



ESaTDOR

**European Seas and Territorial Development,
Opportunities and Risks**

**ANNEX 15 to the Draft Final Report
Towards a European Maritime Vision: ESaTDOR
Scenarios Workshop
Briefing Notes**

Thursday 21st June 2012

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Preface

This Appendix contains the original briefing note that was circulated to the ESaTDOR team and invited stakeholders prior to the “Towards a European Maritime Vision” scenarios workshop which took place at Vrije Universiteit, Amsterdam on Thursday 21st June 2012.

The briefing note was intended to provide some background material on the ESaTDOR project and present a range of spatial development scenarios along with their likely impacts in order to stimulate discussion about the future of Europe’s maritime regions and develop policy recommendations for a range of stakeholders on how we might begin to move towards more desirable outcomes for spatial development.

In light of the discussions which took place in Amsterdam, a summary of the main points of discussion and conclusions have been provided in the ESaTDOR Draft Scientific Report.

Towards a European Maritime Vision: ESaTDOR Scenarios Workshop

INTRODUCTION

Towards a European Maritime Vision: ESaTDOR Scenarios Workshop forms part of an ongoing research project entitled “European Seas and Territorial Development, Opportunities and Risks”, funded by ESPON, the European Observation Network for Territorial Development and Cohesion.

The ESaTDOR project represents a first attempt by ESPON to analyse the potential for maritime regions to contribute to the European Commission’s aim of territorial cohesion, which is not formally defined but can be described as the balanced distribution of human activities across the EU (or balanced development). In doing so the ESaTDOR project aims to:

- Analyse current patterns of land and sea use and land-sea interactions in maritime regions,
- Develop a typology of maritime regions based on these patterns and interactions,
- Identify developmental opportunities (and constraints) for different maritime regions,
- Explore best practice in terms of terrestrial-marine governance ,
- Provide guidance and advice on how critical land-based and marine assets can be effectively and democratically managed, and
- Suggest further areas for research to maximise opportunities, but minimise human impacts on maritime regions.

The purpose of this scenarios workshop is to draw together the ESaTDOR project’s findings to date regarding the current state of maritime regions, opportunities and risks for territorial development and consider how these might affect change in maritime regions under different scenarios in the period up to 2050. The discussions in the scenarios workshop are therefore intended to:

- Test the four spatial development scenarios outlined in the briefing paper and their implications for maritime regions,
- Establish what might be the most desirable outcomes from each scenario in order to develop a European Maritime Vision,
- Generate policy recommendations which may help to achieve these outcomes.

CONTEXT

The European territory faces several challenges over the next decades, including overcoming the current economic crisis, integration into the global economy, growing interaction between different parts of the EU territory and neighbouring countries due to enlargement, migration, changing patterns of production and trade, increasing risks from natural hazards and climate change, increasing energy prices and a new energy paradigm. Given the great diversity between different regions of the European Union, each part of the territory has different strengths and weaknesses in being able to meet the challenges ahead and contribute to the aim of territorial cohesion.

At a policy level, the European Union is seeking to address these challenges in a number of ways. Europe 2020, the European Union's growth strategy, has the overarching aim of creating the conditions for growth under three main priorities –

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.

By spreading the benefits of economic growth throughout the European Union, including its outermost regions, territorial cohesion should be strengthened.

As part of the drive for economic growth, EU Member States and Neighbouring Countries are increasingly looking to their maritime assets as a way of delivering growth. Coastal tourism, offshore renewable energy, more efficient shipping and aquaculture provide some examples of sectors that may contribute to future economic development, however, maritime assets must also be democratically and effectively managed to ensure their sustainable use. At the Informal Ministerial Meeting of Ministers responsible for Spatial Planning and Territorial Development, Hungary, 2011, it was noted that:

“Maritime activities are essential for territorial cohesion in Europe... The Marine Strategy Framework Directive and EU Integrated Maritime Policy call for coordinated actions from Member States on Maritime Spatial Planning. Such planning should be integrated into the existing planning systems to enable harmonious and sustainable development of a land-sea continuum.”
(para55)

In line with this, the following policy initiatives from the Directorate General for Maritime Affairs and Fisheries (DG Mare) support integrated planning across the land-sea divide and may help to facilitate territorial cohesion:

Integrated Maritime Policy

The European Union adopted its Integrated Maritime Policy (IMP) and Work Programme in 2007. IMP recognises that a more coherent approach to maritime issues is needed in order to meet the challenges of sustainable development. This will require a new framework of governance that applies an integrated approach to decision making at every level and on cross cutting issues.

