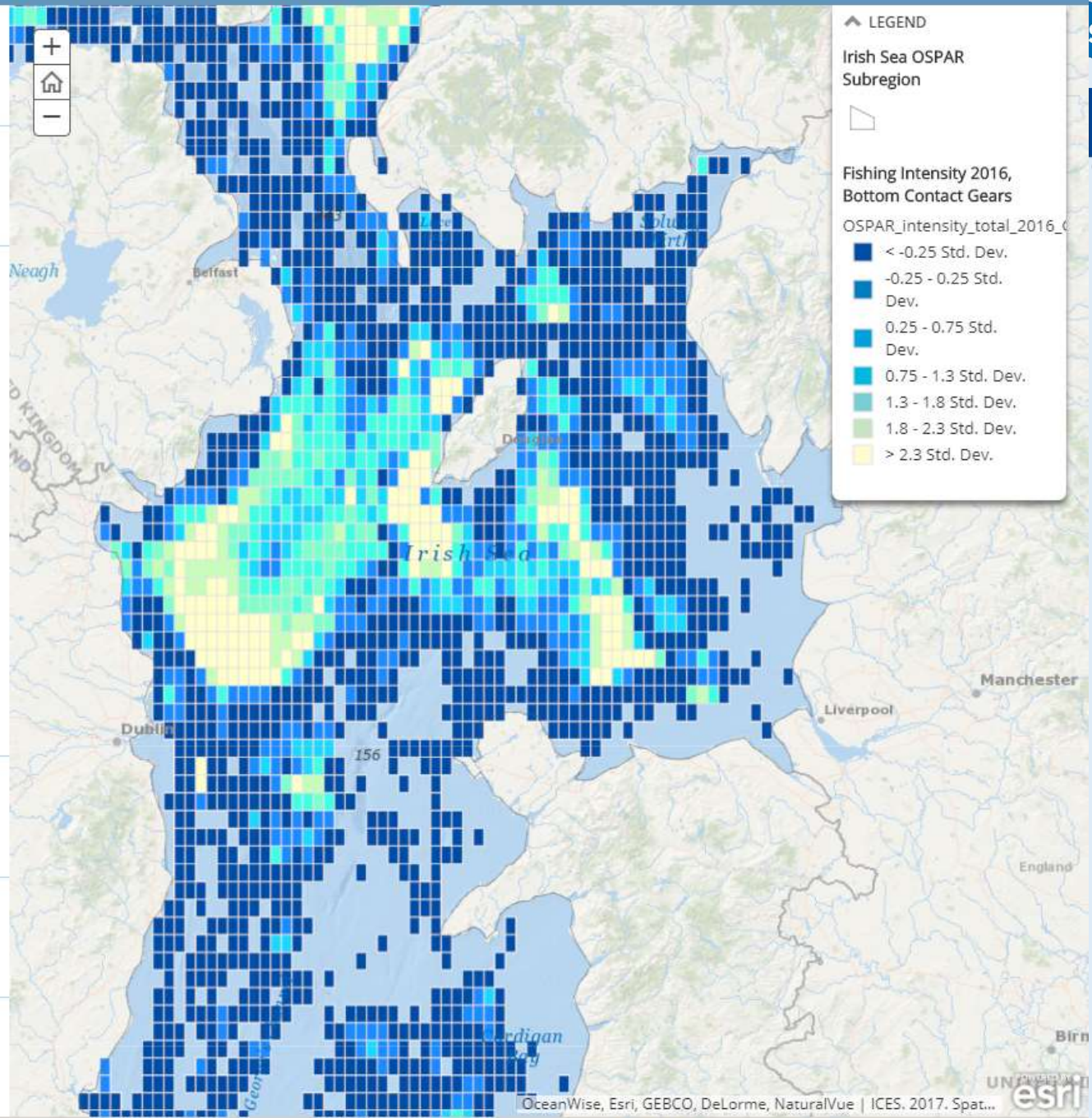
2 Regulating Service - Marine Sediment Carbon Storage

