



# Studies to support the development of sea basin cooperation in the Mediterranean, Adriatic and Ionian, and Black Sea



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## 1. Selection of the most important regions

The selection of the most important NUTS 2 in each country relies on the identification of the **maritime role** of each NUTS 2 in the related country. For this purpose, **four key sectors** have been identified which could be considered as “representative of the maritime dimension of the region at stake”. Therefore, to every one of the four sectors of each region, it is proposed to assign a score (from 0 to 10), which allows to assess the maritime role of each region in a given country.

The three sectors are:

- **Water transport**, which includes freight and passenger traffic; for this specific item, “Number of persons employed” at NUTS 2 level has been taken into account;
- **Coastal tourism**, whose indicator adopted is the number of bed places of coastal NUTS 3 level for a given NUTS 2. For this sector, A001 Collective tourist accommodation establishments has been taken into account.
- **Fishing**, for which the Gross tonnage (GT, column “Ton Ref” in the file downloaded) at NUTS 2 level will be taken into account (from the EU Fleet Register).
- **Aquaculture**, for which income by NUTS 2 has been taken into account<sup>1</sup>.

According to the findings of the Blue Growth study, these four sectors accounts to more than 70% of the EU maritime GVA and over than 85% of the EU employees in maritime activities.

The score for each of the 4 sectors for each NUTS 2 has been assigned as specified below:

- **Water transport**: the number of persons employed of the NUTS 2 in question has been divided by the total number of persons employed in the related country; the result has been multiplied by 10.
- **Coastal tourism**: the number of bed places of the coastal area in the NUTS 2 in question has been divided by the total number of bed places of the coastal area in the related country; the result has been multiplied by 10;
- **Fishing**: the total GT of the NUTS 2 in question has been divided by the total GT in the related country; the result has been multiplied by 10.
- **Aquaculture**: income of aquaculture sector by NUTS 2 has been divided by the total income generated by aquaculture in the related country; the result has been multiplied by 10.

The final score consist in the sum of the scores of the four sectors. Highest ranking regions have been selected as “most important regions”.

Table 1 - Definition of the maritime economic dimension for coastal NUTS 2 - Italy

	Water transport (Number of persons) <i>1000 persons</i>	Coastal tourism (bed places in coastal NUTS 3) <i>Unit</i>	Fishing (Gross Tonnage)	Aquaculture (Income) <i>Million euro</i>
Sicilia	3.967	196.777	50.376	8.4
Veneto	2.688	426.833	11.714	42.7
Liguria	9.709	162.246	3.423	4.8
Emilia romagna	835	347.853	8.669	63.3
Campania	6.933	188.885	10.156	10.4
Puglia	158	238.972	20.072	44.7
Sardegna	942	202.491	11.180	43
Marche	685	192.898	17.645	3.3
Lazio	1.308	274.251	7.308	5.5
Toscana	888	317.438	5.219	4.1
Friuli Venezia Giulia	438	145.107	1.931	22.9
Calabria	217	195.141	5.591	1.7
Abruzzo	7	86.428	9.644	1.4
Molise	8	9.368	1.981	0.8
Basilicata	0	38.955	0	2
<b>TOTAL</b>	<b>29.602<sup>2</sup></b>	<b>4.698.852<sup>3</sup></b>	<b>164.909</b>	<b>262.2</b>

<sup>1</sup> Source: P. Salz, 2007, Regional dependency on fisheries

Table 2 - Ranking order of coastal NUTS 2 - Italy

	Water transport	Coastal tourism	Fishing	Aquaculture	TOTAL
Sicilia	1.34	0,42	3,05	0,32	5.13
Veneto	0.90	0,91	0,71	1,63	4.15
Liguria	3.28	0,35	0,21	0,18	4.02
Emilia romagna	0.28	0,74	0,53	2,41	3.96
Campania	2.34	0,40	0,62	0,40	3.76
Puglia	0.05	0,51	1,22	1,70	3.48
Sardegna	0.32	0,43	0,68	1,64	3.07
Marche	0.23	0,41	1,07	0,13	1.84
Lazio	0.44	0,58	0,44	0,21	1.68
Toscana	0.30	0,68	0,32	0,16	1.45
Friuli Venezia Giulia	0.15	0,31	0,12	0,87	1.45
Calabria	0.07	0,42	0,34	0,06	0.89
Abruzzo	0.00	0,18	0,58	0,05	0.82
Molise	0.00	0,02	0,12	0,03	0.17
Basilicata	0.00	0,08	0,00	0,08	0.16

Note: Score is assigned dividing each regional value by the national total (also including landlocked regions) \* 10

### 1.1 Breakdown of marine and maritime activities at regional level (NUTS 2)

Four regions have been identified as most relevant maritime in Italy, ranked as follows:

Table 3 - Ranking of the 4 most relevant maritime regions in Italy

Region	score
SICILIA	5,04
VENETO	4,15
LIGURIA	4,00
EMILIA-ROMAGNA	3,96

As mentioned in the Country fiche, tables related to “indicators” and “overview” of relevant marine and maritime activities for each region have been reported below.

<sup>2</sup> All NUTS2 total

<sup>3</sup> All NUTS2 total

Table 4 - Indicators of relevant marine and maritime activities in SICILIA

Function/activity	GVA (EUR, billion)	Employment (*1000)	Number of enterprises	Further indicators	Source & Reference year	
<b>0. Other sectors</b>						
0.1	Shipbuilding and ship repair	n.a.	6,7	n.a.	----	CENSIS, (2009)
0.2	Water projects	n.a.	n.a.	n.a.	53 ports currently existing	Ministry of Infrastructure and Transport (2012)
<b>1. Maritime transport</b>						
1.1	Deep-sea shipping	n.a.	4,0	85 local units	GT 51.480	EUROSTAT, (2010)
1.2	Short-sea shipping (incl. Ro-Ro)				n.a.	----
1.3	Passenger ferry services				n.a.	----
1.4	Inland waterway transport	0	0	----	n.a.	----
<b>2. Food, nutrition, health and eco-system services</b>						
2.1	Fishing for human consumption	0,1277 (only fisheries)	7,6 (only fisheries)	n.a.	----	IREPA, (2011)
2.2	Fishing for animal feeding	0	0	----	----	----
2.3	Marine aquaculture	0,0084	0,2	n.a.	----	P. Salz, (2007)
2.4	Blue biotechnology	0	0	----	----	----
2.5	Agriculture on saline soils	0,0529	9,1	----	37.000 ha cultivated on saline soils	EUROSTAT, EEA, JRC, (2010)
<b>3. Energy and raw materials</b>						
3.1	Offshore oil and gas	n.a.	n.a.	----	----	----
3.2	Offshore wind	0	0	----	----	----
3.3	Ocean renewable energy	0	0	----	----	----
3.4	Carbon capture and storage	0	0	0	----	----
3.5	Aggregates mining (sand, gravel, etc.)	0	0	0	----	----
3.6	Marine minerals mining	0	0	0	----	----
3.7	Securing fresh water supply (desalination)	n.a.	n.a.	----	----	----
<b>4. Leisure, working and living</b>						
4.1	Coastal tourism	0,46	15,9	----	164.950 bed places, 13,3 million nights spent in 2010	ISTAT (2010) EUROSTAT (2010)
4.2	Yachting and marinas	0,04	0,28	76	11.346 moorings	Estimation of EUROSTAT data (2010)
4.3	Cruise tourism	0,12 - 0,17	2,4 - 3,4	----	----	Estimation of EUROSTAT data (2010) and ECC data (2010)
<b>5. Coastal protection</b>						
5.1	Protection against flooding and erosion	0	0.	----	----	----
5.2	Preventing salt water intrusion	0	0.	----	----	----
5.3	Protection of habitats	0,093	0,93	----	EUR 327,5 million is the total regional expenditure for the protection of all regional habitats.	Estimation on EUROSTAT data (2011)
<b>6. Maritime monitoring and surveillance</b>						
6.1	Traceability and security of goods supply chains	n.a.	n.a.	n.a.	----	n.a.
6.2	Prevent and protect against illegal movement of people and goods	n.a.	n.a.	n.a.	----	n.a.
6.3	Environmental monitoring	n.a.	n.a.	n.a.	----	n.a.

Table 5 - Overview of relevant marine and maritime activities in SICILIA

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
<b>0. Other sectors</b>				
0.1	Shipbuilding and ship repair	Several important shipyards are located in Sicily, including "Rodriquez CantieriNavali" (Messina) and FINCANTIERI Palermo	In 2010 FINCANTIERI Palermo built 4 vessels of which 3 military vessels. The Palermo yard also managed the repair of 23 ships and 6 conversions in 2011.	Ministry of Infrastructure and Transport (2012) FINCANTIERI (2012)
0.2	Water projects	Number of touristic moorings per kilometre of coast is still very low (9,9) compared to national average (27,4)	No socio-economic indicators are available	Ministry of Infrastructure and Transport (2012)
<b>1. Maritime transport</b>				
1.1	Deep-sea shipping	Messina and Palermo are respectively the ninth and tenth Ro-Ro port in Italy. Sicily is the first region of Italy considering only internal maritime transports (cabotage). Deep-sea shipping is mainly linked to oil refineries of the Syracuse's petrochemical cluster	In Palermo 6,4 million tonnes of goods are managed, of which 4 million Ro-Ro. In Messina 10.064 tonnes of goods are managed, of which 9.997 Ro-Ro. Since 2005 transports have strongly increased in Palermo (+54%)	Ministry of Infrastructure and Transport (2012)
1.2	Short-sea shipping (incl. Ro-Ro)			
1.3	Passenger ferry services	Several routes do exists between Sicily and the mainland, and between Sicily and minor islands (Eolian island are the main destination). Messina is the first Italian port for passengers, used as main connection between the island and the mainland. "Grimaldi Lines" and "Grandi Navi Veloci" have routes from Sicily (Palermo and Trapani) to Salerno, Civitavecchia, Genoa and Tunis.	8 million of annual passengers transit from the Messina port (-18% since 2005); 1,8 million from Palermo (-20%). Siremar (Sicilia Regionale Marittima) is an Italian shipping company, until 2011 a subdivision of state-owned Tirrenia di Navigazione and now privatized, which operates in routes from Sicily to Aeolian Islands, Aegadian Islands, Ustica, Pantelleria, Linosa and Lampedusa. From 2005 to 2011 number of Tirrenia rides to minor island has decreased of 23% similarly to the number of passengers (-31%) and vehicles. Routes to minor islands are very important for local tourism.	ISTAT; Ministry of Infrastructure and Transport (2012)
1.4	Inland waterway transport	None in Sicilia		
<b>2. Food, nutrition, health and eco-system services</b>				
2.1	Fishing for human consumption	Sicily has the largest fleet of Italy in terms of number of vessels (3.021), total GT, and crew (7.600). Small fishing boats are 2.046, but also an important fleet of bottom trawlers and purse seiners is located in Sicilia. Differently from the Adriatic fleets, mid-water trawling and dredging is not used.	Recently, significant decrease in terms of catches has been registered, due to overexploitation of stocks in the area – but also to high cost of fuel. The value of landing decreased from EUR 379 million in 2004 to EUR 287 million in 2011.	IREPA (2011)
2.2	Fishing for animal feeding	None in Sicilia		----
2.3	Marine aquaculture	Consolidated production of seabass and seabream (around 3.000 tonnes per year, 15% of the national total). Most of farming activities takes place offshore – cages – and only few plants are located on-shore (usually in former salinas). In Sicily there is one of the two Italian farms for fattened tuna.	Strong reduction of small plants number has been registered in the last years, underlining the crisis period of this sector in Sicilia. This trend has been recorded by big plants only marginally.	Regione Siciliana (2010)
2.4	Blue biotechnology	n.a.	n.a.	----
2.5	Agriculture on saline soils	Only 2% of the cultivated areas are on saline soils	No information on socio economic indicators	Estimation on JRC data (2012)
<b>3. Energy and raw materials</b>				
3.1	Offshore oil and gas	Extractive activities are mainly located in the Sicily channel. At present there are 10 offshore platforms, 4 of which are inactive. The remaining 6 extract oil. No socio-economic indicators are available		Ministero dello Sviluppo economico (2013)
3.2	Offshore wind	None in Sicily		

