

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



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0. General overview

Morphological structure of the coastline

- Located in the north of the Adriatic Sea in the Gulf of Trieste, Slovenia is a EU Members State bordering Italy to the west, Austria to the north, Croatia to the south and southeast and Hungary to the northeast. Its 48 km coastline is one of the smallest among EU Member States, and the same can be said for the coastal area (within a range of 10 km from the coast), which spreads over approximately 409 km² (0,1% of total EU coastal areas).
- There is only one coastal NUTS 3 region in Slovenia: the Obalno-Kraška (“Coastal-Karst” in English) statistic region, situated in Zahodna Slovenija (“Western Slovenia” in English), which is one of the two Slovenian NUTS 2 regions, the other being the landlocked Vzhodna Slovenija (“Eastern Slovenia” in English).

Population and related social condition for maritime areas

- Coastal-Karst has an area of 1.044 km² with a population 111.423 (5,4% of total Slovenia), of whom almost half live in the coastal city of Koper, which also happens to be the one of the largest north Adriatic ports in terms of transport.
- The employment rate in Western Slovenia (data at NUTS 3 level are not available) was 65,5% in 2012, while the unemployment rate was 7,6%.
- Coastal-Karst inhabitants have a GDP per capita of EUR 17.400, equivalent to 110% of the Slovenian average.

Economic role of maritime areas over the national total

NACE Sector	GVA (mio EUR)		Employment (in 1000 persons)	
	Coastal areas	% on Country total	Coastal areas	% on Country total
Agriculture, forestry and fishing	25,9	3,4%	2,6	3,2%
Manufacturing	179,4	3,0%	5,8	3,0%
Construction	150,6	7,5%	5,1	6,2%
Wholesale and retail trade; transport; accommodation and food service activities; information and communication	692,1	9,2%	18,1	7,8%
Total NACE	1838,1	5,9%	52	6%

Source: EUROSTAT. Year: 2010

- **“Wholesale and retail trade; transport; accommodation and food service activities; information and communication”** is the main GVA generator as well as the main source of employment probably due to the presence of the port of Koper being an important international port in the North Adriatic, as well as the main facilitator of the country external trade and a popular cruise tourism destination.
- Despite being an important economic activity at national level, **manufacturing** does not seem very well developed in coastal Slovenia.
- Despite the relatively low figures, the share over the national economy suggests that the **construction** sector is undergoing a crisis at national level, which is mildly mitigated by the touristic and commercial characterisation of coastal areas.
- **Agriculture, forestry and fisheries** are relatively insignificant economic activities in the economy of the region. This is most likely due to the small size of the arable land, the low level livestock density, as well as to the limited coastline which makes inland freshwater resources more important than marine resources.

1. Marine and maritime activities

Table 1 - Indicators of relevant marine and maritime activities in Slovenia

	Function/activity	GVA (EUR, billion)	Employment (*1000)	Number of enterprises	Further indicators	Source & Reference year
0. Other sectors						
0.1	Shipbuilding and ship repair	0,0013	0,17	167		EUROSTAT (2010)
0.2	Water projects	0,025	0,98	29		EUROSTAT (2010)
1. Maritime transport						
1.1	Deep-sea shipping	0,024	0,35	28		EUROSTAT (2010)
1.2	Short-sea shipping (incl. Ro-Ro)	0,021	0,4	31		EUROSTAT (2010)
1.3	Passenger ferry services	0	0	0		EUROSTAT (2010)
1.4	Inland waterway transport	n.a.	n.a.	3		EUROSTAT (2010)
2. Food, nutrition, health and eco-system services						
2.1	Fishing for human consumption	0,02	0,70	138		EU Member States DCF data submissions, Eurostat (2010)
2.2	Fishing for animal feeding	0	0	0		EU Member States DCF data submissions, Eurostat (2010)
2.3	Marine aquaculture	0,00007	0,03	3		JRC (2010)
2.4	Blue biotechnology	n.a.	n.a.	At least 1		
2.5	Agriculture on saline soils	0,0014	0,24	0,9		EUROSTAT (2010)
3. Energy and raw materials						
3.1	Offshore oil and gas	0	0	0		EUROSTAT (2010)
3.2	Offshore wind	0	0	0		EWEA (2012)
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		EUROSTAT (2010) UEPG (2010)
3.6	Marine minerals mining	0	0	0		
3.7	Securing fresh water supply (desalination)	0	0	0		Global Water Intelligence (2011) and Report on Water Desalination Status in the Mediterranean Countries (2012)
4. Leisure, working and living						
4.1	Coastal tourism	0,05	1,97	193		EUROSTAT (2010)
4.2	Yachting and marinas					
4.3	Cruise tourism	0,004	0,18	24		EUROSTAT (2010)
5. Coastal protection						
5.1	Protection against flooding and erosion	0,0012	0,01	n.a		Elaboration based on EUROSTAT (2010) and PRC (2009)
5.2	Preventing salt water intrusion	n.a.	n.a.	n.a		
5.3	Protection of habitats	0,0001	0,0009	n.a.		Elaboration based on EUROSTAT (2010)
6. Maritime monitoring and surveillance						
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		

The percentages below have been used to estimate the maritime dimension of:

- 52.24 Cargo handling – 16,00%
- 52.10 Warehousing and storage – 16,79%;
- 52.29 Other transportation support activities – 16,00%.

Table 2 - Overview of relevant marine and maritime activities in Slovenia

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
0. Other sectors				
0.1	Shipbuilding and ship repair	Shipbuilding plays a negligible role in Slovenia, with only one shipyard, located in the town of Izola, operating in the whole country. The shipyard has been lately focusing mainly on refitting yachts and super yachts.	n.a.	
0.2	Water projects	n.a.	n.a.	
1. Maritime transport				
1.1	Deep-sea shipping	Koper is Slovenia's only port and has an integrated structure where the single container terminal at Pier 1 is owned and operated by Luka Koper, the concessionaire for the port. The port's hinterland mainly covers much of Central and Eastern Europe, the northern Balkans, Austria and Southern Germany. The port has a relatively high rail modal share compared to most European ports.	Koper's container traffic in terms of TEU has increased by 166% during the period 2005-10 to reach 477.000 TEU	MDS Transmodal Limited (2011)
1.2	Short-sea shipping (incl. Ro-Ro)	The port of Koper has been focusing on developing also short-sea shipping in the last few years. It is part of the Motorway of the Seas of South-East Europe.	8 million tonnes of good transported from/to main ports, 31% of which are large containers	EUROSTAT (2010)
1.3	Passenger ferry services	n.a.	n.a.	
1.4	Inland waterway transport	n.a.	n.a.	
2. Food, nutrition, health and eco-system services				
2.1	Fishing for human consumption	Small pelagic species (pilchard, anchovy, sprat) account for about 96,7% of the total marine catch. The industrial fleet is state owned. The fishing industry has an important traditional and economic role. About 90% of the total industrial catch of marine fish is processed and canned. Fish is processed in a single factory, equipped with refrigerating room and plant for the production of fish meal	Fish consumption is increasing (around 6,9 kg/person/year in 2009). Domestic catches represent only 20 to 25% of the total national fish supply About 40% of the processed frozen and canned fish are exported	FAO (2009)
2.2	Fishing for animal feeding	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
2.3	Marine aquaculture	Mariculture in Slovenia started at the end of the twentieth century. In 2009, 377 tonnes were farmed, 312 of which are shellfish. The main species farmed are mussels, seabass and gilthead seabream. In 2007, three larger areas were designated for marine aquaculture in Slovenian territorial waters that were subsequently separated into 22 plots, for which concessions were granted for the use of marine water in 2009.	The sector is characterized by mainly small self-employed family farms, most of which have one employee and some are assisted by unpaid family members.	FAO (2009)
2.4	Blue biotechnology	There are no specific Marine Biotechnology strategies, plans or policies being implemented in Slovenia. A strategic document titled International Challenges 2013 - Partnership to promote international cooperation is currently in the process of being approved by the government. The document sets the priority economic sectors for international cooperation, among them also biotechnology.	1 local/coastal vessels of 11,98 m (Sagita), with a dry and wet lab and associated field equipment. The Marine Biology Station Piran of the National Institute of biology is currently the only research group in Slovenia devoted to maritime scientific research and professional work. The laboratory of Catalysis and Chemical Reaction Engineering of the National Institute of Chemistry focuses cultivation and growth of microalgae under different conditions. There is a company, ACIES BIO, which is a biotechnology research SME working primarily in the field of pharmaceutical, environmental and food biotechnology. ACIES operates, inter alia, in the field of Blue biotechnology. In 2008 ACIES BIO received the "Young company of the year" award for its achievements.	MarineBiotech (2013)

