



# **Maritime spatial planning – the EU roadmap and information needs**

Andrus Meiner, EEA

EEA/EIONET workshop – Maritime and coastal  
information systems

18-19 Nov 2009, Trieste, Italy

# EU Integrated Maritime Policy and Maritime Spatial Planning

- **IMP 2005 - a new vision for Europe's oceans and seas**
  - Applying the integrated approach to maritime governance
  - Developing tools for integrated policy-making
- **IMP Green paper 2006 – wide consultation**
- **IMP Blue Paper and Action plan 2007-2010**
  - Planning of coastline (ICZM)
  - New Maritime Planning Tools (MSP)
- **Commission's roadmap for MSP 2008**
  - 10 key principles emerging from maritime spatial planning practice
- **Commission's progress report Oct 2009**
  - building the knowledge base and cross cutting tools
  - regional approach



# Key principles emerging from maritime spatial planning practice

(European Commission 2008)

1. Using MSP according to area and type of activity
2. Defining objectives to guide MSP
3. Developing MSP in a transparent manner
4. Stakeholder participation
5. Coordination within Member States — simplifying decision processes
6. Ensuring the legal effect of national MSP
7. Cross-border cooperation and consultation
8. Incorporating monitoring and evaluation in the planning process
9. Achieving coherence between terrestrial and maritime spatial planning — relation with ICZM
10. A strong data and knowledge base



# Varying approaches, same objective - coordinated allocation of marine space

- Maritime spatial plans will become of statutory nature on the basis of extending terrestrial planning law to marine areas (e.g. Germany, territorial waters and EEZ);
- Strategic or integrated management plans that provide overall framework and aim to give guidance for both existing and new maritime activities regarding sustainable use of marine resources (e.g. the Netherlands, Norway);
- National framework laws (marine bills) to implement a national integrated maritime policy and to steer future maritime development in sustainable way (e.g. UK and Scotland, Sweden adopted in 2009).



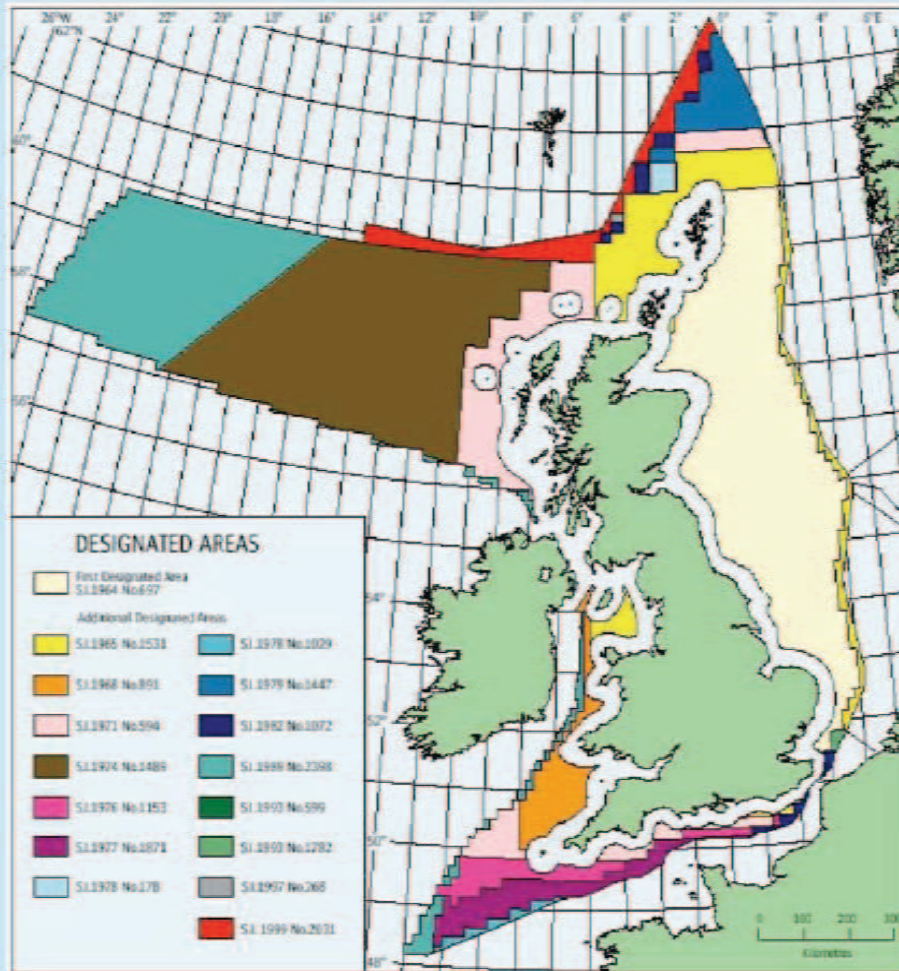
# Establishing priorities, integration and conflict-resolution