Under the IMP Programme of Work, projects will include a European maritime transport space without barriers, a strategy for marine research, national integrated maritime policies to be developed by Member States, a European network for maritime surveillance, a roadmap towards maritime spatial planning by Member States, a strategy to mitigate the effects of Climate Change on coastal regions, cleaner shipping, elimination of pirate fishing and destructive high seas bottom trawling, a European network of maritime clusters and a review of EU labour law exemptions for the shipping and fishing sectors. In order to implement IMP more effectively according to the diversity of different European coasts and Member States, the Commission has decided to adopt a regional sea-basin approach.

See the “Blue Book” – Communication on an Integrated Maritime Policy for the European Union (COM (2007) 574 final)

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0575:EN:NOT>

The Roadmap for Maritime Spatial Planning (MSP): Achieving Common Principles in the EU

The Roadmap for MSP was published in November 2008 and was intended to stimulate discussion amongst Member States about a common way forward for implementing MSP across the Union. The Roadmap draws on examples of Maritime and Marine Spatial Planning alongside other legislation and policy initiatives such as Integrated Coastal Zone Management (ICZM), regional sea conventions against pollution such as OSPAR and HELCOM, the Marine Strategy and Water Framework Directives and the Common Fisheries Policy to develop a set of principles which should underlie MSP. These include an ecosystem approach, defining long-term objectives to guide MSP, ensuring stakeholder participation from an early stage, simplifying decision-making processes, application in accordance with international law, cross-border cooperation and consultation, having a strong data and knowledge base and achieving coherence between terrestrial planning and MSP (for example through ICZM).

A Communication on achievements and future development of the Roadmap issued in 2010 noted that progress towards implementing MSP in Member States was developing in an ad-hoc manner, with varying pace and at different scales. Further work on promoting a common approach to MSP, particularly in relation to sea-basin wide and cross-border cooperation is required.

See the Roadmap for MSP: Achieving Common Principles in the EU (COM(2008) 791 final) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:DKEY=483715:EN:NOT>

Blue Growth

Blue Growth is DG Mare's long term strategy to support growth in the maritime sector and contribute to the aims of Europe 2020 and is thus defined as "*smart, sustainable and inclusive economic and employment growth from the oceans, seas and coasts*". Blue Growth aims to identify and tackle challenges (economic, environmental and social) affecting all sectors of maritime economy, including those sectors which support maritime activity but may be based far inland. In doing so, DG Mare hopes to identify activities with high growth potential in the long term and support them by:

- removing the administrative barriers that hamper growth,
- fostering investment in research and innovation,
- promoting skills through education and training.

Blue Growth focuses on existing, emerging and potential activities such as short-sea shipping, coastal tourism, offshore wind energy, desalination, use of marine resources in the pharmaceutical and cosmetics industries. DG Mare has commissioned research to support its Blue Growth proposals, first identifying business areas to look at in terms of Blue Growth potential, then examining in more detail a sub-set of economic activities, their value chains, strengths and weaknesses and future policies which contribute to their further development.

The Blue Growth Third Interim Report, "Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts" provides some of the source material for this workshop. In particular, the report describes the future growth potential of different sectors based on a life cycle approach. Under this approach economic activities may be classified as being:

- at the **Pre-development** stage – in which the full potential of a product is still unclear. Much research and development is still required and commercial viability of a product may still need to be proven.
- **Growth**: (strong) economic growth and/or employment growth takes place, enabling smaller firms to enter the market. Prices of production go down.
- **Maturity**: economic activity remains stable at a big size. Market positions of main players are clear and competition is fierce.

- **In Decline:** economic activities are declining, no major innovations are being made, it is clear which players are dominating the market.

See “Blue Growth Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts” (Third Interim Report)

http://ec.europa.eu/maritimeaffairs/documentation/studies/documents/blue_growth_third_interim_report_en.pdf

Whilst not an exhaustive list of European policies supporting maritime activities, the examples given here provide a good overview of some of the policy context in which the ESaTDOR project is being undertaken. In the following sections, we outline in more detail the research work that has been carried out so far and how it informs the discussions that will be held at the scenarios workshop.