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
2.5	Agriculture on saline soils	Agriculture on saline soils in Slovenia is characterized mainly by heterogeneous agricultural areas, arable land and vineyards. The Littoral is Slovenia's most internationally known wine region and, though predominately a white wine producer (Malvasia), the region is responsible for most of Slovenia's red wine production (Refosco).	1.400.000 euro of estimated GVA and 240 persons occupied: small size activity on 2300 ha.	EEA, Corine Land Cover 2006
3. Energy and raw materials				
3.1	Offshore oil and gas	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
3.2	Offshore wind	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
3.3	Ocean renewable energy	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
3.4	Carbon capture and storage	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
3.5	Aggregates mining (sand, gravel, etc.)	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
3.6	Marine minerals mining	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
3.7	Securing fresh water supply (desalination)	The activity is not carried out in Slovenia	The activity is not carried out in Slovenia	
4. Leisure, working and living				
4.1	Coastal tourism	Temperatures suitable for bathing and sunbathing (air: above 25° C; sea: above 19° C) last from the end of May until October. The medieval cores of coastal towns with their age-old urban organization and architectural heritage also offer an attractive environment for tourists. Since the last five-year strategy introduced in 2007, much has been done on the promotion of Slovenian tourism and recognisability of the country as a unique destination. Most of the investments went to development of tourism regions by avoiding disparities amongst them. National tourist offer was presented in many international exhibitions and fairs with focus on the BRIC (Brasil, Russia, India, and China) markets. The development of the Slovenian tourism sector in recent years has been based on the construction of physical infrastructure.	Over 3.006.000 tourist arrivals were registered in tourist accommodations, in 2010. Tourist activities account for close to 10% of the Slovenian GDP and the coastal areas are estimated to host around 26% of all tourists in the country. Italy, Austria, Germany and Croatia the most important emitting markets for Slovenian tourism. Besides beach tourism, the focus of Slovenian coastal tourism is placed on conferences, health and casino tourism throughout the whole year. During the last few years, eco-tourism and cultural tourism have become increasingly important.	Euromonitor International (2012.) GDP (2011) "Competitiveness of Slovenia as a Tourist Destination", by Doris Gomezelj Omerzel (2006). Statistical Office of the Republic of Slovenia (2010).
4.2	Yachting and marinas	The Slovenian coast hosts four tourist harbours: Marina Koper, Marina Izola, Marina Portorož and Laguna Bernardin. The sector consists of companies mainly involved in the production of boats. Most manufacturing companies buy the components, either imported or from local producers. Almost all companies consulted are private companies without foreign capital.	A large share of the sailing and motor boats produced in Slovenia is exported to Germany, Croatia and Italy. Slovenia has a substantial trade surplus in sailing boats but a deficit in motor boats, which reflects the Slovenian consumer preferences	PRC (2010). "The Situation and Perspectives of the Recreational Craft Sector in the Applicant Countries", VAN HOLST & KOPPIES (2001).
4.3	Cruise tourism	Koper is a popular cruise tourism destination. The sector is benefitting from the infrastructure of Koper's port, and the proximity with Venice, which make of Koper an ideal port of call.	18.000 passengers in 2005 and 78.000 passengers in 2011 (+333%). Koper is the second cruise port by growth in the Mediterranean (after Split).	"The Passenger Terminal of the Port of Koper: Prospects of Development in Cruising" (2011)
5. Coastal protection				
5.1	Protection against flooding and erosion	Most of the coastline is protected by artificial structures. However, during extremely high tide events the stretches of low coast are flooded for some hours short periods several times a year. One of mayor problems, in this regard, represents the historic centre of Piran. It is regularly flooded every time, usually in autumn.	n.a.	EUROSION, Case study Slovenia (2005).
5.2	Preventing salt water intrusion	n.a.	n.a.	
5.3	Protection of habitats	In terms of biodiversity, Slovenia is one of the most outstanding countries in Europe.	Protected as cultural landscape of traditional salt pans, as well	EUROSION, Case study

Function/activity		Activity overview	Socio economic indicators	Source & Reference year
		It boasts about 850 endemic species. Despite intensive human activities, there are extensive protected areas of natural and historical sites. Nature reserves include cliffs, lagoons, underwater habitats, salt marshes and saltpans, reserves of Mediterranean terrestrial flora and fauna	as only Ramsar locality of Slovenia giving shelter to 250 bird species, out of which 90 species nest in the area. The traditional saltpans are one of the most threatened wetlands in Mediterranean	Slovenia (2005).
6. Maritime monitoring and surveillance				
6.1	Traceability and security of goods supply chains	4 different authorities: Police; Maritime administration; MRCC; Civil Protection; Military (430. naval division)	n.a.	JRC (2008)
6.2	Prevent and protect against illegal movement of people and goods			
6.3	Environmental monitoring			

2. Breakdown of marine and maritime activities at regional level (NUTS 2) and selection of most relevant regions

There is only one coastal NUTS-2 region in Slovenia, and therefore a regional description would be identical with the overview at national level provided in the section above.

3. List of the 7 largest, fastest growing and with most future potential marine and maritime activities

3.1 Ranking order of the 7 largest marine and maritime activities

Table 3 - Ranking order of the 7 largest marine and maritime activities in Slovenia

Rank	Marine and maritime activities	GVA (billion EUR)	Employment (*1000)	Score
1.	Coastal tourism	0,05	1,97	1,235
2.	Water projects	0,025	0,98	0,615
3.	Fishing for human consumption	0,02	0,70	0,45
4.	Short-sea shipping (incl. Ro-Ro)	0,021	0,4	0,305
5.	Deep-sea shipping	0,024	0,35	0,295
6.	Shipbuilding and ship repair	0,1	0,45	0,275
7.	Cruise tourism	0,004	0,18	0,11

Coastal tourism

In the second half of the last century, the tourism sector saw a remarkable growth in Slovenia. In Coastal Karst, this led to a concentration of tourism and related employment opportunities and economic development in the narrow coastal belt and in the summer months. This process encouraged emigration from inner Slovenia to coastal towns. This explains why coastal tourism has become the largest maritime economic activity in Slovenia.

Water projects

The development and size of this activity are mainly related to the expansion of the port of Koper, which has required several infrastructural improvements over the years.

Fishing for human consumption

The fishing industry had been relatively important until the 1990s. Since then, it has been reducing considerably because Slovene fishermen could no longer practice unlimited fishing in Croatian territorial waters. At present, albeit shrinking, it still retains a certain importance among maritime activities. As one may imagine, most of GVA and employment is however realised by wholesalers, rather than in the primary sector.

Short sea-shipping and deep-sea shipping:

Both activities are very important in the port of Koper. Their increasing size, despite the financial crisis, is connected with the excellent position of Koper in the North Adriatic. The port terminal is connected with the Far East weekly with regular direct lines and through feeder service with important hub ports in the Mediterranean (Malta, Piraeus, Gioia Tauro, Haifa), from where regular connections lead to all the continents of the world. At the same time, Koper is a gateway to central Europe (for instance, it is Austria's main port), and this has contributed to its importance. The container transport increase was by 400% in the

years from 2000 to 2008, which explains why these two maritime activities have become so remarkable in terms of GVA and employment.

Shipbuilding and ship repair

The sector used to be larger before the break-up of Yugoslavia. At present, there is only one shipyard left in Slovenia. Nevertheless, a solid tradition has helped to keep the sector alive and of a certain size. The shipyard is currently focused on refitting rather than shipbuilding.

Cruise tourism

The sector has still a relatively small size, also considering that Koper has been a regular cruise destination only since 2005. Nonetheless, it has constantly been growing since then, also benefitting from the close proximity with more established cruise destinations such as Venice or Dubrovnik.

3.2 Ranking order of the 7 fastest growing marine and maritime activities

Table 4 - Ranking order of the 7 fastest growing marine and maritime activities in Slovenia

Rank	Marine and maritime activities	GVA (CAGR)	Employment (CAGR)	Score
1	Short-sea shipping (incl. Ro-Ro)	26,31%	-1,39%	12,460
2	Protection of habitats	9,7%	9,7%	9,7
3	Cruise tourism	17,08%	-1,40%	7,840
4	Deep-sea shipping	16,39%	-2,26%	7,065
5	Protection against flooding and erosion	-0,03%	-0,03%	-0,03
6	Coastal tourism	-8,26%	3,41%	-2,425
7	Fishing for human consumption	-11,81%	4,07%	-3,870

Short-sea shipping and deep-sea shipping

The excellent performance of the two activities in the time series of interest should be analysed as one, because no clear differences can be outlined in Slovenia as to the reasons behind this success. The dramatic increase in terms of GVA (+26,31% for short-sea shipping and +16,39% for deep-sea shipping over the three-year time series) is due to several reasons. First of all, one should consider that the share of goods transported by sea has increased worldwide in the last few years. Secondly, a well-defined strategy and a series of infrastructural improvements have placed the port of Koper amongst the most important ports in the Northern Adriatic. Finally, the Motorways of the Sea network has given an important contribution to the short-sea shipping sector, which could also explain its better performance compared with deep-sea shipping, even though one should also consider that dredging works to increase the depth for deep-sea ships are still being carried out. The negative trend in employment, on the other hand, can be attributed to the financial crisis. Even though, the container throughput has just started to increase once again, adjustments in the labour market are taking place at a slower pace.

Protection of habitats

This not being an economic activity per se, the positive trend simply reflects an increase in the level of public expenditure for the protection of habitats. Nonetheless, this increase indicates that there is better awareness of environmental protection and sustainable development in Slovenia, also as a consequence of the EU accession, as well as the Barcelona Convention whose contracting parties adopted the Regional Working Programme for the Coastal and Marine Protected Areas in the Mediterranean Sea including the High Seas. In spite of its shortness, the Slovenian coastal area is very rich in terms of biological and landscape diversity. Its natural characteristics comprise a great diversity of habitat types, animal and plant species and ecosystems scattered between the rocky shore and its flysch cliffs, the alluvial plains with wetlands, coastal lagoons and salt-pans and the shallow waters of the Slovenian sea. In times of dramatic

climate changes this has certainly contributed to a higher public expenditure for the protection of marine and coastal habitats.

