

# The Italian case of Emilia-Romagna region: relevance of tourism in the coastal and maritime planning

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Training Workshop - Integrating sustainable tourism in marine and Coastal Planning, addressing protected areas

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# The Emilia-Romagna coastal & marine area

## An area of strategic importance and conflicts between nature and development

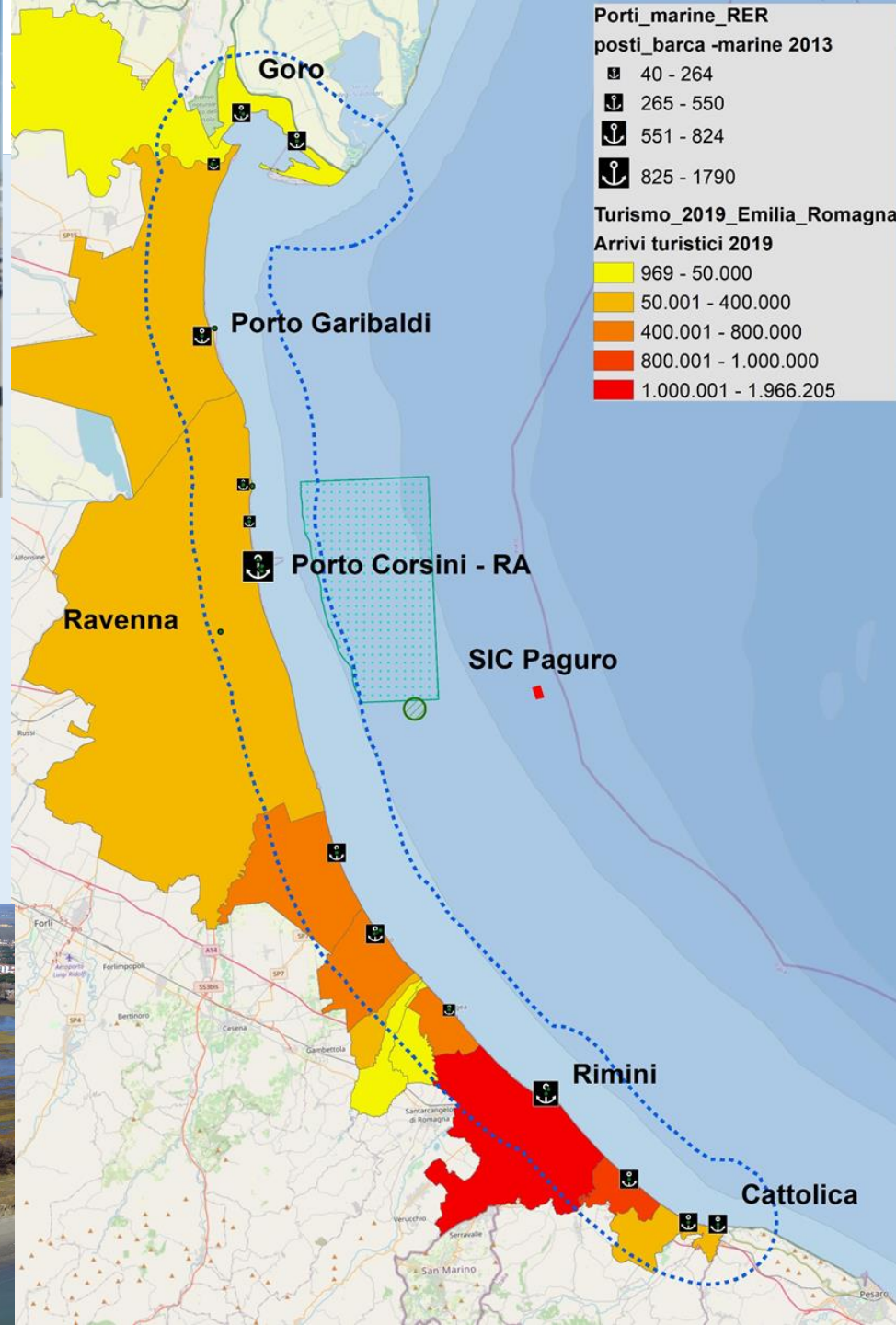


- **130 Km of coastline**, over 60% protected with coastal defense structures
- **Site of cultural heritages & protected zones of international relevance** (e.i. Ravenna city and the MAB-Delta Po reserve)
- **Underwent a very high anthropic pressure**: over 400% the urbanization during the last 70 years
- **Strategical area for the regional economy**
  - ✓ **Above all tourism** (overall contributes for the 11% of the regional GDP)
  - ✓ **transport** (26 ports/harbors/marinas; 1 national port, Ravenna)
  - ✓ **aquaculture** (45% of national production)
  - ✓ **Fishery** (small scale- 609 vessels - 4500 workers)
  - ✓ **energy** (still present 36 oil&Gas licences - development of projects for renewable energy)