THE ESaTDOR PROJECT: WORK TO DATE

The ESaTDOR project began in January 2011 and has progressed through a number of work packages:

1. Developing the research framework
2. Thematic Briefing Papers: examining current policies and assessing data sources in the fields of economic use, energy, environment, transport, governance and mapping/data
3. Sea Profiles: outlining the current characteristics, potentials for development and risks in the Arctic, Atlantic, Baltic Sea, Black Sea, Mediterranean and North Sea, based on the mapping of available data and knowledge of future policy initiatives. As part of this work package, data has been used to develop a typology of maritime regions.
4. Governance Case Studies: For each sea region a sea-basin wide and two sub-sea case studies have been undertaken, examining transnational governance arrangements.
5. Thematic Synthesis Reports (in progress): these reports will provide a Europe-wide overview of each of the thematic areas, providing a commentary on the current situation, future opportunities, risks and policy options based on existing policy and related to areas identified in the maritime region typology
6. Future Scenarios (in progress): to create and test different spatial scenarios and identify their likely implications for maritime regions.

7. European Overview/Policy Recommendations (to be delivered by 1st September 2012): this will draw together the main findings of the project and identify policy recommendations in support of integrated maritime policy and territorial cohesion for the EU.

Developing a Maritime Region Typology

The creation of typologies for European regions is a common feature of ESPON projects that enables policy makers to focus on particular types of territory, for example urban/metropolitan, rural and sparsely populated regions, cross border regions, regions in industrial transition and so on. To date, the ESPON projects GEOSPECS and Territorial Impacts of the Common Fisheries Policy have provided a typology of coastal regions and fisheries-dependent regions respectively, but both of these projects have used land-based data only.

In order to fully capture the interactions between Europe's terrestrial and marine areas the ESaTDOR project has attempted to develop a new maritime region typology. Using the best available datasets with comprehensive coverage of the ESPON space (both on land and sea), this new typology is being built around the following groupings of datasets:

Europe's Marine Environment – this covers data relating to the state of the marine environment and attempts to capture natural changes and human impacts such change in sea surface temperature, acidification, organic pollution, incidents of invasive species introduced through shipping etc.

Land/Sea Flows - this grouping tries to capture the movement of goods (including container traffic, other freight, liquid energy products) and people across maritime regions.

Europe's Coastal Areas - this attempts to show the economic importance of coastal areas through mapping employment clusters in different maritime (and related) sectors such as shipbuilding, tourism, transport, fisheries and others.

Some draft examples of maps for Europe's marine environment, land/sea flows and coastal areas are shown on the following page.

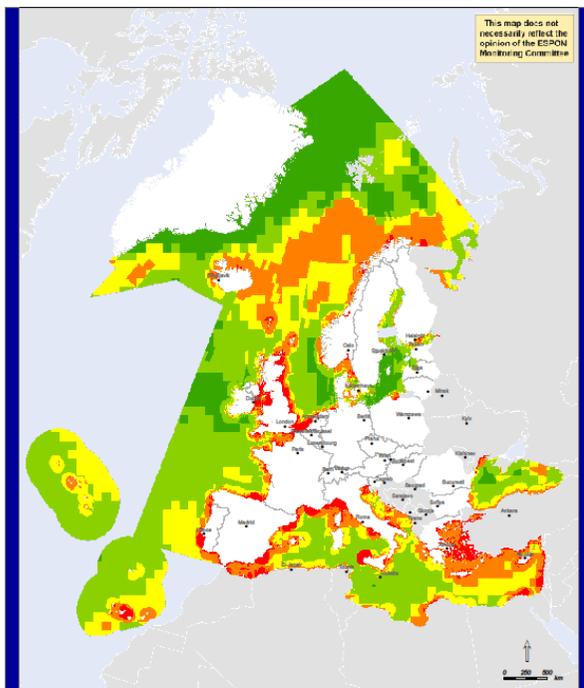
By mapping data under these three different categories, and ultimately combining the three categories into one single map, it should be possible to identify specific maritime regions that may have high or low intensities of use, be more or less resilient to environmental change, or have potential for different types of new economic activity.