Cruise tourism

The positive trend in cruise tourism is the result of three main reasons. First of all, the cruise sector has been reporting considerable growth throughout Europe in the last few years. Secondly, one should also consider that sector is still relatively new and small in Slovenia, and so it has not yet reached a saturation point. Finally, the excellent performance of the port of Koper is being a crucial driver for the cruise sector as well (the passenger terminal is at a nascent stage, nevertheless cruise vessels bound to the Adriatic and the Mediterranean call Koper on a regular basis). Once again, the negative trend in terms of employment can be attributed to the economic crisis.

Protection against flooding and erosion

The variation recorded reflects the decrease in public expenditure for protection against flooding and erosion. The variation, albeit minimal, should be put into the wider context of public spending cuts throughout Europe. Nonetheless, it should also be mentioned that “some 82% of the Slovenian coastline is manmade. Some urbanized coastal areas have historical protection ranging from seawalls and submerged breakwaters to rock dikes. These structures have been effective for centuries and the erosion of the Slovenian coastline is generally well controlled and properly managed”¹. Therefore no particular investments are needed besides planned maintenance.

Coastal tourism

Coastal tourism too is actually shrinking in terms of GVA. This is partly due to the effects of the economic crisis, with tourists being more inclined to choose domestic destinations or to not travel at all, and to a boom that the sector experienced before the crisis took hold. The reduction in terms of GVA is partly mitigated by an increase in terms of persons employed. This may well be a consequence of the migration process that is driving an increasing number of people from inner to coastal regions. This trend suggests that the sector may be creating less paid jobs.

Fishing for human consumption

Similarly to coastal tourism, fishing for human consumption is reporting an overall negative performance, with a reduction in terms of employment not compensated by an increase in GVA. The fracture is particularly evident in the primary sector, where to a dramatic plunge in GVA corresponded a slight increase in the number of persons employed. This suggests that the sector is not going through the necessary restructuring of the fleet as envisaged, inter alia, in the Common Fisheries Policy.

¹ K Pikelj, V Draganić, and N. Malovrazić, “Eastern Adriatic: Slovenia, Croatia, and Montenegro”, in E. Pranzini, A. Williams “Coastal Protection in Europe”, Routledge, 2013.

3.3 Ranking order of the 7 marine and maritime activities with most future potential

Table 5 - Ranking order of the 7 marine and maritime activities with most future potential in Slovenia

Rank	Marine and maritime activities	Score
1	Blue biotechnology	+++++
2	Short-sea shipping (incl. Ro-Ro)	++++
3	Coastal tourism	++++
4	Deep-sea shipping	+++
5	Cruise tourism	++
6	Protection against flood and erosion	++
7	Protection of habitats	++

Blue biotechnology

- **Innovativeness:** the sector is in an early development stage, and is characterised by a high degree of R&D. This remains true worldwide, not simply in Slovenia. Being a pioneering sector, it should probably be considered innovative per se. **Score assigned: +**
- **Competitiveness:** it can be very difficult to assess the competitiveness of Slovenia's blue biotechnology, considering that the sector is still at a nascent stage, and only a few subjects are currently active in the field. Nonetheless anecdotic evidence suggests that companies operating in this sector tend to be very competitive. A possible obstacle to Slovenia's competitiveness in blue biotechnology may be found in the presence of other countries with better developed sectors. At present, however, considering that the market at EU level is potentially wide enough, this risk has been considered of little relevance. **Score assigned: +**
- **Employment:** at the time being, the sector is still too small to offer an interesting potential in terms of future employment. Whether it creates new jobs or mainly rely on a little number of very specialised workers will depend on several reasons. **Score assigned: 0**
- **Policy relevance:** this criterion was evaluated positively in Slovenia because two strategies are being prepared by the government (see §4.3 and §6) that seems to correctly address the main issues related to the development of biotechnology, and because blue biotechnology is one of the focus areas of Blue Growth as per the EU Commission's communication COM(2012) 494. **Score assigned: +**
- **Spill-over effects:** there are many potential spill-over effects that could derive from the development of blue biotechnology, from applications in the cosmetics industry to pharmaceuticals, biofuels, the medical sector, environment protection. Furthermore the development of blue biotechnology is believed to be a driver for the attraction of highly specialised workforce in Slovenia. **Score assigned: +**
- **Sustainability:** blue biotechnology can be regarded as a sector intrinsically devoted to sustainability, in that it draws on the properties of marine-derived compounds to develop new products/applications. With the enormous potential for discovery, development and marketing of novel marine bioproducts comes the obligation to develop methods by which these products can be supplied in a way that will not disrupt the ecosystem or deplete the resource. Some options for sustainable use of marine resources are chemical synthesis, controlled harvesting, aquaculture of the source organism, in vitro production through cell culture of the macro-organism or microorganism source and transgenic production. **Score assigned: +**

Short-sea shipping

- **Innovativeness:** the development of short-sea shipping in Slovenia has to be partly attributed to positive approach of the port of Koper in embracing innovations in the sector (in terms of logistics,

intermodality and EU strategies). The port and its managing company are very sensitive to innovation in general and it is believed that in the future the approach will remain similar. **Score assigned: +**

- **Competitiveness:** the port of Koper is competitive in terms of port charges for general cargo vessels (albeit Trieste's overall charges are lower). Supply chain integration, planned infrastructural investments, and last but not least its geographic position in the Adriatic (Koper is the closest port to central Europe) lead us to think that it will become even more competitive in the future, especially as regards short-sea shipping which is benefitting inter alia from the "Motorways of the Sea". **Score assigned: +**
- **Employment:** short-sea shipping is an important source of employment in Slovenia. Forecasts concerning the increase of cargo throughput for the Port of Koper lead us to think that the sector will be creating even more jobs in the future. **Score assigned: +**
- **Policy relevance:** maritime transport is at the centre of policy making in Slovenia, since the sector has undergone considerable development in the last few years. All evidence indicates that short-sea shipping is going to remain an important item in the political agenda in the future as well. **Score assigned: +**
- **Spill-over effects:** the development of short-sea shipping is likely to be a strong driver for the modernisation of several other infrastructures in Slovenia, such as railways and motorways. At present important investments are planned, and some works are already being carried out to improve these infrastructure in Slovenia to promote intermodality as a consequence of the increasing importance of the port of Koper for short-sea shipping. **Score assigned: +**
- **Sustainability:** the port of Koper is very sensitive to sustainability, and considerable efforts have been made to reduce the environmental impact of short-sea shipping and port activities in general. Nevertheless, the intrinsic characteristics of the activity pose serious threats to the marine environment, especially if one considers the limited length of Slovenia's coast. The effort made by Koper are to be praised, but the magnitude and environmental impact of short-sea shipping and related port activities in such a limited space risk having a negative impact on other maritime activities, as well as on the marine environment itself. **Score assigned: +**

Coastal tourism:

- **Innovativeness:** coastal tourism is a rather traditional activity, where innovation is often disregarded. However, Slovenia is making great effort to diversify its touristic offer by placing the emphasis on environment-friendly and niche tourism. In addition the Tourism and Internationalisation Directorate at the Ministry of Economic Development and Technology each year gives the "sejalec" award to the most innovative touristic products, an approach that denotes particular sensitivity towards the introduction of innovations in tourism. **Score assigned: +**
- **Competitiveness:** Slovenia's coastal tourism has fierce competitors in the Adriatic, Venice and Croatia in the first place. Yet the country seems able to be in the market with a very competitive touristic offer whose main strengths are low prices, notable biodiversity, a good endowment of historical towns in the coastal area, and a unique environment where the coast, country, and mountains are very close to each other. The planned investments for the improvement and construction of airports, motorways and railways may suggest that Slovenia's touristic sector will expand in the next few years. **Score assigned: +**
- **Employment:** coastal tourism is by far the main source of employment among maritime economic activities, and in the whole Coastal Karst. Employment has continued to increase in the last few years, despite a contraction in GVA. Although this may suggest that lesser-paid jobs have been created, the fact that some neighbouring countries are showing faint signs of recovery from the

economic crisis induces us to think that the number of persons employed in the sector will keep on growing in the next few years. **Score assigned: +**

- **Policy relevance:** tourism is the subject of several policies and strategies elaborated by the government. It is considered of pivotal importance at the political level since it represents a fundamental source of employment for the whole country. It should be noted that in policy documents coastal tourism is never addressed specifically, but always as part of tourism in general. This could be explained partly by the fact that Slovenia's coastline length is very limited, partly because coastal tourism does not need as much promotion as tourism in internal areas does. Nonetheless, what is decided at central level for tourism in general remains valid for coastal tourism as well. **Score assigned: +**
- **Spill-over effects:** the debate on the spill-over effects of coastal tourism in Slovenia is controversial. If, on the one hand, its multiplier effects benefit a good number of related industries and contribute to creating prosperity in coastal regions, on the other, tourism is also the cause of continuous migratory movement from inner regions to the coast. For the purposes of this study and in framework of maritime economy, however, it has been considered that its positive spill-over outweigh the negative ones. **Score assigned: +**
- **Sustainability:** Slovenia is placing great attention to making tourism sustainable and environment-friendly. However, it should be noted that most efforts made in this direction seem to address country and mountain tourism rather than tourism in coastal areas. In addition, the development of the tourism is increasing the pressure on the coastal environment as a consequence of the building of houses and resorts. **Score assigned: -**

Deep-sea shipping:

- **Innovativeness:** contrary to short-sea shipping, the development of deep-sea shipping in Slovenia does not seem driven by the introduction of innovative process, as it is more related to the strategic position of the port of Koper, as well as on a generalised increase in maritime transport. **Score assigned: 0**
- **Competitiveness:** the same reasons that justify the competitiveness of Slovenia's short-sea shipping can apply to deep-sea shipping too, as the port of Koper is focusing on both sectors. The port is competitive in terms of port charges for general cargo vessels (albeit Trieste's overall charges are lower). Supply chain integration, planned infrastructural investments, and last but not least its geographic position in the Adriatic (Koper is the closest port to central Europe) lead us to think that it will become even more competitive in the future. In addition, it should also be noted that the Port of Koper is focusing its business on deep-sea shipping, since trade with the Far East is expected to grow considerably in the future. **Score assigned: +**
- **Employment:** deep-sea shipping is an important source of employment in Slovenia. Forecasts concerning the increase of cargo throughput for the Port of Koper lead us to think that the sector will be creating even more jobs in the future. **Score assigned: +**
- **Policy relevance:** maritime transport is at the centre of policy making in Slovenia, since the sector has undergone considerable development in the last few years. All evidence indicates that deep-sea shipping is going to remain an important item in the political agenda in the future as well, especially considering that the Port of Koper is going to focus more and more on it. **Score assigned: +**
- **Spill-over effects:** the development of deep-sea shipping is likely to be a strong driver for the modernisation of several other infrastructures in Slovenia, such as railways and motorways. At present important investments are planned and some works are already being carried out to improve these infrastructure in Slovenia to promote intermodality as a consequence of the increasing importance of the port of Koper for deep-sea shipping. **Score assigned: +**

- **Sustainability:** the port of Koper is very sensitive to sustainability and considerable efforts have been made to reduce the environmental impact of deep-sea shipping and port activities in general. Nevertheless, the intrinsic characteristics of the activity pose serious threats to the marine environment, especially if one considers the limited length of Slovenia's coast. The effort made by Koper are to be praised, but the magnitude and environmental impact of deep-sea shipping and related port activities in such a limited space risk having a negative impact on other maritime activities, as well as on the marine environment itself. **Score assigned: +**

Cruise tourism:

- **Innovativeness:** the development of cruise tourism is the main reason behind the construction (still ongoing) of the passenger terminal in Koper. The sector is bringing innovation in that it is transforming what once was a port almost entirely devoted to transport to a passenger one. **Score assigned: +**
- **Competitiveness:** there are two aspects to be considered when it comes to the competitiveness of Slovenia's cruise sector. On the one hand, Koper has an advantage in the Adriatic in being relatively not expensive as a cruise destination. On the other, the competition with traditional destinations such as Venice is difficult to tough. **Score assigned: 0**
- **Employment:** Koper is a regular port of call for many cruises in the Mediterranean. It is expected that the number of passenger will continue to increase in the next few years. Therefore there is every reason to believe that the sector is likely to generate more employment in the future. **Score assigned: +**
- **Policy relevance:** although the development of cruise tourism is mentioned as a priority in the Strategy for the Sustainable Development of Slovenia Tourism, no particular emphasis is placed on it. It is possible that the situation is going to change in the near future as a consequence of the increasing importance of the sector, but to date there is no sign showing so. **Score assigned: 0**
- **Spill-over effects:** there are several spill-over effects connected to cruise tourism, mainly related to the multiplier effects of the expenditure of cruise tourists on the local economy. But the most important one is to be found in the international recognition that Koper and the rest of coastal Slovenia are gaining as a tourist destination. **Score assigned: +**
- **Sustainability:** the sector itself tends to be scarcely sustainable. There is great concern in Slovenia for the impact that cruise ships might have on the coastal environment, especially after the Costa Concordia accident in 2012. **Score assigned: -**

Protection against flood and erosion and Protection of habitats

Both "Protection against flood and erosion" and "Protection of habitats" are inherently public activities which, in spite of scoring high in our ranking, should not be considered as having future potential, since they do not present realistic opportunities for growth in the country. They have therefore been excluded from the growth scenarios and the analyses below.

4. Growth scenarios for the 6 most relevant and promising marine and maritime activities

Below a synoptic overview of the 7 largest, fastest growing and with most future potential activities is provided:

Table 6 - Sets of top-7 activities ranking in order of size/growth/future potential

Top-7 current size	Top-7 recent growth	Top-7 future potential
Coastal tourism	Short-sea shipping (incl. Ro-Ro)	Blue biotechnology
Water projects	Cruise tourism	Short-sea shipping (incl. Ro-Ro)
Fishing for human consumption	Deep-sea shipping	Coastal tourism
Short-sea shipping (incl. Ro-Ro)	Protection of habitats	Deep-sea shipping
Deep-sea shipping	Protection against flooding and erosion	Cruise tourism
Shipbuilding (excl. leisure boats) and ship repair	Coastal tourism	Protection against flooding and erosion
Cruise tourism	Fishing for human consumption	Protection of habitats

Therefore, the activities identified as most relevant and promising in Slovenia are the following:

Table 7 - 6 most relevant and promising marine and maritime activities

6 most relevant and promising marine and maritime activities
Blue biotechnology
Short-sea shipping (incl. Ro-Ro)
Coastal tourism
Deep-sea shipping
Cruise tourism
<i>Marine aquaculture²</i>

² As explained in §4.1 this activity has been added because it shows potential for mariculture, which may well lead to an increase in volume and value of production. However, due to natural circumstances, it is unlikely that it will ever become a major economic activity in Slovenia.

4.1 Overview of the 6 most relevant and promising marine and maritime activities

Blue biotechnology

The activity is not among the 7 largest in Slovenia, nor is it included in the list of the 7 which experienced the fastest growth. The sector is still at a nascent stage, and is thus very complicated to make forecasts. However, it has been decided to include the activity among the 6 most relevant and promising maritime activities based on the existence of a series of preconditions that, based on our experience, can constitute a favourable environment to the further development of the sector. Indeed, the presence of a few public research institutions and a private company that operate in the field, and the preparation of two strategies that will address the main issues related to the development of biotechnology are signals that blue biotechnology offers great potential in Slovenia. When looking at the number of subjects operating in the sector at present, one should bear in mind that Slovenia is a very small country, and the existence of even a couple of research institutions and just one private company in a sector of such a small size represent an important indicator of its potential.

Short-sea shipping

Short-sea shipping is the fourth largest and the first fastest growing maritime activity in Slovenia. It is also considered as an activity that shows great potential for future growth. In light of this, its inclusion in the list of most relevant and promising activities was inevitable. The sector has experienced considerable growth in the last few years and has performed very well despite the economic crisis. Total cargo throughput is expected to increase in the future. The port of Koper is among the most important ports in the Adriatic and in the whole Mediterranean and this is remarkable for a country with such a small coastline as Slovenia.

Coastal tourism

Coastal tourism is the first largest and the sixth fastest-growing maritime activity. The sector seems to have suffered more than others from the economic crisis, but still remains by far the most important maritime economic activity in the country. This, along with the first signals of recovery and with the considerable political relevance given to the sector in Slovenia, have led us to include it among the most promising and relevant maritime activities.

Deep-sea shipping

Deep-sea shipping is the fifth largest and the third fastest growing maritime activity in Slovenia. It is also believed to be the fourth activity with the most future potential. Albeit a different activity, its development shares many a similarity with short-sea shipping, given that the port of Koper is currently focus on both. The reasons why it was included among the most promising and relevant activities are therefore the same, with deep-sea shipping having slightly less potential because it is not benefitting from Motorways of the Sea.

Cruise tourism

It is a relatively recent activity in Slovenia, and has not yet reached an appreciable size. Nevertheless, it is the second fastest growing, showing impressive growth and good potential for the future. Cruise tourism is believed to be a promising maritime activity for two main reasons. First of all, there is an increasing trend in the number of ships visiting Koper as a port of call. In addition, the development of the sector seems linked with the development of maritime transport in general and the port of Koper in particular. As this port is becoming increasingly important in terms of traffic of goods and passenger, and is constantly improving its facilities, it is believed that cruise tourism will be benefitting from this.

Marine aquaculture

Besides these activities, it is also proposed to take into account marine aquaculture. Due to limited space, marine aquaculture is not an important activity in the Slovenian economy, either in terms of value added or

employment. The sector has a short history, starting at the end of the twentieth century. Its production mainly consists of Mediterranean mussel and European seabass. However, a few signals may suggest that there is some potential for marine aquaculture in Slovenia. First of all, marine farms are reported to operate only at about 50% of their maximum capacity. The sector experienced a strong trend for growth (especially as regards marine finfish production) during 2006-2010 (+24%). The trend suddenly stopped after of the prohibition of the sale of shellfish in 2010, because of phytotoxic organisms. However, the issue now seems to belong to the past. Furthermore, it would also seem that in the new EMFF the government to expand the areas designated for marine finfish aquaculture (currently there are 3 areas, divided into 22 plots, 20 for shellfish and 2 for finfish), and promote co-location with other economic activities. Due to natural circumstances, it is unlikely that the sector will become a major maritime economic activity in Slovenia. For this reason, no analysis on marine aquaculture has been reported in the paragraph below. Nonetheless, the above considerations suggest that there is an interesting potential for mariculture, which may well lead to an increase in volume and value of production.

4.2 Description of the nature of each of the 6 marine and maritime activities and their value chains

Blue biotechnology

There is no clear value chain of “blue biotechnology” in Slovenia, as the sector is taking its first steps, and no well-defined industrial-level processes can be identified. On the other hand, one should also consider that the difficulty in describing and defining a value chain for the sector is common to several countries, given that blue biotechnology is in its very early development stage.

Ideally, however, it is possible to imagine that its value chain should encompass a first stage where basic research is carried out by universities/institutes (and in some instances also private companies), a process that may also include patenting, then another stage where limited but well-organised number of companies (typically but not necessarily SMEs) build on research results to cultivate micro-organisms and experiment how they can contribute to improving a wide-range of products. Finally, in the last stage, larger companies are ready to integrate results from the previous stages into their ordinary industrial processes.