primarily seaside and recreational tourism

naturalistic tourism and historical heritages are increasing



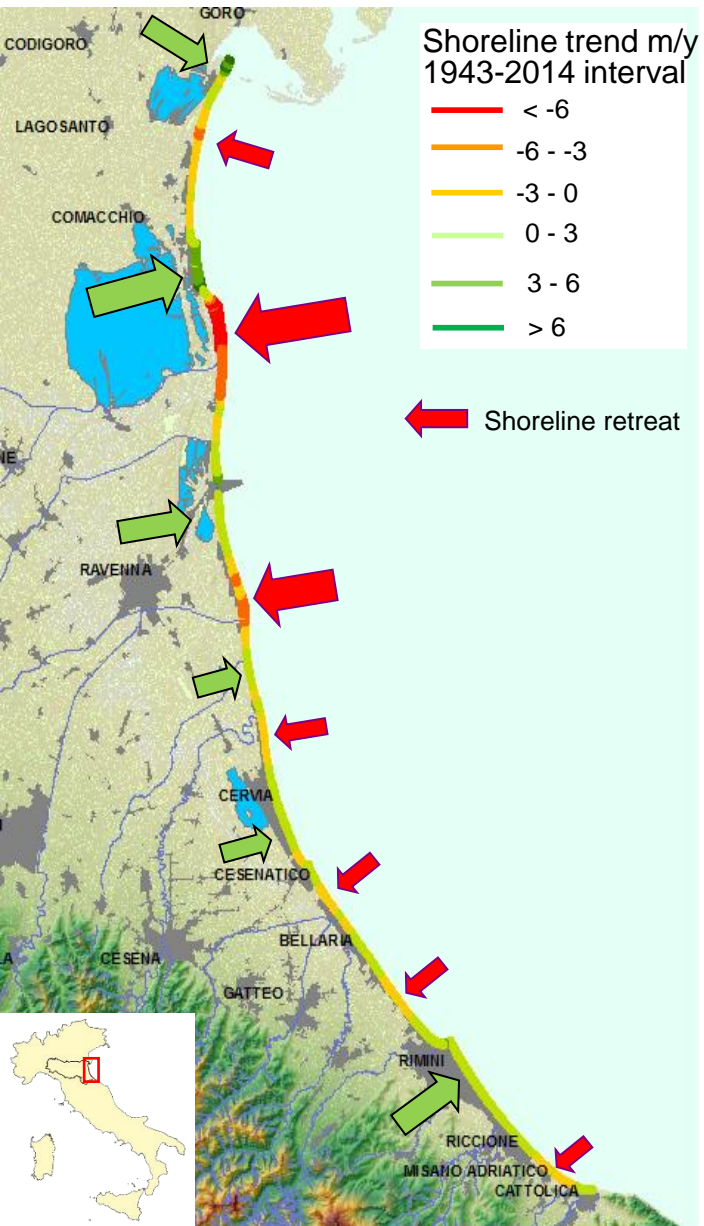
# coastal tourism

Over 320.000 beds  
+ of 3000 hotels - other accommodation facilities  
+ than 1900 tourist / recreational concessions  
+ than 6900 berths

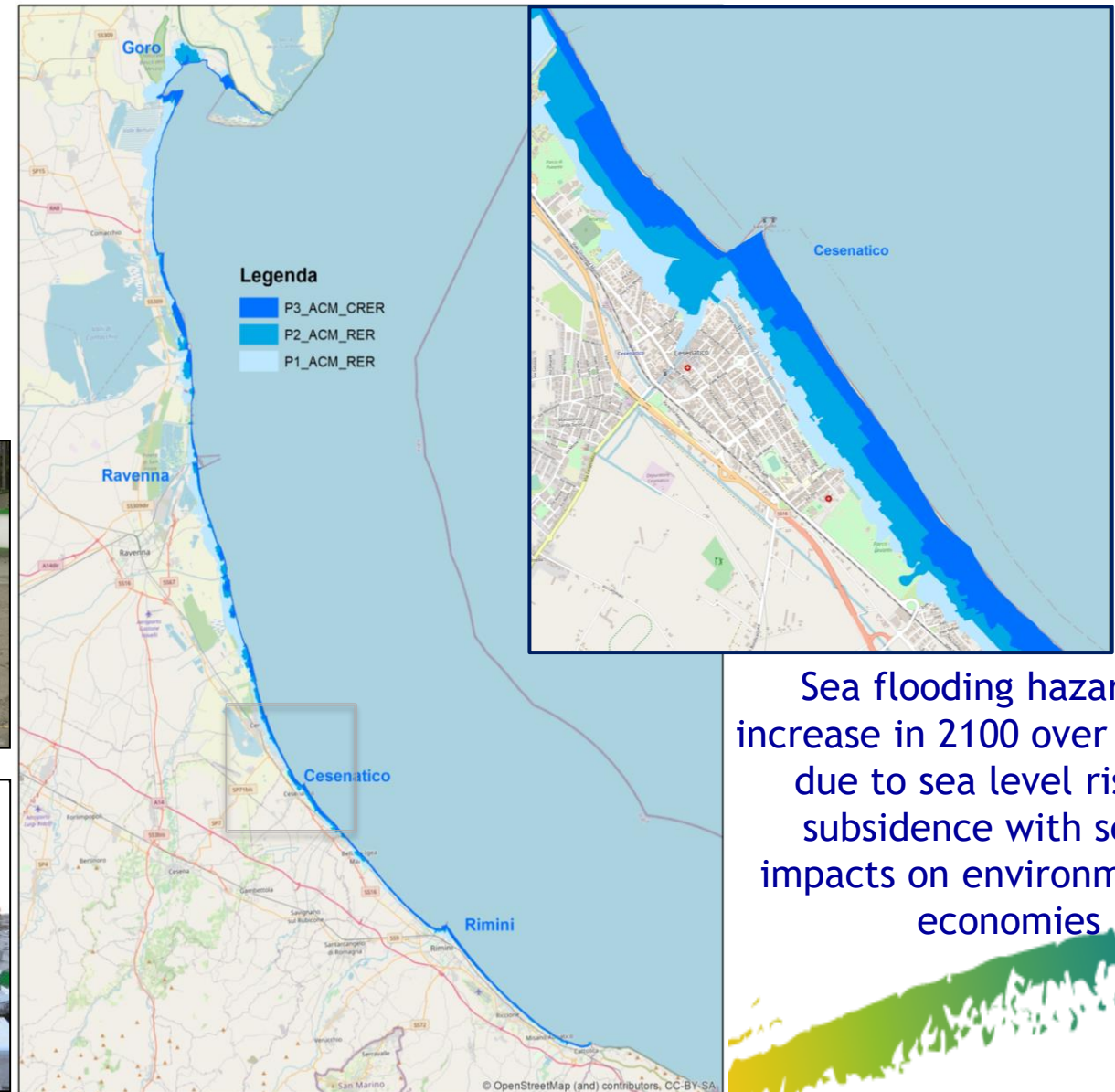
Tourist arrivals particularly concentrated in the southern area of Rimini, over 1 million arrivals in 2019



