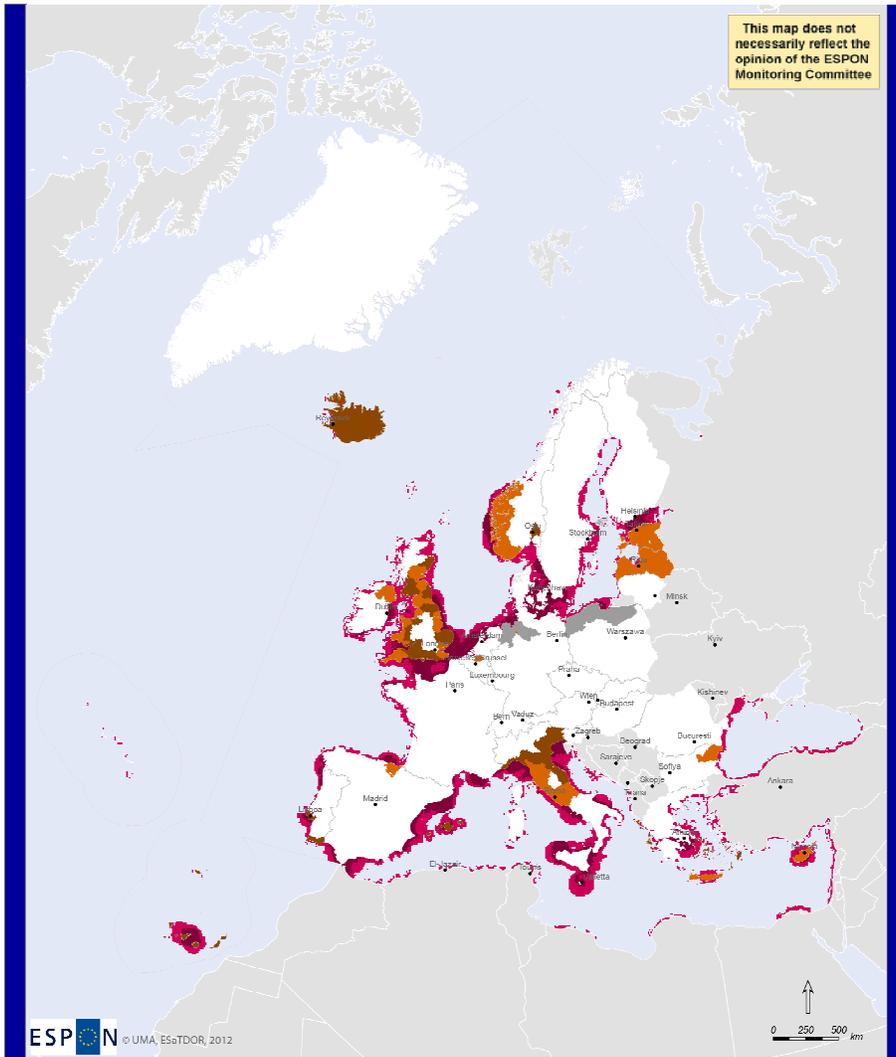


ESPON 2013 Programme / Map of the Month



“Hot Spots” of land-sea interactions



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Thematic data: Typology Atlas.
 Land boundaries: © EuroGeographics Association and ESRI. Regional level: NUTS2.
 Sea boundaries: OSPAR Convention, EU Integrated Maritime Policy and EEZ.

Typology Map (hotspots)

Sea (Environmental Pressures and Flows)

-  High intensity
-  Very high intensity

Land (Economic Significance)

-  High intensity
-  Very high intensity
-  No Data

This map shows where land-sea interactions are at their most intense in Europe's seas. The effect of the sea on the land is measured in terms of economic significance employment in maritime sectors) and the effects of anthropogenic activities on the sea are resented by environmental pressures (pollution from pesticides and fertilisers, incidence of invasive species introduced by shipping) and flows (of goods, including container traffic and liquid energetic products, people, from cruise ships and information, from telecommunications cables).

15 July 2013 - The Territorial Agenda 2020 addresses maritime activities as essential for territorial cohesion in Europe and establishes that Maritime Spatial Planning (MSP) should be integrated into the existing planning systems. On the same line, the EU Integrated Maritime Policy calls for MSP in order to enable harmonious and sustainable development of a land-sea continuum.

Currently, there is a growing competition for maritime space for renewable energy infrastructures, aquaculture, and other activities with the potential of fostering the so-called ‘blue economy’ such as underwater mining, sea transport and fisheries. This has highlighted the need for a more integrated management across different sectors and across the land-sea divide, to avoid potential conflict and create synergies between different maritime activities.

In March 2013, the European Commission proposed legislation to create a common framework for MSP and integrated coastal management. The new directive would require Member States to map coastal and marine activities in order to make more efficient use of seas and develop coordinated coastal management strategies across the different policy areas that apply to activities in coastal zones. The benefits of this draft legislation would encompass stimuli for investment and protection of the environment, as well as an increase in cross-border cooperation and coordination between administrations at the regional and local levels.

In spite of these important steps forward, the marine environment is still an undervalued component of the European space. Its associated risks and opportunities need to be better understood and more effectively managed in an integrated manner to ensure that marine resources can better contribute to the European strategic goals of growth and sustainability.

This Month ESPON presents a map on Land – Sea interactions across Europe from the ESPON Applied Research ESaTDOR. The map shows where the land-sea interactions are at their most intense, and thereby it reveals where integrated management is more needed.

Observations

In terms of economic significance, there is very high percentage of total employment in maritime related industries in Iceland, Norway, Estonia and Latvia, the UK, northern Spain, northern and central Italy, southern Portugal and the most of the European islands, such as the Canaries. In these areas, local economies are inextricably linked to the sea.