3 Provisioning Service - Fishing

4 Cultural Services

5 Pressure - Surface Fishing Intensity

6 Pressure - Subsurface Fishing Intensity



An Ecosystems Based Approach for Decision Making

No issues detected × | Edit × | www.SIMCelt.eu

1 Benthic Ecosystems

2 Regulating Service - Marine Sediment Carbon Storage

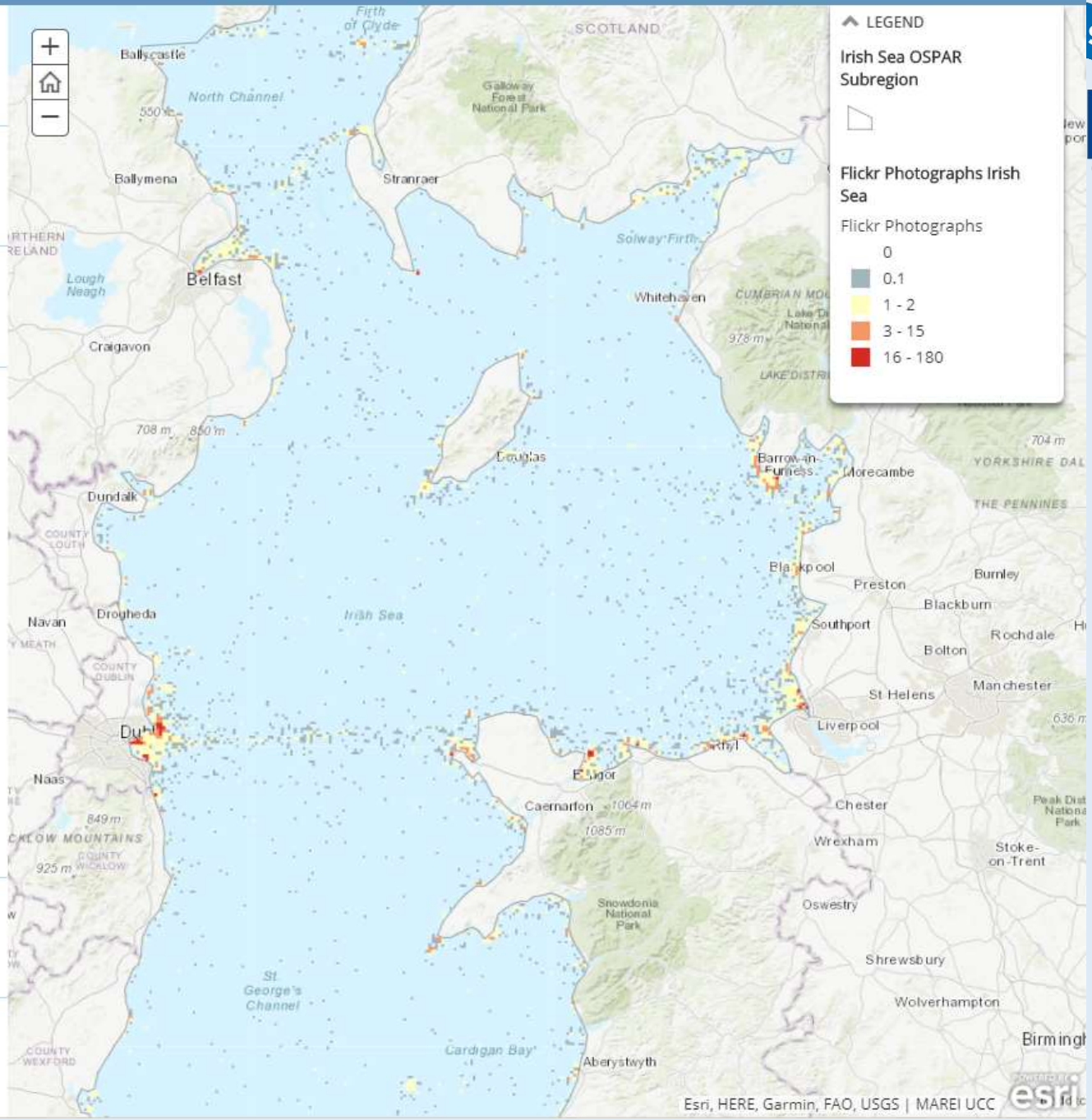
3 Provisioning Service - Fishing

4 Cultural Services

Distribution of Flickr photographs taken on Irish Sea 2005 - 2013. Photography Users Days spent in the lcoation.