# critical issues for coastal tourism are: beach erosion and sea flooding



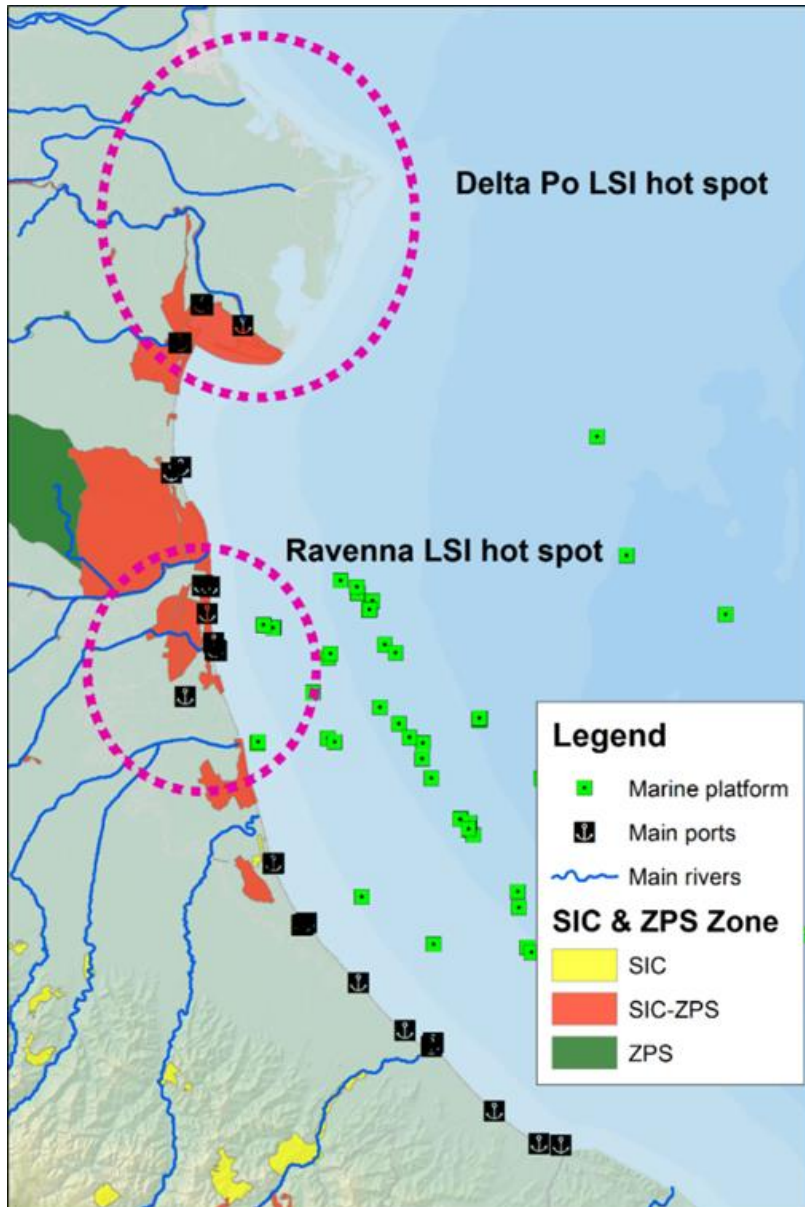
Erosion affects 47%  
of the shoreline  
(Arpae 2020), value  
reduced to 26%  
thanks to intensive  
sand nourishments



Sea flooding hazard can  
increase in 2100 over 3.5 times  
due to sea level rise and  
subsidence with serious  
impacts on environment and  
economies



# land - sea interaction



## 2 main hot spots:

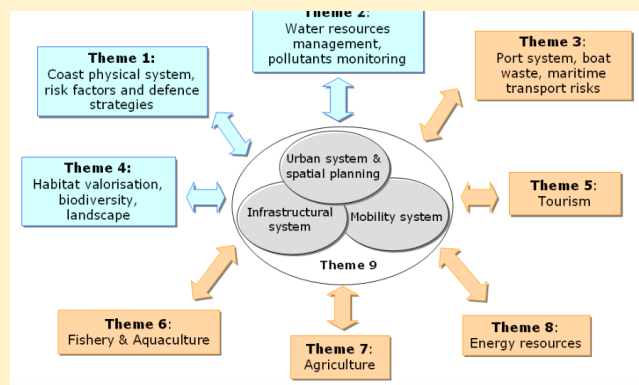
- the **Po delta** (mostly located in the Veneto Region): an area relevant for the river outflow in terms of water, sediment, and pollutant...due to the intense human activities in the basin (agriculture, aquaculture, fishing, and tourism) causing **eutrophication** of the Adriatic sea. The UNESCO MAB (Man & Biosphere reserve) project aims to improve tourism by directing it towards the values promoted by the UNESCO MaB program: through branding activities, ecological quality certifications (eg Ecolabel), good energy saving and water saving practices, reduction of waste production, sustainable mobility
- the **Ravenna harbour surrounded** environmental protected areas and very important historical heritages

# ICZM and MSP approach in Emilia-Romagna

Central in all strategies and plans is the sustainability of coastal human activities

Since 2000 a ICZM strategy has been pursued by RER, which led to approve a set of guideline (DEL 645/2005), among which:

- Mandatory a deep knowledge frameworks
- Nature based solutions to contrast beach erosion



- Intersectoral and sustainable approach for coastal management
- Land-Sea interaction considered
- Decisions based on updated knowledges

Ongoing the Maritime Spatial Planning  
Several studies and databases have been developed to analyze conflicts and synergies among sea and coastal uses  
Emilia-Romagna approved an MSP proposal on March 2021 (Delibera Number. 277 del 01/03/2021)



The new Coastal Adaptation Strategy (GIDAC) - as foreseen by climate change mitigation and adaptation regional strategy

Update and integrate the ICZM vision considering the climate changes issues

Already done or advanced:

- the strategy preliminary document
- the Knowledge framework
- the participatory workshops



Discussed solutions to improve sustainable tourism as de-seasonally

Above all tourism industry and linked sectors which need beach and ecosystem maintenance

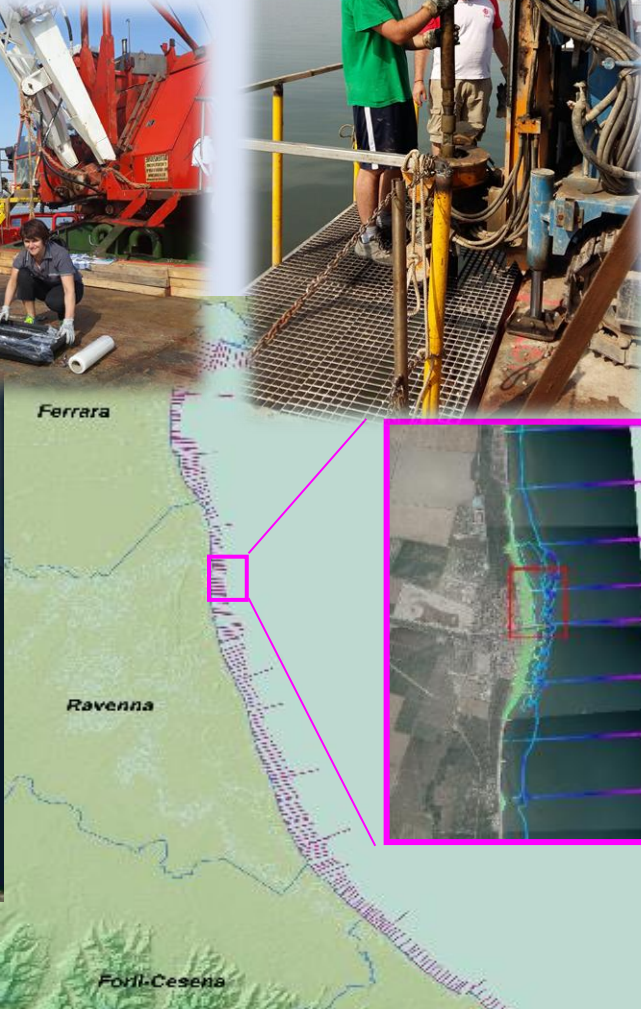
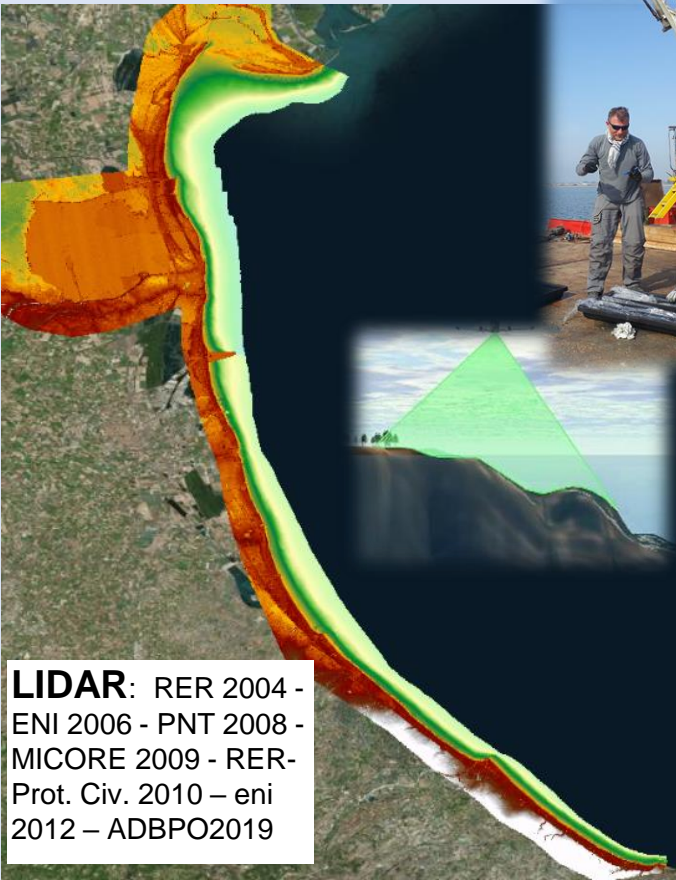


# The Coast and Sea Information System

# Databases

<https://ambiente.regione.emilia-romagna.it/it/geologia/geologia/costa/banche-dati-settore-costiero>

Following the ICZM guidelines



ArpaE topo-bathymetric network



**in\_Coast**  
Morphology and coastal evolution



**in\_Sea**  
Sea uses: synergy and conflicts



**in\_Storm**  
Sea storm impacts



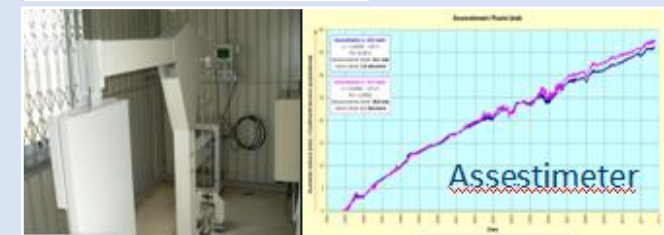
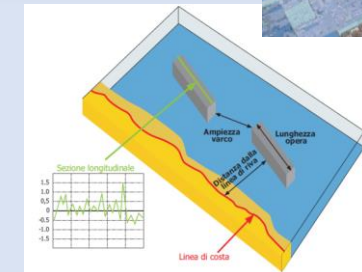
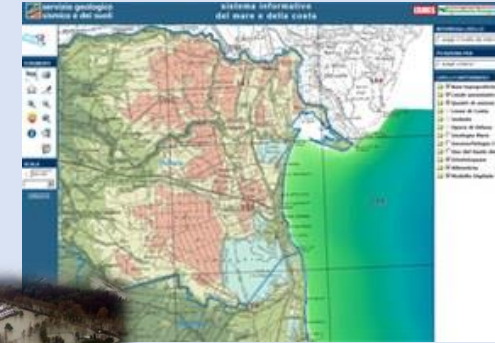
**in\_Risk**  
Coastal risks