KEY ASPECTS OF MARINE SPATIAL PLANNING	
Jurisdictions	Limits of TS, EEZ and Continental Shelf
Shipping	Routes, traffic separation schemes, anchorages, restricted areas, etc.
Hydrocarbons exploitation	Platforms, pipelines
Energy production	Power stations (e.g.: wind.)
Dumping	Siting of areas
Nature conservation	Protected areas, ecologically important areas
Military operations	Areas for shipping and manoeuvres, firing ranges, etc.
Underwater cables	Path taken by cables
Aquaculture	Siting and surface area of areas
Sediment extraction	Siting of areas





## UNITED KINGDOM





Mixed actions

Final report

# TOWARDS A SPATIAL STRUCTURE PLAN FOR SUSTAINABLE MANAGEMENT OF THE SEA

MA/02/006

Coordinator and promotor:

Prof. Dr. F. Maes, Maritime Institute, University Gent

Promoters:

Prof. Dr. M. De Batist/Dr. V. Van Lancker, Renard Center of Marine Geology, University Gent

Ir. D. Leroy, Ecolas nv

Prof. Dr. M. Vincx, Marine Biology Section, University Gent



June 2005

## The GAUFRE project (2003-2005)

### General objective:

*Establish the scientific foundations for the development of a spatial structure plan for Belgian Part of the North Sea*



# EEA and Maritime Spatial Planning

- Assure that environmental component is adequately represented in the MSP framework
  - Provision of relevant environmental data (e.g.transboundary aspect)
  - Experience from building datasets, indicators and information systems
- Benefit from other MSP information components
  - Socio-economic data, sector plans
  - Incorporate in to EEA integrated assessments for SoER in Europe
- Methodological approaches for MSP monitoring and reporting
  - Experience with regional assessments and spatial analysis
  - Environmental accounting and spatial change monitoring
- Support establishing of system for the exchange of best practice





# Key principles emerging from maritime spatial planning practice

(European Commission 2008)

1. Using MSP according to area and type of activity
2. Defining objectives to guide MSP
3. Developing MSP in a transparent manner
4. Stakeholder participation
5. Coordination within Member States — simplifying decision processes
6. Ensuring the legal effect of national MSP
7. Cross-border cooperation and consultation
8. Incorporating monitoring and evaluation in the planning process
9. Achieving coherence between terrestrial and maritime spatial planning — relation with ICZM
- 10. A strong data and knowledge base**



# Marine, coastal and maritime data and indicators in the EEA

- **Water Information System for Europe (WISE)**
  - WFD and coastal water bodies
  - WISE-Marine and MSFD reporting products
  - Marine environment indicator development (incl fisheries)
- **Environmental data centre for Land use**
  - Land and ecosystem accounting in coastal zones
  - Indicators and data for Integrated Coastal Zone Management
  - Maritime space characterisation, incl zones and habitats (TBD)
- **Maritime sector data – sea transport, energy etc.**



# Nested approach: multi-scale analysis

Governance level	Typical land data, spatial resolution
Global, pan-European International agreements, global objectives	GlobCover GlobCORINE (reclassified) EuroGlobalMap 300 m
European market National/regional government Policy design and implementation guidelines, enforcement	CORINE Land Cover EuroRegionalMap GMES High resolution LC 100 m
Local Action and policy implementation, monitoring	GMES High resolution LC national sources surveying 0.1 - 10 m