5 Pressure - Surface Fishing Intensity

6 Pressure - Subsurface Fishing Intensity



SIMCelt

Co-funded by the European Union

An Ecosystems Based Approach for Decision Making

No issues detected × | Edit × | www.SIMCelt.eu

1 Benthic Ecosystems

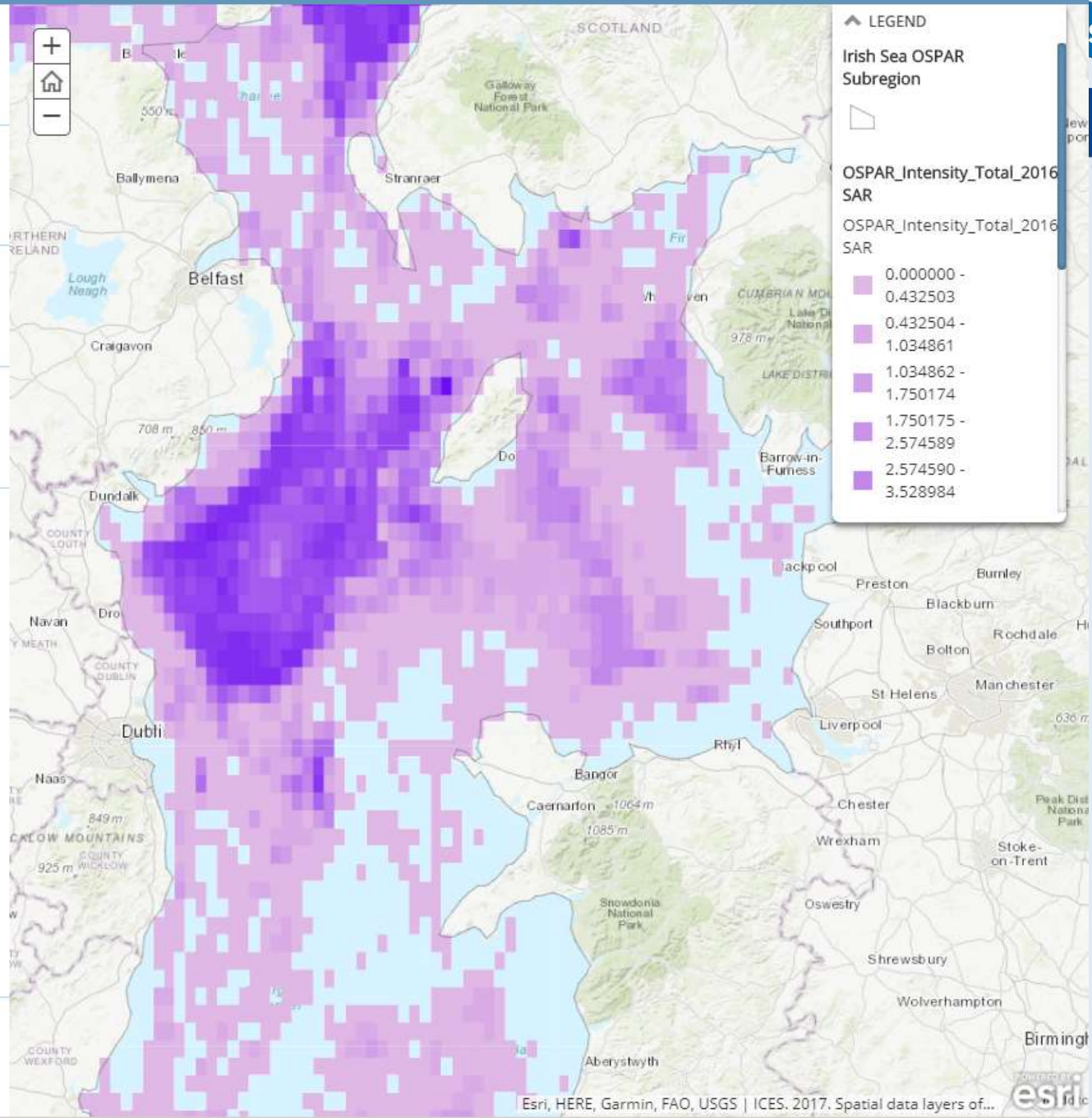
2 Regulating Service - Marine Sediment Carbon Storage

