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Consulenze per la Gestione Aziendale

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Contents

1. Selection of the most important NUTS 2 regions 3
2. Indicative size of all marine and maritime activities 5
3. Relative growth of all marine and maritime activities 7
4. Assessment of future potential for all marine and maritime activities 9
5. Growth drivers and barriers to growth 10
5.1 Results of the benchmark analysis 10
5.2 SWOT analysis 13
6. Maritime strategies 25
7. Background information 26

1. Selection of the most important NUTS 2 regions

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

The three sectors are:

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

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

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

- **Water transport**: the number of persons employed of the NUTS 2 in question has been divided by the total number of persons employed in the related country; the result has been multiplied by 10.
- **Coastal tourism**: the number of bed places of the coastal area in the NUTS 2 in question has been divided by the total number of bed places of the coastal area in the related country; the result has been multiplied by 10;
- **Fishing**: the total GT of the NUTS 2 in question has been divided by the total GT in the related country; the result has been multiplied by 10.
- **Aquaculture:** income of aquaculture sector byNUTS2 has been divided by the total income generated by aquaculture in the related country; the result has been multiplied by 10.

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

Table 1 - Definition of the maritime economic dimension for coastal regions in BULGARIA

	Water transport (loads) *Thousand tons*	Coastal tourism (bed places in coastal NUTS 3) *Thousand*	Fishing (Gross Tonnage)	Aquaculture (GVA)
Yugoıztochen	12.822	101.627	3,73	0,11
Severoiztochen	10.125	80.953	2,66	0,11
TOTAL	**22.947**	**182.580**	**6**	**0,22**

[1]Source: P. Salz, 2007, Regional dependency on fisheries

Table 2 - Ranking order of coastal NUTS 2 regions in BULGARIA

	Water transport	Coastal tourism	Fishing	Aquaculture	TOTAL
Yugoiztochen	5,59	5,57	5,84	5,00	21,99
Severoiztochen	4,41	4,43	4,16	5,00	18,01

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

2. Indicative size of all marine and maritime activities

Table 3 - Indicative size of all marine and maritime activities

Function/activity		GVA (EUR, billion)	Employment (*1000)	Score	Source & Reference year
0. Other sectors					
0.1	Shipbuilding and ship repair	0,0647	5,983	3,64	*EUROSTAT(2010)*
0.2	Water projects	0,0601	3,627	2,41	*EUROSTAT(2010)*
1. Maritime transport					
1.1	Deep-sea shipping	0,018	1,498	0,93	*EUROSTAT(2010)*
1.2	Short-sea shipping (incl. Ro-Ro)	0,0832	6,917	4,29	*EUROSTAT(2010)*
1.3	Passenger ferry services	0,0003	0,920	0	*EUROSTAT(2010)*
1.4	Inland waterway transport	0,078	2,618	2,09	*EUROSTAT(2010)*
2. Food, nutrition, health and eco-system services					
2.1	Fishing for human consumption	0,0653	14,660	7,98	*EUROSTAT (2010) Prodcom (2010) Joint Research Centre (2012)*
2.2	Fishing for animal feeding	0	0	0,00	*EUROSTAT (2010) Prodcom (2010) Joint Research Centre (2012)*
2.3	Marine aquaculture	0,0002	0,218	0,11	*EUROSTAT (2010) Joint Research Centre (2013)*
2.4	Blue biotechnology	N/A	N/A	N/A	*EUROSTAT(2010)*
2.5	Agriculture on saline soils	0,03	N/A	0,30	*EUROSTAT(2010) The Saline and Sodic Soils Map, Joint Research Centre (2010)*
3. Energy and raw materials					
3.1	Offshore oil and gas	0,0057	0,025	0,07	*EUROSTAT(2010)*
3.2	Offshore wind	0	0	0	*European Wind Energy Association (2012)*
3.3	Ocean renewable energy	0	0	0	*EUROSTAT(2010)*
3.4	Carbon capture and storage	0	0	0	*EUROSTAT(2010)*
3.5	Aggregates mining (sand, gravel, etc.)	N/A	N/A	N/A	*European Aggregates Association (2012)*
3.6	Marine minerals mining	0	0	0	*EUROSTAT (2010)*
3.7	Securing fresh water supply (desalination)	0	0	0	*Global Water Intelligence (2011)*
4. Leisure, working and living					
4.1	Coastal tourism	0,7694	109,519	62,45	*EUROSTAT (2010)*
4.2	Yachting and marinas	N/A	0,8	0,04	*Executive Agency Maritime Administration (2011)*
4.3	Cruise tourism	0,0018	2,475	1,27	*EUROSTAT (2010)*
4.4	Working	N/A	N/A	N/A	