It should be noted that, in the last stage, potential applications of blue biotechnology are quite likely to be exploited by a very restricted number of multinational companies, as a consequence of the structure of the final sectors of destination, and of the high costs related to the acquisition of patents and R&D know-how (e.g. it is very unlikely that a small and local-based producer of cosmetics will develop products based on marine micro-organisms whose proprieties have only recently been discovered). This is to say the, while the first two stages of such a supply chain usually take advantage of the type of collaboration guaranteed by physical proximity (e.g. by giving rise to clusters with universities and private companies), the last stage tend to be much more “internationally-based”, with the consequence that a large part of the value is added in other countries than the ones where basic research was carried out.

This is a description that fits the Slovenian situation pretty well, with a few research institutes (well introduced in relevant international networks), and a SME whose core business partly includes blue biotechnology. No large-scale applications of blue biotechnology have been detected in Slovenia, as a consequence of the general early development of the sector.

Short-sea shipping (incl. Ro-Ro) and Deep-sea shipping

The Port of Koper is a well organized European port. It is the only Slovenian multipurpose port, and is extremely important for the state, affecting the development of the Slovenian economy with its operations. The Port carries out activities intended for cargo and passenger transport. It serves both short-sea and deep-sea shipping, and for this reason it is not easy to clearly distinguish the two value chains, which are in fact intertwined in Koper. The basic port activities of throughput and warehousing of a variety of goods are supplemented with a range of services on goods and other services, and customers are provided with a comprehensive logistics support. The Port is a cross-border entry point for the European Union and has the

status of an economic zone. Its main destination markets are Slovenia, Austria, Italy (transshipment of bulk cargo has increased as a consequence of the demand for energy products in Italy), Hungary, Slovakia, the Czech Republic, and Germany. Containers and cars are considered the strategic cargo of the Luka Koper Group.

The Port is managed by the company Luka Koper, d. d. (51% owned by the Republic of Slovenia). The basic port activities of throughput and warehousing are carried out in twelve specialised port terminals. All the terminals are organised according to the goods/cargo they receive. Each terminal has its own characteristics determined by goods-specific work process, technological procedures and technology. The terminals are organised in five profit centres.

Coastal tourism

According to the estimate of the World Tourism and Travel Council (WTTC), tourism in Slovenia creates as much as 12,1% of GDP. At the same time, tourism is a very important export activity that represents a good 8% of total export and over 40% of services export in Slovenia's balance of payments³. According to the data provided by the Bank of Slovenia, the receipts from the export of travel in the first ten months of 2011 increased by 9,46% compared to the same period in 2010. The growth trend, however, was slightly more moderate than the growth of the number of arrivals by foreign tourists, which indicates that the crisis still affects the results in tourism and is also reflected in the new guidelines of tourist demand. Tourists plan their holidays more thoroughly, searching for the most suitable ratios between price and quality. Spending outside boarding houses has also decreased.

The beginning of the 1990s marked an important turnabout in the development of health resorts in Slovenia. With the construction of modern "thermal parks", they reoriented into mass tourism, based on recreation, healthy lifestyle, wellness, etc., as well as spending of holidays. So, we could see that after 1990s, the health resorts became the most important group of tourist resorts in Slovenia, with around 1/3 of all overnight stays in the country. They are usually located in less developed areas of the country (in North Eastern Slovenia), which means that their importance is even greater for the employment of the inhabitants and the spatial and functional development of rural areas.

However, the emphasis of the touristic approach in Slovenia is now no longer on mass tourism, but on the creation of attractive market niches in the frame of European tourist offer. While trying to promote its tourist opportunities, despite being surrounded with huge competitors (i.e., Austria, Italy, Hungary and Croatia), Slovenia came to the realization that it did not have enough competitive advantages. However, Slovenia thought to come around this problem by using its tourist destinations, offering better organizations, quick access to original and qualified tourist products within environmentally sound policies referring to global tourism markets. The new direction of tourist development in Slovenia is therefore based on the development of the following kinds of tourism: health and wellness tourism, coastal tourism, mountainous tourism, countryside tourism, business and congress tourism, cultural tourism, casino and entertainment tourism, ecological tourism, recreation tourism, adventure tourism, transit and excursion tourism.

To improve the marketing, promotion and visibility of Slovenian tourism, the Ministry of Economic Development and Technology and the Slovenian Tourism Board launched a new tourism brand for Slovenia "I FEEL SLOVENIA". This is an exceptional slogan and the brand also includes a logo (Slovenia is the only state in the world with the word "LOVE" in its name, the colour used is green it should represent nature and environment friendly and hospitable Slovene tourism).

Cruise tourism

Koper is a well-known destination among shipping companies; therefore the passenger terminal is gaining increasing recognition on the world map of cruise destinations. Its main competitive advantages are enabling ships to stop at the very centre of city and ensuring an excellent port service. The passenger

³ Source: Bank of Slovenia

terminal is located only 200 metres from the central city square and it has promoted tourist activities in Koper and other Slovenian cities for several consecutive years. In 2012, Koper received 64.461 visitors, which is 41% below the record-high 2011 level. The sector is clearly benefitting from proximity with Venice (Ships calling in Koper are always a pre or post Venice), as well as the infrastructural development of the Port of Koper.

Marine aquaculture

As stated in §4.1, this activity has been added since it shows potential for mariculture, which may well lead to an increase in volume and value of production. Nonetheless, due to natural circumstances, it is unlikely that the sector will become a major maritime economic activity in Slovenia. For this reason, the activity is not be further elaborated in the following section.

4.3 Description of economic and infrastructural scenario

Blue biotechnology

As a consequence of the lack of a well-defined value chain, with only a few actors operating at present, it is difficult to identify a precise trend for blue biotechnology in Slovenia. Nevertheless, the sector shows great potential for the future in that it is characterised by a small yet promising presence of subjects, which, if duly supported at the legislative/financial level, seem to be able to set the preconditions for the development of blue biotechnology.

The main players in the sector are:

- The Marine Biology Station Piran of the National Institute of biology (MBP, NIB) which collaborates with high calibre foreign marine research centres, and represents a national focal point for development in the area of marine research. There are 35 people routinely employed at the MBP, comprising of 19 researchers, 8 young researchers and 8 technical and administrative collaborators. The research work is periodically augmented by students and trainee postgraduate and postdoctoral fellows with various disciplines. The infrastructure of the Marine Biology Station Piran includes: research laboratories (biological, chemical, microbiological etc); a salt water laboratory aquarium with lab to sea interflow capability; a library with 1500 scientific monographs and 60 specialized journals; a diving base with workshop; a 12m long research vessel, with a dry and wet lab and associated field equipment and a 7m long working boat;
- The Laboratory of Catalysis and Chemical Reaction Engineering of the National Institute of Chemistry which focuses on process and product modelling of reaction kinetics, transport phenomena and fluid mechanics, sensitivity analysis, optimisation, intensification, economical valorisation relating to cultivation and growth of microalgae under different conditions. Its infrastructures and coordination and support capacities / initiatives include: bioreactors: batch, semi-batch, continuous, etc.; downstream processing: extraction, distillation, absorption, etc.; analytics: temperature, pH, redox potential, nutrient concentration, cell number, chlorophyll, oxygen, lipid content, lipid fatty acid profile; biodiesel, biogas, pyrolysis, gasification and combustion equipment;
- ACIES BIO, a biotechnology research SME working primarily in the field of pharmaceutical, environmental and food biotechnology. ACIES BIO collaborates with leading international industrial partners on development and improvement of microbial strains and bioprocesses, especially in the field of secondary metabolite biosynthesis. ACIES BIO's biotechnology research facilities are located at the Technology park Ljubljana, Slovenia. ACIES BIO is also the founding member of the only Slovenian Competence Center in the field of food and health, KC-BRIN (Competence Centre for biotechnology research and innovation), together with leading Slovenian companies and academic institutions in this field.

Short-sea shipping (incl. Ro-Ro) and deep-sea shipping

The port area consists of 270 hectares of land, with 48,4 hectares of covered storage and 109,6 hectares of open storage space. 28 moorings located on 3.282 metres of shoreline along 179 hectares of sea. In terms of logistics activities, the port services include:

- Services provided by the collection and distribution centre for every cargo group;
- Services involving the assortment of goods (sorting, palletising, sampling, protection, labelling, weighing, cleaning and other services), which are regularly enhanced, based on the development of the transport industry and the needs of our clients;
- Management of the economic zone;
- Integrated logistics solutions

The port is endowed with direct access to the Slovenian rail network, a feature that has helped the port of Koper become a gateway to the Balkans and Central Europe.

In order for the port to continue with its successful performance, timely provision of the necessary additional port infrastructure and also public connecting infrastructure, which is in the domain of the Republic of Slovenia, is required. In 2012, two important documents were prepared, which serve as the basis for further strategic and developmental decisions in the company: containers and cars are considered the strategic cargo of the Luka Koper Group, but the Group will keep the Port multifunctional by taking into consideration the interdisciplinary nature of the cargo groups and it will focus its developmental projects in the following areas:

- deepening of basin I, the extension of pier I and the arrangement of the hinterland areas by expanding the railway track capacities as the next steps on the way towards further developing the container terminal and keeping its existing competitive position;
- To realize the planned growth in the throughput of cars, additional areas need to be acquired and arranged in the hinterland of basin III, and a Ro-Ro berth built on pier III.
- Other investments will be focused on the provision of new storage areas, the arrangement of the shore at pier II and the construction of oil derivative tanks and a platform for decanting liquid cargoes in the front of pier II.
- the setting up of a new truck terminal, the transfer of the main traffic road to the eastern edge of the Port's area and the construction of a viaduct between piers I and II.