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
3.3	Ocean renewable energy	None in Sicily		
3.4	Carbon capture and storage	None in Sicily		
3.5	Aggregates mining (sand, gravel, etc.)	None in Sicily		
3.6	Marine minerals mining	None in Sicily		
3.7	Securing fresh water supply (desalination)	Two of the most important desalination plants in Italy are located in Sicily (in Gela and Syracuse). No socio-economic data are available		Global Water supply (2011)
<b>4. Leisure, working and living</b>				
4.1	Coastal tourism	Sicily is the first destination in Italy in terms of beach tourism. The activity is characterised by high number of bed places and relatively high level of services offered. Strong diversification of tourism activities (archaeological, habitats and protected areas, diving, etc. )	The activity, generally linked to seasonality but less than other regions, has been affected by the economic crisis. No specific socio-economic indicators are available.	Unioncamere (2009) Banca d'Italia (2013)
4.2	Yachting and marinas	Sicily is the region with the highest number of polyvalent ports (47), with 4 marinas and 38 berths. It is the third region with highest number moorings (18.000). As for building of leisure boats, only 5,3% of total Italian yards for this segment is located in Sicily, impacting around 2,6% of the national total in terms of employment.	In terms of infrastructural facilities, Sicily is the region which registered the higher increases between 2007 and 2012 (10 new structures and + 4.278 new moorings).	UCINA (2012)
4.3	Cruise tourism	Palermo and Messina are the two "cruise ports" in Sicily. In general the region is important in terms of transits and not in terms of departure/destination ports. In terms of total passengers, Sicilia covers around 11,52% of the national total. Sicilia is the second region in Italy in terms of number of calls (16,1%)	Despite the extraordinary increases in the last 10 years, number of cruise passengers in Sicilia is reporting remarkable decreases in Palermo and Messina, partly compensated by other regional ports (especially Catania) registered	Osservatorio Nazionale del Turismo (2012)
<b>5. Coastal protection</b>				
5.1	Protection against flooding and erosion	No specific problem for flooding and erosion in Sicily, although anthropization of coasts is considered a threat		----
5.2	Preventing salt water intrusion	No specific problem for salt water intrusion		----
5.3	Protection of habitats	Due to the fact that this region is an island with different archipelagos, coastal protected areas cover a wide area in the overall protected surface of Sicily. Excluding marine offshore protected areas in Sicily, 28,4% of regional protected areas are coastal. The regional park "Madonie" is the larger coastal protected areas (almost 40.000 ha) and it is located on the Tyrrhenian coast.	The main socio-economic impacts of coastal protection are indirect. In Sicily the tourism sector is the main activities that benefit of habitat protection expenditure (see 4.1 Coastal tourism). Also agriculture has an important role for local economy and social implication, especially in the Madonie park.	FEDERPARCHI (2013)
<b>6. Maritime monitoring and surveillance</b>				
6.1	Traceability and security of goods supply chains	n.a.	n.a.	n.a.
6.2	Prevent and protect against illegal movement of people and goods	n.a.	n.a.	n.a.
6.3	Environmental monitoring	n.a.	n.a.	n.a.

Table 6 - Indicators of relevant marina and maritime activities in VENETO

Function/activity	GVA (EUR, billion)	Employment (*1000)	Number of enterprises	Further indicators	Source & Reference year	
<b>0. Other sectors</b>						
0.1	Shipbuilding and ship repair	n.a.	n.a.	n.a.	----	CENSIS, (2009)
0.2	Water projects	n.a.	n.a.	n.a.	11 ports currently existing	Ministry of Infrastructure and Transport (2012)
<b>1. Maritime transport</b>						
1.1	Deep-sea shipping	n.a.	2,7 (only transports)	851 local units	----	EUROSTAT, 2010 Ministry of Infrastructure and Transport (2012)
1.2	Short-sea shipping (incl. Ro-Ro)	n.a.			----	
1.3	Passenger ferry services	n.a.			----	
1.4	Inland waterway transport	n.a.			0,4 million tonnes transported	
<b>2. Food, nutrition, health and eco-system services</b>						
2.1	Fishing for human consumption	0,0277 (only fisheries)	1,7 (only fisheries)	----	GT 12.023	IREPA, (2011)
2.2	Fishing for animal feeding	0	0	0	----	----
2.3	Marine aquaculture	0,0427	n.a.	n.a.	31 long-line farms of mussels. More than 20.000 ha of "valli" for extensive aquaculture.	P. Salz, (2007)
2.4	Blue biotechnology	n.a.	n.a.	n.a.	----	----
2.5	Agriculture on saline soils	0,3104	38,4		157.300 ha cultivated on saline soils	EUROSTAT, EEA, JRC, (2010)
<b>3. Energy and raw materials</b>						
3.1	Offshore oil and gas	0	0	0	----	----
3.2	Offshore wind	0	0	0	----	----
3.3	Ocean renewable energy	0	0	0	----	----
3.4	Carbon capture and storage	0	0	0	----	----
3.5	Aggregates mining (sand, gravel, etc.)	0	0	0	----	----
3.6	Marine minerals mining	0	0	0	----	----
3.7	Securing fresh water supply (desalination)	n.a.	n.a.	n.a.	----	----
<b>4. Leisure, working and living</b>						
4.1	Coastal tourism	0,66	18,29	----	----	Estimation on EUROSTAT data (2010)
4.2	Yachting and marinas	0,015	0,064	32	6.110 moorings	Estimation on EUROSTAT data (2010)
4.3	Cruise tourism	0,36 - 0,51	7,3 - 10,3	----	----	Estimation of EUROSTAT (2010) and ECC data (2010)
<b>5. Coastal protection</b>						
5.1	Protection against flooding and erosion	n.a.	n.a.	n.a.	Sand dredged in the Adriatic Sea to nourish the beaches: 7.230.000 m <sup>3</sup> between 1995 and 2004	ISPRA
5.2	Preventing salt water intrusion	0	0	0	----	----
5.3	Protection of habitats	0,019	0,187	n.a.	234,9 millions of Euros is the total regional expenditure for the protection of all regional habitats.	Estimation of EUROSTAT data (2011)
<b>6. Maritime monitoring and surveillance</b>						
6.1	Traceability and security of goods supply chains	n.a.	n.a.	n.a.	----	n.a.
6.2	Prevent and protect against illegal movement of people and goods	n.a.	n.a.	n.a.	----	n.a.
6.3	Environmental monitoring	n.a.	n.a.	n.a.	----	n.a.



Table 7 - Overview of relevant marina and maritime activities in VENETO

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
<b>0. Other sectors</b>				
0.1	Shipbuilding and ship repair	Several important shipyards are located in Veneto, including "CantiereNavaleVisentini" (Roigo) and FINCANTIERI Marghera.	FINCANTIERI Marghera is the second most productive yard in Italy considering GT built. 4 ships (all for cruise) were in construction in 2010.	Ministry of Infrastructure and Transport (2012) FINCANTIERI (2012)
0.2	Water projects	The safeguarding of Venice is under the responsibility of the state and is being implemented by the Venice Water Authority of the Ministry of Infrastructure and Transport, through the Consorzio Venezia Nuova. The Consorzio Venezia Nuova, which consists of a group of Italian and local construction companies is in charge of implementing protection measures (e.g. MOSE project).	The MOSE project will protect the lagoon, its towns and villages, its inhabitants and its historic, artistic and environmental heritage from floods, including extreme events. Consequentially it is a strategic infrastructure for the economic development of the region.	----
<b>1. Maritime transport</b>				
1.1	Deep-sea shipping	The port of Venice is part of the North Adriatic port Association. There are no direct routs with Far East, and transit from transshipment ports in the southern Mediterranean is compulsory.	In Venice port 26,2 million tonnes of goods are handled (-17% since 2005), of which 12,3 million is liquid bulk and 8 million solid bulk. Investments are made to improve inland connections and port depths.	Ministry of Infrastructure and Transport (2012)
1.2	Short-sea shipping (incl. Ro-Ro)			
1.3	Passenger ferry services	Venice port is mainly used as cruise home port.		----
1.4	Inland waterway transport	Beyond freight transport (first Italian region), in the Venetian Lagoon there are about 100 million annual passengers	375.542 tonnes transported in 2010 (with prevalence of chemical and metallurgic products), +3% compared to 2006	Ministry of Infrastructure and Transport (2012)
<b>2. Food, nutrition, health and eco-system services</b>				
2.1	Fishing fish for human consumption	There are 722 vessels, of which 199 bottom trawlers, 36 mid-water pair trawlers, 163 dredges, and 324 small-scale fishing. Around 20% of Italian fish exports are fished in Veneto, with the prevalence of anchovies.	Fishing enterprises are numerous but with small crews (average crew is 2,2). Fishing results are currently worsening due to overexploitation of many Adriatic stocks. Value of landing constantly decreased from 2004 (EUR 86,6 million) to 2011 (EUR 57,1 million). Number of vessels is also decreasing.	IREPA(2011)
2.2	Fishing for animal feeding	None in Veneto		----
2.3	Marine aquaculture	Several forms of aquaculture including long-line mussel farms, clams in the Venetian lagoon and Po delta, "valli".	14 long-line farms for mussels in the Venetian lagoon; 17 in the Po delta (around 12.000 tonnes of annual production). Around 37.000 tonnes of clams <i>Tapes philippinaru</i> . More than 20.000 ha of "valli" for extensive aquaculture (about 50 enterprises).	Cataudella, Spagnolo (2011)
2.4	Blue biotechnology	n.a.	n.a.	----
2.5	Agriculture on saline soils	15% of the cultivated areas are on saline soils, the most affected Italian region.	Salinity problems are increasing in Venetian Lagoon and Po Delta	ARPAV (2012)
<b>3. Energy and raw materials</b>				
3.1	Offshore oil and gas	No offshore extractive activities are ongoing in Veneto		----
3.2	Offshore wind	None in Veneto		----
3.3	Ocean renewable energy	None in Veneto		----
3.4	Carbon capture and storage	None in Veneto		----
3.5	Aggregates mining (sand, gravel, etc.)	None in Veneto		----
3.6	Marine minerals mining	None in Veneto		----