3 Provisioning Service - Fishing

4 Cultural Services

5 Pressure - Surface Fishing Intensity

6 Pressure - Subsurface Fishing Intensity



SIMCelt

Co-funded by the European Union

An Ecosystems Based Approach for Decision Making

No issues detected × | Edit × | www.SIMCelt.eu

1 Benthic Ecosystems

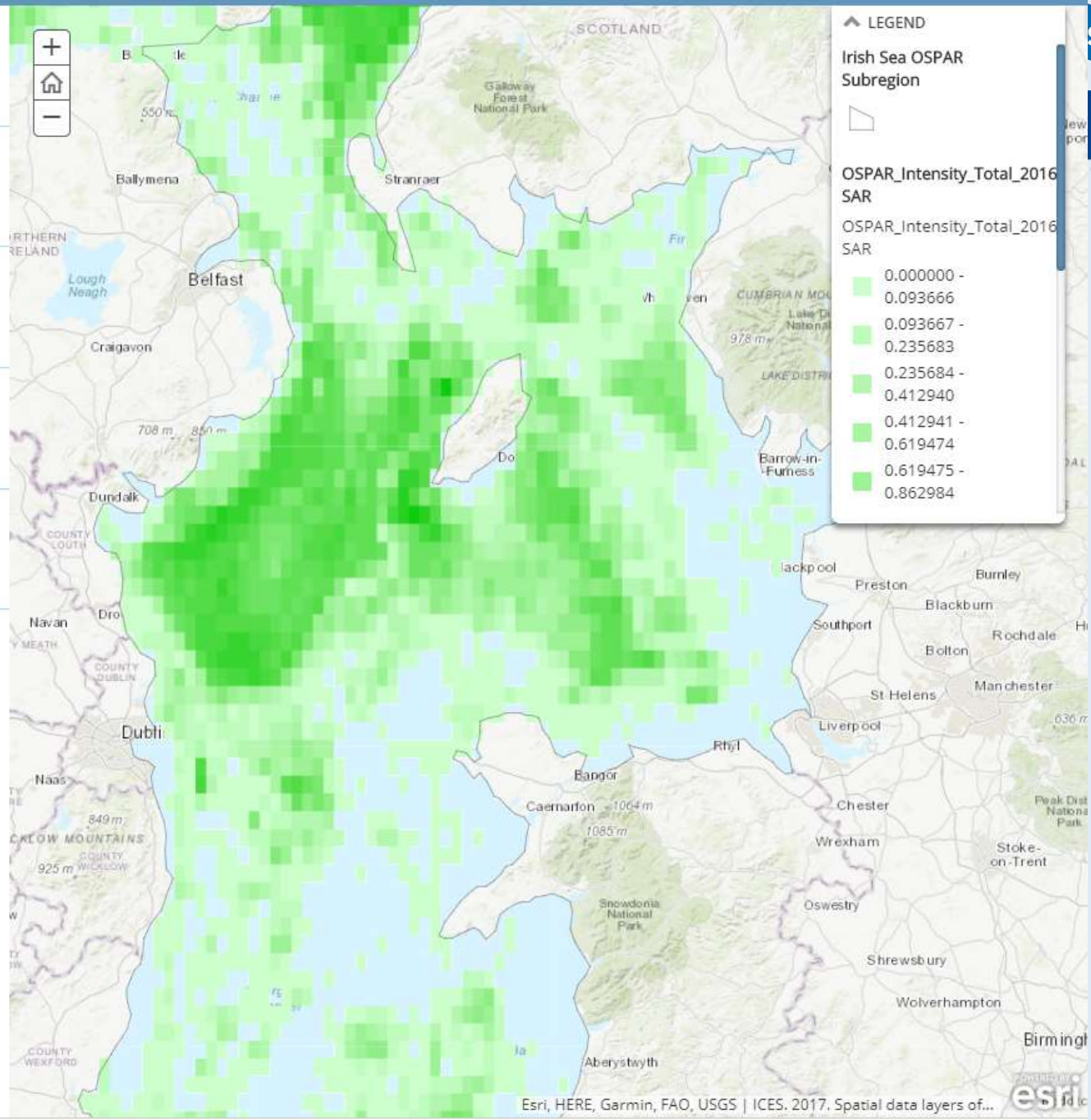
2 Regulating Service - Marine Sediment Carbon Storage

3 Provisioning Service - Fishing

4 Cultural Services

5 Pressure - Surface Fishing Intensity

6 Pressure - Subsurface Fishing Intensity



SIMCelt

Co-funded by the European Union

SIMCelt

Co-funded by the European Union

Thank you!

Aoibheann.rooney@daera-ni.gov.uk

AGENCE FRANÇAISE POUR LA BIODIVERSITÉ
Établissement public du ministère de l'Environnement

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

MaREI Centre for Marine and Renewable Energy

UCC University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Marine Institute
Foras na Mara

marinescotland
Scottish Government
Riaghaltas na h-Alba
gov.scot

SHOM
L'océan en référence

UNIVERSITY OF LIVERPOOL


SIMCelt

SIMCelt

Co-funded by the European Union

Evaluating MSP Ecosystem Approach

Dr Charlotte Hopkins
University of Liverpool

AGENCE FRANÇAISE POUR LA BIODIVERSITÉ
Établissement public du ministère de l'Environnement

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

MaREI Centre for Marine and Renewable Energy

UCC University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Marine Institute
Foras na Mara

marinescotland
Scottish Government
Riaghaltas na h-Alba
gov.scot

SHOM
L'océan en référence

UNIVERSITY OF LIVERPOOL

Ecosystem Based Approach

- Planning a sustainable future requires Ecosystem Management frameworks
- Recognises human society as integral part of the ecosystem
- Area based; Multi-species; Multi activity/sector

Co-funded by the European Union

Ecosystem Based Approach & Maritime Spatial Planning

- EBA lacked well described planning tools in marine environment
- Coupled framework of the Ecosystem-Based Approach with MSP
- Integrated, forward looking, consistent decisions on human use

Marine Strategy Framework Directive

"An Ecosystem-based Approach, whereby human activities affecting the marine environment will be managed in an integrated manner promoting conservation and sustainable use in an equitable way of oceans and seas."