**Land and ecosystem accounting at 3 different interconnected scales**

**grids-based statistics**

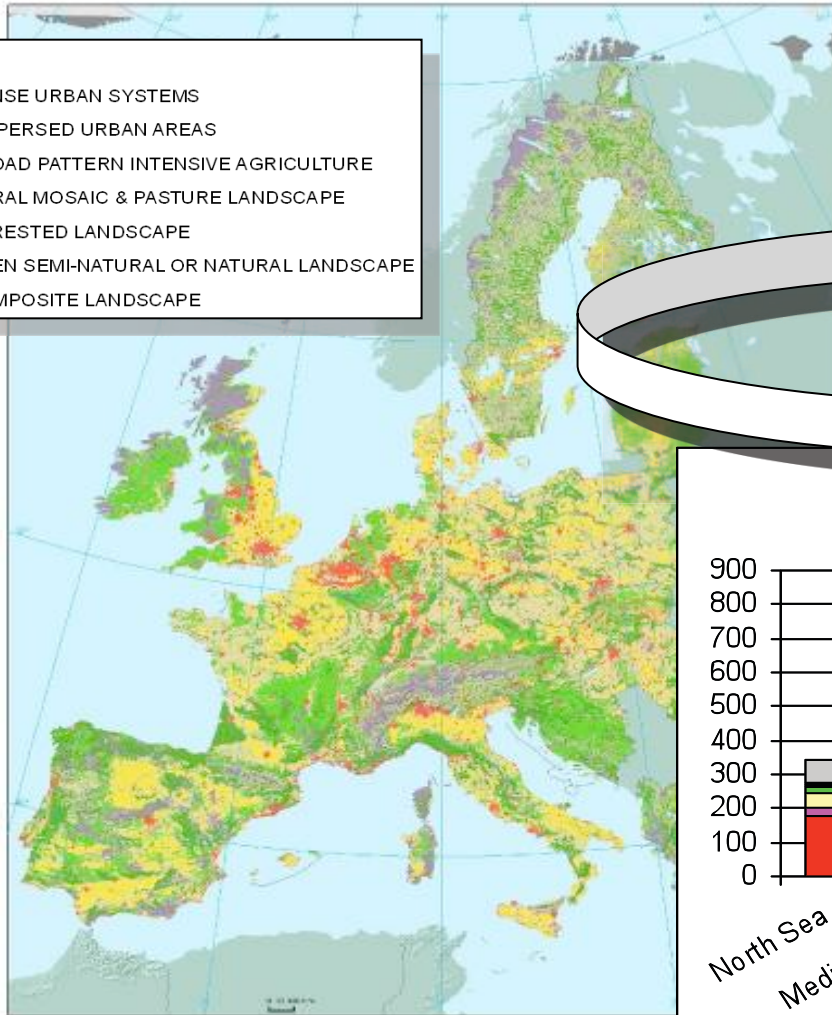


# Mapping & analysing stocks and flows – can we account for Maritime space?

## Dominant Landscape Types

### Legend

- DENSE URBAN SYSTEMS
- DISPERSED URBAN AREAS
- BROAD PATTERN INTENSIVE AGRICULTURE
- RURAL MOSAIC & PASTURE LANDSCAPE
- FORESTED LANDSCAPE
- OPEN SEMI-NATURAL OR NATURAL LANDSCAPE
- COMPOSITE LANDSCAPE