Coastal tourism

The Slovenian tourism industry is unusual in that the focus is less on large hotels and luxurious modern conveniences, and more on health resorts and spas, camping sites and hiking holidays, and a large number of holiday rental accommodations. However, despite this, the Slovenian Board of Tourism (SBT) is aiming to massively boost its tourism figures in the future, and part of this will entail developing its high-end tourism sector, attracting large international hotel groups. Construction of tourist infrastructure and residential construction is subject to obligatory environmental impact assessment and environmental capacity assessment (Environmental Impact Assessment (EIA) Directive). To support sustainable tourism projects, the Government assesses applications under calls for tenders for co-financing construction of tourism infrastructure and additionally encourages investors that associate investment projects with sustainable criteria on preservation and revitalisation of cultural heritage, and environment-oriented investments. The government is also paying attention to promoting the Ecolabel concept.

Cruise tourism

No clear differences can be detected with respect to the descriptions provided in "Short-sea and deep-sea shipping" and "Coastal tourism".

4.4 Regulatory environment

Blue biotechnology:

The Ministry of Education, Science, Culture and Sport (MESCS) and particularly the Science division as part of the Directorate for Higher education and Science, defines the expert bases for the adoption of political documents in the field of research policy and plans the required financial resources for research. There are no specific Marine Biotechnology strategies, plans or policies being implemented in Slovenia. The Research and Innovation Strategy of Slovenia (RISS) is the key strategic and political document of the Slovenian policy on research and innovation. It is currently being implemented in collaboration with the Ministry of Economic Development and Technology and other relevant stakeholders, who have contributed to the development of the program. Currently the new National Industrial Policy is being prepared together with the National Development Strategy for the 2014-2020 period. The two documents already take into account Smart specialization. They are however not yet public. Biotechnology has been a priority in the previous National Research and Development programme and will continue to hold a strategic place in both documents currently being prepared.

A strategic document titled International Challenges 2013 - Partnership to promote international cooperation is currently in the process of being approved by the government. The document sets the priority economic sectors for international cooperation, among them also biotechnology (others of interest include biomedicine, energy and environmental technologies, advanced material and technology, nanotechnology).

Short-sea shipping (incl. Ro-Ro) and Deep-sea shipping

In 2008, Luka Koper, d. d., concluded the Concession Agreement with the state, which regulates the execution of Port activities and the management, development and regular maintenance of port infrastructure. The Agreement was concluded in 2008 for a period of 35 years, as defined in the Maritime Code. The agreed concession fee is 3,5% of the Company's operating revenues, less revenues from Port fees. The concession fee also includes water rights, water taxes and other taxes related to the use of the sea, which is owned by the Republic of Slovenia.

Slovenia adopted a Resolution on the National Maritime Development Programme (OG RS, No. 87/2010), taking into account, inter alia, the guidelines and policies of the European Union in the maritime sector, such as the White Paper on European Transport Policy, Integrated Maritime Policy for the European Union, Action Plan of the Integrated Maritime Policy for the European Union, Strategic Goals and Recommendations for the EU's Maritime Transport until 2018, Communication and Action Plan with a View to Establishing a European Maritime Transport Space without Barriers, Integrated Maritime Policy for Better Governance in the Mediterranean, Towards the Integration of the Maritime Surveillance: A Common Information Sharing Environment for the EU Maritime Domain and Developing the International Dimension of the Integrated Maritime Policy of the European Union.

The National Programme is a strategic document which, through the definition of the situation, objectives and measures, provides conditions for the sustainable and integrated development. Moreover, it embodies a vision and helps create conditions conducive to maritime transport development and the more effective exploitation of advantages, such as a modern freight and passenger terminals. A special chapter is devoted to the only cargo port in Slovenia (containing a plan for the development of port and logistics activities, a vision of Slovenia's opportunities to develop into a regional logistics centre, the planned objectives and activities required for their attainment. A specific chapter deals with the integration of the Port of Koper into the system of motorways of the sea and short sea shipping.

The Luka Koper Group is involved in European territorial cooperation projects which refer primarily to the planning and development of the national and all-European transportation infrastructure, logistics concepts, environmental protection, safety, marine protection, dangerous cargoes, and information updating (the SONORA project of the Central European programme, the WATERMODE project of the South Eastern Europe programme, and the CLIMEPORT, BACKGROUNDS and MEMO projects of the

Mediterranean programme, LOSAMEDCHEM, FREIGH4ALL, PORTA, EMPIRIC, LOGICAL, SEEMARINER, SETA, INWAPO and GIFT, and two new projects INTE-TRANSIT and iFREIGHTMED). In terms of the Slovenia-Italy cross-border programme, the ADRIA–A project is primarily focused on promoting mobility and passenger transport in the cross-border area, and while the SAFEPORT project refers to the management of environmental and industrial risks in all ports of the North Adriatic region. In terms of Community programmes, the KOBALINK projects, part of the Marco Polo programme, are endeavoured to redirect as many vehicles as possible to the maritime service between the car terminals on the Koper-Barcelona route, and the HINTEPORT project is an exchange of good practices of cooperation between European ports and hinterland terminals. As regards the TEN–T programme, the MOS4MOS project introduced prototypes for concrete information improvements among individual logistics performers. In the same TEN-T programme, the ITS NAPA project is aimed at setting up an information platform for data exchange among North Adriatic ports, and a new project called GREENCRANES was started to study the energy efficiency of container terminals.

Coastal tourism

Tourism policy lies within the purview of the Minister for Economic Development and Technology, and is part of the overall economic policy of Slovenia. Administrative and legislative issues concerning tourism are delivered to the Tourism and Internationalisation Directorate established in August 2004. The promotion of Slovenia as a tourist destination the corresponding marketing activities are the responsibility of the Slovenian Tourist Board (STB). The STB was set up in 1995 by the Government as a partly-commercial, state-funded organisation. The STB provides certain services on a fee basis for the tourism industry. It is responsible for managing the National Tourism brand "I feel Slovenia", supporting creativity and innovation in the design of new products and services (f.e. the Sower Award Competition), promoting internationalisation and diversification of the guest and visitors structure, R&D in the field of tourism, etc.

At local level each Mayor, Community Council, and Regional Destination organisations are also co-responsible for the tourism development in community/destination. Locally collected "Tourist tax" (amount of tax which is collected on accommodation services); have to be used by the local community to establish and maintain tourism facilities and for other tourism development purposes at local level.

Cruise tourism

No clear differences can be detected with respect to the descriptions provided in "Short-sea and deep-sea shipping" and "Coastal tourism".

5. Growth drivers and barriers to growth for the 6 most promising marine and maritime activities

The table below provides an overview of growth drivers and barriers to growth summarising both benchmark and SWOT analysis.

Table 8 – Growth drivers and barriers to growth for Blue biotechnology

BLUE BIOTECHNOLOGY	Growth drivers	Barriers to growth
Maritime research	Two national institutes active in the field. The number may appear low, but it should put into the context of an extremely small country, with a limited coastline. The momentum that the EU Commission and Blue Growth are creating on blue biotechnology may give rise to several opportunities that can favour the development of the sector. The focus on Key Enabling Technologies and on the forthcoming Horizon 2020 Programme can contribute to the sector take-off.	Blue biotechnology is only a small fraction of research activities. The sector is still very small and it is not to be taken for granted that it will constitute a sufficient critical mass, especially because there are still few research facilities in comparison with other countries.
Development and innovation	The sector is very innovative per se. The momentum that blue biotechnology has gained thanks to Blue Growth may well help a nascent sector to take off, especially by taking advantage of the new financial framework 2014-2020. There is a certain degree of participation in international networks	Sector still in a very early development stage and has not yet reached sufficient critical mass. Other countries are at a more advanced stage
Access to finance	Research in biotechnology is adequately subsidised in Slovenia. This should be considered as a strength, because, being blue biotechnology in an early development phase, it is paramount that it receives adequate support by the public sector, also from the financial point of view. The new financial framework (especially Horizon 2020) can certainly represent a key opportunity to obtain an increased access to credit. Furthermore a few private equity and venture capital firms are operating in Slovenia, inter alia, in the fields of pharmaceuticals, healthcare, and life sciences.	Private investment is still low, and there is a generalised difficulty for entrepreneurs to access credit from banks. Other types of investors such as venture capitalists, and business angels may prefer to invest in the blue biotechnology sector of other countries, where the sector can more easily reach a critical mass.
Smart infrastructure	Good initial infrastructure endowment	No barriers identified
Maritime clusters	Ljubljana's Technology Park includes several different areas of expertise, which is fertile ground for the development of blue biotechnology.	Clusters in Northern Europe are at a much more advanced level of cooperation. In addition, Ljubljana's Park is not strictly a maritime cluster
Education, training and skills	Adequate workforce in terms of dimension and qualification for such an early stage of development	No dedicated university training. The sector will need to employ workforce from abroad in case of expansion. Universities abroad have a longer-standing tradition in the field.
Maritime spatial planning	<i>Not relevant</i>	<i>Not relevant</i>
Integrated local development	<i>Not possible to assess. Sector still too small</i>	<i>Not possible to assess. Sector still too small</i>
Public engagement	Good level of public engagement. Biotechnology and marine biotechnology are recognised as areas of interests. "Blue Growth" can be considered as the main opportunity for the sector to receive further attention from the public sector. It is expected that Blue Growth will help to focus on blue biotechnology in particular, and not simply on biotechnology as a whole.	The level of public engagement is incomparable with EU best practices in the sector