Maritime Spatial Planning Directive

"The application of an Ecosystem-based Approach will contribute to promoting the sustainable development and growth of the maritime and coastal economies and the sustainable use of marine and coastal resources."

CBD Malawi Principles

Table 2
List of selected Malawi Principles for implementation of EBA and associated statements used as evaluation criteria.

Principle 1: The objectives of management of land, water and living resources are a matter of societal choice. Rationale: Biological and cultural values are given equal consideration.
1.1 Environment, social and economic values were given equal consideration.
1.2 EBA was explicitly integrated into planning goals/targets, principles or objectives.
1.3 Social and cultural values were identified and explicitly integrated to spatial analysis.
1.4 Economic values were identified and explicitly integrated to spatial analysis.
1.5 Data on selected human uses was standardised.
1.6 Environmental values were identified and explicitly integrated to spatial analysis.

Principle 2: Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems. Rationale: Ecosystems' openness and connectedness are considered.
2.1 Adjacent activities or ecosystems outside the MSP boundaries were considered.
2.2 Projected or potential effects from the management plan and activities within the MSP to adjacent ecosystems and communities were considered.
2.3 Environmental impact assessments (EIAs) were conducted or specified as a requirement of future development.

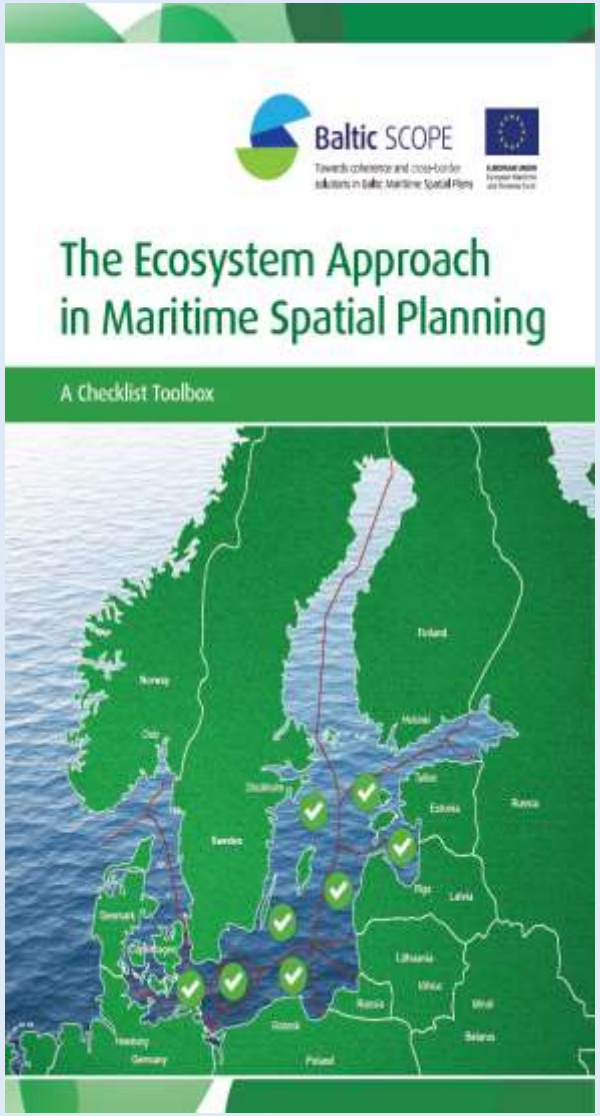
Principle 4: Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context. Rationale: undervalued ecosystems result in less diverse systems being promoted.
4.1 An overview of the social and economic context of management issues was provided.
4.2 Ecosystem goods and services were identified and explicitly integrated to spatial analysis.
4.3 Economic valuation methodologies for ecosystem goods and services were applied.