**in\_Defence**  
Coastal defence



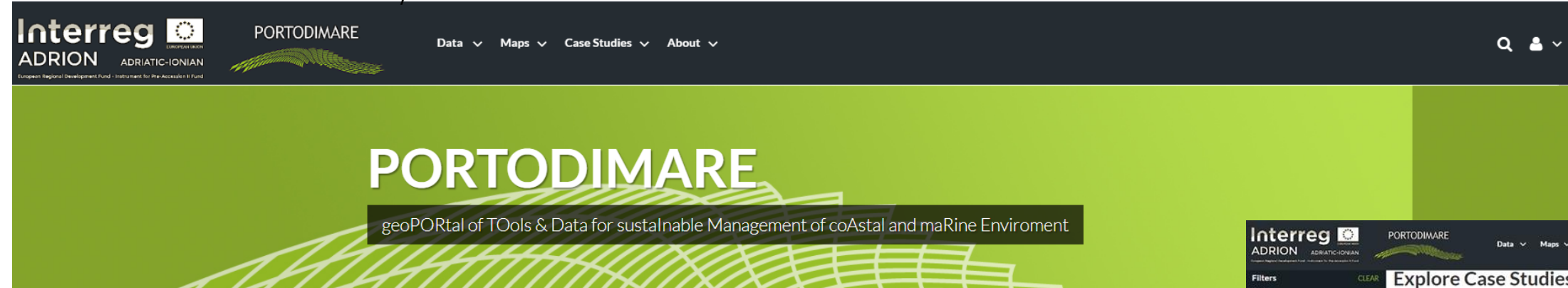
**in\_Move**  
subsidence



**Coastal monitoring**  
e.g. Morphological features – geology – sea storm impacts

# The GAIR - (Adriatic Ionian Geoportal)

<https://www.portodimare.eu>



**Interreg ADRION ADRIATIC-IONIAN** PORTODIMARE

Data Maps Case Studies About

# PORTODIMARE

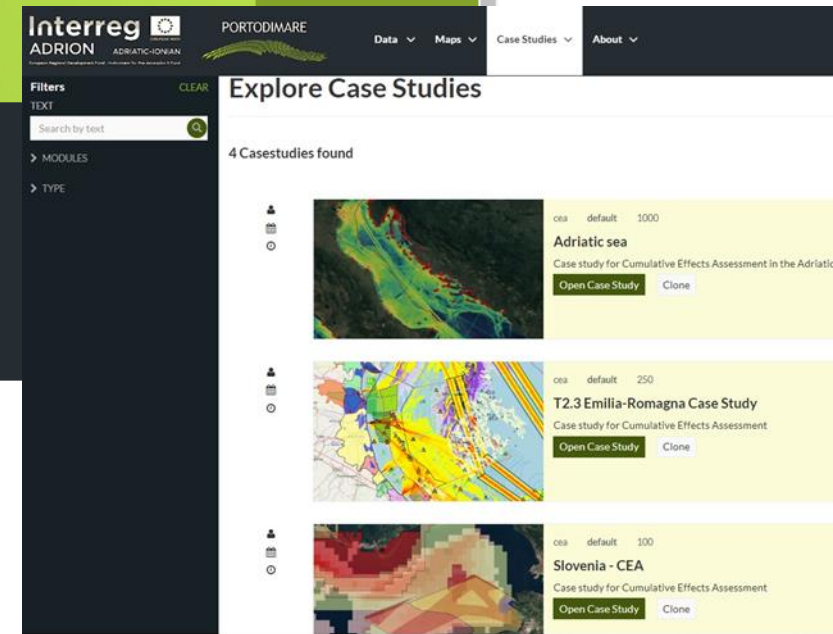
geoPORTal of TOols & Data for sustanable Management of coAstal and maRine Enviroment

tools for MSP

## Welcome to the Geoportal of Adriatic-Ionian Region

The Geo data portal of Adriatic Ionian Region (GAIR) provides access to numerous datasets related to coastal and marine areas and to several modules for Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP) analysis and risk evaluation. It represents a relevant and original improvement supporting transparent and efficient decision-making processes. The Geoportal improve transnational cooperation between AIR Countries on maritime and marine governance and services, i.e. ICZM/MSP, and an important support to the EUSAIR Action Plan implementation, cross-cutting to the 4 Pillars of the Strategy.

The GAIR is the main output of the project PORTODIMARE, co-funded by the Interreg ADRION Programme.

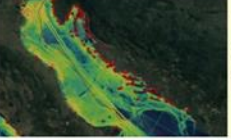
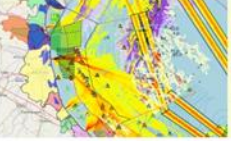



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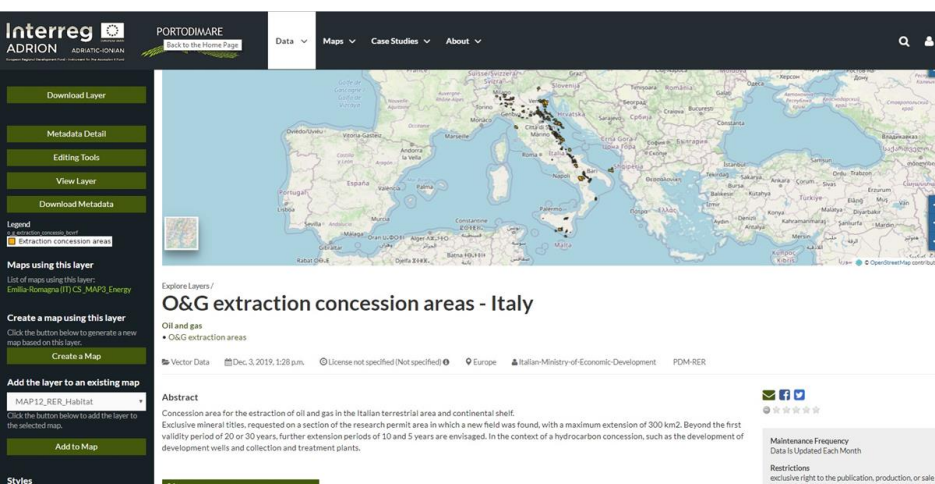
### Explore Case Studies

