

# EU Policy framework for climate change adaptation in marine and coastal areas

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#### Marine

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- Marine Strategy Framework Directive

#### Coasts

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- (3) Keys for integration of adaptation in planning and management of marine and coastal areas



### EU White Paper on Adapting to Climate Change



- White paper adopted 1/4/2009
- Objectives: to improve the EU's resilience to cope with the impacts of climate change by:
- ➤ I strengthening the knowledge base on climate vulnerability and cost-benefit of adaptation options
- ➤ II ensuring early implementation of no-regret and win-win measures by mainstreaming adaptation into EU policies
- ➤ III putting in place a process to better co-ordinate adaptation policies (EU/MS) and assess next steps, including debate on future funding
- > IV foster external dimension of adaption
- Action plan (2009-2012): *Towards* an EU adaption Framework by 2012



### Selection on-going actions / first results

**Guidelines for the elaboration of Regional Climate Change Adaptations Strategies EcoLOGIC, Sept. 2009** 

Impacts and Costs of adaption: PESETA project (final report Nov. 2009); nb. study The economics of climate change adaptation in EU coastal areas (May 2009)

#### **Ongoing:**

- Study Adaptation costing methodology typology of measures
- ESPON-Climate: Climate change and territorial effects on regions and local economies
- Research FWP7 (new projects: ClimateCost, ClimSave, Mediation, Responses, CC-TAME; risks: CapHAZ-Net, ENSURE, etc.)
- ⇒ EU Adaptation Clearing House (1st phase by 2011)



# Increasing resilience of coastal and marine areas Urgencies

Marine and coastal ecosystems are under severe pressure:

- Habitat destruction, fragmentation and degradation
- Over-exploitation
- Pollution
- Unsustainable practices
- Invasive species
- Ocean acidification
- Increased exposure to risks
- Climate change aggravates pressures/impacts



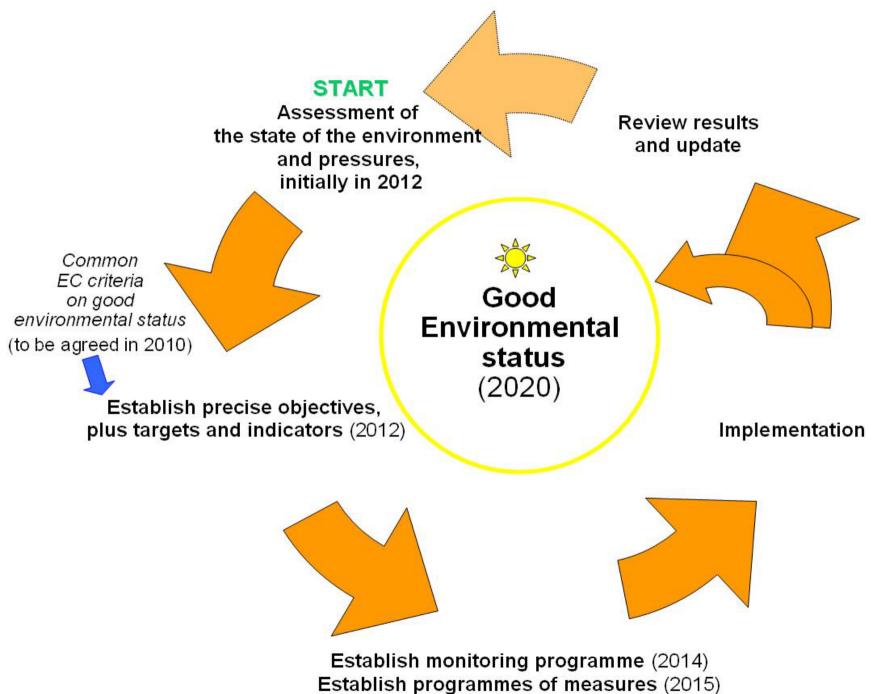
## Increasing resilience of coastal and marine areas (I)



- an eco-system based approach to the management of human activities in the marine area
  - ensuring that the <u>collective pressure</u> of such activities is kept within levels compatible with the achievement of good environmental status
  - and that the <u>capacity</u> of marine ecosystems <u>to respond</u> to humaninduced changes is not compromised,
  - O while <u>enabling the sustainable use</u> of marine goods and services by present and future generations.

<u>Integration</u> of environmental concerns into the <u>different policies</u> which have an impact on the marine environment.