Function/activity		GVA (EUR, billion)	Employment (*1000)	Score	Source & Reference year
4.5	Living	N/A	N/A	N/A	
5. Coastal protection					
5.1	Protection against flooding and erosion	0,0002[2]	1	0,50	*European Commission (2009): The economics of climate change adaptation in EU coastal areas Basin Directorate for the Black Sea Region (2013)*
5.2	Preventing salt water intrusion	0,0002[1]	0,15	0.,08	*Ministry of Environment and Water (2012)*
5.3	Protection of habitats	0,0005[1]	0,5	0,26	*Ministry of Environment and Water (2012)*
6. Maritime monitoring and surveillance					
6.1	Traceability and security of goods supply chains	0,025[1]	1	0,75	*Executive Agency Maritime Administration (2011)*
6.2	Prevent and protect against illegal movement of people and goods	0,01[1]	1	0,60	*Interior Ministry (2012)*
6.3	Environmental monitoring	0,061[1]	0,6	0,91	*Ministry of Environment and Water (2013) EUROSTAT(2010)*

Note: N/A –data not available; 0- sub-function is not presented

[2]Public expenditure

3. Relative growth of all marine and maritime activities

Table 4 - Relative growth of all marine and maritime activities

Function/activity		GVA (CAGR, %)	Employment (CAGR, %)	Score	Source & Reference year
0. Other sectors					
0.1	Shipbuilding and ship repair	-13,75	-10,65	-12,20	*EUROSTAT (2010)*
0.2	Water projects	4,16	-11,12	-3,48	*EUROSTAT (2010)*
1. Maritime transport					
1.1	Deep-sea shipping	-7,53	-13,04	-10,28	*EUROSTAT(2010)*
1.2	Short-sea shipping (incl. Ro-Ro)	3,38	-2,78	0,30	*EUROSTAT(2010)*
1.3	Passenger ferry services	0	0	0	*EUROSTAT(2010)*
1.4	Inland waterway transport	-14,19	-3,63	-8,91	*EUROSTAT(2010)*
2. Food, nutrition, health and eco-system services					
2.1	Fishingfor human consumption	0,72	15,97	8,34	*EUROSTAT (2010) Prodcom (2010) Joint Research Centre (2012)*
2.2	Fishingfor animal feeding	0	0	0	*EUROSTAT (2010) Prodcom (2010) Joint Research Centre (2012)*
2.3	Marine aquacultures	0	-43,59	-21,80	*EUROSTAT (2010) JointResearch Centre (2013)*
2.4	Blue biotechnology	N/A	N/A	N/A	*EUROSTAT(2010)*
2.5	Agriculture on saline soils	-12.29	N/A	N/A	*EUROSTAT(2010)*
3. Energy and raw materials					
3.1	Offshore oil and gas	67,65	-1,87	32,89	*EUROSTAT(2010)*
3.2	Offshore wind	0	0	0	*European Wind Energy Association (2012)*
3.3	Ocean renewable energy	0	0	0	*EUROSTAT(2010)*
3.4	Carbon capture and storage	0	0	0	*EUROSTAT(2010)*
3.5	Aggregates mining (sand, gravel, etc.)	N/A	N/A	N/A	*European Aggregates Association (2012)*
3.6	Marine minerals mining	0	0	0	*EUROSTAT(2010)*
3.7	Securing fresh water supply (desalination)	0	0	0	*Global Water Intelligence (2011)*
4. Leisure, working and living					
4.1	Coastal tourism	-0,55	-0,27	-0,41	*EUROSTAT (2010)*
4.2	Yachting and marinas	N/A	N/A	N/A	*Executive Agency Maritime Administration (2011)*
4.3	Cruise tourism	5,88	5,17	5,53	*EUROSTAT (2010)*
4.4	Working	N/A	N/A	N/A	
4.5	Living	N/A	N/A	N/A	
5. Coastal protection					