4 Casestudies found

-  **Adriatic sea**  
Case study for Cumulative Effects Assessment in the Adriatic  
[Open Case Study](#) [Clone](#)
-  **T2.3 Emilia-Romagna Case Study**  
Case study for Cumulative Effects Assessment  
[Open Case Study](#) [Clone](#)
-  **Slovenia - CEA**  
Case study for Cumulative Effects Assessment  
[Open Case Study](#) [Clone](#)

## Explore data

## Discover the available datasets.



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Data Maps Case Studies About

### Explore Layers / O&G extraction concession areas - Italy

Oil and gas  
O&G extraction areas

Vector Data Dec. 3, 2019, 1:28 a.m. License not specified (Not specified) Europe Italian Ministry of Economic Development PDM-REI

**Abstract**  
Concession area for the extraction of oil and gas in the Italian terrestrial area and continental shelf. Exclusive mineral titles, requested on a section of the research permit area in which a new field was found, with a maximum extension of 300 km2. Beyond the first validity period of 20 or 30 years, further extension periods of 10 and 5 years are envisaged. In the context of a hydrocarbon concession, such as the development of development wells and collection and treatment plants.

**Maintenance Frequency**  
Data is updated Each Month

**Restrictions**  
exclusive right to the publication, production, or sale

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- UNDERWATER CULTURAL HERITAGE
- ECONOMIC INDICATORS
- RAW MATERIAL EXTRACTION AREAS
- FISHING
- HUMAN POPULATION
- MARITIME BOUNDARIES
- MARITIME TRANSPORT AND TRAFFIC FLOWS
- SSURFS
- NATURE AND
- RNFNWARIF
- SCIENTIFIC
- SOCIAL
- SOURCE OF
- SPATIAL POLICY
- TERRFSTRIAI