Table 9 - Growth drivers and barriers to growth for Short-sea shipping

SHORT-SEA SHIPPING	Growth drivers	Barriers to growth
Maritime research	The port of Koper has its own study centre, where research activities on the sector are carried out. Local universities are also involved in maritime research on short-sea shipping.	Competition from more established Universities and research institutes.
Development and innovation	It is a mature sector, but Motorways of the Sea has opened new scenarios, fostering a better-focused approach on intermodality, and promoting the growth of maritime transport in the area.	Mature sector, not much further innovation can be expected. Lower performances expected due to the economic crisis
Access to finance	Luka Koper (management company of the port) has excellent operating results, and access to finance should be relatively easier for them.	Limited resources compared to the ports in Northern Europe
Smart infrastructure	Great attention placed on environment. Infrastructure compatible with the dimension of the port and of the country	The train and railroad infrastructure of the country is not on par with the increasing role of the port. Some improvement works are proceeding slowly.
Maritime clusters	The port has reached such an importance that constitutes a cluster per se.	Slovenia's coastal area is too small to give rise to a robust cluster apart from the port itself. Lack of critical mass to compete with larger clusters
Education, training and skills	Adequate training policies are also in place. The University of Ljubljana offers specialised courses.	Education level still not on par with EU's best practices
Maritime spatial planning	Much attention is placed on traffic separation schemes. Competition from other sectors is not to be considered dangerous. EU pressure on the need for MSP and ICZM will probably lead to the adoption and implementation of specific and better focused MSP and ICZM plans.	Not regulated specifically
Integrated local development	The Port of Koper constitutes an important source of development. The development pattern is having great impact on the local context, in line with EU best practices	The expansion of the port activities risk endangering other sectors related to the sea. No barriers identified
Public engagement	Very high level of public engagement. National level of engagement in line with EU best practices	A potential barrier could be seen in the fact that short-sea shipping has now reached a satisfactory level of development in the country, and policy makers may consequently decide to move their attention to less developed sector.

Table 10 - Growth drivers and barriers to growth for Coastal tourism

COASTAL TOURISM	Growth drivers	Barriers to growth
Maritime research	There are some universities working and carrying out research on tourism in Coastal Karst.	Other Universities abroad have a more established research tradition in coastal tourism.
Development and innovation	Coastal tourism is a very mature sector. A brand has been created "I Feel SLOVEnia" to increase the recognisability of the country as a tourist destination. This is common to several EU best practices. Much attention is placed on sustainability.	Strong competition from Italy and Croatia is a challenge whose outcome is difficult to foresee. Integrated promotion of the territory is lagging behind with respect to EU best practices. Inconsistent use of the brand
Access to finance	Several investments opportunities sponsored by the government. SPIRIT, a dedicated agency has been established to support business and facilitate access to finance	Despite the institutional effort, the total amount of resources for national investors remains limited. Both national and foreign investors may be tempted to invest in more profitable markets with a faster and higher return.
Smart infrastructure	Good endowment of environment-friendly accommodations. The port infrastructure is adequate to the size of the coastal areas	Insufficient airport infrastructure.
Maritime clusters	The Koper port is believed to be a cluster per se. Although this mainly affects cruise tourism, it has a positive impact on coastal tourism as well.	There is not a proper maritime cluster
Education, training and skills	There are universities with specialised courses (even post-graduate) in tourism and coastal tourism	The minimum wage system in force in Slovenia envisages very low wages for employees in the tourism sector. This is a disincentive for qualified people to work in it.
Maritime spatial planning	No drivers identified	MSP/ICZM is not specifically regulated. Slovenia has a small coastline, and it is not easy to find a proper balance between competing uses of a very limited shared sea. This is a problem particularly when it comes to coastal tourism and maritime transport (both deep-sea and short-sea) which are both considered very important.
Integrated local development	Coastal tourism is fostering integrated local development in that it is creating a whole related industry in Coastal Karst (restaurants, sports, leisure, etc.), also causing important migration phenomena from the inland to the coast. In addition, important synergies could be established with Fisheries Local Action Groups	Tourism policies/strategies put much emphasis on non-coastal areas.
Public engagement	Strong public engagement. A Slovenian Tourist Board has been established	Much emphasis is placed on non-coastal areas. Inefficient inter-ministerial coordination.

Table 11 - Growth drivers and barriers to growth for Deep-sea shipping

DEEP-SEA SHIPPING	Growth drivers	Barriers to growth
Maritime research	The port of Koper has its own study centre, where research activities on the sector are carried out. Local universities are also involved in maritime research on deep-sea shipping.	Competition from more established Universities and research institutions.
Development and innovation	Deep-sea shipping is a mature sector and can therefore count on established mechanisms.	Mature sector, not much further innovation can be expected. Lower performances expected due to the economic crisis
Access to finance	Luka Koper (management company of the port) has excellent operating results, and access to finance should be relatively easier for them.	Limited resources compared to the ports in Northern Europe
Smart infrastructure	Great attention placed on environment. Infrastructure compatible with the dimension of the port and of the country	The train and railroad infrastructure of the country is not on par with the increasing role of the port. Some improvement works are proceeding slowly.
Maritime clusters	The port has reached such an importance that constitutes a cluster per se.	Slovenia's coastal area is too small to give rise to a robust cluster apart from the port itself. Lack of critical mass to compete with larger clusters
Education, training and skills	Adequate training policies are also in place. The University of Ljubljana offers specialised courses.	Education level still not on par with EU's best practices
Maritime spatial planning	Much attention is placed on traffic separation schemes. Competition from other sectors is not to be considered dangerous. EU pressure on the need for MSP and ICZM will probably lead to the adoption and implementation of specific and better focused MSP and ICZM plans.	Not regulated specifically
Integrated local development	The Port of Koper constitutes an important source of development. The development pattern is having great impact on the local context, in line with EU best practices	The expansion of the port activities risk endangering other sectors related to the sea. No barriers identified
Public engagement	Very high level of public engagement. National level of engagement in line with EU best practices	A potential barrier could be seen in the fact that deep-sea shipping has now reached a satisfactory level of development in the country, and policy makers may consequently decide to move their attention to less developed sector.

Table 12 - Growth drivers and barriers to growth for Cruise tourism

CRUISE TOURISM	Growth drivers	Barriers to growth
Maritime research	Opportunities could be found in liaising with Italian universities, which have an established tradition in the field.	Research in the sector is not significant.
Development and innovation	The sector is not innovative per se in Slovenia. It can be regarded as an innovation, in that Slovenia was not a cruise destination until a few years ago, while it has experienced a boost in the recent years. Proximity with more popular cruise destinations may be an advantage for Slovenia.	The country lags behind in terms of attractiveness for cruise tourists. It has to be understood, whether the recent trend can be maintained in the future, or traditional cruise destinations will prevail.
Access to finance	As for maritime transport, it should be noted that the Port of Koper has excellent operating results and should not have particular difficulties in accessing credit, despite the financial crisis.	There are no Slovenian cruise companies. The major players are all from other countries, and therefore there is no adequate public financial support especially in comparison with other countries.
Smart infrastructure	The port of Koper is building a passenger terminal.	The infrastructure level is still insufficient compared with other cruise destinations.
Maritime clusters	Cruise tourism can build on the synergies established in the Koper area.	There is no proper cluster.
Education, training and skills	Not particularly high education standards are required for the nature of the business in Slovenia.	No barriers identified.
Maritime spatial planning	Much attention is placed on traffic separation schemes. EU pressure on the need for MSP and ICZM will probably lead to the adoption and implementation of specific and better focused MSP and ICZM plans.	MSP and ICZM are not specifically regulated.
Integrated local development	Cruise tourism establishes synergies with the Hotel & Restaurant sector, as well as with the culture industry. Slovenia is becoming popular to a target of tourists that were previously not interested in it.	Lack of coordination between the actors limits local development. The concept of "port city", which could foster integrated local development is far from being implemented.
Public engagement	Port Authorities have incentives to develop activities and adopt environmental responsible practices	Lack of a dedicated strategy. Foreign markets receive stronger support.

Marine aquaculture

Please refer to chap. 0 above.

6. Analysis of maritime strategies at regional and national level, as well as those under preparation and their links with Smart Specialisation Strategies

Slovenian strategies will be presented only at national level, since the central government is responsible for their implementation. There is no official intermediate unit between the municipalities and the Republic of Slovenia. “Short-sea shipping and deep-sea shipping”, and “Coastal tourism and cruise tourism” have been presented together, because no separate strategies for each of these activities have been detected.

Blue biotechnology

The Research and Innovation Strategy of Slovenia (RISS) is the key strategic and political document of the Slovenian policy on research and innovation. It is currently being implemented by the Ministry of Education, Science, Culture and Sport in collaboration with the Ministry of Economic Development and Technology and other relevant stakeholders, who have contributed to the development of the program. No documents are specifically devoted to Marine Biotechnology. A strategic document titled International Challenges 2013 - Partnership to promote international cooperation is currently in the process of being approved by the government. The document sets the priority economic sectors for international cooperation, among them also biotechnology (others of interest include biomedicine, energy and environmental technologies, advanced material and technology, nanotechnology).