Function/activity		GVA (CAGR, %)	Employment (CAGR, %)	Score	Source & Reference year
5.1	Protection against flooding and erosion	N/A	N/A	N/A	*European Commission (2009): The economics of climate change adaptation in EU coastal areas Basin Directorate for the Black Sea Region (2013)*
5.2	Preventing salt water intrusion	N/A	N/A	N/A	*Ministry of Environment and Water (2012)*
5.3	Protection of habitats	N/A	N/A	N/A	*Ministry of Environment and Water (2012)*
6. Maritime monitoring and surveillance					
6.1	Traceability and security of goods supply chains	N/A	N/A	N/A	*Executive Agency Maritime Administration (2011)*
6.2	Prevent and protect against illegal movement of people and goods	N/A	N/A	N/A	*Interior Ministry (2012)*
6.3	Environmental monitoring	0,76	0	0,38	*Ministry of Environment and Water (2013) EUROSTAT(2010)*

Note: N/A –data not available; 0- sub-function is not presented

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

Table 5– Assessment of future potential for all marine and maritime activities

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

5. Growth drivers and barriers to growth

5.1 Results of the benchmark analysis

COASTAL TOURISM[3]	Growth drivers	Barriers to Growth
Maritime research	Two main universities and one college work on the maritime research - University of Economics, Varna; University of National and World Economy, Sofia and Tourism College, Varna.	Funding for maritime research below the EU average.
Development and innovation	Development and innovation level is close to appropriate sector standards in the country.	Product uniformity and territorial concentration of services.
Access to finance	Average debt of the sector is low.	Interest rates of loans higher than average in the EU.
Smart infrastructure	Close to sector standards.	Not enough quality and uneven distribution of SI in the sector.
Maritime clusters	Tourism Cluster Varna exists.	Most companies are too competitive to form sustainable clusters.
Education, needs in training and skills	Education and training are of good quality, close to EU standards in the sector.	Qualified work force not evenly distributed in the maritime region.
Maritime spatial planning	-	-
Integrated local development	Long traditions, high level of employment in the maritime area related to coastal tourism.	Conflicting interests with environmentalists.
Public engagement	Good level of public engagement, sector is mostly private.	Political influence (interests) is possible.

OFFSHORE OIL AND GAS[4]	Growth drivers	Barriers to Growth
Maritime research	University of Mining and Geology St. Ivan Rilski, Sofia, has a tradition of maritime research.	Funding for the maritime research below EU standards.
Development and innovation	Mature technologies are exploited by the private companies.	Competition with renewable energy projects. Limited natural resources.
Access to finance	The debt of the sector is lower than average in the country.	Crisis in bank sector (mainly at the EU level).
Smart infrastructure	-	No barriers identified.
Maritime clusters	-	-
Education, needs in training and skills	Corresponds to EU standards.	Low salaries in the sphere of education.
Maritime spatial planning	-	-
Integrated local development	Contribute to higher living standards in the maritime area	Environmental regulations are needed.
Public engagement	Good level of public engagement related to the sector in the coastal area.	Administrative barriers and political influence for concessions are possible.

[3]The benchmark instance identified is: "Coastal tourism in Sardinia region"
[4]The benchmark instance identified is "Extraction of offshore oil and gas in the Scottish North sea"

FISHING FOR HUMAN CONSUMPTION[5]	Growth drivers	Barriers to Growth
Maritime research	Three research institutes and several universities provide good level of maritime research.	Funding for the maritime research lower than average in the EU.
Development and innovation	Standards of innovation in fish industry close to the EU average.	Lower than average rate of penetration of innovations in the fishing sector.
Access to finance	-	Administrative difficulties through the entire process – from evaluation to funding.
Smart infrastructure	Below the appropriate sector standards.	Level of implementation of SI - below the EU average.
Maritime clusters	-	-
Education, needs in training and skills	Well educated high and middle level of the work force.	Low salaries in the sphere of education.
Maritime spatial planning	6 marine protected areas (extended to 50 m) and 9 marine NATURA 2000 sites (extended to 20 m depth) help to protect fish stocks.	The marine spatial planning is in its initial phase in Bulgaria and needs further investments and administrative capacity.
Integrated local development	Demands and markets for fish and fish products are increasing at national and regional levels.	The salaries in the sector and sector GVA are lower than average in the EU.
Public engagement	Increased interest in marine environment and in the status of fish resources in the EU.	The stakeholders not very active.