Principle 5: Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach. Rationale: Ecosystem functioning and resilience depends on maintaining dynamic relationships.
5.1 An overview of ecosystem functioning and dynamic relationships was provided (including physical and chemical interactions).
5.2 Risks/threats to ecosystem structure and function were considered.
5.3 Risks and uncertainties from uses were considered.
5.4 Risks and uncertainties from uses were analysed quantitatively.
5.5 Management strategies and practices were adopted to facilitate recovery or restoration of ecosystem structure and function (including threatened components).

Principle 6: Ecosystem must be managed within the limits of their functioning. Rationale: ensuring limitations to the level of demand that can be placed on an ecosystem.
6.1 Management goals and practices to avoid or minimize adverse environmental impacts were adopted.
6.2 Unsustainable practices were identified and changes were adopted.
6.3 The precautionary approach/principle was adopted.
6.4 An adaptive management approach was adopted.
6.5 Future/ongoing environmental assessments and monitoring programs were adopted.

Principle 7: The ecosystem approach should be undertaken at the appropriate spatial and temporal scales. Rationale: Connectivity should be promoted where necessary.
7.1 The scope of the process was defined through operational and administrative criteria yet included ecological boundaries.
7.2 Geographical scope of the process considered terrestrial and/or catchment units.

Principle 10: The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity. Rationale: There is a need for promoting a full range of measures from strict protection to multiple-use areas.
10.1 Both strict conservation and multiple-use conservation zones were identified and promoted.



The final agreed PISCES principles are:

1. **Stakeholder role:** stakeholders should adopt an active and committed role to achieve the common goal of the ecosystem approach; stakeholders should be involved in all aspects of management leading to a shared understanding of objectives.
2. **Balance:** there should be a suitable balance between conservation and the sustainable use of resources in the interests of the health of the whole ecosystem.
3. **Evidence:** an evidence-based system should be used to integrate social, environmental and economic interests.
4. **Adaptive:** management should use an iterative and flexible approach.
5. **Timescales:** management should be set for the long-term with short- and medium-term objectives and milestones and should enable involvement of future stakeholders.
6. **Economic sensitivity:** involvement in implementing the ecosystem approach should not create an economic disadvantage but should promote responsible and sustainable behaviour.
7. **Subsidiarity:** management should be undertaken by the smallest, lowest, or least-centralised competent authority.
8. **Connecting international through to local:** local and sectoral strategies, plans and policies should be harmonised and priorities established to reflect national and international goals and objectives for conservation and sustainable use.
9. **Review and monitoring:** an effective and targeted performance monitoring and review regime should be used to inform management.
10. **Adjacent impacts:** consideration should be given to how events or actions in the Celtic Sea can influence or be influenced by events or actions on the land, in the air or in different parts of the ocean.
11. **Involve and inform:** management should involve and inform all relevant sectors of society and scientific disciplines.

The PISCES principles reflect many of the same elements as the Malawi principles but with a more explicit emphasis on stakeholder involvement (Principle 1) and the need to connect strategies and management across multiple scales (Principle 8).

Key Elements

- *Best knowledge and practice*
- *Precaution*
- *Alternative development*
- *Identification of Ecosystem Services*
- *Mitigation*
- *Relational understanding*
- *Participation and communication*
- *Subsidiarity and coherence*
- *Adaptation*

Co-funded by the European Union

Example- Latvia

- EBA applied in development of Latvian MSP

- EBA applied in all steps
  - Assessing possible negative impacts on natural assets

- Strategic Environmental Assessment

- MPAs

EA- MSP Evaluation

- MSP is cyclical- reviewed and adapted
- Meaningful evaluation needs:
  - Unambiguous objectives of MSP
  - Appropriate indicators
  - Effective monitoring
- Need to develop Evaluation approaches that include EA indicators

Co-funded by the European Union

Examples

- Key Findings of Baltic-Scope Checklist:
  - Checklist is a good indication of country progress towards EA

- Dominguez-Tejo et al. (2016)
  - Design, conceptual and methodological differences
  - Need social objective development
  - Non-market/ Cultural values poorly represented

Co-funded by the European Union

Evaluation Questions

- How have social, economic and environmental values been integrated into the spatial planning analysis?
- How has cross-boundary/border/realm connectivity been address by the planning teams?
- How will the environmental impacts of the plan be monitored and audited?

Co-funded by the European Union

Challenges to Implementation

- *MSP still considered new tool- few implemented cases*
- *No single MSP approach*
- *MSP performance hard to judge*
- *Land sea interactions*
- *Requires multidisciplinary approach*
- *Transboundary nature*
- *Climate change*

Co-funded by the European Union

SIMCelt Evaluation Work

- Marine Authorities:
  - Northern Ireland, Wales
- Tailored framework
- Sectoral evaluation approach

Co-funded by the European Union

Further Evaluating the Ecosystem Approach

- Questions for the SIMCelt Project:
  - Have/How the project regions implemented the Ecosystem Approach?
  - How can we include Evaluation of EA as part of the Evaluation package?
  - Are the current evaluation approaches sufficiently ecosystem-led?