For the purposes of the scenarios workshop, the three categories of Europe's marine environment, land/sea flows and coastal areas have been used in conjunction with each of

the four spatial scenarios to help identify the impacts each scenario will have on the terrestrial or marine environment and movements between the two.

Developing a Maritime Region Typology: Draft Maps

Europe's Marine Environment

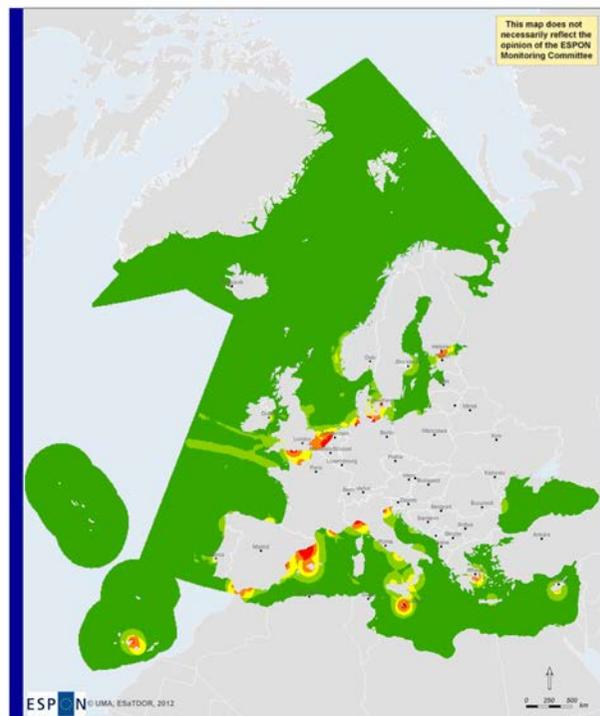


LURIP - IN UNION
 Plan: Derived by the Potential Mapper (Development Point
 BY16)141 IN 100x FUTURE
 Thematic data: Economic Use, European Cluster Observatory, 2011
 Land boundaries: © EuroGeographics Association and ESRI, Regional level: NUT2
 Sea boundaries: OSPAR Convention, EU Integrated Maritime Policy and GEZ

Environment Composite Map (natural breaks).

- 0.5 to 1.5
- 1.51 to 2
- 2.01 to 2.25
- 2.26 to 2.75
- 2.76 to 4.5

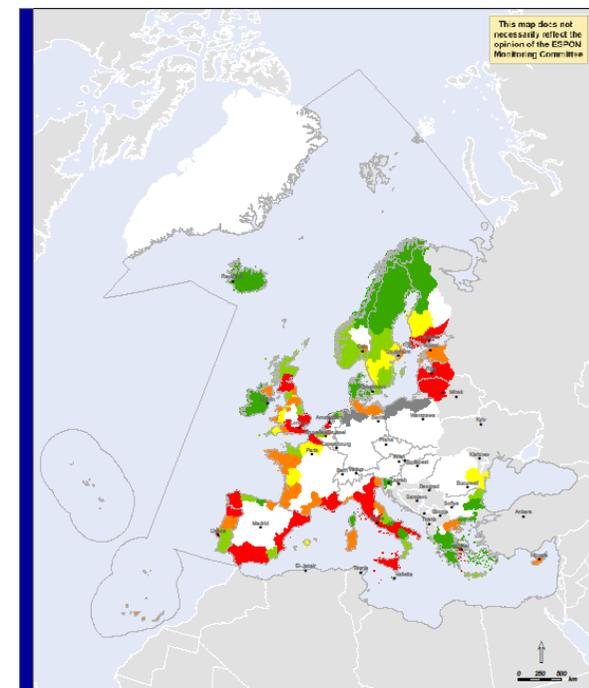
Land/Sea Flows



ESPON - UIMA, ESaTDOR, 2012
 Attribution: UIMA
 Plan: Derived by the European Regional Development Fund
 BY16)141 IN 100x FUTURE
 Regional level: NUT2
 Source: EUROSTAT
 Large Marine Ecosystems of the world: UNEP-WHOCE, 2009
 Administrative boundaries: Eurogeographics
 VLS: Marine Boundaries Geodatabase, v. 2011
 © EuroGeographics Association for administrative boundaries

- Category**
- Very Low
 - Low
 - Medium
 - High
 - Very High

Europe's Coastal Areas



LURIP - IN UNION
 Plan: Derived by the Potential Mapper (Development Point
 BY16)141 IN 100x FUTURE
 Thematic data: Economic Use, European Cluster Observatory, 2011
 Land boundaries: © EuroGeographics Association and ESRI, Regional level: NUT2
 Sea boundaries: OSPAR Convention, EU Integrated Maritime Policy and GEZ

Economic Use Composite Map (natural breaks).