SHORT –SEA SHIPPING[6]	Growth drivers	Barriers to Growth
Maritime research	Four Technical Universities and 5 training centres provide good quality of MR for short-sea shipping sector.	Funding of maritime research for short-sea shipping is below the EU standards.
Development and innovation	Innovation projects of ports are in process of implementation.	Insufficient investments for maintenance and development ofport infrastructure.
Access to finance	Sector profit is good; private sector relays mostly on bank funding; national funding is available for state–owned ports.	The funding priorities for the period 2014-2020 are not clear.
Smart infrastructure	Smart infrastructure implementation increases the employment level in maritime area.	No barriers are identified.
Maritime clusters	-	-
Education, needs in training and skills	Education close to EU standards.	Low salaries in the sphere of education.
Maritime spatial planning	-	-
Integrated local development	Short-sea shipping contributes to the environment, the economy and the society.	Economic fluctuations in the country and in the EU.
Public engagement	-	The stakeholders' communication needs improvement.

[5]The benchmark instance identified is "Fishing for human consumption in the Shetland Islands"
[6]The benchmark instance is "Short-sea shipping in the Netherlands"

INLAND WATERWAY TRANSPORT[7]	Growth drivers	Barriers to Growth
Maritime research	Four Technical Universities and 5 training centres provide good level of maritime research for inland water transport.	Reduction of candidates for acquisition of competence in the field of inland water transport.
Development and innovation	Innovation level below EU standards.	Outdated fundamental and transshipmentmechanical facilities.
Access to finance	Similar to the standard EU funding procedures.	Interest rates of loans, when used, higher than average in the EU.
Smart infrastructure	-	Not enough quality for implementation of smart infrastructure in inland water transport.
Maritime clusters	-	-
Education, needs in training and skills	Quality of education is close to EU standards.	Low salary in the sphere of education.
Maritime spatial planning	-	-
Integrated local development	Links with European channel river shipping system by the Danube River.	No barriers identified.
Public engagement	Connections with Pan-European Transport Corridor VII.	The navigation on the inland waterways is weakly spread in the public.

WATER PROJECTS[8]	Growth drivers	Barriers to Growth
Maritime research	Four technical universities and 5 training centers provide good level of maritime research.	Funding of the maritime research is below the average in the EU.
Development and innovation	Many new ports infrastructures are already developed in Varna and Bourgas, some of the critical navigational sectors in the Bulgarian part of the River Danube are improved.	Delays in implementation of water projects in relation to economic crisis effects. Low penetration of innovations in small cities.
Access to finance	The Cohesion Fund provides many opportunities for funding of water projects for ports maintenance and attending activities.	The number of projects implemented in the maritime area through the Cohesion Fundis not high.
Smart infrastructure	Smart infrastructure implementation is increasing.	Quantity and quality below the EU level.
Maritime clusters	-	-
Education, needs in training and skills	Quality of education is good compared with EU standards.	Low salaries in the sphere of education.
Maritime spatial planning	-	-
Integrated local development	Improved life quality in the coastal regions through implementation of water projects.	Lack of marine spatial planning and well developed Integrated coastal zone management in Bulgaria .Water projects are concentrated in main cities.
Public engagement	Sufficient average level of public engagement related to environmental issues and water projects.	The level of public engagement related to environmental issues and water projects is not high.

[7]The benchmark instance identified is “Inland water way transport in Belgium”
[8]The benchmark instance identified is “Water projects in Belgium”

5.2 SWOT analysis

Coastal tourism			
Maritime Research			
Strengths	There are two main universities and one college that work on this maritime sector, University of Economics, Varna; University of National and World Economy, Sofia and Tourism College, Varna, andprovide a good base for R&D in the sector.	Weaknesses	Not enough national and private funding of R&D in this sector.
Opportunities	The sector is very important for the maritime area and has been the subject of research and analysis since many years, providing long-term trends and observations.	Threats	No threats are identified related to this sector R&D.
Development and innovation			
Strengths	Well developed tourism infrastructure exists in the maritime area.	Weaknesses	The quantities and qualities of services are not evenly distributed in maritime area. Product diversification is low and alternative tourism forms are not very well presented.
Opportunities	The dominance of private investment in the coastal tourism sector gives opportunities for incentives, development and innovations.	Threats	The quality of the services is not good enough.
Access to finance			
Strengths	The main source of funding is banks and the Operational Programme “Regional Development”.	Weaknesses	The Operational Programme “Regional development” is a national programme and no special funding for the coastal regions is envisaged.
Opportunities	The banks are very active, providing funding for this sector.	Threats	Interest rates of loans higher than average in EU.
Smart infrastructure			
Strengths	Becoming more common.	Weaknesses	Smart infrastructure implementation not evenly distributed.
Opportunities	Provide new opportunities for sector development and employment.	Threats	Insufficient quantity and quality of implementation of smart infrastructure.
Maritime clusters			
Strengths	Tourism Cluster Varna exists.	Weaknesses	
Opportunities	–	Threats	Most companies are too competitive to form sustainable clusters.