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
3.7	Securing fresh water supply (desalination)	n.a.	n.a.	----
<b>4. Leisure, working and living</b>				
4.1	Coastal tourism	Coastal tourism is limited to few but highly structured places, with a remarkable number of accommodation structures and other services. The tourism offer is very diversified (historical sites, sports activities, amusements...)	Coastal tourism is strongly influenced by Venice and the Lagoon and it is difficult to identify the weight of pure "maritime tourism". No specific socio-economic information is available to this regard	Unioncamere (2009)
4.2	Yachting and marinas	In terms of polyvalent ports, Veneto structures amount to 33, plus 7 marinas and 7 berths. In terms of ship yards, Veneto impacts around 4,5% on the National total, and only 0,6% in terms of employed persons	Between 2007 and 2012, 5 new infrastructures have been built (of which 3 berths). Very important variations between 2007 and 2012 have been registered in terms of moorings (+2.079)	UCINA (2012)
4.3	Cruise tourism	Venice is the most important cruise home port in Italy, the 9 <sup>th</sup> in the world in terms of total cruise passengers (+379% between 2000 and 2010). It is the first home port in Europe and third in terms of total passengers.	The recent growth of Venice in the cruise sector supported the creation of new businesses linked to the supply of cruise ships, from different aspects (food, cargo handling, maintenance, etc...). On the other hand, the environmental impact of cruise ships in the Lagoon and specifically in Venice has raised some questions about pollution and possible damage to the buildings that line the canals, due to washes.	Osservatorio Nazionale del Turismo (2012)
<b>5. Coastal protection</b>				
5.1	Protection against flooding and erosion	The Northern Adriatic basin is particularly at risk due to the presence of the Po delta and the Venice lagoon. In this area, the coastline is rarely more than 2 meters wide and due to subsidence various zones presently lie below sea level. Beach nourishment is an essential activity considering the touristic importance of regional beaches	Venice safeguard is being implemented by the Venice Water Authority of the Ministry of Infrastructure and Transport, through the Consorzio Venezia Nuova (consisting of a group of construction companies). Between 1994 and 2004 more than 7 million m <sup>3</sup> of relict sands have been used to nourish several beach sites in the province of Venice. This activity is essential to sustain coastal tourism services.	ISPRA (2011)
5.2	Preventing salt water intrusion	Specific interventions to prevent water intrusion are not known. Monitoring of the problem is committed to the "regional agencies for the prevention and the environment" (ARPA Veneto). Farmer consortiums "Consorti di bonifica" may have an impact regulating the distribution of irrigation water.	No indicators available.	ARPAV (2012)
5.3	Protection of habitats	Excluding marine offshore protected areas in Veneto, 8% of regional protected areas are coastal: Po's Delta (12.500 ha) mainly and a part of Venetian Lagoon.	The main socio-economic impacts of coastal protection are indirect. In Veneto the tourism sector and the aquaculture and fishing are the activities that benefit of habitat protection in the Adriatic Delta del Po protected regional park (see 2.3 - Marine aquaculture and 4.1 - Coastal tourism).	FEDERPARCHI (2013)
<b>6. Maritime monitoring and surveillance</b>				
6.1	Traceability and security of goods supply chains	n.a.	n.a.	n.a.
6.2	Prevent and protect against illegal movement of people and goods	n.a.	n.a.	n.a.
6.3	Environmental monitoring	n.a.	n.a.	n.a.

Table 8 - Indicators of relevant marine and maritime activities in LIGURIA

Function/activity	GVA (EUR, billion)	Employment (*1000)	Number of enterprises	Further indicators	Source & Reference year	
<b>0. Other sectors</b>						
0.1	Shipbuilding and ship repair	n.a.	3,9	n.a.	----	CENSIS, (2009)
0.2	Water projects	n.a.	n.a.	n.a.	35 ports currently existing	Ministry of Infrastructure and Transport (2012)
<b>1. Maritime transport</b>						
1.1	Deep-sea shipping	n.a.	9,7 (total transport)	106 local units	n.a.	EUROSTAT, (2010) Ministry of Infrastructure and Transport (2012)
1.2	Short-sea shipping (incl. Ro-Ro)	n.a.			n.a.	
1.3	Passenger ferry services	n.a.			n.a.	
1.4	Inland waterway transport	n.a.			n.a.	
<b>2. Food, nutrition, health and eco-system services</b>						
2.1	Fishing for human consumption	0,0154 (only fisheries)	0,9 (only fisheries)	n.a.	GT 3.713	IREPA, (2011)
2.2	Fishing for animal feeding	n.a.	n.a.	n.a.	n.a.	----
2.3	Marine aquaculture	0,0048	0,0	n.a.	n.a.	P. Salz, (2007)
2.4	Blue biotechnology	n.a.	n.a.	n.a.	n.a.	----
2.5	Agriculture on saline soils	0	0	n.a.	n.a.	EUROSTAT, EEA, JRC, (2010)
<b>3. Energy and raw materials</b>						
3.1	Offshore oil and gas	0	0	0	----	----
3.2	Offshore wind	0	0	0	----	----
3.3	Ocean renewable energy	0	0	0	----	----
3.4	Carbon capture and storage	0	0	0	----	----
3.5	Aggregates mining (sand, gravel, etc.)	0	0	0	----	----
3.6	Marine minerals mining	0	0	0	----	----
3.7	Securing fresh water supply (desalination)	n.a.	n.a.	n.a.	----	----
<b>4. Leisure, working and living</b>						
4.1	Coastal tourism	0,31	10,11	----	----	Estimation on EUROSTAT data (2010)
4.2	Yachting and marinas	0,027	0,53	57	22.460 moorings	Estimation on EUROSTAT data (2010)
4.3	Cruise tourism	0,54 - 0,77	10,9 - 15,4	----	----	Estimation of EUROSTAT data (2010) and ECC data (2010)
<b>5. Coastal protection</b>						
5.1	Protection against flooding and erosion	n.a.	n.a.	n.a.	----	ISPRA
5.2	Preventing salt water intrusion	0	0	0	----	----
5.3	Protection of habitats	0,018	0,176	----	EUR 98,1 million is the total regional expenditure for the protection of all regional habitats.	Estimation on EUROSTAT data (2011)
<b>6. Maritime monitoring and surveillance</b>						
6.1	Traceability and security of goods supply chains	----	----	----	----	----
6.2	Prevent and protect against illegal movement of people and goods	----	----	----	----	----
6.3	Environmental monitoring	----	----	----	----	----

Table 9 -Overview of relevant marine and maritime activities in LIGURIA

Function/ activity		Activity overview	Socio economic indicators	Source & Reference year
<b>0. Other sectors</b>				
0.1	Shipbuilding and ship repair	Several important shipyards are located in Liguria, including 2 FINCANTIERI shipyards in the province of Genoa. A large number of repair yard is also present	Liguria is, after Friuli Venezia Giulia, the first Italian region for shipbuilding activities. Around 14% of Italian employees are located in Liguria. In 2010 FINCANTIERI built 8 ships.	Ministry of Infrastructure and Transport (2012) FINCANTIERI (2012)
0.2	Water projects	Significant investments in marinas have been done in recent years (see Yachting and marinas)		----
<b>1. Maritime transport</b>				
1.1	Deep-sea shipping	Genoa is the third Ro-Ro port in Italy, the first one for total freight transports. Unlike North Adriatic ports, there are direct routes with Far East.	In Genoa port 41,4 million tonnes of goods were managed, of which 20.347 is liquid bulk and 10.745 containers. Other important ports are La Spezia (16,1 million tonnes managed, especially containers) and Savona (12,9 million tonnes managed, especially liquid bulk). La Spezia is the only port registering positive trend in recent years (+9,4% between 2005 and 2011), while weight of goods managed is almost unchanged for the other two ports.	Ministry of Infrastructure and Transport (2012)
1.2	Short-sea shipping (incl. Ro-Ro)			
1.3	Passenger ferry services	Genoa is the seventh Italian port for passengers. It is an important port for connections to Sardinia; furthermore "Grandi Navi Veloci" has routes from Genoa to Barcelona.	2,6 million of annual passengers transit in Genoa port (+7% since 2005).	ISTAT; Ministry of Infrastructure and Transport (2012)
1.4	Inland waterway transport	None in Liguria		----
<b>2. Food, nutrition, health and eco-system services</b>				
2.1	Fishing for human consumption	Fishing is not an important activity in Liguria. Vessels are 535, of which 420 are of the small-scale typology.	Value of landing is constantly decreasing from 2004 to 2011 (from EUR 46 million to EUR 29 million).	IREPA (2011)
2.2	Fishing for animal feeding	None in Liguria		----
2.3	Marine aquaculture	Only 3 aquaculture farms are found in Liguria		Cataudella, Spagnolo (2011)
2.4	Blue biotechnology	n.a.	n.a.	----
2.5	Agriculture on saline soils	No saline soils in Liguria		----
<b>3. Energy and raw materials</b>				
3.1	Offshore oil and gas	No extractive activities		----
3.2	Offshore wind	None in Liguria		----
3.3	Ocean renewable energy	None in Liguria		----
3.4	Carbon capture and storage	None in Liguria		----
3.5	Aggregates mining (sand, gravel, etc.)	None in Liguria		----
3.6	Marine minerals mining	None in Liguria		----
3.7	Securing fresh water supply (desalination)	n.a.	n.a.	----
<b>4. Leisure, working and living</b>				
4.1	Coastal tourism	This activity in Liguria is mainly linked to Yachting and marinas, given the importance of this sector. The tourism offer is highly diversified, thanks to historical sites and to naturalistic landscapes. High offer of accommodations establishments.	Around 30% of tourist flows originate from foreign countries and despite internal flows, international tourists spent on averages more nights than Italians, also in summer period. In the last years, tourism demand registered feeble decreases (-1,5% in 2011 compared to 2010)	UNIONCAMERE (2011)
4.2	Yachting and marinas	Liguria is the fourth region in Italy in terms of number of polyvalent ports (36), but it is the first ranked (together with Sardinia) in terms of marinas (12). Furthermore, Liguria is the region with the highest number of moorings (22.460). Around	Between 2007 and 2012, 4 new marinas have been built in Liguria (the highest variation in Italy). New 3.075 moorings have been created since 2007, the second highest increase in Italy.	UCINA (2012)

Function/ activity		Activity overview	Socio economic indicators	Source & Reference year
		8% of national total of leisure boats yards are located in Liguria, covering around 5% of total employed persons		
4.3	Cruise tourism	Genoa and Savona re the most important "cruise ports" in Liguria and the region is the second-ranked in Italy in terms of cruise passengers. Liguria is important in terms as home port and is the third ranked in Italy as total cruise passenger (15,7% of the national total, more than 1 million passenger per year)	In terms of passengers flows, Genoa and Savona recorded excellent increases in the last 10 years. Remarkable increases have been registered in Genoa, whose expected results for 2013 should record more than one million passengers.	Osservatorio Nazionale del Turismo (2012)
<b>5. Coastal protection</b>				
5.1	Protection against flooding and erosion	A "Coordination Territorial Plan for the Coast" has been approved in 2000 to foster integrated and sustainable development	n.a.	ISPRA (2011)
5.2	Preventing salt water intrusion	No specific problem for salt water intrusion in Liguria		
5.3	Protection of habitats	Excluding offshore marine protected areas (among them the important "Santuario per i Mammiferi Marini") in Liguria 18% of regional protected areas are coastal. The national park "Cinque Terre" is the larger one: almost 4.000 ha.	The main socio-economic impacts of coastal protection are indirect. In Liguria the tourism sector and the vineyards cultivation are the activities that benefit of habitat protection especially in the Cinque Terre regional park (see 4.1 - Coastal tourism)	FEDERPARCHI (2013)
<b>6. Maritime monitoring and surveillance</b>				
6.1	Traceability and security of goods supply chains	n.a.	n.a.	n.a.
6.2	Prevent and protect against illegal movement of people and goods	n.a.	n.a.	n.a.
6.3	Environmental monitoring	n.a.	n.a.	n.a.