- 1,000000 - 1,439766
- 1,439767 - 2,432810
- 2,432811 - 3,432025
- 3,432026 - 4,337659
- 4,337660 - 5,000000
- No data

SCENE SETTING: Current Territorial Development Opportunities and Risks, Future Challenges and Drivers for Change in Europe’s Maritime Regions

This assessment draws upon the findings from the ESaTDOR project to date, together with the findings from DG MARE (2012) *Blue Growth: Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts*. The future challenges and drivers for change outlined in the Blue Growth Report are listed below. Tables 1a to 1c provide a summary of the current position, opportunities, risks, drivers and challenges for Europe’s marine environment, land-sea flows and coastal areas.

To consider for the Workshop:

- ***Are there any additional opportunities, risks drivers and challenges that we have not included in these tables?***

Key Challenges facing Europe’s Maritime Regions (DG MARE, 2012, p7)

Globalisation and competitiveness:

in 2025, nearly 2/3 of the world's population will be living in Asia, which is likely to become the first producer and exporter of the world and which catches up or even overtakes the US and Europe in the area of research as well as industrial production; overall, the economic and financial crisis has weakened Europe's competitive position vis-à-vis third countries, notably those in Asia;

Global warming and climate change:

climate change is expected to continue unabated and radical changes in production and consumption will be required to keep global warming to acceptable levels. The economic and financial crisis is not helpful in addressing these challenges, and progress in the decarbonisation of the economy has slowed down;

Poverty and mobility:

international migration will develop and, without an important inflow of immigrants, the European population would start to decrease as from 2012; a third of the world population is undernourished;

Increasing scarcity of natural resources and vulnerability of the planet:

new geopolitics of energy are characterised by a relative balance of the strategic importance of the Middle East, Russia and the Caucasus; more than 50% of the major ore reserves are located in very poor countries; three billion people will be lacking water in 2025; and it is essential that Europe's efforts to slow down climate change are taken not only by Europe but especially by other powers;

Urbanisation and concentration in coastal regions:

today more than 41 % of the EU population lives in coastal regions. For the coming decades a further concentration of people in these regions is expected. This will increase the pressure on land, fresh water and other resources available in these zones and thus increase the need for integrated policies.

Demographic change:

ageing of Europe's population in general and in coastal areas in particular, which may be a driver for specific maritime economic activities.

When these trends continue, they will lead to unprecedented tensions between the current methods of production, of consumption and the future availability of non-renewable resources. These tensions are likely to focus on food, health, energy, raw materials, and water. Additional challenges will arise in the areas of trade, investment and Europe's industrial competitiveness, but also in leisure and urbanisation. A continuous search will remain for new energy sources to reduce the dependency on third countries and world regions.

Table 1a: Scene Setting for the Maritime Region Territorial Development Scenarios

Europe's Marine Environment	
Current Position	
Opportunities	Risks
<p><i>Growth Stage*</i> Marine aquatic products Marine monitoring</p> <p><i>(Pre) Development Stage*</i> Blue Biotechnology Marine minerals mining</p> <p><i>Other</i> Conservation Services</p>	<p>Pollution/invasive species</p> <p>Continuing fisheries depletion</p> <p>Species loss</p> <p>Decline in water-based/ecotourism due to poor environmental quality</p> <p>Human health impacts</p>
Future Challenges and Drivers for Change	
Challenges	Drivers for Change
Globalisation and competitiveness	<p>Increased world trade linked to increase in invasive non native species</p> <p>Growing recognition of positive linkages between environmental care and economic prosperity</p>
Global warming and climate change	<p>Leading to species migration</p> <p>Rising sea temperatures reducing carbon absorption</p>
Poverty and mobility	
Scarcity of natural resources and vulnerability of the planet	<p>Increasing human exploitation of marine resources in/on/under the sea</p> <p>Increasing environmental awareness and protection/management measures for both land and sea</p>
Urbanisation and concentration in coastal regions	<p>Increased surface runoff/pollution</p> <p>Intensification of agriculture and increased diffuse pollution affecting marine environment</p>
Demographic change	