Coastal tourism			
Education, training and skills			
Strengths	General work force has good education.	Weaknesses	Qualified work force not evenly distributed.
Opportunities	There are two main universities and one college that work on this maritime sector, University of Economics, Varna; University of National and World Economy, Sofia and Tourism College, Varna, and provide a good base for R&D in the sector.	Threats	No significant threats.
Maritime spatial planning/Integrated Coastal Zone Management			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Integrated local development			
Strengths	The sector largely contributes to employment in maritime area.	Weaknesses	Conflicting interests between environmentalists and private hotel owners.
Opportunities	The sector is of priority importance in Bulgaria.	Threats	Most of the hotel infrastructure is private but fall into the "grey" economy.
Public engagement			
Strengths	The adopted "National Strategy for Sustainable development of Tourism in the Republic of Bulgaria 2009 – 2013" contributes to the sector development and public engagement.	Weaknesses	Impact on the environment could be large.
Opportunities	The public is generally well informed and active when problems concerning coastal tourism are discussed.	Threats	Political influence is possible (hotel buildings at protected areas etc).

Offshore oil and gas			
Maritime Research			
Strengths	University of Mining and Geology St. Ivan Rilski, Sofia, has a long tradition in maritime research.	Weaknesses	Not enough national and private funding for maritime research.
Opportunities	Increasing demand for research in the sector.	Threats	Declining natural reserves.
Development and innovation			
Strengths	Presence across the entire oil and gas value chain (exploration, development and production).	Weaknesses	Not enough funding for innovations.
Opportunities	Increasing natural gas business and strong demand for sector innovations.	Threats	Economic slowdown in the EU and USA.
Access to finance			
Strengths	The private companies, operating in the sector, are multinational and international and are well funded.	Weaknesses	Interest rates on loans higher than average due to higher risks.
Opportunities	Strategic re-focus of bank products.	Threats	Economic slowdown in the EU.
Smart infrastructure			
Strengths	The strategic geographical position of Bulgaria provides many benefits for development of infrastructure.	Weaknesses	Limited natural resources.
Opportunities	Growing demands of the sector.	Threats	No threats identified.
Maritime clusters			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Education, training and skills			
Strengths	University of Mining and Geology St. Ivan Rilski, Sofia, provides good level of education and training.	Weaknesses	Low salaries at the sphere of education.

Offshore oil and gas			
Opportunities	The growing demand of oil and gas stimulate education related to the sector.	Threats	Aging staff at educational centres.
Maritime spatial planning/Integrated Coastal Zone Management			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Integrated local development			
Strengths	The sector contributes to higher living standards in coastal region.	Weaknesses	Environmental regulations need better practical implementation.
Opportunities	The sector is of strategic importance in Bulgaria.	Threats	Environmental impact can be significant.
Public engagement			
Strengths	The “Energy Strategy of Republic of Bulgaria till year 2020” ensures good level of public engagement.	Weaknesses	Administrative barriers for concessions are possible.
Opportunities	Strong competition between private companies to operate in the sector.	Threats	Political influence for concessions is possible.