Evaluation as a Future Orientated Activity

- Evaluation looks back at what has been achieved:
  - Progress made
  - Objectives achieved
  - Lessons learned

- Evaluation inform future progress:
  - Taking the lessons learned and applying for future iterations
  - Adaptive and ongoing process

- Forward looking:
  - How can we improve?
  - Link with future scenarios?

Summary

- EBA-MSP framework can facilitate identifying & overcoming knowledge gaps
  - Management of multiple human uses
  - Transboundary elements
  - Impacts on natural and socio-economic systems
- Most MSP cases have EBA as their guiding framework
- Should be a key part of evaluation

Co-funded by the European Union

Thank You

Stephen Jay

Sue Kidd

Lynne McGowen

Charlotte Billingham

Co-funded by the European Union


SIMCelt

Marine Management Organisation

SIMCelt

SIMCelt closing conference – NW and SW Marine Plans options update

Hannah Marriott

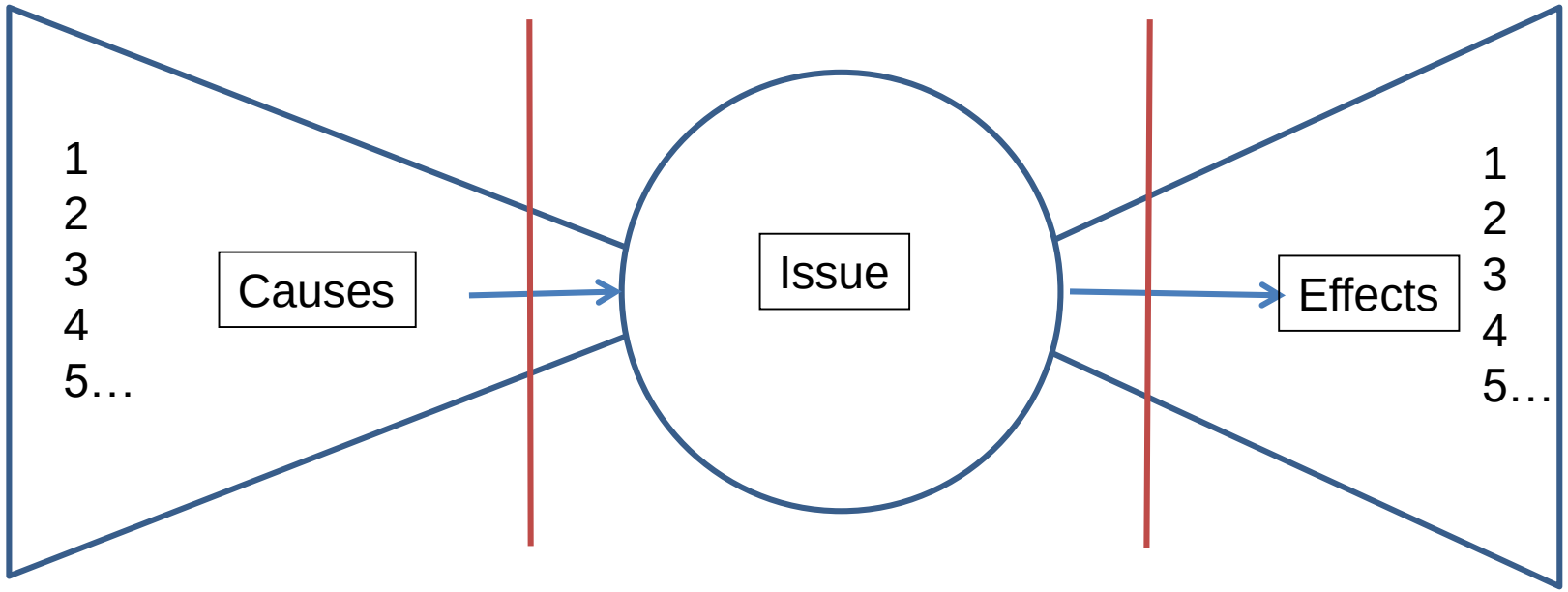
November 2017

Outline

- Marine planning options process for IT2
- Developing reasonable alternatives
- Examples of potential responses
  - Marine litter
  - Tidal lagoons
- Current issues and potential response in NW and SW
- Next steps