- ➡ Marine Strategy Framework Directive : "good environmental status" by 2020
  - ⇒ First step 2010: common criteria GES
- Building-up knowledge basis "adaptive management"





### Increasing resilience of coastal and marine areas (II)

**CFP reform:** 

Results public consultation

http://ec.europa.eu/fisheries/reform/

Understanding how global change will affect

marine populations

http://www.glob ec.org/ **Green Paper** "Reform of the Common fisheries policy" (COM(2009)163)

#### Climate change aspects:

- ° resilience of eco-systems to climate and other human pressures
- ° adaptation by coastal fisheries communities
- ° mitigation of CO<sup>2</sup> emissions fleet

#### **Next:**

Finalisation impact assessment Autumn 2010



Increasing resilience of coastal and marine areas (III)
Nov. 2009: Guidance document No. 24 "RIVER BASIN
MANAGEMENT IN A CHANGING CLIMATE"



- Indirect pressures arising from human responses (adaptation and mitigation)
- Uncertainty no obstacle for "noregret" / "win-win" measures
- Application in 2<sup>nd&</sup>3<sup>rd</sup> cycle River

  Basin Management Plans (assessment pressures / impacts, monitoring programmes, measures)
- 11 principles: i.e. broad risk assessment, climate check of measures, maximisation cross-sector benefits; Flood risk & Drought/water scarcity



### Increasing resilience of coastal and marine areas (IV)

EU Recommendation on Integrated Coastal Zone Management (2002/413/EC): A <u>strategic approach</u> to coastal zone management and planning.

Based on common **principles**, reflecting good territorial governance.

New: Protocol on Integrated Coastal Zone Management (Barcelona Convention)

- proposal for EU ratification Feb. 2010.
- Art. 22 "Within the framework of national strategies for integrated coastal zone management, the Parties shall develop policies for the prevention of natural hazards. To this end, they shall undertake vulnerability and hazard assessments of coastal zones and take prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of climate change."

# Increasing resilience of coastal and marine areas (V) Towards EU Guidance on adaptation in coastal and areas

- Taking stock of outputs White Paper
- Lessons from research and implementation
- Key source:



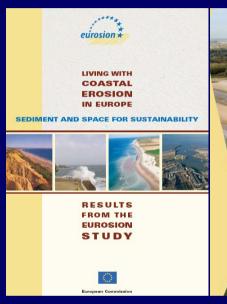
**Budget 1M€**, **Dec.2008-Feb.2012** 

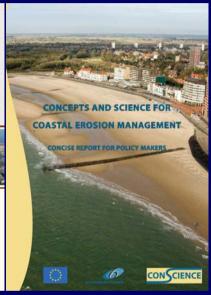
Database, analysis: at least 350 cases

Key themes include: Adaptation to coastal risks and climate change; Planning and land management instruments; Institutional coordination mechanisms; Information and communication



## Increasing resilience of coastal and marine areas (V) Towards EU Guidance on adaptation in coastal and areas





### Results: EUrosion (2004) – ConScience (2010)

Long-term strategic approach to risk management

SAFECOAST (2008): Risk chain (prevention – preparedness – response - reconstruction)



#### **PEGASO** (7th FWP, 2010-2014)

Eco-system based governance – assessment framework, in line with INSPIRE (interoperable geo-nodes)

Data > information



Regional action strategies for coastal zone adaptation to climate change

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- Capitalization of knowledge and resources in the field of coastal protection

partners

2009-2012

- Development of Territorial Action Plans for adapting coastal zones to climate change, against erosion effects and submersion risk

- Definition of Sediment Management Plans (SMPs) for both off-shore and littoral deposits exploitation

### Budget: 1.9 M€

- Environmental Impact Assessment Protocols
- Training and coordination of the competent authorities (ICZM & planning tools).







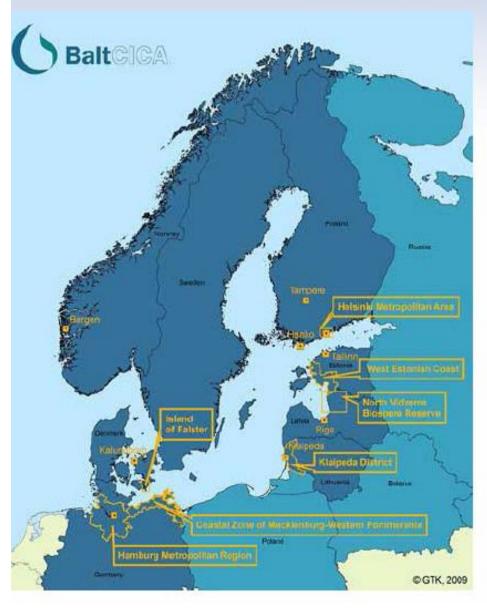








### BaltCICA Project



- Adaptation in the Baltic
   Sea Region: prepare
   regions and municipalities to
   cope with a climate change
- Assess costs and benefits of adaptation in case studies
- Integrate latest CC research results for cost-effective adaptation strategies which focus on territorial development
- 24 partners involved from 02/2009 to 01/2012
- Total budget: € 5,3 million



## Keys for integration of adaptation in coastal and marine areas







### Keys for integration of adaptation in coastal and marine areas

- Area based, cross-sectoral risk reduction strategies; coherent "mix" of measures
- Adaptation and mitigation need to be considered
- Focus on prevention of hazard, where possible
- Enhancing resilience of coastal systems working with nature
- Knowledge based approach; communication and public information
- Multi-level governance: determining relevant scales for policies & actions



Thank you

ADAPTATION TO CLIMATE CHANGE

http://ec.europa.eu/environment/water/adaptation/index\_en.htm

MARINE / COASTAL WATERS

http://ec.europa.eu/environment/water/index\_en.htm

INTEGRATED COASTAL ZONE MANAGEMENT

http://ec.europa.eu/environment/iczm/home.htm