Fishing for human consumption			
Maritime Research			
Strengths	Three main scientific institutions (Institute of Fish Resources, Varna, Institute of Oceonology, Sofia, Institute of Biodiversity and Ecosystem research, Sofia) and many universities ensure a high level of MR	Weaknesses	Not enough national and private funding for the maritime research.
Opportunities	Communication between the different parts of the value chain can be improved.	Threats	Aging scientific staff.
Development and innovation			
Strengths	The fish industry sector is modernised.	Weaknesses	Sector is rather conservative as regards D&I, especially the fishing sector,
Opportunities	EU funding is available for D&I,	Threats	Aging fleet, not enough level of D&I in the fishing sector,
Access to finance			
Strengths	The EEF is the main source for funding through the Operational Programme “Fisheries”.	Weaknesses	Low number of projects under the operational programme “Fisheries”.
Opportunities	The EMFF will provide funding in the period 2014-2020.	Threats	Administrative barriers during evaluation and funding process.
Smart infrastructure			
Strengths	Some elements of mart infrastructure already exist - for example fish fleet information system.	Weaknesses	The sector is conservative as regards smart infrastructure.
Opportunities	The entire value chain (fishing-fish industry-market-export) is well presented in the country and could be subject of SI implementation.	Threats	Not enough investments.
Maritime clusters			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Education, training and skills			
Strengths	Several universities and training centres exist in the country, providing good education for high and middle level staff.	Weaknesses	Not enough new investments for education.

Fishing for human consumption			
Opportunities	The increasing demands and markets stimulate.	Threats	The sector include work force with low education.
Maritime spatial planning/Integrated Coastal Zone Management			
Strengths	6 marine protected areas (extended to 50 m) and 9 marine NATURA 2000 sites (extended to 20 m depth) help to protect fish stocks.	Weaknesses	Themarine spatial planning is in its initial phase in Bulgaria.
Opportunities	-	Threats	Maritime Spatial Planning needs investments and administrative capacity.
Integrated local development			
Strengths	The sector provides livelihoods for many people in coastal regions.	Weaknesses	The salaries in the sector are low.
Opportunities	Demands and markets for fish products and fish are increasing.	Threats	The GVA created by the sector is low.
Public engagement			
Strengths	The Operational Programme “Fisheries” ensures a high level of engagement from interested stakeholders.	Weaknesses	The sector is private, but not very active in public engagements.
Opportunities	Increased interest in marine environment and in fish resources.	Threats	The sector problems are not widely discussed.

Short–sea shipping			
Maritime Research			
Strengths	Four universities (N.Y. Vapcarov Naval Academy, Technical University of Varna, University of Rise, University of Economics) and Institute of Hydrodynamics, Varna, provide a high level of R&D.	Weaknesses	Not enough level of national and private funding for R&D
Opportunities	High fuel efficiency (per ton-km) and low amount of C02 emissions make this sector very interesting for R&D activities.	Threats	Aging scientific staff working in the sector.
Development and innovation			
Strengths	The modernisation of ports Varna and Bourgas has already started. New cranes and port facilities are operational.	Weaknesses	The shipping industry is known as a conservative industry.
Opportunities	Need for short-sea friendly ports that offer quicker turnaround times, procedures and hinterland connections increases.	Threats	Not enough level of investment from private owners.
Access to finance			
Strengths	The sector is partly funded by the Operational programme "Transport", the other source of funding is banks.	Weaknesses	Not enough level of national and private funding.
Opportunities	The main large ports plan new activities for the period up to 2020, which reveals funding opportunities.	Threats	Aging fleet and need of ports modernisation.
Smart infrastructure			
Strengths	The usage of SI increase.	Weaknesses	Incomplete integration of SI.
Opportunities	SI implementation will have positive impact on the sector development, making it more competitive.	Threats	No threats are identified.
Maritime clusters			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Education, training and skills			
Strengths	Four universities - N.Y. Vapcarov Naval Academy, Technical University of Varna, University of Rise, and University of Economics provide a high level of education. Work force well trained.	Weaknesses	Not enough national and private funding for education in the sector.

Short–sea shipping			
Opportunities	There are five training centres (ST Mincho Minchev, Scipper Consult LtD, Blazhev LtD, SNC Danube Club LtD and ST Radian-M that imply a high level of training programmes.	Threats	Aging staff of main educational and training organisations.
Maritime spatial planning/Integrated Coastal Zone Management			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Integrated local development			
Strengths	Short-sea shipping contributes to the environment, the economy and to society.	Weaknesses	Economic fluctuations in the country.
Opportunities	The ports have good connections with railway and road network.	Threats	Environmental regulations for the sector which would increase costs and make short-sea shipping less competitive.
Public engagement			
Strengths	"Strategy for development of transportation system of the Republic of Bulgaria till year 2020" ensures good level of public engagement.	Weaknesses	The activity under Operational programme "Transport" is not widely discussed.
Opportunities		Threats	Undeveloped ports which will result in congestion.