However, **when focusing on gross employment in maritime industries, the mega port regions of The Netherlands and Belgium stand out**, even when maritime industries are less significant in the overall make-up of employment in these urbanised regions.

In terms of flows, **the southern North Sea and Channel appear as the major focus for marine transport and cables in Europe**, with other hotspots around major ports in the Mediterranean, the Baltic and the Canary Islands.

The environmental pressure reflects the presence of major ports as focal points for invasive species transported by the ships. It also refers to the areas suffering from intense land based pollution associated with farming and industrial activity. **The coastlines subject to the highest environmental pressures are those surrounded by the**

Atlantic Ocean, the North Sea and the Baltic, while other hotspots are evident along the northern shores of the Mediterranean and in the Black Sea

Thanks to the map, it is possible to classify the maritime regions according to their degree of land-sea interactions. Thus, **the Channel and southern North Sea is showcased as the Core maritime region of Europe**. It reflects the concentration of population and economic activity in the London, Paris, Amsterdam axis, the presence of mega ports such as Rotterdam and channels such as the Nord-Ostsee-Kanal, harbouring one of the main trade routes between Europe and the rest of the world.

Transnational “Regional Hubs” show strong land sea interactions and host important maritime clusters. Frequently, they are related to more than one European sea, as is the case of the UK, Ireland and northern France regional hub, which spans both the Atlantic and the North Sea.

Beyond these hotspots lie “Transition Areas” where land sea interactions are still locally significant but where they are more dispersed in character relating most frequently to smaller ports and tourist destinations. The eastern Mediterranean, characterized by its rich biodiversity and cultural heritage, is the largest area defined in this way.

Much of the remaining maritime areas are classified as “Rural” reflecting the increasingly low levels of human use. This is the case of the west coast of Ireland and the Azores Islands. Finally, the Arctic remains as the only “Wilderness Area”.

All seas shelter their particular assets and face their particular threats. For instance, the Atlantic has the greatest potential for wind energy development whilst the Arctic represents a stockpile of oil and gas but hosts, together with the Baltic and Black Sea, the most fragile marine ecosystem. In all cases, a better understanding of the particular opportunities and challenges of maritime management and its effects inland will contribute to maximize the growth potential of the regional and local maritime economy setting.

Points for Policy consideration

Maritime spatial planning support and promotion is necessary both at EU and national level to ensure an efficient exploitation of the Blue Growth opportunities in a way that is consistent with the ambitions of the Marine Strategy Framework Directive. In turn, this would contribute to the accomplishment of the territorial cohesion objectives included in the Territorial Agenda of the European Union 2020. The Commission’s proposal for MSP represents already a clear progress in this sense.

At a European scale, there should be greater recognition of the importance of marine space within EU activities and greater sectoral integration. Thereby, in the political arena, it would be desirable to establish a closer collaboration between DGs Environment, Mare, Move, Energy and Regio (for example) within the European Commission.

In addition, it would be beneficial to address trans-boundary maritime planning issues at different spatial scales as well as to strengthen efforts to develop more effective transnational governance arrangements tailored to particular maritime contexts.

At a national level, public authorities should develop integrated maritime planning arrangements that ensure consistent planning across the land sea continuum in both national and transnational space that takes account of the strength of land-sea interactions.

The EU should develop a common framework for the collection of maritime data to facilitate harmonisation across maritime regions. There is also a need for a thematic expansion and improvement of maritime data accessibility, in order to develop a more comprehensive understanding of land-sea interactions.

Ultimately, both the classification of maritime regions proposed through ESaTDOR and the 10x10 grid square framework used as a territorial unit for the sea could be applied to the development of maps, reports and maritime scenarios, especially within the framework of transnational programmes such as Interreg.

Concept/method/measurement

The variables used are the environmental pressures and flows on the Sea and the inland economic significance, measured in terms of intensity. The rationale behind this selection was the need to create a map which gave a rounded picture of land-sea interaction in Europe.

More concretely, the components that refine this typology are:

- 1) Economic Significance (employment clusters in different maritime and related sectors such as shipbuilding, tourism, transport, fisheries and others)
- 2) Land/Sea Flows (movement of people and goods such as container traffic and liquid energetic products or information through telecommunications cables)
- 3) Environmental Pressures (change in sea surface temperature, pollution from pesticides and fertilisers, incidents of invasive species introduced through shipping, etc.)

More information

- Most of the information and all the data used are based on available results from the ESPON Applied Research “ESaTDOR- European Seas and Territorial Development, Opportunities and Risks” Link: http://www.espon.eu/main/Menu_Projects/Menu_AppliedResearch/ESaTDOR.html
- Information on intensity of land-sea interactions can be found in the reports of the ESaTDOR project available under www.espon.eu
- Contact at the ESPON Coordination Unit: Michaela Gensheimer (michaela.gensheimer@espon.eu)
- Article written by Silvia Curbelo Betancort during her traineeship at the ESPON Coordination Unit (tel: +352 42 59 91 4692; e-mail: silvia.curbelo@espon.eu)

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The ESPON 2013 Programme is part-financed by the European Regional Development Fund, the EU Member States and Partner States Iceland, Liechtenstein, Norway and Switzerland.

It shall support policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory. ESPON shall support Cohesion Policy development with European wide, comparable information, evidence, analyses and scenarios on framework conditions for the development of regions, cities and larger territories. In doing so, it shall facilitate the mobilisation of territorial capital and development opportunities, contributing to improving European competitiveness, to the widening and deepening of European territorial cooperation and to a sustainable and balanced development.

The Managing Authority responsible for the ESPON 2013 Programme is the Ministry of Sustainable Development and Infrastructures, Department of Spatial Planning and Development of Luxembourg.

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