Table 10 - Overview of relevant marine and maritime activities in EMILIA ROMAGNA

Function/ activity		GVA (EUR, billion)	Employment (*1000)	Number of enterprises	Further indicators	Source & Reference year
<b>0. Other sectors</b>						
0.1	Shipbuilding and ship repair	n.a.	n.a.	n.a.	----	CENSIS, (2009)
0.2	Water projects	n.a.	n.a.	n.a.	7 ports currently existing	Ministry of Infrastructure and Transport (2012)
<b>1. Maritime transport</b>						
1.1	Deep-sea shipping	n.a.	0,8 (total transport)	65 local units	----	EUROSTAT, (2010) Ministry of Infrastructure and Transport (2012)
1.2	Short-sea shipping (incl. Ro-Ro)	n.a.			----	
1.3	Passenger ferry services	n.a.			----	
1.4	Inland waterway transport	n.a.			0,8 million tonnes transported	
<b>2. Food, nutrition, health and eco-system services</b>						
2.1	Fishing for human consumption	0,0295 (only fisheries)	1,3 (only fisheries)	n.a.	GT 9.455	IREPA, (2011)
2.2	Fishing for animal feeding	0	0	-	-	
2.3	Marine aquaculture	0,0633	n.a.	n.a.	-	P. Salz, (2007)
2.4	Blue biotechnology	n.a.	n.a.	n.a.	-	
2.5	Agriculture on saline soils	0,2504	16,8	n.a.	149.400 ha cultivated on saline soils	EUROSTAT, EEA, JRC, (2010)
<b>3. Energy and raw materials</b>						
3.1	Offshore oil and gas	n.a.	n.a.	----	----	----
3.2	Offshore wind	0	0	0	----	----
3.3	Ocean renewable energy	0	0	0	----	----
3.4	Carbon capture and storage	0	0	0	----	----
3.5	Aggregates mining (sand, gravel, etc.)	0	0	0	----	----
3.6	Marine minerals mining	0	0	0	----	----
3.7	Securing fresh water supply (desalination)	n.a.	n.a.	n.a.	----	----
<b>4. Leisure, working and living</b>						
4.1	Coastal tourism	0,62	22,12	----	----	Estimations based on EUROSTAT data (2010)
4.2	Yachting and marinas	0,027	3,23	57	5.714 moorings	Estimations based on EUROSTAT data (2010)
4.3	Cruise tourism	0	0	----	----	----
<b>5. Coastal protection</b>						
5.1	Protection against flooding and erosion	0,0015 (public expenditure)	n.a.	n.a.	Sand dredged in the Adriatic Sea to nourish the beaches: 800.000 m <sup>3</sup> in 2002; 825.000 in 2007	ISPRA
5.2	Preventing salt water intrusion	n.a.	n.a.	n.a.	----	----
5.3	Protection of habitats	0,015	0,146	n.a.	EUR 176 million is the total regional expenditure for the protection of all regional habitats.	Estimations based on EUROSTAT data (2011)
<b>6. Maritime monitoring and surveillance</b>						
6.1	Traceability and security of goods supply chains	n.a.	n.a.	n.a.	----	n.a.
6.2	Prevent and protect against illegal movement of people and goods	n.a.	n.a.	n.a.	----	n.a.
6.3	Environmental monitoring	n.a.	n.a.	n.a.	----	n.a.

Table 11 - Overview of relevant marine and maritime activities in EMILIA ROMAGNA

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
<b>0. Other sectors</b>				
0.1	Shipbuilding and ship repair	One important shipyard is located in Ravenna. In 2010, this shipyard built 7 ships.	No socio-economic indicators	Ministry of Infrastructure and Transport (2012) FINCANTIERI (2012)
0.2	Water projects	See Yachting and marinas		----
<b>1. Maritime transport</b>				
1.1	Deep-sea shipping	Ravenna is the only port with some relevance for freight transports. The port has recently left the North Adriatic Port Association due to controversies concerning the allocation of national funds.	Ravenna is quite important for metallurgic and oil derivatives. 22,2 million tonnes of goods are managed (-8% since 2005), of which 6,1 million is liquid bulk and 9,6 is solid bulk. There are no direct routes with Far East, and transit from transshipment ports in the southern Mediterranean is compulsory.	Ministry of Infrastructure and Transport (2012)
1.2	Short-sea shipping (incl. Ro-Ro)			
1.3	Passenger ferry services	There are no important ports for passengers transports		----
1.4	Inland waterway transport	Emilia Romagna and Veneto are the most important regions for inland transport	800.000 tonnes transported in 2010, showing fast increasing rates compared to previous years. Several investments have been allocated for further developing the activity and improve connections with inland ports	Ministry of Infrastructure and Transport (2012)
<b>2. Food, nutrition, health and eco-system services</b>				
2.1	Fishing for human consumption	Several fishing techniques are used including pelagic (34 vessels) and bottom trawling (214), dredging (54), small-scale fishing (439).	Fishing results are currently worsening due to overexploitation of many Adriatic stocks. The value of landing has decreased from EUR 85 million in 2004 to EUR 53 million in 2011	IREPA, (2011)
2.2	Fishing for animal feeding	None in Emilia Romagna		----
2.3	Marine aquaculture	Several forms of aquaculture including long-line mussel farms, clams in the Po delta, "valli" for extensive aquaculture.	There are more than 13.000 ha of "valli" in an area, such as in Veneto, that has also a high touristic potential. 95% of molluscs farms are cooperatives (100% in the case of clams) further organised in POs.	Cataudella, Spagnolo (2011)
2.4	Blue biotechnology	n.a.		----
2.5	Agriculture on saline soils	10% of the cultivated areas are on saline soils, the second most affected Italian region.	Salinity problems are increasing in the Po Delta	----
<b>3. Energy and raw materials</b>				
3.1	Offshore oil and gas	71 platforms are located off the Emilia-Romagna coast, 2 of which are inactive. Extractive activities encompasses only gas. No socio-economic indicators are available		----
3.2	Offshore wind	None in Emilia-Romagna		----
3.3	Ocean renewable energy	None in Emilia		----
3.4	Carbon capture and storage	None in Emilia		----
3.5	Aggregates mining (sand, gravel, etc.)	None in Emilia		----
3.6	Marine minerals mining	None in Emilia		----
3.7	Securing fresh water supply (desalination)	n.a.		----
<b>4. Leisure, working and living</b>				
4.1	Coastal tourism	Romagna coast (Riviera Romagnola) is one of the most important tourist destination in Italy. The area is characterised by highly specialised services linked to beach tourism and high number of	Coastal tourism in Romagna is strongly composed by Italians (75%), while foreign flows is very limited (25%). The activity is affected by seasonality, despite the	----

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
		accommodation structures.	phenomenon is decreasing.	
4.2	Yachting and marinas	8 marinas and 14 polyvalent ports are located in Emilia-Romagna (high concentration considering the length of the coast, around 130 km). Nonetheless, the number of moorings is very low (5.714). In terms of employment, Emilia Romagna yards for leisure boats employ more than 30% of total Italian employed persons in this sector (the highest share in Italy), and around 8% of firms are located in this region.	Two new marinas have been built from 2007 and 2012, for a total of 594 new moorings.	UCINA (2012)
4.3	Cruise tourism	Poor importance in Emilia Romagna		----
<b>5. Coastal protection</b>				
5.1	Protection against flooding and erosion	The Northern Adriatic basin is particularly at risk due to the presence of the Po delta. In this area, the coastline is rarely more than 2 meters wide and due to subsidence various zones presently lie below sea level. An "Integrated Coastal Management Zone" guideline has been approved in 2005.	In 2002 about 800.000 m <sup>3</sup> of relict sands have been used to nourish several beach sites. A similar amount of relict sands were used in 2007. Sands come from deposits in front of the regional coast, well delimited in the framework of the ICMZ guidelines. Beach nourishment is an essential activity considering the touristic importance of regional beaches.	ISPRA (2011)
5.2	Preventing salt water intrusion	Specific interventions to prevent water intrusion are not known. Monitoring of the problem is committed to the "regional agencies for the prevention and the environment" (ARPA Emilia Romagna). Farmer consortiums "Consorti di bonifica" may have an impact regulating the distribution of irrigation water	n.a.	----
5.3	Protection of habitats	8,3% of regional protected areas are coastal. The regional park "Delta del Po Emiliano-romagnolo" is large 53.600 ha and is characterized by wetlands.	Human activities related to aquaculture and professional fishing in the wetlands of the park are allowed and favoured because they have very important economic and employment impacts and in some cases they play a great role in maintenance of local traditions (see 2.3 - Marine aquaculture).	FEDERPARCHI (2013)
<b>6. Maritime monitoring and surveillance</b>				
6.1	Traceability and security of goods supply chains	n.a.	n.a.	n.a.
6.2	Prevent and protect against illegal movement of people and goods	n.a.	n.a.	n.a.
6.3	Environmental monitoring	n.a.	n.a.	n.a.



## 2. Indicative size of all marine and maritime activities in Italy

Table 12 - Indicative size of all marine and maritime activities

Function/activity	GVA (EUR, billion)	Employment (*1000)	Score	Source & Reference year	
<b>0. Other sectors</b>					
0.1	Shipbuilding and ship repair	1,45	38,4	26,45	EUROSTAT (2010)
0.2	Water projects	0,5	8,2	6,6	EUROSTAT (2010)
<b>1. Maritime transport</b>					
1.1	Deep-sea shipping	0,91	12,2	10,7	EUROSTAT (2010)
1.2	Short-sea shipping (incl. Ro-Ro)	3,05	40,9	35,7	EUROSTAT (2010)
1.3	Passenger ferry services	1,49	29,9	22,4	EUROSTAT (2010)
1.4	Inland waterway transport	0,06	2,3	1,5	EUROSTAT (2010)
<b>2. Food, nutrition, health and eco-system services</b>					
2.1	Fish for human consumption	3,51	111,9	23,5	EUROSTAT, STECF, IREPA, (2010)
2.2	Fish for animal feeding	0	0	0	EUROSTAT, STECF, IREPA, (2010)
2.3	Marine aquatic products	0,15	4,2	2,9	FAO, API, JRC (2010)
2.4	Blue biotechnology	n.a.	n.a.	n.a.	----
2.5	Agriculture on saline soils	0,73	92,7	50	EUROSTAT, EEA, JRC (2010)
<b>3. Energy and raw materials</b>					
3.1	Offshore oil and gas	2,10	5,83	13,4	EUROSTAT (2010) MISE
3.2	Offshore wind	0	0	0	----
3.3	Ocean renewable energy	0	0	0	----
3.4	Carbon capture and storage	0	0	0	----
3.5	Aggregates mining (sand, gravel, etc.)	0	0	0	----
3.6	Marine minerals mining	0	0	0	----
3.7	Securing fresh water supply (desalination)	0,09	0,995	29	EUROSTAT (2010) Global water Market (2010)
<b>4. Leisure, working and living</b>					
4.1	Coastal tourism	5,34	166	109,7	EUROSTAT (2010) Unioncamere (2011)
4.2	Yachting and marinas	0,34	10,68	7	EUROSTAT (2010) UCINA (2012)
4.3	Cruise tourism	149–211	29,9 – 42,4	27,1	EUROSTAT (2010), European Cruise Council (2010)
<b>5. Coastal protection</b>					
5.1	Protection against flooding and erosion	0,28	2,81	2,8	Elaboration based on PRC (2009)
5.2	Preventing salt water intrusion	n.a.	n.a.	n.a.	----
5.3	Protection of habitats	0,76	7,6	7,6	Elaboration based on EUROSTAT (2010) and EEA (2012, 2013)
<b>6. Maritime monitoring and surveillance</b>					
6.1	Traceability and security of goods supply chains	0,71	6,4	6,8	Italian National Accounts, 2010
6.2	Prevent and protect against illegal movement of people and goods				
6.3	Environmental monitoring				