Table 1b: Scene Setting for the Maritime Region Territorial Development Scenarios

Europe's Land/Sea Flows	
Current Position	
Opportunities	Risks
<p><i>Mature Stage*</i></p> <p>Offshore oil and gas Short sea shipping Yachting/Leisure boating</p> <p><i>Growth Stage*</i></p> <p>Offshore wind Cruise Tourism Maritime surveillance</p> <p><i>Pre) Development Stage</i></p> <p>Ocean renewable energy</p> <p><i>Other</i></p> <p>International energy grids Carbon storage Development of motorways of the sea New shipping routes in the Arctic</p>	<p>Increased carbon emissions associated with oil and gas development</p> <p>Environmental damage associated with new energy sources</p> <p>Restrictions to other sea uses associated with energy development</p> <p>Increased shipping accidents</p> <p>Increased pollution and invasive species</p> <p>Increased GHG emissions</p> <p>Administrative barriers to short sea shipping/transport of goods</p> <p>Poor landward connections limiting shipping growth potential</p>
Future Challenges and Drivers for Change	
Challenges	Drivers for Change
Globalisation and competitiveness	<p>Increased world trade</p> <p>Increased through traffic through European Seas</p> <p>Relative decline in importance of European trade and ports</p>
Global warming and climate change	<p>Increased focus on energy efficiency of shipping</p> <p>Increased focus on renewable energy production</p> <p>Increased focus on telecommunications as an alternative to travel</p>
Poverty and mobility	Increased international passenger movement
Scarcity of natural resources and vulnerability of the planet	<p>Continuing interest in oil and gas development in European seas</p> <p>Increasing long distance movement of oil, gas, water by pipeline</p>
Urbanisation and concentration in coastal regions	Settlement pattern supporting increased short sea shipping / marine renewable development
Demographic change	Supporting growth in cruise tourism / leisure boating?

Table 1c: Scene Setting for the Maritime Region Territorial Development Scenarios

Europe's Coastal Areas	
Current Position	
Opportunities	Risks
<p><i>Mature Stage*</i> Coastal Tourism Coastal Protection</p> <p><i>Other</i> Research and innovation and industrial cluster development associated with: Short Sea Shipping Offshore Oil and Gas Offshore Wind Cruise Tourism Marine Aquatic Products Maritime Monitoring and Surveillance Blue Biotechnology Ocean renewable energy Marine minerals mining</p>	<p>Environmental pressures caused by intensive coastal land use</p> <p>Relatively high labour costs requires high capital intensity and ongoing innovation to maintain competitiveness</p> <p>Inadequate governance arrangements for resource exploitation</p> <p>Pollution threat to marine living and non living resources</p> <p>Poor landward connections limiting shipping growth potential</p>
Future Challenges and Drivers for Change	
Challenges	Drivers for Change
Globalisation and competitiveness	<p>Increasing focus on development based around indigenous regional strengths.</p> <p>Increased importance of research and innovation to maintain competitive edge</p>
Global warming and climate change	Decarbonisation of maritime industrial clusters a major focus
Poverty and mobility	Potential labour shortages if international immigration is not supported
Scarcity of natural resources and vulnerability of the planet	Increased competition for land and natural resources in coastal areas
Urbanisation and concentration in coastal regions	Population flows may help counterbalance peripherality of coastal regions and support regeneration and economic growth
Demographic change	A driver for development of types of leisure and care industries in coastal regions

THE SCENARIOS

The spatial development scenarios outlined below are derived from the ongoing ESPON project “ET2050 – Territorial Scenarios and Visions for Europe”. The ET2050 project aims to develop an integrated, future-oriented vision of Europe, involving stakeholders at European, national and regional level in a debate about desired futures for territorial development and cohesion. The scenarios were developed based on the original project specification provided by ESPON and complemented with additional feedback from surveys conducted amongst the ET2050 project team and the wider ESPON community.