Inland waterway transport			
Maritime Research			
Strengths	There are four universities (N.Y. Vapcarov Naval Academy, Technical University of Varna, University of Rise, University of Economics) and one research institute – Institute of Hydrodynamics, Varnathat provide a high level of maritime research.	Weaknesses	Too few competent candidates in the field of inland waterway transport.
Opportunities	Increased funding opportunities through national Science Fund and EU R&D funds.	Threats	Lack of interest from ship owners to invest in maritime research.
Development and innovation			
Strengths	Optimisation of navigation conditions and more intensive use of the Danube River.	Weaknesses	Lack of sufficient investments for maintenance and development ofport infrastructure.
Opportunities	Development of multimodal terminals and freight villages.	Threats	The vessels owners are private companies that do not invest in development and innovation, but aim at rapid profits.
Access to finance			
Strengths	For 2007-2013 the operational programme “Transport” with priority axis “Improvement of the maritime and inland-waterway navigation” provided a good basis for activities related to waterway canal on the river Danube.	Weaknesses	Low number of projects.
Opportunities	The national strategy “Strategy for development of transportation system of the Republic of Bulgaria till year 2020” takes into account development of inland waterway transport.	Threats	Aging fleet and need of ports modernisation.
Smart infrastructure			
Strengths	Favorable position of the country enables application of smart infrastructures.	Weaknesses	Lack of resources for implementation of smart infrastructure.
Opportunities	The spread of smart infrastructure in the sector.	Threats	Not enough quality and uneven distribution of smart infrastructure.
Maritime clusters			
Strengths	–	Weaknesses	–
Opportunities	–	Threats	–
Education, training and skills			
Strengths	There are four universities (N.Y. Vapcarov Naval Academy, Technical University of Varna, University of Rise, and University of Economics) that provide a high level of knowledge. Work force well trained.	Weaknesses	There is no long-term strategy for education and qualification in the field of transport which satisfies the requirements of the business of inland waterway transport.

Inland waterway transport			
Opportunities	There are five training centres (ST Mincho Minchev, Scipper Consult Ltd, Blazhev Ltd, SNC Danube Club Ltd and ST Radian-M that imply a high level of training programmes.	Threats	Aging tendency among the qualified personnel in the field of inland waterway transport.
Maritime spatial planning/Integrated Coastal Zone Management			
Strengths	-	Weaknesses	No actual ICZM related to inland waterway transport.
Opportunities	-	Threats	-
Integrated local development			
Strengths	The public ports have good connections with the national road and railway infrastructure.	Weaknesses	Lack of ICZM.
Opportunities	Links with European channel river shipping system from the Danube River. Development of intermodal transport integration with inland waterway transport.	Threats	A trend for reducing the ship's crews. Possible construction of hydro-energy complexes might threaten navigation corridors.
Public engagement			
Strengths	The national strategy "Strategy for development of transportation system of the Republic of Bulgaria till year 2020" takes into account development of inland waterway transport.	Weaknesses	Inadequate level of information provided to the general public about the opportunities and problems.
Opportunities	Connections with Pan-European Transport Corridors VII.	Threats	The navigation on the inland waterways is weakly spread in the public. Fluvial navigation might pose a threat for Danube river ecosystems.

Water projects			
Maritime Research			
Strengths	There are four universities (N.Y. Vapcarov Naval Academy, Technical University of Varna, University of Ruse, University of Economics) and one research institute – Institute of Hydrodynamics, Varnathat provide a high level of maritime research in the sector of water projects..	Weaknesses	National and private funding not enough for maritime research.
Opportunities	Interest in MR has increased during the last years	Threats	Aging staff in MR, due to low salaries the young specialists have no motivation to work in the maritime research.
Development and innovation			
Strengths	Many new port infrastructures are already developed.	Weaknesses	Delays in implementation of water projects due to effects of economic crisis on the water transportation sector.
Opportunities	Increased possibilities for funding from the EU structural funds.	Threats	The low number of projects in small cities .
Access to finance			
Strengths	The importance of the sector is increasing, as it supports water transportation development.	Weaknesses	The number of projects implemented in maritime area is not very high.
Opportunities	The Cohesion Fund proves many opportunities for funding of water projects.	Threats	Heavy administrative procedures in financing of the EU funded projects.
Smart infrastructure			
Strengths	The increased number of water projects providegood opportunities for implementation of smart infrastructure. .	Weaknesses	Not enough investment in smart infrastructure.
Opportunities	Offers new jobs in coastal regions.	Threats	Smart infrastructure not evenly distributed and the quality is not high enough.
Maritime clusters			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Education, training and skills			
Strengths	Well educated work force in the sector.	Weaknesses	Low salaries in the sphere of education.