### 3. Relative growth of all marine and maritime activities in Italy

Table 13 - Relative growth of all marine and maritime activities

Function/activity		GVA (CAGR)	Employment (CAGR)	Score	Source & reference year
<b>0. Other sectors</b>					
0.1	Shipbuilding and ship repair	-23,55%	-9,61%	16,58	EUROSTAT (2010)
0.2	Water projects	-18,26%	-6,81%	-12,54	EUROSTAT (2010)
<b>1. Maritime transport</b>					
1.1	Deep-sea shipping	12,89%	-5,99%	3,45	EUROSTAT (2010)
1.2	Short-sea shipping (incl. Ro-Ro)	18,58%	-0,95%	8,81	EUROSTAT (2010)
1.3	Passenger ferry services	-1,55%	-4,31%	-2,93	EUROSTAT (2010)
1.4	Inland waterway transport	7,37%	-4,56%	1,41	EUROSTAT (2010)
<b>2. Food, nutrition, health and eco-system services</b>					
2.1	Fishing for human consumption	7,04%	3,74%	----	EUROSTAT, STECF, IREPA (2010)
2.2	Fishing for animal feeding	0	0	0	EUROSTAT, STECF, IREPA (2010)
2.3	Marine aquaculture	4,01%	-5,69%	-0,84	FAO, API, JRC (2010)
2.4	Blue biotechnology	n.a.	n.a.	n.a.	----
2.5	Agriculture on saline soils	-4,60%	0,88%	-1,86	EUROSTAT, EEA, JRC (2010)
<b>3. Energy and raw materials</b>					
3.1	Offshore oil and gas	0,00%	-3,91%	-1.96	EUROSTAT (2010) MISE
3.2	Offshore wind	----	----	----	----
3.3	Ocean renewable energy	----	----	----	----
3.4	Carbon capture and storage	----	----	----	----
3.5	Aggregates mining (sand, gravel, etc.)	----	----	----	----
3.6	Marine minerals mining	----	----	----	----
3.7	Securing fresh water supply (desalination) <sup>4</sup>	252,07%	205,69%	228.88	EUROSTAT (2010) Global water Market (2010)
<b>4. Leisure, working and living</b>					
4.1	Coastal tourism	1,17%	-1,26%	-0,04	EUROSTAT (2010) Unioncamere (2011)
4.2	Yachting and marinas	4,01%	-5,69%	-0,84	EUROSTAT (2010) UCINA (2012)
4.3	Cruise tourism	17,08%	-1,40%	7,84	EUROSTAT (2010), European Cruise Council (2010)
<b>5. Coastal protection</b>					
5.1	Protection against flooding and erosion	1,51%	1,51%	0,76	Elaboration based on PRC (2009)
5.2	Preventing salt water intrusion	n.a.	n.a.	n.a.	----
5.3	Protection of habitats	-3,49%	-3,49%	-3,49	Elaboration based on EUROSTAT (2010) and EEA (2012, 2013)
<b>6. Maritime monitoring and surveillance</b>					
6.1	Traceability and security of goods supply chains	4,97%	-1,83%	1,57	Italian National Accounts (2010)
6.2	Prevent and protect against illegal movement of people and goods				
6.3	Environmental monitoring				

<sup>4</sup> It was decided not to consider desalination in the calculation of the seven fastest growing MEAs, because in the global Water Market time series there was an abnormal figure that in our judgment altered the final results

## 4. Assessment of future potential for all marine and maritime activities in Italy

Table 14 - Assessment of future potential for all marine and maritime activities

Function	Activity	Innovativeness	Competitiveness	Employment	Policy relevance	Spill-over effects	Sustainability	Overall score
0. Other sectors	0.1 Shipbuilding and ship repair	+	-	0	+	+	0	++
	0.2 Water projects	+	0	-	+	+	0	++
1. Maritime transport	1.1 Deep-sea shipping	0	0	0	0	+	+	++
	1.2 Short-sea shipping (incl. RoRo)	0	0	+	+	+	+	++++
	1.3 Passenger ferry services	0	0	+	+	+	+	++++
	1.4 Inland waterway transport	0	0	0	0	0	+	+
2. Food, nutrition, health and eco-system services	2.1 Fishing for human consumption	0	-	-	+	0	-	--
	2.2 Fishing for animal feeding	?	?	?	?	?	?	?
	2.3 Marine aquaculture	+	0	0	+	+	+	++++
	2.4 Blue Biotechnology	+	0	0	0	+	+	+++
	2.5 Agriculture on saline soils	0	0	0	0	0	0	0
3. Energy and raw materials	3.1 Offshore oil and gas	0	-	0	0	0	-	--
	3.2 Offshore wind	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	3.3 Ocean renewable energy (wave, tidal, OTEC, thermal, biofuels, etc.)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	3.4 Carbon capture and storage	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	3.5 Aggregates mining (sand, gravel, etc.)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	3.6 Marine minerals mining	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	3.7 Securing fresh water supply (desalination)	+	0	0	0	+	+	+++
4. Leisure, working and living	4.1 Coastal tourism	0	+	+	+	+	0	++++
	4.2 Yachting and marinas	+	+	0	0	0	0	++
	4.3 Cruise tourism	+	+	+	0	+	0	++++
5. Coastal protection	5.1 Protection against flooding and erosion	+	?	-	+	+	+	+++
	5.2 Preventing salt water intrusion	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	5.3 Protection of habitats	+	0	0	+	+	+	++++
6. Maritime monitoring and surveillance	6.1 Traceability and security of goods supply chains	0	?	-	+	+	+	++
	6.2 Prevent and protect against illegal movement of people and goods							
	6.3 Environmental monitoring							

## 5. Growth drivers and barriers to growth

### 5.1 Results of the benchmark analysis

SHORT-SEA SHIPPING (incl. RO-RO) <sup>5</sup>	Growth drivers	Barriers to Growth
<b>Maritime research</b>	A research flagship projects (RITMARE) and many research centres actively addressed on maritime technologies.	National funds are decreasing due to the economic crisis.
<b>Development and innovation</b>	Large experience of sector operators thanks to a large number of international projects	National funds are decreasing due to the economic crisis.
<b>Access to finance</b>	----	Economic crisis is more severe than in Northern countries, so access to both private and public finances is problematic
<b>Smart infrastructure</b>	----	Mountains are a problem for the development of infrastructures that other Northern countries do not have. Railway infrastructure should be improved. In general, all infrastructures are less efficient than in Northern countries. There is lack of national organization, leading to competition between Italian ports and scale inefficiencies (small ports).
<b>Maritime clusters</b>	There are well structured tables of discussions between sector operators, and increasing collaboration with other countries (especially Slovenia and Croatia)	Problems linked to morphological characteristics of the territory limiting the development of intermodal terminals.
<b>Education, training and skills</b>	----	Lesser educated crews; lesser languages knowledge.
<b>Maritime spatial planning</b>	----	----
<b>Integrated local development</b>	----	----
<b>Public engagement</b>	----	Slow bureaucracy/inefficient administrative and custom procedures. Competition between different regions hinders large engagement in specific areas.

<sup>5</sup> The benchmark instance is "Short-Sea Shipping in the Netherlands".

PASSENGER FERRY SERVICES <sup>6</sup>	Growth drivers	Barriers to Growth
Maritime research	A research flagship projects (RITMARE) and many research centres actively addressed on maritime technologies.	National funds are decreasing due to the economic crisis.
Development and innovation	Large experience of sector operators thanks to a large number of international projects	National funds are decreasing due to the economic crisis.
Access to finance	----	Economic crisis is more severe than in Northern countries, so access to both private and public finances is problematic
Smart infrastructure	Passenger terminals are generally situated close to city centres	----
Maritime clusters	----	Port infrastructure can create tensions with touristic activities.
Education, training and skills	----	Lesser educated crews; lesser languages knowledge.
Maritime spatial planning	----	----
Integrated local development	----	Some specific strategise for the development of minor island do exist, but not an organic plan
Public engagement	Recent privatisation of Tirrenia	A specific Ministry of Shipping and Maritime Affairs is missing

MARINE AQUACULTURE <sup>7</sup>	Growth drivers	Barriers to Growth
Maritime research	----	Enterprises are too small and, often, family run, to have an internal R&D department
Development and innovation	----	Enterprises are too small and, often, family run, to have an internal R&D department. A specific Aquaculture Technology and Innovation Platform is missing
Access to finance	----	Enterprises are too small and, often, family run, in order to have easy access to finance
Smart infrastructure	----	----
Maritime clusters	----	----
Education, training and skills	Longer tradition in aquaculture than other Mediterranean countries (e.g. Greece)	Enterprises are too small and, often, family run in order to have continuous training
Maritime spatial planning	----	----
Integrated local development	----	----
Public engagement	----	----

<sup>6</sup> The benchmark instance is "Passenger ferry services in Greece".

<sup>7</sup> The benchmark instance is "Marine aquaculture in Greece".

COASTAL TOURISM <sup>8</sup>	Growth drivers	Barriers to Growth
Maritime research	Several maritime researches linked to Coastal tourism in different national universities and institutions	----
Development and innovation	----	Development and innovation policies often are centralised at national level
Access to finance	Access to credit easily and faster in northern regions of Italy. The lower level of development in the south represents a weakness for new business activities	----
Smart infrastructure	Effective port and airport system; Good general infrastructures (Information Technology)	Distribution of commercial port non along the coast is not perfectly balanced. Weak connections between airports and coastal areas
Maritime clusters	----	----
Education, training and skills	High percentages of tertiary education level (university, doctoral and specialization courses) 13,8% of the population. Higher choice of degrees in Economics and Management of Tourism	----
Maritime spatial planning	----	----
Integrated local development	----	----
Public engagement	----	----

PROTECTION OF HABITAT <sup>9</sup>	Growth drivers	Barriers to Growth
Maritime research	----	Assessing and identifying sites for protection has required marine environment research as well as research on the different maritime economic sectors acting or potentially establishing in the area but protected coastal surfaces have are very limited extension compares to the Italian coastal length
Development and innovation	A well-established website (Federparchi) facilitates access to information on all the progress made by Italy in the protection of all types of marine areas (national parks, regional parks, Natura 2000 network, Ramsar sites...)	----
Access to finance	----	The economic crisis may encourage competitiveness for funding
Smart infrastructure	----	Monitoring and surveillance needs defining and optimizing with existing technologies
Maritime clusters	----	----
Education, training and skills	----	----
Maritime spatial planning	Spatial planning is developed due to importance of economic activities (aquaculture, tourism, agriculture) in protected areas	----
Integrated local development	Protection of habitats are likely to bring benefits, increasing the natural capital and goods and services that will benefit local people in particular in a tourist country like Italy	----
Public engagement	The new National strategy for Biodiversity (2010) set the how Government, the Regions and Local Bodies should jointly develop and enact policies on the preservation and restoration of species, habitats and landscape for the whole national territory	Italy is not meeting its marine conservation objectives and legal commitments (e.g. 10% protection of its coastal and marine waters, CBD).

<sup>8</sup> Italy (Sardinia) has been identified as the benchmark instance for Coastal tourism. Therefore, we report growth drivers and barriers to growth as identified in the benchmark instance.