Rather than focusing on particular sectoral policies or economic growth trajectories, these spatial scenarios provide differing examples of how the European territory might be structured in the future. For the purposes of this workshop we will consider, *if each of these scenarios were to materialise, what implications would this have for maritime and coastal regions of Europe?*

A Europe of FLOWS:

Under this scenario globalisation is a significant driver as Europe’s maritime and inland connections are maximised, with flows of goods, people and communications all increased. Territorial structures become more dynamic and adaptable to change, with virtual communities and networks becoming as important as territorially-based communities. More integrated transnational and cross-border zones emerge through the spontaneous networking of cities.

There is an increasing focus on the development of long distance networks and strategic energy and transport corridors linking European centres of production and consumption with Neighbouring countries and the rest of the world. Planning and regulation of land use becomes more relaxed, but social and environmental costs are more effectively internalised through market mechanisms.

A Europe of CREATIVE CITIES:

In the Europe of Creative Cities, growth takes place in existing centres of population and economic power, with capital cities and regional capitals playing a central role. Large cities become centres of excellence, innovation and entrepreneurship whilst other cities are compact and economically strong. Rural areas experience an increasing functional dependency on capital cities. The focus of development on existing centres means that regeneration, preservation of open space and strengthening of transport links between metropolitan areas become the focus of political intervention.

A Europe of BALANCED REGIONS:

Specific regional strengths provide the basis for this scenario. Public investment and governance works to stimulate economic and population growth in urban and rural regions and territories with distinct identities. A focus on reducing economic and social unbalances at local and regional level, promoting endogenous development and empowerment of public institutions at the regional scale helps to provide more balanced development across European as a whole. The territory is organised in a more polycentric way, with transnational cooperation and integrated territories at appropriate functional scales.

A Europe of SELF-SUFFICIENT TOWNS:

This is an ecologically-centred scenario in which concerns relating to energy supplies and climate change dominate. Decarbonisation of the economy and moves towards greener energy are required, even if this means much slower economic growth. Local production and markets become increasingly important. Migration out of urban centres towards rural areas occurs as a result of changes in attitudes to the environment and behaviour. New governance processes favour greater participation, bottom-up organisation and self sufficiency.

The following tables present each of the four spatial development scenarios listed above, along with the implications each scenario is likely to have for different aspects of maritime regions under the headings of Europe’s marine environment, land-sea flows and coastal areas.

To Consider for the Workshop:

- **Are there any other spatial scenarios we should be thinking about?**

The Future of Europe’s Maritime Regions ESPON Territorial Development Scenario 1 Europe of Flows
Europe’s Marine Environment
<p>Intensification of environmental risks in increasingly busy transport corridors and around port areas with notable increases in the Arctic and Mediterranean</p> <p>Increasing risk of damage to sea bed and coastal habitats from growing network of pipelines and offshore energy development and associated landfall infrastructure</p> <p>Increasing competition for marine space between traditional and new uses particularly in European core sea areas</p>
Europe’s Land/Sea Flows
<p>Significant increase in long haul traffic initially focused around a few very large ports/ transshipment hubs</p> <p>Potential congestion in major established long haul port areas could create expansion opportunities in less congested areas</p> <p>Potential expansion of smaller ports focused on short sea trade and serving national and regional markets subject to appropriate landward connections being provided.</p> <p style="padding-left: 40px;">Increasing cruise and leisure boating expanding beyond traditional locations</p> <p style="padding-left: 80px;">Increased formal and informal migration using the sea as a conduit</p> <p>Rising incidence/potential for accidents resulting in rapid development of maritime monitoring and surveillance particularly in Arctic and Mediterranean</p> <p style="padding-left: 40px;">Role of seas for telecommunication cables declines with growth of satellite technology.</p> <p>Expansion of oil/gas pipelines in Mediterranean Baltic and Black Seas and in green grid infrastructure along Europe’s western seaboard.</p> <p style="padding-left: 40px;">Major expansion of Oil and gas exploration in the Arctic</p> <p style="padding-left: 40px;">Old oil and gas fields take on new roles as carbon storage facilities.</p>
Europe’s Coastal Areas
<p style="padding-left: 40px;">Major growth of logistics services around key transshipment points</p> <p style="padding-left: 40px;">Opportunities for adding value to imported/exported goods at transshipment points</p> <p style="padding-left: 40px;">Cluster development opportunities associated with new maritime activities</p> <p>Major development of transnational multimodal networks across land / sea with ports as key nodal points</p>