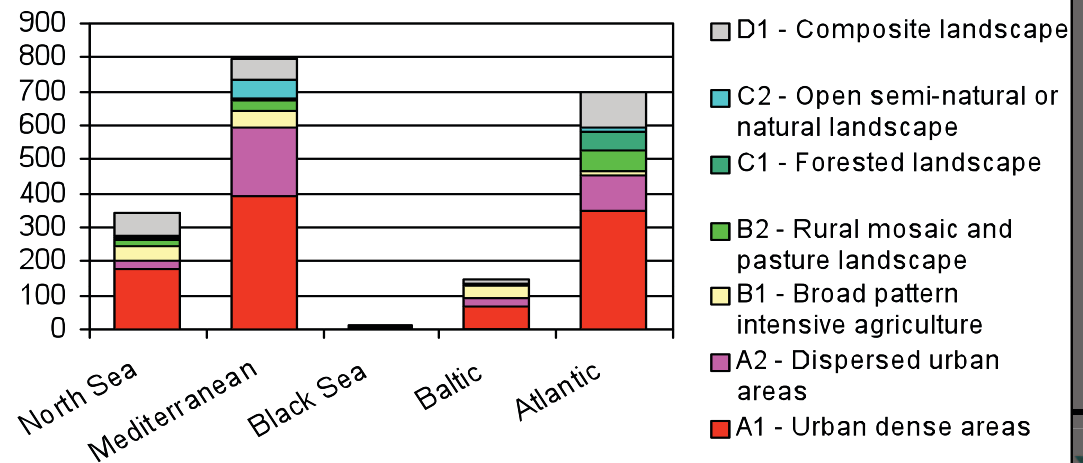


Data held on a standardised 1km x 1km Europe wide grid which enables construction of a different 'zonal accounts' including those for:

- Regions
- Biogeographical zones
- Mountain areas