<sup>9</sup>The benchmark instance is "Protection of habitats in Germany – Habitat Mare".

## 5.2 SWOT analysis

Short Sea Shipping (incl. Ro-Ro)		
Maritime Research	<b>Strengths</b>	<b>Weaknesses</b>
	The research sector counts on INSEAN, a national research institute, and CETENA a company of the FINCANTIERI Group	National funds are decreasing due to the economic crisis
Maritime Research	<b>Opportunities</b>	<b>Threats</b>
	The new Ritmare flagship project is addressed to the development of maritime technologies with the following scopes: security, sustainability, comfort, efficiency, materials, processes, etc.	Lack of certainties on future funds due to the economic situations
Development and innovation	<b>Strengths</b>	<b>Weaknesses</b>
	Several international projects have been carried out; e.g: MIELE - design and to development of ICT platforms; COSTA – emissions abetment by LNG. AdriaticMoS - development of Motorways of the Sea system	National funds are decreasing due to the economic crisis.
Development and innovation	<b>Opportunities</b>	<b>Threats</b>
	EU funds, contacts and experience to develop new international projects	Lack of certainties on future funds due to the economic situations
Access to finance	<b>Strengths</b>	<b>Weaknesses</b>
	Access to funds of the Industry 2015 plan (Law of 2006).	Delays in public funding. Private investments are hindered by bureaucracy, lack of transparency, slow and inefficient infrastructure improvements. Need to forecast the future demand of the Motor ways of the Sea services.
Access to finance	<b>Opportunities</b>	<b>Threats</b>
	----	Lack of certainties on future access to finance due to the economic situations
Smart infrastructure	<b>Strengths</b>	<b>Weaknesses</b>
	Several international projects have been carried out as Pilot actions; e.g: MIELE: this project (involving Italy, Spain, Portugal, Germany, Cyprus; end date: December 2013) coordinated by an implementing body of the Italian Ministry of Transport, includes the following steps: mapping the needs of relevant stakeholders; adapting, upgrading and integrating existing ICT systems in order to be interoperable with the MIELE Middleware; achieving and demonstrating systems interoperability through the MIELE Middleware; designing the framework for the exploitation of the MIELE Middleware and the possible full deployment of its services after the completion of this pilot action. AdriaticMoS: this project (involving Adriatic countries) aims: to define quality and security requirements for the identified MoS services; to perform an analysis of the transport needs in the region; to forecast the future demand of the MoS and identify bottlenecks and missing links, infrastructure and services needs; to identify and evaluate alternative scenarios of the Master Plan elaboration; to provide investment and time planning and identify funding sources.	Need to define quality and security requirements for Motorways of the Sea services Need to adapt, upgrade and integrate the existing ICT systems (maritime single window, port single windows, port communities, private operators' ICT systems) which represent obstacles to interoperability. Few sector operators are able to provide an integrated transport services. The Italian hub-and-spoke based network of ports means less cargo concentration in mainland destination ports and as such a more dispersed or fragmented inland transport system Development of intermodal infrastructures is hindered by viability problems of large cities and morphological characteristics of the territory (e.g. Liguria, Venice, Trieste, and Naples). Rail connections are not efficient. Bureaucratic (especially customs) procedures are still too long.
Smart infrastructure	<b>Opportunities</b>	<b>Threats</b>
	A new offshore terminal has been projected in front of Venice and should represent a key node for Adriatic connections EU funds, contacts and experience to develop new international projects. A one-stop customs service (sportello unico doganale) should be operative in 2014, allowing a telematic process and elaboration of all customs and administrative documents currently under the administration of different offices	Traffic growth can lead to an undermining of the position of transshipment hubs in favour if a limited number of large-scale mainland ports, each connected to intermodal corridors.
Maritime clusters	<b>Strengths</b>	<b>Weaknesses</b>
	Collaboration with local universities and research centres. Creation of the North Adriatic Port Association including the ports of Rijeka, Koper, Trieste and Venice. Existence of several tables of discussion such as "Federazione del Mare" (joining industrial associations of shipping,	Few maritime operators for most of the routes, meaning oligopoly situations. Problems linked to morphological characteristics of the territory limiting the development of intermodal terminals.

Short Sea Shipping (incl. Ro-Ro)		
	<p>logistics, shipbuilding, port authorities, etc...) and "Mare Technology Platform (PTNM)" (joining public administrations, industrial associations and research bodies).</p> <p>Historical co-presence and collaboration between economic agents in main ports and coastal regions. The following High-Technology Regional Districts are named by PTNM as the priority tools to develop its initiatives:</p> <ul style="list-style-type: none"> <li>• Sicilian technological district (Maritime Commercial and Leisure Transport Technologies)</li> <li>• Technological district of Friuli Venezia Giulia (Shipbuilding and Boatbuilding Technologies)</li> <li>• Sea technological district of Marche (Maritime Technologies)</li> <li>• Ligurian district of marine technologies (Marine Technologies)</li> <li>• Technological district of Campania (Composite and Polymeric Materials Technologies)</li> <li>• Ligurian district of Integrated Intelligent Systems Technologies</li> </ul>	
	<b>Opportunities</b>	<b>Threats</b>
	----	Large maritime clusters can create tension with other marine activities, especially tourism activities.
<b>Education, training and skills</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	<p>Long tradition in the sector.</p> <p>Established partnership with Universities, Training Centers, Enterprises, Industrialists Associations and Research Institutes.</p> <p>Specialised curricula in universities.</p>	----
	<b>Opportunities</b>	<b>Threats</b>
	----	----
<b>Maritime spatial planning/Integrated Coastal Zone Management</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	<p>Some important example such as traffic corridors in the Adriatic Sea.</p> <p>Some regions have begun developing ICZM guidelines or similar plans for coastal zones.</p>	<p>Decentralization in some areas (e.g. fisheries, aquaculture, coastal protection) can represent a problem of coordination.</p> <p>Due to decentralization, each region has different approaches, more or less developed, to ICZM.</p>
	<b>Opportunities</b>	<b>Threats</b>
	----	----
<b>Integrated local development</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	<p>Historical co-presence and collaboration between economic agents in main ports and coastal regions.</p> <p>The Mare Technology Platform (PTNM) has been consulted to propose specific objectives and set of actions for both the RITMARE PROGRAMME (Italian Research for the Sea) and the INDUSTRIA 2015 Programme.</p>	----
	<b>Opportunities</b>	<b>Threats</b>
	----	----
<b>Public engagement</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	<p>Strong engagement to finance research and projects, and to organise platforms (PTNM is coordinated by the DG Maritime and Inland Transport)</p>	<p>Bureaucratic (especially customs) procedures are still too long and inefficient.</p> <p>New laws for the governance of ports is considered necessary</p> <p>New forms of public-private-partnerships are necessary.</p>
	<b>Opportunities</b>	<b>Threats</b>
	<p>A one-stop customs service (sportello unico doganale) should be operative in 2014, allowing a telematic process and elaboration of all customs and administrative documents currently under the administration of different offices</p>	<p>Competition between different regions hinders large engagement in specific areas.</p>



Passenger ferry services		
Maritime Research	<b>Strengths</b>	<b>Weaknesses</b>
	The research sector counts on INSEAN, a national research institute, and CETENA a company of the FINCANTIERI Group.	National funds are decreasing due to the economic crisis.
	<b>Opportunities</b>	<b>Threats</b>
	The new Ritmare flagship project is addressed to the development of maritime technologies with the following scopes: security, sustainability, comfort, efficiency, materials, processes, etc...	Lack of certainties on future funds due to the economic situations
Development and innovation	<b>Strengths</b>	<b>Weaknesses</b>
	Several international projects have been carried out; e.g: MIELE - design and to development of ICT platforms; COSTA – emissions abetment by LNG. AdriaticMoS - development of Motorways of the Sea system . Most ferries have a unique design, which is produced according to the special characteristics of each route, highly diverse passenger and freight requirements.	National funds are decreasing due to the economic crisis.
	<b>Opportunities</b>	<b>Threats</b>
	EU funds, contacts and experience to develop new international projects	Lack of certainties on future funds due to the economic situations
Access to finance	<b>Strengths</b>	<b>Weaknesses</b>
	Access to funds of the Industry 2015 plan (Law of 2006).	Delays in public funding. Private investments are hindered by bureaucracy, lack of transparency, slow and inefficient infrastructure improvements. Need to forecast the future demand of the Motor ways of the Sea services.
	<b>Opportunities</b>	<b>Threats</b>
	----	Lack of certainties on future access to finance due to the economic situations
Smart infrastructure	<b>Strengths</b>	<b>Weaknesses</b>
	Passenger terminals are generally situated close to city centres facilitating connections with rail stations and touristic development of port cities.	----
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Maritime clusters	<b>Strengths</b>	<b>Weaknesses</b>
	Collaboration with local universities and research centres. Historical co-presence and collaboration between economic agents in main ports and coastal regions. Maritime transport is important for coastal tourism especially for mayor and minor islands.	----
	<b>Opportunities</b>	<b>Threats</b>
	----	Large maritime clusters can create tension with other marine activities, especially tourism activities.
Education, training and skills	<b>Strengths</b>	<b>Weaknesses</b>
	Long tradition in the sector. Established partnership with Universities, Training Centers, Enterprises, Industrialists Associations and Research Institutes. Specialised curricula in universities.	----
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Maritime spatial planning/Integrated Coastal Zone Management	<b>Strengths</b>	<b>Weaknesses</b>
	Some important example such as traffic corridors in the Adriatic Sea. Some regions have begun developing ICZM guidelines or similar plans for coastal zones.	Decentralization in some areas (e.g. fisheries, aquaculture, coastal protection) can represent a problem of coordination. Due to decentralization, each region has different approaches, more or less developed, to ICZM.
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Integrated local development	<b>Strengths</b>	<b>Weaknesses</b>
	Historical co-presence and collaboration between economic agents in main ports and coastal regions. The Mare Technology Platform (PTNM) has been consulted to propose specific objectives and set of actions for both the RITMARE PROGRAMME (Italian Research for the Sea) and the INDUSTRIA 2015 Programme.	Some specific strategise for the development of minor island do exist, but not an organic plan

Passenger ferry services		
	Opportunities	Threats
	----	----
	Strengths	Weaknesses
Public engagement	Agreement between private enterprises and the State to ensure basic routes with islands. Recent privatisation of Tirrenia	Lack of a plan for passenger transport.
	Opportunities	Threats
	----	Economic crisis make more difficult to ensure connections. Market distortions due to public engagement.