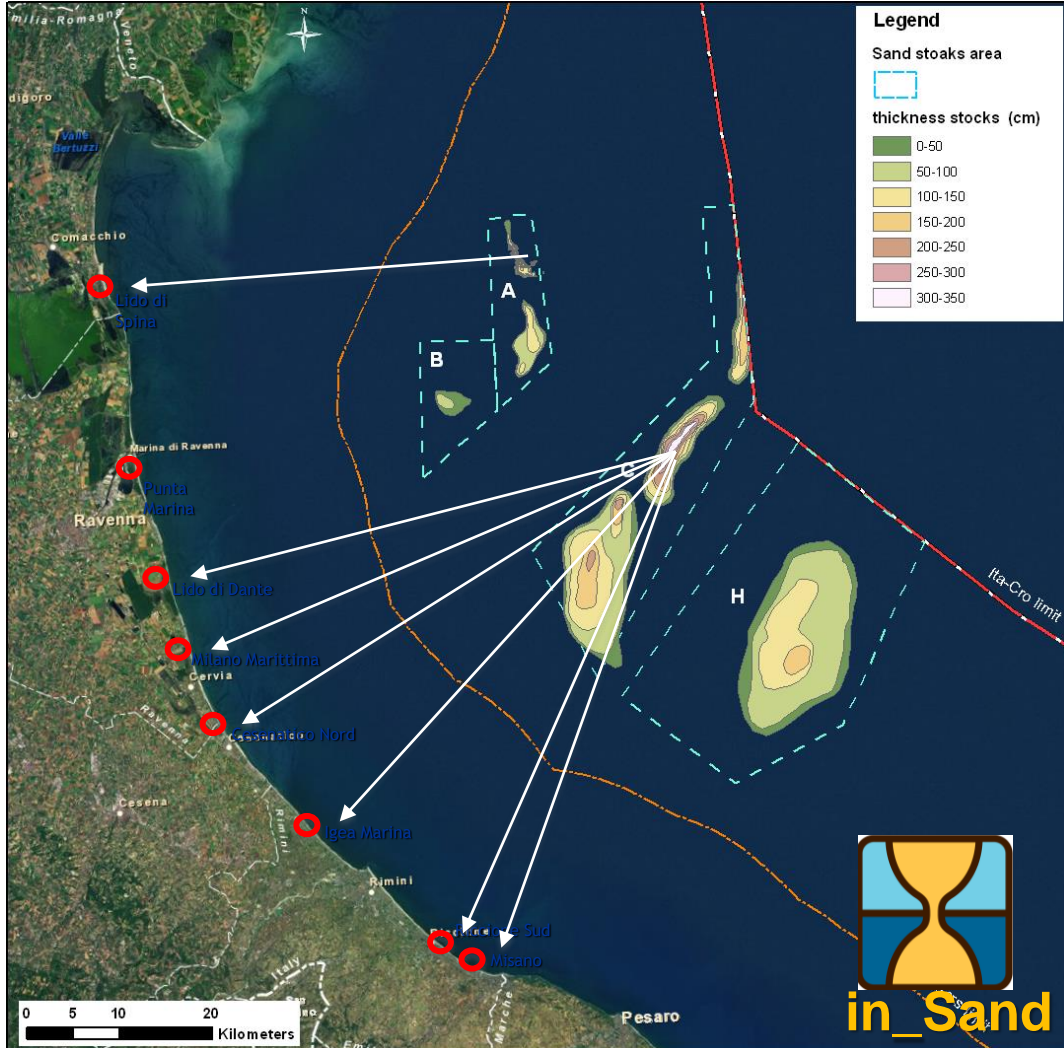


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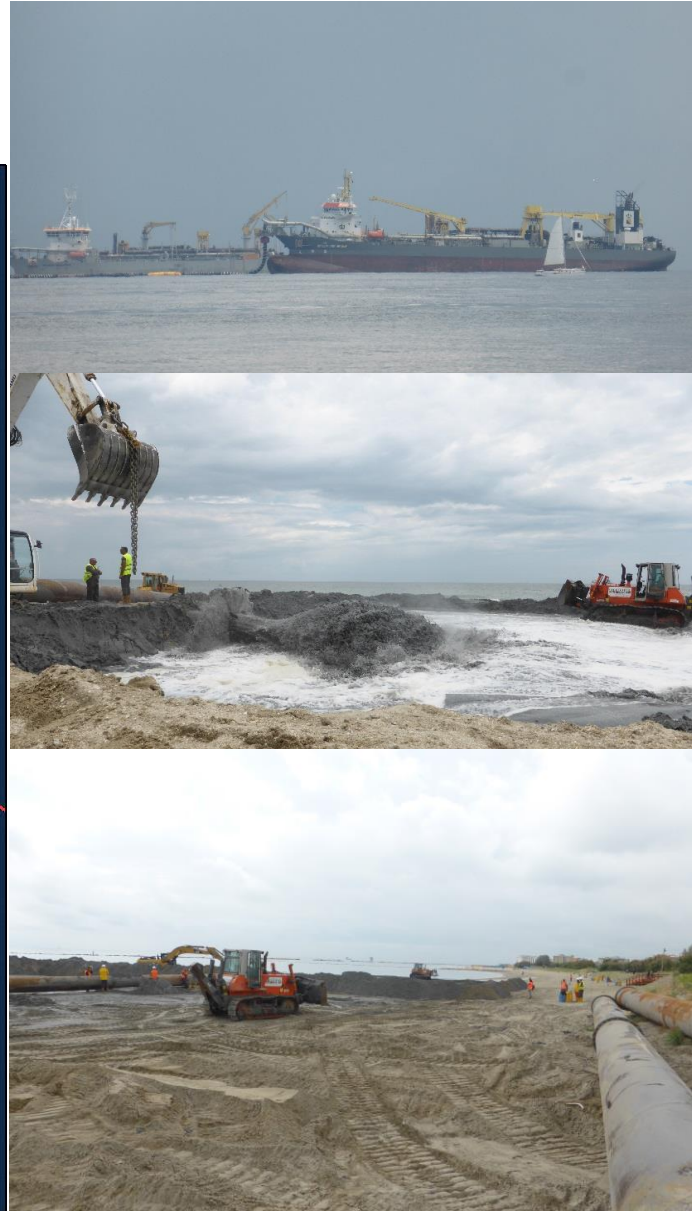


# The nature based solutions and the off-shore sand deposits

3 main beach interventions: in 2002, 2007 and 2016



Following the ICZM guidelines



beach nourishment: the most important nature-based solution to enhance the 'Coastal Resilience'- to reduce coastal risk and guarantee the future of seaside tourism

created the in\_Sand tool:  
sand deposits informations  
Interventions informations  
monitoring informations  
to better manage offshore deposits



# nature based solutions

## protection of coastal morphologies

Coastal dunes are the only natural protection against sea flooding, sand reservoirs and represent one of the most fragile ecosystems

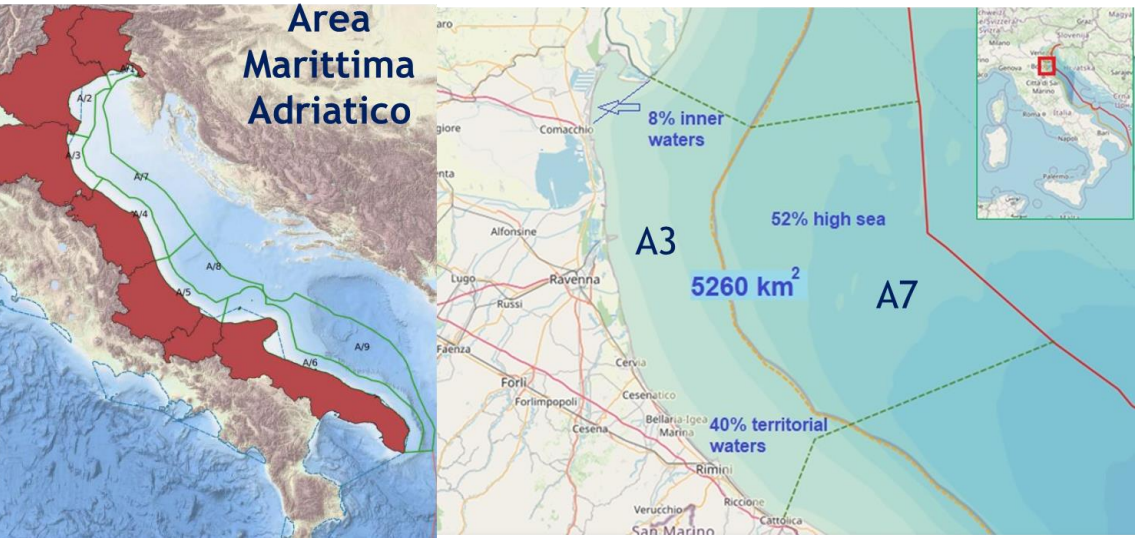
Following the ICZM guidelines, RER promoted preservation projects which are great attractions also for tourism

*Punta Marina (RA) dune restoration project  
financed by eni spa*



# Tourism relevance the MSP Emilia-Romagna proposal to A3 e A7 sub areas

The Vision: coastal and maritime tourism, with related value chains, represents the current and future reference sector for the maritime economy of the coastal system of Emilia-Romagna