- Coastal zones
- Major sea basins

e.g

Sprawl of artificial areas 1990-2000 on European coasts, by dominant land cover types, km<sup>2</sup>

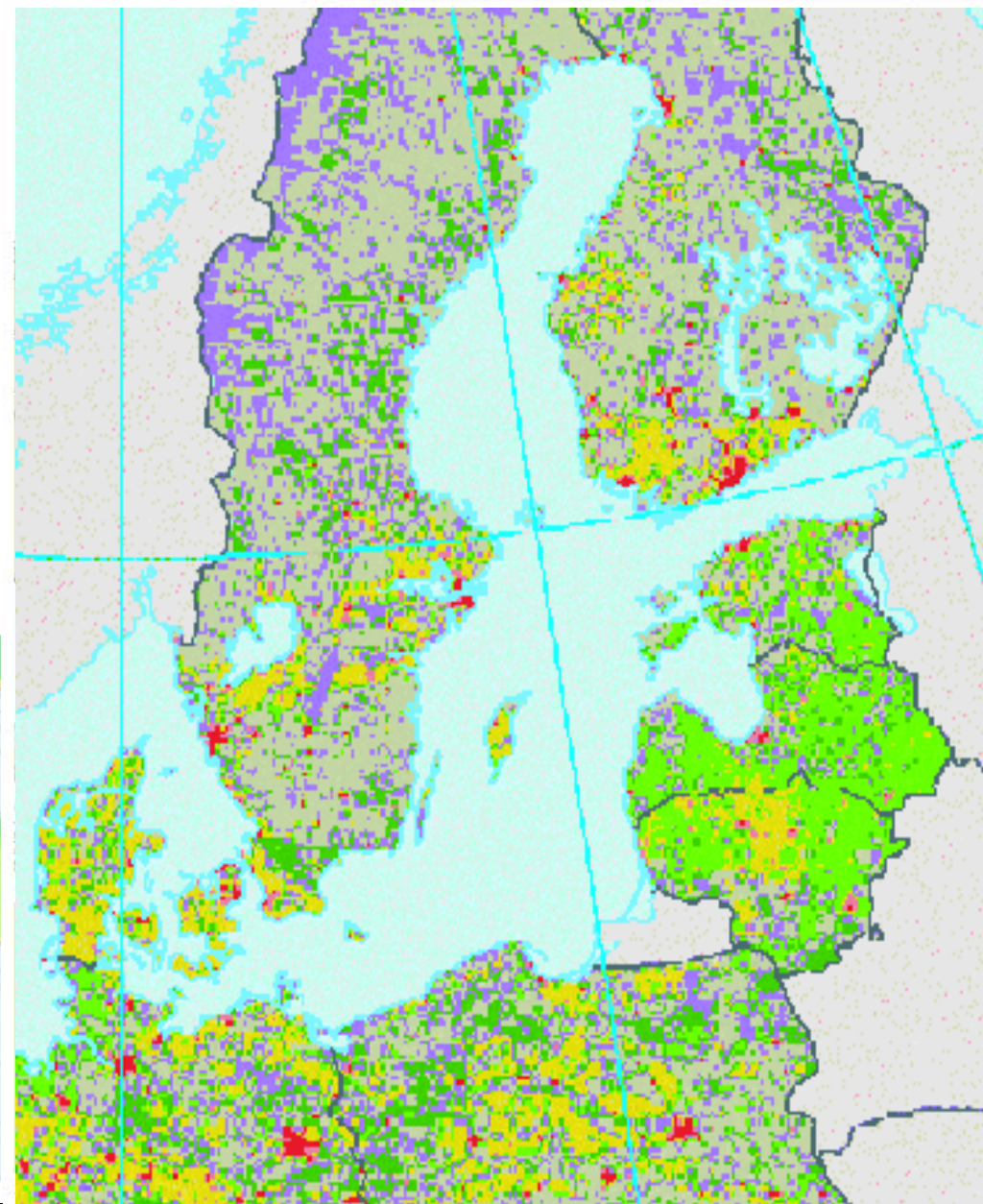
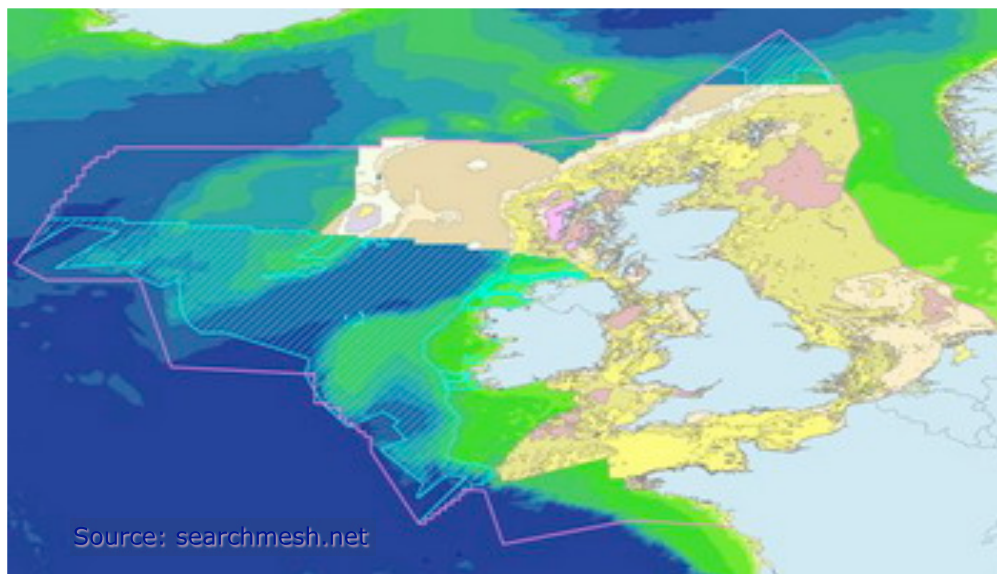