<p style="text-align: center;">The Future of Europe’s Maritime Regions ESPON Territorial Development Scenario 2 Europe of Creative Cities</p>
<p style="text-align: center;">Europe’s Marine Environment</p> <p>Marine environment rediscovered as key factor in attractiveness of coastal cities due to climate, rich natural resources and new marine employment and investment opportunities producing a mixed pattern of marine exploitation and care.</p> <p>Intensified short sea shipping connections between clusters of coastal cities result in increased environmental risk in areas such as the Baltic and Irish Seas</p>
<p style="text-align: center;">Europe’s Land/Sea Flows</p> <p>Reinvention and strengthening of coastal cities as networked key European growth nodes with a focus on greatly improved multimodal landward connections</p> <p>Coastal cities become the focus of research and development in relation to clean shipping, green grid development and marine renewables</p>
<p style="text-align: center;">Europe’s Coastal Areas</p> <p>Development of coastal cities combines imaginative celebration of maritime cultural heritage and research and development associated with a new economy focused on ‘Blue Growth’ sectors which exploit city region strengths.</p> <p>Development of coastal cities as centres of excellence in maritime skills development.</p>

The Future of Europe’s Maritime Regions ESPON Territorial Development Scenario 3 Europe of Balanced Regions
Europe’s Marine Environment
<p>Marine resources increasingly seen as key assets in regional self sufficiency and development resulting in growing marine resource related development differentiated according to regional attributes.</p> <p>Increasing development of fixed development/ infrastructure associated with renewable energy, oil and gas, fish farming etc particularly likely in northern sea areas creating competition with traditional marine users and possible increases in environmental risk.</p> <p>Potential for increased care of marine environment in regions dependent on tourism, fishing, marine aquaculture</p>
Europe’s Land/Sea Flows
<p>Development of sea basins and sub-sea areas as cohesive regions with strong maritime transport connections - benefitting those areas with strong regional identity and success dependent on extent of regional/transnational cooperation.</p> <p>Focus on regional self sufficiency in energy and exploitation of diverse marine energy sources and associated infrastructure</p>
Europe’s Coastal Areas
<p>Cooperation/differentiation/ specialisation between ports /coastal towns and cities.</p> <p>Targeting of public money at relatively weak and underperforming coastal regions encouraging regional cooperation and flows to stimulate maritime economic activity and intra-regional connections.</p>

The Future of Europe's Maritime Regions ESPON Territorial Development Scenario 4 Europe of Self Sufficient Towns
Europe's Marine Environment
<p>Increasing focus on sustainable use of marine resources to meet local resource needs e.g. small scale aquaculture, fisheries etc.</p> <p>Decreasing environmental damage associated with reducing long distance maritime traffic in some areas.</p> <p>Introduction of higher environmental standards on flows (pollution, transport) from inland areas and areas outside the EU.</p>
Europe's Land/Sea Flows
<p>Expansion of smaller port and short sea shipping and growing role for inland waterways as sustainable transport routes.</p> <p>Greater protection of local energy resources for local communities and growing opposition to multi-national development interests in sea areas.</p> <p>Declining long haul shipping related to EU trade</p>
Europe's Coastal Areas
<p>Small scale localised development responding to local and regional markets favouring small coastal towns and success less dependent on physical (as opposed to digital) connectivity with the wider world.</p> <p>Growth of small scale industry responding to the distinctive maritime character. Favouring of coastal areas of good environmental quality and extending requirements for new and more dispersed public sector policy delivery.</p> <p>Some coastal areas of poor environmental quality may decline without public intervention related to regeneration and environmental improvement, others may improve in environmental quality as human pressure decreases.</p>

To consider for the workshop:

- ***Are our assessments of the development trajectories described under each scenario realistic?***
- ***What are the most desirable outcomes for European Territorial Cohesion? (This could be one scenario or a combination of aspects from several scenarios)***
- ***What policy recommendations can we make to help achieve these outcomes?***

Workshop Participants

Dania	ABDUL MALAK	University of Malaga	Spain
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Lodewijk	ABSPOEL	Ministry of Infrastructure and Environment	Netherlands
Ramona	BEJAN	Constanta Maritime University	Romania
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