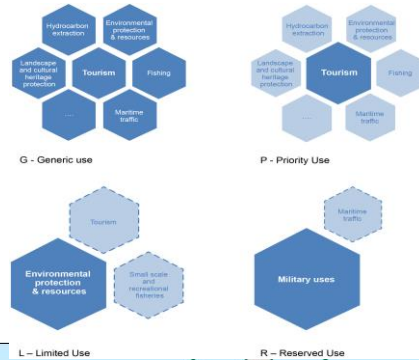
- Strategic Objectives:**
- Promote sustainable tourism development by creating conditions to guarantee space for natural marine dynamics and conservation of the resources on which tourism depends (water, nature, landscape)
  - promote the conservation and protection of coastal and marine ecosystems, pursuing the balance between the maintenance and conservation of natural environments and the synergies between human activities

Sectors	Specific Objectives (SO)
Coastal tourism and Coastal defence	SO.1 - Safeguarding the tourist use of the coasts (seaside tourism) by defending against flooding and counteracting erosion.
	SO.2 - Authorize the exploitation of submarine sand deposits, essential for beach nourishment; reducing conflicts with other uses, ensuring the careful management of them with a view to safeguarding the resource and respecting the environment

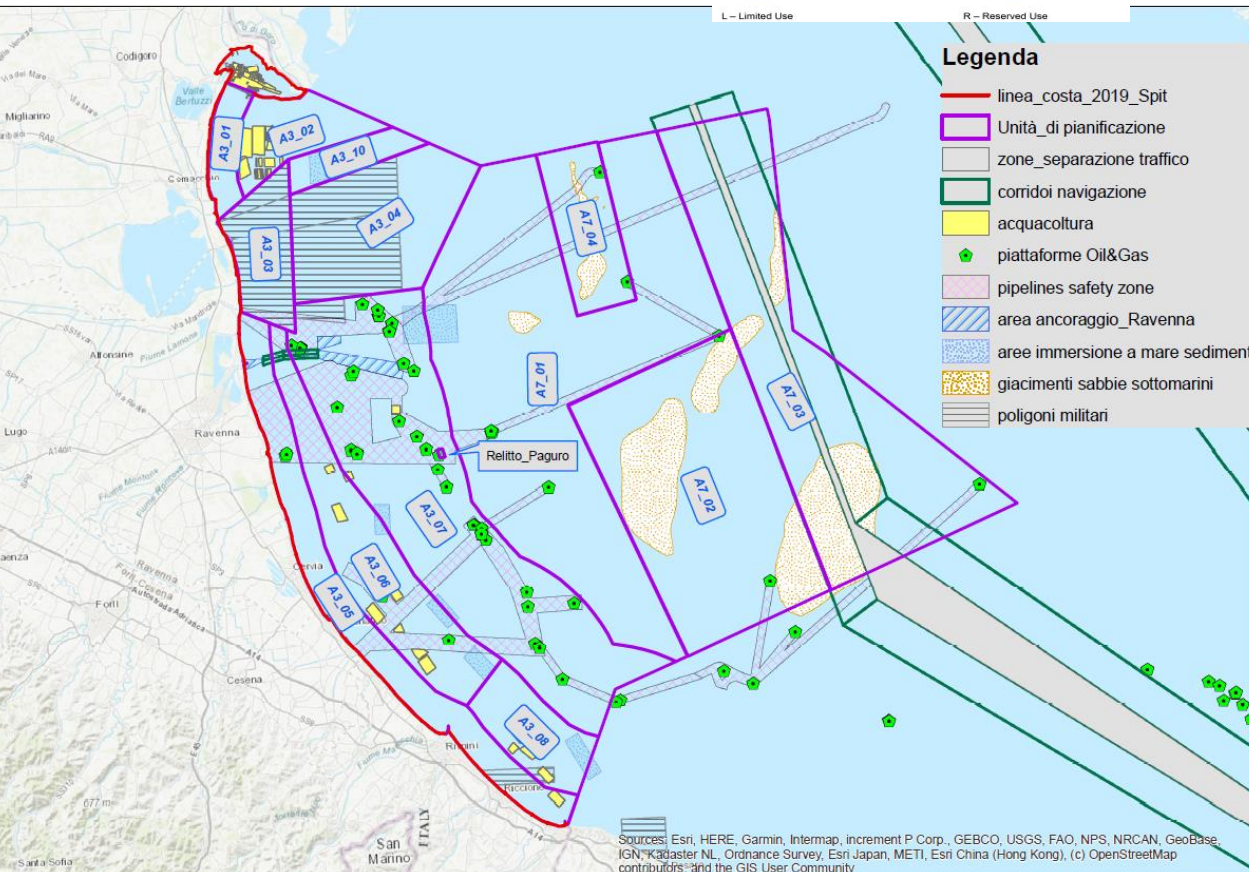


# The MSP Emilia-Romagna proposal to A3 e A7 sub areas

## Phase 4 - Planning: 'units



Classified planning units (vocation) following the method proposed for NTC



PU code	Main uses	other uses
A3_01	P: tourism	Auaculture; Fisheries ; Maritime transport :Env. protection
A3_02	P: aquaculture	Fisheries ; Maritime transport :Env. Protection; Tourism
A3_03	<b>R:</b> Defence	
A3_04	P: nature & defence	Fisheries ; Maritime transport;Tourism
A3_05	P: tourism	Auaculture; Fisheries ; Maritime transport :Env. protection ; O&G
A3_06	P: aquaculture	Auaculture; Fisheries ; Env. protection ; O&G
A3_07	P: energy	Auaculture; Fisheries ; Maritime transport :Env. protection ;
A3_08	P: aquaculture -tourism - nature	Fisheries ; Maritime transport;
A3_09	<b>L:</b> nature	Tourism
A3_10	G: generic	Auaculture; Fisheries ; Maritime transport :Env. protection
A7_01	G: generic	Fisheries ; Env. protection ; O&G; sand extr.; renew.energy
A7_02_04	<b>P:</b> sand extract.	Fisheries ; Maritime transport; O&G
A7_03	P: maritime trans./nature	Fisheries ; sand extr.;





*Thank you*

<https://ambiente.regione.emilia-romagna.it/it/geologia/geologia/costa>

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