# Relevant examples from MESH and BALANCE projects

- Seabed map showing EUNIS habitat types
- Benthic marine landscapes →

Dominant Landscape Types of the Seas?





( Sustainable Development of European Coastal Zones )

Partners



**Newsletters :**

- News letter nr 1 (Winter 2006)
- News letter nr 2 (Fall 2007)
- News letter nr 3 (february 2007)



**Main output**

- Final Conference ,Brussels, 1st June 2007
- Indicators Guidelines

**Objectives    Partners    Background    Results - Products    Events**

**DEDUCE** (Développement durable des Côtes Européennes) is a transnational project concerning Integrated Coastal Zone Management (ICZM), co-financed by the European Commission and the participating regions, in the framework of Interreg IIIC South.

Its main objective is to evaluate the utility of indicators for optimal decision making on the coast, following the principles and criteria established by the EU Recommendation on ICZM.

Nine partners representing all decision-making levels (European, national, regional and local) are carrying out the project, which runs from October 2004 to June 2007.





GOALS	INDICATORS	MEASUREMENTS	SIF	IFS				
1-To control further development and expansion of built-up areas	1-DEMAND FOR PROPERTY ON THE COAST	1-1-Size, density and proportion of the population living on the coast 1-2-Value of residential property. 2-1-Percentage of built-up land by distance from the coastline						
2-To protect and enhance the natural and cultural diversity of coastal zones	2-AREA OF BUILT-UP LAND	2-1-Percentage of built-up land by distance from the coastline						
	2-AREA OF BUILT-UP LAND	2-2-Volume of traffic on coastal roads						
3-To promote and support a dynamic and sustainable coastal economy	11-LOSS OF CULTURAL DISTINCTIVENESS	11-1-Number and value of sales of local products with regional quality labels in Europe and O/PCS						
	12-PATTERNS OF SECTORAL EMPLOYMENT	12-1-Percentage part time and seasonal employment per sector 12-2-Value added per sector						
	13-VOLUME OF PORT TRAFFIC	13-1-Number of incoming and outgoing passengers per port 13-2-Total volume of goods handled at ports 13-3-Proportion of goods transported by sea routes						
	14-INTENSITY OF TOURISM	14-1-Number of overnight stays in tourist accommodation 14-2-Occupancy rate of bed places						
	15-SUSTAINABLE TOURISM	15-1-Number of tourist accommodation holding EU Eco-label						
		15-1-Number of tourist accommodation units holding EU Eco-label 15-2-Ratio of overnight stays to number of residents						
		16-1-Percentage of bathing waters compliant with the guide value of the European Bathing Water Directive 16-2-Volume of litter collected from the shoreline						
		19-1-Volume of accidental oil spills 19-2-Number of observed oil slicks from aerial surveillance						
		21-1-Average household income 21-2-Percentage of population with a higher education qualification						
		22-1-Ratio of first to second and higher education						
		23-1-State of the main fish stocks by species and sea area 23-2-Recruitment and spawning stock biomass by species 23-3-Landings and fish mortality by species 23-4-Value of landings by port and species						
		24-1-Number of days of reduced supply						
		25-1-Number of 'stormy days' 25-2-Rise in sea level relative to land						
		26-1-Length of protected and defended coastline 26-2-Length of dynamic coastline 26-3-Area and volume of sand nourishment						
		27-1-Number of people living within an 'at risk' zone 27-2-Area of protected sites within an 'at risk' zone						

DEDUCE aimed at testing the set of 27 indicators and 45 measurements for sustainable development in coastal zones developed for the EU ICZM working group. Each indicator was implemented as Indicator Fact Sheet.

Measuring effectiveness of ICZM remains a challenge

**Further information**

**Data sources:**


- European Commission (2004) (2004)
- Member States (2004) (2004)
- Member States (2004) (2004)
- Member States (2004) (2004)
- Member States (2004) (2004)
- Member States (2004) (2004)

**Reliability of the indicator:**

The data on building level is not homogeneous for all coastal systems. There are significant data gaps due to the national legislation (national mapping and other national rights, accuracy measurement) of the national statistics and temporal inconsistencies due to the changing national policies.

**References:**

- European Commission (2004) "The Urban Settlements in the Coastal Zone" Background Report for the 2004 Meeting of Ministers for the Environment, Luxembourg, 19-21 May 2004