Key objectives defined in International Challenges 2013 are:

- coordinated activity of all government institutions in the field of international guidance and promotion of the Slovenian economy;
- increase the growth of Slovenian exports abroad;
- increase the number of entries of Slovenian enterprises in new foreign markets and increase the share of total exports in chosen priority markets;
- increase the number of exporters, especially in markets outside the former Yugoslavia and the European Union;
- increase the recognition of Slovenia as a location of opportunity for foreign investment and reduce barriers in the field of foreign investments;
- increase foreign direct investment in Slovenia to 33% of GDP

Therefore there are no specifically dedicated marine biotechnology strategies, plans or policies being implemented in Slovenia. Nevertheless relevant research projects that de facto are setting the strategy are carried out at the Marine Biology Station based in Piran in the following fields: coastal sea, marine debris removal and prevention, remote surveillance of toxins and pollutants, the study of biological phenomena, jellyfish blooms mechanisms and mitigation and the possibilities for commercial use, sustainable aquaculture, ecological interactions in the North Adriatic sea.

Short-sea shipping and deep-sea shipping

Two documents should be taken into consideration: the Resolution on the Transport Policy of the Republic of Slovenia (RePPRS), and the Five-year Strategic Plan of Luka Koper and the Luka Koper Group, published in 2011. Albeit being the strategy of a company, it is worth considering the strategy devised by Koper Group because the managing company is public (51% owned by the State), and because of the pivotal role that the port of Koper plays when it comes to maritime transport in Slovenia.

The RePPRS recognizes that transport represents the basis for the economic development of Slovenia, given the comparable advantage constituted by its geographic position, defined as “the Mediterranean Sea protruding into the heart of Europe”. The Policy intends to reinforce the role of maritime transport in Slovenia by enhancing the necessary infrastructure that could favour intermodality, especially with reference to rail transport, which is considered comparably less competitive than road transport. The RePPRS also specifically address the infrastructural improvement of the Port of Koper, as well as the importance for Slovenia to take advantage from “Motorways of the Seas” and TEN-T, an issue that has

received particular attention in the country, and from which Slovenian maritime transport has taken great benefit. The Policy also makes a specific point about maritime transport safety.

Luka Koper's strategy sets the aim for the Port of Koper to become the leading port operator and global logistics solution provider serving the countries of Central and Eastern Europe. The main objectives are to increase the annual cargo throughput (21,4 million tonnes by 2015), preserving the port's multipurpose character, and focus on RO-RO transport and project cargos (the latter being connected to the focus placed on short-sea shipping and "Motorways of the Sea). Important points are made in terms of integrating Koper within European transport corridor initiatives and priority infrastructural projects, participating in international networks (NAPA, ESPO, FEPORT etc.), eliminate bottlenecks on the railway network, introducing new measures to guarantee the protection of the environment.

Coastal and cruise tourism:

Pursuant to Article 5 of the Promotion of Tourism Development Act (Official Gazette of the Republic of Slovenia, No. 2/04), the Ministry of Economic Development and Technology prepared the "2012-2016 Strategy for the Sustainable Development of Slovenian Tourism". The key strategic document in the field of tourism development sets out the role and the importance of individual stakeholders in this field, defining them as true bearers or participating parties in the implementation of particular tasks. Due to small length of national coastline the country strategy is not set to coastal tourism but a certain importance to the cruise tourism is recognised. Based on the guidelines in the previous strategic period, cruise tourism is again a core area (among others) of the tourist offer. The general objective of the Development Strategy for Slovenian Tourism is to increase the volume of tourist activity (tourist traffic: revenues and profits from catering and tourist activities, number of tourists, number of overnight stays) as follows:

- number of overnight stays: 2% (annual rate of growth);
- number of tourists: 4% (annual rate of growth);
- receipts from the export of travel: 6-8% (annual rate of growth).

Three development areas have been identified, whereby the task of the national tourism strategy is to achieve synergy between all of them highlighting the sustainable concept of tourism:

- increase competitiveness
- favorable business environment
- efficient and innovative marketing

Table 13 - Policies/interventions towards most promising marine and maritime activities and the Blue Growth objectives

Level	Strategies	Objectives	Most relevant and promising maritime economic activities	Links to BG Objectives	
National	Research and Innovation Strategy of Slovenia 2011-2020	<ul style="list-style-type: none"> - Better exploitation of national research infrastructure - Upgrading and constructing new research infrastructure in priority areas - International integration upon accessing larger research infrastructure 	Blue biotechnology	Provider of mass-market products High added value specialised products	Blue biotechnology
National	Transport Policy of the Republic of Slovenia	<ul style="list-style-type: none"> - Increased transport safety and protection - Efficient energy consumption and clean environment - Providing necessary infrastructure for maritime transport development - Increase the number of Slovenian maritime staff - Promoting intermodality 	Short-sea shipping		
			Deep-sea shipping		
National	Five-year Strategic Plan of Luka Koper	<ul style="list-style-type: none"> - Increase cargo throughput - Strengthening the port's role in Mediterranean maritime trade - Develop new knowledge and abilities - Integration within European transport corridor initiatives - Environmental protection 	Short-sea shipping		
			Deep-sea shipping		
National	2012-2016 Slovenian Tourism Development Strategy	<ul style="list-style-type: none"> - Facilitate the increase of competitiveness - Provide a favourable business environment - Efficient marketing and promotion of Slovenia 	Coastal tourism	Healthy environment Increase the growth potential of activities Increase the attractiveness of coastal areas	Maritime, coastal and cruise tourism
			Cruise tourism		

What emerges from the table is that Slovenia's overall maritime policy is only partially focused on Blue Growth priority areas. This is mainly due to the fact that some of the priority areas are addressed by maritime activities that are not particularly developed in Slovenia. Aquaculture, for instance, does not represent a remarkable source of growth and employment, although the situation could probably change in the near future. On the other hand, Blue Energy, and Marine and mineral resources do not constitute a source of income at all, simply because Slovenia lacks some of the physical preconditions for the development of these activities.

On a second note, it should also be noted that Slovenia's maritime transport strategies seem well structured, and address the main issues of the sector, also paying attention to crucial areas such as protection of the environment, maritime safety, and integration into EU networks.

It has not been possible to assess the strategy "International Challenges 2013 - Partnership to promote international cooperation", addressing inter alia "blue biotechnology", because the document is still under preparation.

Table 14 - Policies/interventions towards most promising marine and maritime activities and the Smart Specialisation Strategies⁴

Level	Strategies	Objectives	Most relevant and promising maritime economic activities	Links to Smart Specialisation Strategies
National	Research and Innovation Strategy of Slovenia 2011-2020	<ul style="list-style-type: none"> - Better exploitation of national research infrastructure - Upgrading and constructing new research infrastructure in priority areas - International integration upon accessing larger research infrastructure 	Blue biotechnology	Clusters; Innovation friendly business environments for SMEs; Research infrastructures, centres of competence and science parks; Key enabling technologies; Internationalisation; Financial engineering instruments; Green growth.
National	Transport Policy of the Republic of Slovenia	<ul style="list-style-type: none"> - Increased transport safety and protection - Efficient energy consumption and clean environment - Providing necessary infrastructure for maritime transport development - Increase the number of Slovenian maritime staff - Promoting intermodality 	Short-sea shipping	Innovation friendly business environments for SMEs; Internationalisation.
			Deep-sea shipping	
National	Five-year Strategic Plan of Luka Koper	<ul style="list-style-type: none"> - Increase cargo throughput - Strengthening the port's role in Mediterranean maritime trade - Develop new knowledge and abilities - Integration within European transport corridor initiatives - Environmental protection 	Short-sea shipping	Innovation friendly business environments for SMEs; Internationalisation.
			Deep-sea shipping	
National	2012-2016 Slovenian Tourism Development Strategy	<ul style="list-style-type: none"> - Facilitate the increase of competitiveness - Provide a favourable business environment - Efficient marketing and promotion of Slovenia 	Coastal tourism	Innovation friendly business environments for SMEs; Cultural and creative industries; Internationalisation; Green growth; Social innovation;
			Cruise tourism	

⁴ Smart Specialisation Strategies (S3) used for this logical analysis have been defined on the basis of the S3 horizontal approaches (or RIS horizontal priorities), as defined in the Guide to Research and Innovation Strategies for Smart Specialisation, available at http://s3platform.jrc.ec.europa.eu/en/c/document_library/get_file?uuid=e50397e3-f2b1-4086-8608-7b86e69e8553. See the Country fiche guide for more details at <http://www.cogeaspa.it/blue-growth-study/country-fiches/?lang=en>

The table shows that when it comes to Smart Specialisation Strategies, the selected maritime activities in Slovenia differ substantially. On the one hand, Blue biotechnology (which however, albeit covered on a more general level, is not expressly mentioned in the strategy taken into consideration) seems to address several areas of Smart Specialisation Strategies. On the other hand, maritime transport and tourism strategies are involved in Smart Specialisation Strategies to a lesser extent. This can partly be attributed to intrinsic differences between emerging and traditional sectors, with the former being naturally inclined towards Smart Specialisation Strategies. It is worth mentioning, however, that when it comes to coastal tourism, in recent years Slovenia has been working to develop a tourist offer more oriented towards elite tourism, sustainability and innovation. Much of the effort, however, has been focused on internal areas, also in light of the fact that coastal areas are only a small portion of the whole Slovenian territory.

Sources and references

This Country fiche has been compiled according to a common methodology adopted in the framework of this Study and more specifically in Task 2.

A “Country fiche Guide” and a detailed methodology (“*Methodology for identifying and estimating Maritime Economic Activities using NACE and other data*”) are available at <http://www.cogeaspa.it/blue-growth-study/country-fiches/?lang=en>

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