Marine aquaculture		
Maritime Research	<b>Strengths</b>	<b>Weaknesses</b>
	Several centres of research are actively involved in this field. Research financed by triennial plans of fisheries and aquaculture.	A specialised research centre for mariculture is needed. Enterprises are too small and, often, family run, to have an internal R&D department. Universities have frequently carried out disorganised researches, without a real connection with operator needs
	<b>Opportunities</b>	<b>Threats</b>
	The new Ritmare flagship project is explicitly addressed to the research of innovative aspects for sustainable aquaculture	----
Development and innovation	<b>Strengths</b>	<b>Weaknesses</b>
	Existing collaboration between enterprises and research centres.	Technical problems to develop tuna farming. Enterprises are too small and, often, family run, to have an internal R&D department. A specific Aquaculture Technology and Innovation Platform is missing
	<b>Opportunities</b>	<b>Threats</b>
	Possibilities to develop the existing research in tuna farming (including the reproduction stage) at a pilot stage of production	----
Access to finance	<b>Strengths</b>	<b>Weaknesses</b>
	Communitarian resource (EFF and later funds). Research financed by triennial plans of fisheries and aquaculture.	Difficulty to access finance in economic crisis periods. Enterprises are too small and, often, family run, in order to have easy access to finance
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Smart infrastructure	<b>Strengths</b>	<b>Weaknesses</b>
	----	Supply is too fragmented; it would be necessary more organization through POs. Some problems for obtaining young wild clams to use in aquaculture.
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Maritime clusters	<b>Strengths</b>	<b>Weaknesses</b>
	Extensive aquaculture in the “valli” can be associated to agriculture and tourism. Aquaculture in “valli” and clam farming are located in restricted areas. Local universities have (unstructured) collaboration with farm enterprises	A specific Aquaculture Technology and Innovation Platform is missing
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Education, training and skills	<b>Strengths</b>	<b>Weaknesses</b>
	Long tradition in extensive aquaculture. Specialised curricula in universities.	More training is needed for advanced aquacultures techniques. Enterprises are too small and, often, family run in order to have continuous training
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Maritime spatial planning/Integrated Coastal Zone Management	<b>Strengths</b>	<b>Weaknesses</b>
	Some regions (Emilia Romagna) are beginning to develop spatial planning. Some regions have begun developing ICZM guidelines or similar plans for coastal zones.	Due to decentralization, each region has different approaches, more or less developed, to spatial planning and ICZM
	<b>Opportunities</b>	<b>Threats</b>
	----	A National Strategy for Integrated Coastal Management is under study but it does not seem to be a priority (long time since the process begun without results)
Integrated local development	<b>Strengths</b>	<b>Weaknesses</b>
	Private initiative has always been the engine for aquaculture development in Italy. The AMA (Associazione Mediterranea Acquacoltori) promotes local initiatives	Supply is too fragmented; it would be necessary more organization through POs.
	<b>Opportunities</b>	<b>Threats</b>

Marine aquaculture		
	----	----
<b>Public engagement</b>	<b>Strengths</b>	<b>Weaknesses</b>
	National and communitarian funds are fundamental for the development of aquaculture.	National funds are decreasing due to the economic crisis. There are regional differences in the legislation and application of rules, with several constraints related to licences, controls, sanitary rules, etc... Too much bureaucracy.
	<b>Opportunities</b>	<b>Threats</b>
	The new Ritmare flagship project is explicitly addressed to the research of innovative aspects for sustainable aquaculture	----

Coastal tourism		
Maritime Research	<b>Strengths</b>	<b>Weaknesses</b>
	Several maritime researches linked to Coastal tourism in different national universities and institutions, mainly in those that are located in coastal areas	Presidents of public National and local bodies dealing with tourism are appointed by the government. This implies that they are not independent from the political power when carrying out their activity.
	<b>Opportunities</b>	<b>Threats</b>
	The creation of the National Tourism Observatory (ONT) brings forward important opportunities to support better dissemination and analysis of tourism data. The cooperation between public-funded research and private sector is increasing	It is needed to improve the organisation of tourism statistics in order to develop and maintain appropriate quality standards. Despite increasing cooperation, private investments in research are still limited.
Development and innovation	<b>Strengths</b>	<b>Weaknesses</b>
	E-tourism initiatives coming from public bodies like the Ministry of Cultural Heritage and Tourism in the following fields: Innovazione nei servizi per i cittadini e le imprese (E.MOUSEION, CulturalItalia - Portale della Cultura Italiana, I-MIBAC,...) Miglioramento delle performance dell'Amministrazione (Indagine servizi pubblici culturali) Innovazione nelle tecnologie ICT	Development and innovation policies often are centralised at national level Small enterprises and small coastal destination often work uncoordinated, and due to budget reasons tend not to associate innovation to a potential enlargement and enhancement of their tourist offer The lack of innovation reflects on still high dependence on seasonality
	<b>Opportunities</b>	<b>Threats</b>
	"E-tourism" is expanding, and operators are beginning to under stand and exploit its potential	Small enterprises and small coastal destination often work uncoordinated, and due to budget reasons tend not to associate innovation to a potential enlargement and enhancement of their tourist offer
Access to finance	<b>Strengths</b>	<b>Weaknesses</b>
	ENIT has broadened its financial base in recent years and has strengthened its cooperation with the regions, local governments and the private sector. Access to credit easily and faster in northern regions of Italy.	The lower level of development in the south represents a weakness for new business activities Low access to credit in Southern regions
	<b>Opportunities</b>	<b>Threats</b>
	The new financial framework 2014-2020 might speed up the procedure to access public funds	Operational Programmes are over-bureaucratised and slow to implement
Smart infrastructure	<b>Strengths</b>	<b>Weaknesses</b>
	High number of airports with good international connections Good IT infrastructure Effective port and airport system Good general infrastructures (Information Technology)	Websites are still poorly utilised, improvements could be made ENIT's budget has fluctuated almost annually, making it difficult to plan strategically and maintain a continuous presence in priority markets Absence of network agreements between single accommodation structures that allow the optimisation of purchasing processes and delivering services The distribution of non commercial ports along the coast is not perfectly balanced. Weak connections between airports and coastal areas
	<b>Opportunities</b>	<b>Threats</b>
	----	----
Maritime clusters	<b>Strengths</b>	<b>Weaknesses</b>
	Federazione del Mare-Italian Maritime Cluster, founded in 1994. The organisation is aimed at representing the whole maritime sector of the country	Coastal tourism actors are not yet involved in this organisation. Italian coastal tourism will suffer more and more the competitiveness of better organized European clusters
	<b>Opportunities</b>	<b>Threats</b>
	Local tourism systems are defined in the Italian legislation (Law 135/01) with the aim to carry out project to develop and promote the touristic market. They may represent a starting point for the creation of clusters	There are different levels and degree of implementation at regional level. The main limit should be found in the fact that Local Tourist Systems have been instituted without sufficiently taking into account the needs of coastal tourism operators of at least their sector associations are not yet involved in this organisation. In doing so, the primary objective of the law is often missed, i.e. to promote innovative projects based on innovations, and taking into account the indications of local operators
Education, training and skills	<b>Strengths</b>	<b>Weaknesses</b>
	Presence of a good number of post-graduate courses in the field. High percentages of tertiary education level (university,	Competitiveness is hindered by the lack of up-to-date basic training programmes.

Coastal tourism		
	doctoral and specialization courses), 13,8% of the population, with an high choice of degrees in Economics and Management of Tourism	
	<b>Opportunities</b>	<b>Threats</b>
	The new financial framework for the ESF 2014-2020	Other destinations end up being more competitive because on the average operators have higher education levels, especially as regards the ability to speak foreign languages.
<b>Maritime spatial planning/Integrated Coastal Zone Management</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	Tourism planning is a matter of regional legislation in Italy	----
	<b>Opportunities</b>	<b>Threats</b>
	The Ministry of the Environment has promoted a National strategy for Integrated Coastal Zone Management. ICZM in its preliminary phase and will also address the tourism sector: (i) to encourage sustainable coastal tourism that preserves coastal ecosystems, natural resources, cultural heritage and landscapes; (ii) to promote specific forms of coastal tourism, including cultural, rural and ecotourism, while respecting the traditions of local populations; (iii) to regulate or, where necessary, prohibit the practice of various sporting and recreational activities, including recreational fishing and shellfish extraction	The finalisation process of the strategy is very slow.
<b>Integrated local development</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	Decentralised approach to tourism development, with different typologies of local action groups typologies Local tourism systems are defined in the Italian legislation (Law 135/01) with the aim to carry out project to develop and promote the tourism sector.	“Opposition” by local communities because of Environmental pressures and congestion of destinations Local Tourist Systems have been instituted without sufficiently taking into account the needs of coastal tourism operators of at least their sector associations are not yet involved in this organisation.
	<b>Opportunities</b>	<b>Threats</b>
	New financial framework 2014-2020, ESF, EFRD, and EAFRD	----
<b>Public engagement</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	A national plan “Italia 2020”, as well as regional developments plans have been approved	Policy rules and regulations are still not sufficiently supportive of the development of the sector
	<b>Opportunities</b>	<b>Threats</b>
	New financial framework 2014-2020	----

Cruise Tourism		
Maritime Research	<b>Strengths</b>	<b>Weaknesses</b>
	The research sector can counts on many Universities, institutions, public bodies and private companies conducting research on both sectors of cruise tourism value chain: (i) production and maintenance of vessels and infrastructure facilities, (ii) tourists services. (SAFEDOR, SIS-PRECODE , MC WAP, LIFE+) In 2013, Fincantieri signed an agreement with a the Krylov State Research Centre, a Russian institute among the most prestigious research centres in the world in shipbuilding sector and ocean engineering	The public sector engagement is less relevant than the private one
	<b>Opportunities</b>	<b>Threats</b>
	The collaboration between the public research system and the private sector is increasing	----
Development and innovation	<b>Strengths</b>	<b>Weaknesses</b>
	Several innovative projects or products are developed in the hospitality segment, including food & beverage companies and equipment, in IT, communication and entertainment systems. Fincantieri (leading company in shipbuilding sector especially for the cruise segment) is strongly committed to product development investments	The low degree of accessibility to the hinterland of Italian cruise destinations threatenss the full exploitation of some ports and reduces the economic potential of some coastal areas
	<b>Opportunities</b>	<b>Threats</b>
	The major opportunities for innovation in cruise tourism come from the public sector involvement mainly in infrastructural facilities sustainable development (ports) ad in the development of accessibility of destinations that can lead the choice of cruise itinerary	The environmental impacts of ports and their facilities are a concern of local populations
Access to finance	<b>Strengths</b>	<b>Weaknesses</b>
	The increase trends in the number of cruise passengers are stimulating the needs for new public infrastructures in order to serve the industry. Legislative regime for facilitating PPP. Legislative regime to support shipbuilding activity	Limited public resources have generated a trend toward complex Public-Private Partnerships for the development of multiple infrastructures
	<b>Opportunities</b>	<b>Threats</b>
	The new financial framework 2014-2020 might speed up the procedure to access public funds, and increase the financial capacity of public bodies. National Strategy "Italia 2020"	Operational Programmes are over-bureaucratised and slow to implement
Smart infrastructure	<b>Strengths</b>	<b>Weaknesses</b>
	Applications of smart infrastructure to energy systems, traffic systems and integrated management solutions for port (GIADA system, use of photovoltaic panels, web booking	High cost Conflict of interests
	<b>Opportunities</b>	<b>Threats</b>
	The GIADA system (used in Latium) is an IT application to manage information exchange between operators and port authorities, and may well constitute a model for other ports	The absence of smart infrastructure hinders the full exploitation of some ports
Maritime clusters	<b>Strengths</b>	<b>Weaknesses</b>
	Federazione del Mare-Italian Maritime Cluster, founded in 1994. The organisation is aimed at representing the whole maritime sector of the country	Lack of coordination and cooperation between ports in coastal regions Lack of commitment between ports and cruise lines in most cases
	<b>Opportunities</b>	<b>Threats</b>
	Local tourism systems are defined in the Italian legislation (Law 135/01) with the aim to carry out project to develop and promote the touristic market. They may represent a starting point for the creation of clusters. The inclusion of cruise tourism in their frame work is only recent	In the laws instituting Local tourism systems there is generally no mention of cruise tourism. The needs for creating cruise local tourism systems originates with the aim to reduce the progressive erosion of market shares from destination with a wider offer.
Education, training and skills	<b>Strengths</b>	<b>Weaknesses</b>
	Long-standing tradition in the sector. Established partnership with Universities, Training Centers, Enterprises, Industrialists Associations and Research Institutes. Existence of specialized training courses at regional level with a good performance when it comes to the creation of jobs. For instance, in Viterbo (near Civitavecchia port), training courses for cruise staff organised were favourably welcomed, and more than 70% of participants was contracted by a cruise company.	Limited dedicated cruise programmes at higher level of education
	<b>Opportunities</b>	<b>Threats</b>
	New financial framework ESF 2014-2020, on the basis of	As with coastal tourism, other destinations end up