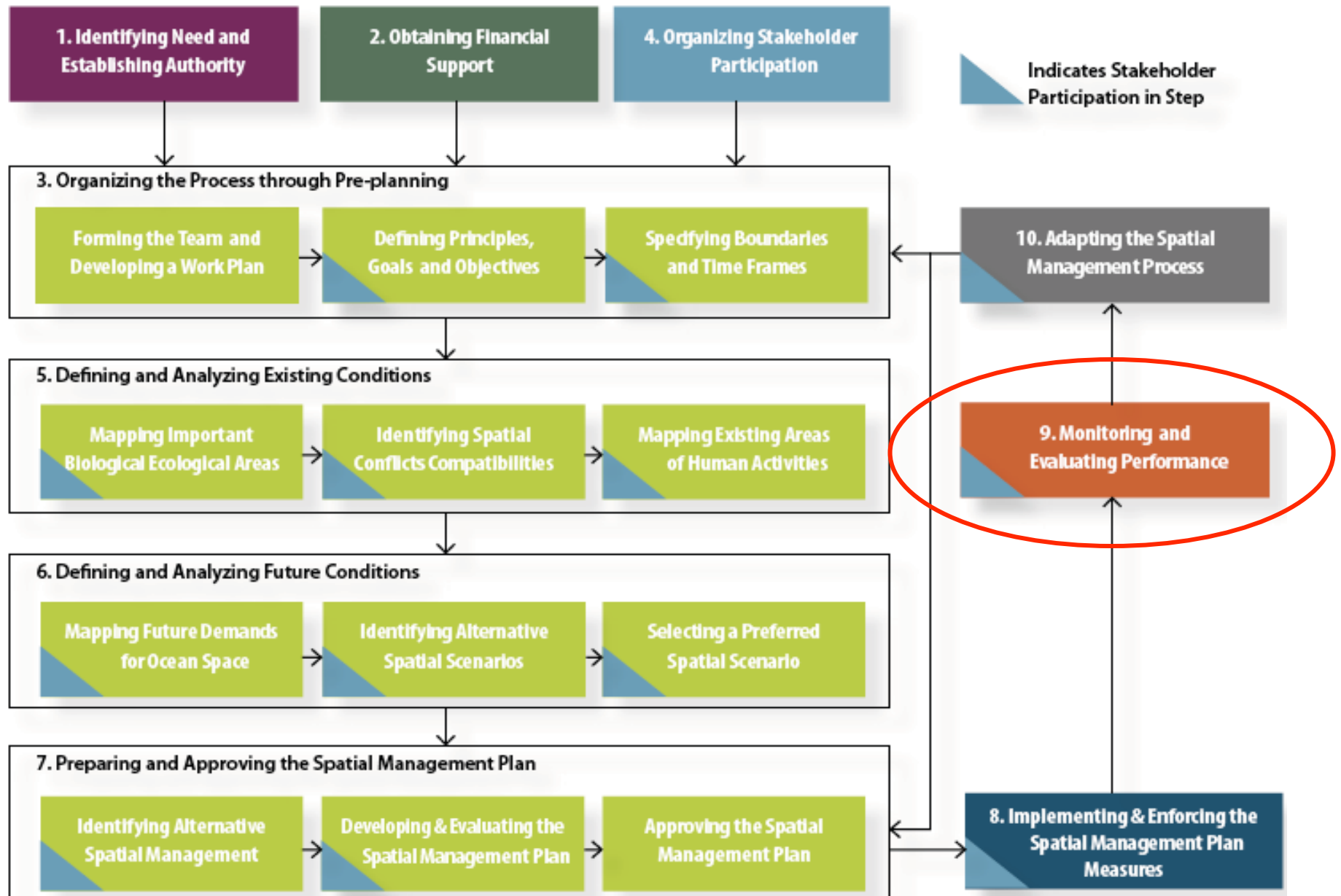



# MSP: a step-by-step approach towards ecosystem-based management



- **UNESCO/IOC Guide 2009**
  - Implementation framework of 10 steps (34 tasks)
- **Main considerations:**
  - MSP is not a one-time plan. Adaptive approach;
  - Allow pro-active decision-making. Incorporate future thinking;
  - Multiple objectives, not just nature conservation or just economic development; integrate various sector needs;
  - Boundaries for planning relevant from an ecosystem perspective. Analysis should be beyond administrative boundaries.





Source: UNESCO/IOC



# Step 9 – Monitoring and evaluating performance of MSP

Task 1. Developing the performance monitoring programme

Task 2. Evaluating performance monitoring data

Task 3. Reporting results

- Agreed objectives and management outcomes will each need:
  - indicator
  - baseline
  - target
  - data collection strategy
  - data analysis
  - reporting plan
  - identified users