Marine planning options process for IT2

- Previous work looked at cause and effect of issues
- Used the ‘bow-tie’ method



Potential response – preventative policy/signposting

Potential response – mitigating policy/signposting

Developing reasonable alternatives

- Questions to consider

- Is it necessary?
- Mode or process – how should it be done?
- Timing and detailed implementation
- Details
- Compatibility

Potential responses – Marine Litter

Potential responses – Marine Litter

Shellfish hoovers – evidence suggests that some types of shellfish will consume plastics in high concentration – could establish shellfish beds to consume these plastics near outfalls and act as a natural hoover. Directly reducing a cause of litter

Existing S-ML-1 policy – public authorities should ensure adequate provision for and removal of beach and marine litter on amenity beaches - policy that deals with direct effects of litter

DRAFT

Marine litter

For terrestrial housing development any sewage/drainage systems must have filters for micro plastics. Directly reducing a cause from land

Tyre Crumb – a potential response could be a policy that promotes marine transport the effect of the policy the number of vehicles (and tyres) on the road. Indirectly reducing a cause of litter

Potential responses – Tidal Lagoons

Potential responses – Issues in NW

The envir protected within ma biodiversi and speci and/or en	Addressed t support from	Proposals that may have significant adverse impacts on natural habitat and species adaptation, migration and connectivity must demonstrate that they will, in order or preference: a) avoid, b) minimise c) mitigate significant adverse impacts
Support hi outside of population unsatisfac	S-MPA-2 is need to inte to highly mo Scottish, No Welsh mari guided by S species and	Proposals that may have adverse impacts on an individual marine protected area's ability to adapt to climate change and so reducing the resilience of the marine protected area network must demonstrate that they will, in order of preference: a) avoid, b) minimise c) mitigate significant adverse impacts
Over 80% Natura 20 the import Natura 20 this into ac	S-MPA-1 is appropriate	Proposals must take account of any adverse impacts on the objectives of marine protected areas and the coherence of the overall marine protected area network, with due regard given to any current agreed advice on an ecologically coherent network.

Potential responses – Issues in SW

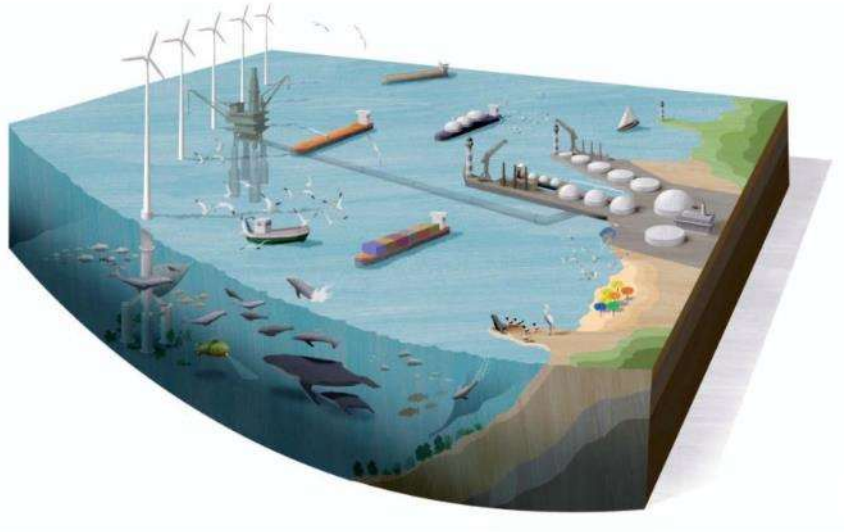
There is a of biodiver of the rate developme challenge.	Amended B following sta	SW-BIO-5: Proposals for development that enhance net biodiversity and geo-diversity will be supported
Recreatio upon by c same spatial area. Rec also at risk from the de protected areas, depe management measure.	Amend CO stakeholder	Proposals will optimise their use of space and consider opportunities for co-existence and co-location with other activities
Marine pro sectors an implement with marin	An amende MPAs	Proposals must avoid any adverse impacts on the objectives of marine protected areas and the coherence of the overall marine protected area network. Due regard must be given to any current agreed advice on an ecologically coherent network.

Next steps

- Development of IT2 package
- Covering
  - Vision
  - Reasonable alternatives
- Engagement on reasonable alternatives
- Asking stakeholders for their preferred option for addressing the issues raised in the plan area

Questions?

Contact details



Web: www.marinemanagement.org.uk/marineplanning

Email: planning@marinemanagement.org.uk

Phone: **0208 0265 325**

Follow us on Twitter **@the_MMO #marineplanning**


SIMCelt