Cruise Tourism		
	good results in Lazio region	being more competitive because on the average operators have higher education levels, especially as regards the ability to speak foreign languages, because cruise tourism competitiveness depends also on tourism destination attractiveness
Maritime spatial planning/Integrated Coastal Zone Management	<b>Strengths</b>	<b>Weaknesses</b>
	Currently , an ICZM strategy in Italy is under development	Spatial planning policies related to cruise activity are not currently applied. Equivalent but territorially fragmented tools at regional level are in place to address coastal issues
	<b>Opportunities</b>	<b>Threats</b>
	ICZM implementation	Since cruise tourism is not included in the ICZM strategy design, several sustainability-related issues are dealt with by single actors, such a sport authorities, sector associations, and cruise lines
Integrated local development	<b>Strengths</b>	<b>Weaknesses</b>
	Participation of local authorities and ports in common national and European projects for the renewal of the cities (for example the case of Naples where the Municipality together with the port Authority participated to the URBACTII program) Resolution of possible conflicts emerging between cruise sector and the local system such as congestion, pollutions etc (for example the case of Venice and the agreement “Venice Blue Flag II” according to which cruise lines are committed to use less polluting fuels when entering the Lagoon)	Local tourism systems are defined in itlalian low (Legge 135 del 29.03.2001) with the aim to realize development projects of tourism sector and to promote the offer and the commercialisation of tourism product. In the laws instituting Local tourism systems there is generally no mention of cruise tourism. The needs for creating cruise local tourism systems originates with the aim to reduce the progressive erosion of market shares from destination with a wider offer.. “Opposition” by local societies because of Environmental pressures and congestions of destinations
	<b>Opportunities</b>	<b>Threats</b>
	Recognized necessity to develop local tourism cruise systems to promote: Tourist attractiveness of a destination/region; Accessibility of a destination/region; The level of port facilities Home ports	Cruise operators and ports seem to be far from the implementation of local tourism systems
Public engagement	<b>Strengths</b>	<b>Weaknesses</b>
	Involvement of public bodies such as Chambers of Commerce and Municipalities in the construction and management of port infrastructures Participation of municipalities to concessionary companies dealing with the operation of cruise terminals (for example in Genova the Municipality participates in the StazioniMarittimeSpA)	Public engagement seems is focused on transport and education policies
	<b>Opportunities</b>	<b>Threats</b>
	Italy 2020 plan New framework EFRD, ESF 2014-2020	Without public engagement in sector, especially for the purpose of improving connections with the other facilities and improving the overall sustainability of the activity, the position of cruise sector in the blue economy could be threatened.



Protection of habitat		
Maritime Research	<p><b>Strengths</b></p> <p>Management bodies of parks and other types of coastal protected areas autonomously elaborate their own development and management plans including research activities that are in this way strictly linked to local territorial needs and interests.</p> <p>ISPRA (Institute for Environment Protection and Research) carries our research activities in several sectors, among is habitats protection is coastal areas</p>	<p><b>Weaknesses</b></p> <p>Albeit planned at local level, research activities, do not receive much attention from the central government and Regions, apart from some exceptions.</p> <p>Protected coastal surfaces have very limited extension compared with the Italian coastline length</p>
	<p><b>Opportunities</b></p> <p>In December 2012, the Ministry of the Environment approved a directive for prioritising financial resources towards the protection of biodiversity. The directive will provide guidelines for setting goals for enhancing the performances of park authorities.</p>	<p><b>Threats</b></p> <p>The lack of public funding in research hinders the protection of natural resources, especially in protected areas where high pressure (from agriculture and tourism) on the environment is expected.</p>
Development and innovation	<p><b>Strengths</b></p> <p>As with maritime research, actions of development and innovation for the protection of habitat are elaborated by management plans that are trying more often to involve private sector.</p> <p>Organic farming and agri-tourism in protected area have been increasing in the last few years also in coastal regions.</p>	<p><b>Weaknesses</b></p> <p>Limited to local capacity to establishing links between parks authorities and private sectors</p>
	<p><b>Opportunities</b></p> <p>The National strategy for Biodiversity, elaborated in 2010, contains actions addressed to the development and innovation of protection of habitats mechanisms (monitoring activities, actions to improve and restore ecological functions of habitats, programs and initiatives aimed at preventing the introduction and invasion of alien species...)</p>	<p><b>Threats</b></p> <p>Agriculture contributes to preserve several coastal habitats that would otherwise be at risk. Progressive marginalisation of agriculture is a threat for protected coastal areas, in which farming takes place, and require further development and innovation actions.</p>
Access to finance	<p><b>Strengths</b></p> <p>Environment expenditure has been increasing in the last few years both as regards direct interventions and grants.</p>	<p><b>Weaknesses</b></p> <p>Opportunities for private subjects that carry out economic activities in protected areas are still very limited. For instance, Rural Development Programmes (managed by Italian Regions) have actions aimed at protecting habitats (Natura 2000 areaa) but are financially limited, and only for the agriculture sector.</p>
	<p><b>Opportunities</b></p> <p>In the last few years, the increase in public expenditure for environmental protection may suggest that local authorities will have sufficient funds for actions aimed at protecting the environment.</p>	<p><b>Threats</b></p> <p>Regional disparities can create territorial imbalances</p>
Smart infrastructure	<p><b>Strengths</b></p> <p>There are some cutting-edge services and infrastructure in some coastal areas</p>	<p><b>Weaknesses</b></p> <p>Monitoring and surveillance needs defining and optimizing with exisiting technologies. Into many areas the technological deficit is very high</p>
	<p><b>Opportunities</b></p> <p>----</p>	<p><b>Threats</b></p> <p>----</p>
Maritime clusters	<p><b>Strengths</b></p> <p>Existence of coastal protected areas clusters that cooperate with each other (e.g. the "Po Delta" is "shared" between the Emilia Romagna and the Marche regions)</p>	<p><b>Weaknesses</b></p> <p>Limited to local capacity to establishing links</p>
	<p><b>Opportunities</b></p> <p>----</p>	<p><b>Threats</b></p> <p>----</p>
Education, training and skills	<p><b>Strengths</b></p> <p>Presence of a good number of post-graduate courses in the field.</p> <p>High percentages of tertiary education level (university, doctoral and specialization courses) 13,8% of the population.</p> <p>ISPRA carries out training programmes in the field of environment protection</p>	<p><b>Weaknesses</b></p> <p>----</p>
	<p><b>Opportunities</b></p> <p>New financial framework ESF 2014-2020</p>	<p><b>Threats</b></p> <p>----</p>
Maritime spatial planning/Integrated Coastal Zone Management	<p><b>Strengths</b></p> <p>There is still no national ICZM strategy, although one is in preparation. The administrative functions on the property of maritime areas have been entirely transferred from the State to the Regions. Therefore, Italy has a regional approach to</p>	<p><b>Weaknesses</b></p> <p>The regional and local approaches often are sector oriented</p>

Protection of habitat		
	coastal zone management and there is no single institution invested with the governance of the coastal zone.	
	<b>Opportunities</b>	<b>Threats</b>
	ICZM strategy at national level is under preparation	----
<b>Integrated local development</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	In Italy coastal environmental issues are included in regional operative programmes on EU fund and the action of local development groups and integrated territorial projects also involved habitat protection. Participatory management of coastal protected areas	The relationships between public bodies in charge of protecting an area and local communities are often controversial. On the one hand, communities are often considered as a threat to protected areas, and on the other hand the establishment of a protected area is sometimes perceived by local communities as an interference that hampers their development.
	<b>Opportunities</b>	<b>Threats</b>
	In the National strategy for Biodiversity (2010) it is highlighted that park authorities and local communities need to cooperate to protect the environment in view of any possible use (tourism, sustainable use, research, etc.), and especially to protect it from external threats such as urban expansion, extraction of resources, etc.	----
<b>Public engagement</b>	<b>Strenghts</b>	<b>Weaknesses</b>
	The sector is entirely public	Implementing the National Biodiversity Network as an Italian biodiversity network made up of Observatories established at a national and regional level is still in progress.
	<b>Opportunities</b>	<b>Threats</b>
	The new National strategy for Biodiversity (2010) set the how Government, the Regions and Local Bodies should jointly develop and enact policies on the preservation and restoration of species, habitats and landscape for the whole national territory, including coastal areas	Italy is not meeting its marine conservation objectives and legal commitments (e.g. 10% protection of its coastal and marine waters, CBD).

## 6. Maritime strategies

Title of the official document	Level (regional, national, cross-national, EU level)	Responsible body	Maritime Strategy concerned	Kind of Strategy document and publishing date
<b>Programma Nazionale Triennale della Pesca e dell'Acquacoltura 2013-2015</b> <a href="#">Link</a>	National	Ministero delle Politiche Agricole, Alimentari e Forestali	Marine aquaculture, fishing for human consumption	National triennial plan of fisheries and aquaculture, 01/31/2013
<b>Programma Nazionale della Ricerca 2011-2013/Ritmare, la Ricerca Italiana per il Mare</b> <a href="#">Link 1</a> <a href="#">Link 2</a>	National	Ministero dell'Istruzione, della Università e della Ricerca/Consiglio Nazionale delle Ricerche	Marine aquaculture, fishing for human consumption, blue biotechnologies, short-sea shipping, passenger ferry services, shipbuilding, coastal protection, protection of habitats	National research plan 2011-2013 and, more specifically, the included Ritmare flagship project 03/23/2011
<b>Industria 2015</b> <a href="#">Link</a>	National	Ministero dello Sviluppo Economico	Ship building, short-sea shipping, passenger ferry services, tourism	National strategy for development and competitiveness of the Italian industrial system, 09/22/2006
<b>Gestione Integrata delle Zone Costiere – GIZC</b> <a href="#">Link 1</a> <a href="#">Link 2</a>	National/Regional	Ministero dell'Ambiente e della Tutela del Territorio e del Mare	Marine aquaculture, fisheries, short-sea coastal tourism, yachting and marinas, coastal protection, habitat protection	Governance and strategy for the integrated Coastal Zone Management, Ongoing
<b>Il Piano Nazionale della Logistica 2011/2020</b> <a href="#">Link</a>	National	Ministero delle Infrastrutture e dei Trasporti	Short-sea shipping, passenger ferry services, tourism	National plan of logistics, 07/26//2010
<b>Turismo Italia 2020 Leadership, Lavoro, Sud</b> <a href="#">Link</a>	National	Ministero per gli Affari Regionali, il Turismo e lo Sport	Coastal and cruise tourism	Strategic Plan for Tourism Development in Italy, 01/18/2013
<b>La Strategia Nazionale per la Biodiversità 2011/2020</b> <a href="#">Link</a>	National	Ministero dell'Ambiente e della Tutela del Territorio e del Mare	Habitat protection, tourism	Italian National Biodiversity Strategy, 05/22/2010