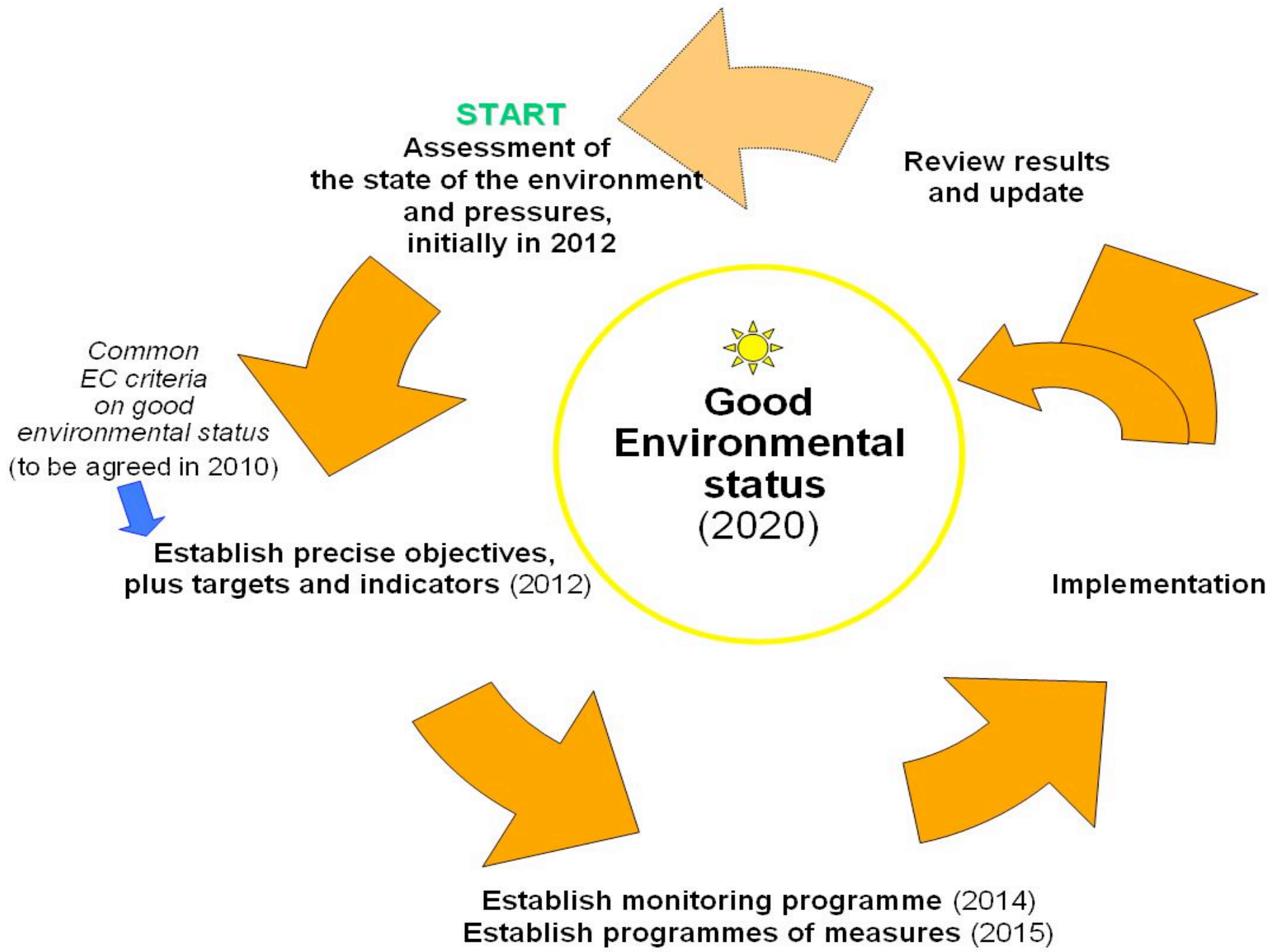


**ECOSYSTEM  
APPROACH**

**MARITIME SPATIAL  
PLANNING**

**MARINE STRATEGY  
FRAMEWORK  
DIRECTIVE**







# MSFD and MSP cooperation

- Common sustainability objectives
  - MSFD Marine Strategy elements contribute to MSP
    - Initial assessment (i.e. problem definition – current status)
    - Determination good environmental status (i.e. environmental objective formulation – desired status/ 'outcome')
    - Targets and associated indicators (management objective formulation – scoreboard/ 'output')
    - Monitoring programme (tracking progress)
    - Programmes of measures (actions to reach objectives)
- Common knowledge base and data flows: mobilising information on spatial features, ecosystem properties, ecosystem status, socio-economic knowledge





Thank you!

Contact:

[Andrus.Meiner@eea.europa.eu](mailto:Andrus.Meiner@eea.europa.eu)

<http://www.eea.europa.eu>