Water projects			
Opportunities	Several universities in Varna, Russe and Sofia provide good opportunities for training and higher education.	Threats	Aging staff in the education and training organisations.
Maritime spatial planning/Integrated Coastal Zone Management			
Strengths	-	Weaknesses	-
Opportunities	-	Threats	-
Integrated local development			
Strengths	Increased job opportunities by implementation of water projects.	Weaknesses	Low number of projects in small municipalities.
Opportunities	Increased life quality in the coastal regions through implementation of water projects.	Threats	Water projects not evenly distributed in coastal regions.
Public engagement			
Strengths		Weaknesses	Public engagement should increase in rural areas and small cities are not high.
Opportunities		Threats	Water projects are concentrated in main cities.

6. Maritime strategies

Title of the official document	Level (regional, national, cross-national, EU level)	Responsible body	Maritime Strategy concerned	Kind of Strategy document and publishing date
National Strategy for Sustainable development of Tourism in the Republic of Bulgaria 2009 – 2013http://www.mi.government.bg/en/themes/national-strategy-for-sustainable-development-of-tourism-in-bulgaria-2009-2013-286-0.html	National	Ministry of Economics, Energy and Tourism	Coastal tourism	Strategy adopted 2009 and is currently subject to modification to include the period up to year 2020
Energy Strategy of the Republic of Bulgaria till year 2020 http://www.mi.government.bg/en/themes/the-energy-strategy-of-the-republic-of-bulgaria-till-2020-147-295.html	National	Ministry of Economics, Energy and Tourism	Offshore oil and gas	2011
National strategic plan for Fisheries and Aquacultures 2007-2013 http://ec.europa.eu/fisheries/cfp/eff/national_plans/list_of_national_strategic_plans/bulgaria_en.pdf	National	Ministry of Agriculture and Forests	Fish for human consumption	Strategy adopted 2006 and is currently subject to modification to include the period up to year 2020
Strategy for development of transportation system of the Republic of Bulgaria till year 2020http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=682	National	Ministry of Transport, Information Technologies and Communications	Short-sea shipping Inland waterway transport	March 2010
Strategic Action Plan for the Black Sea Biodiversity and Landscape Conservation Protocol (BSBLCP-SAP)http://www.blacksea-commission.org/_od-draft-biodiversity-strategy.asp	Cross-national	The Governments of: Bulgaria, Georgia, Romania, the Russian Federation, Turkey, and Ukraine	Water projects; Fish for human consumption; Offshore oil and gas; Coastal tourism; Short-sea shipping	Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea, adopted April 17th 2009 in Sofia, Bulgaria

7. Background information

Coastal tourism

Number of hotels and hostels in the maritime NUTS 3 regions in Bulgaria

Year	NUTS 3 region			Total
	Bourgas	*Varna*	*Dobrich*	
2007	1.130	571	141	1.842
2008	873	528	175	1.576
2009	1.101	507	121	1.729
2010	1.006	484	105	1.595
2011	1.176	454	102	1.732

Source: NSI & EUROSTAT (2011)

Number of tourist beds at NUTS 3 level in the maritime area

Year	NUTS 3 region			Total
	Bourgas	*Varna*	*Dobrich*	
2007	102.007	61.396	28.022	191.425
2008	98.933	61.222	24.433	184.588
2009	106.683	59.434	21.990	188.107
2010	101.627	58.736	22.217	182.580
2011	105.300	56.773	23.691	185.764

Source: NSI & EUROSTAT (2011)

Number of tourist overnights at NUTS 3 level

Year	NUTS 3 region			Total
	Bourgas	*Varna*	*Dobrich*	
2007	6.176.482	4.927.229	1.188.413	12.292.124
2008	6.176.373	4.793.207	1.182.701	12.152.281
2009	5.242.098	3.879.451	923.374	10.044.923
2010	6.024.540	4.010.898	1.052.920	11.088.358
2011	7.065.474	4.488.519	1.689.453	13.243.446

Source: NSI & EUROSTAT (2011)

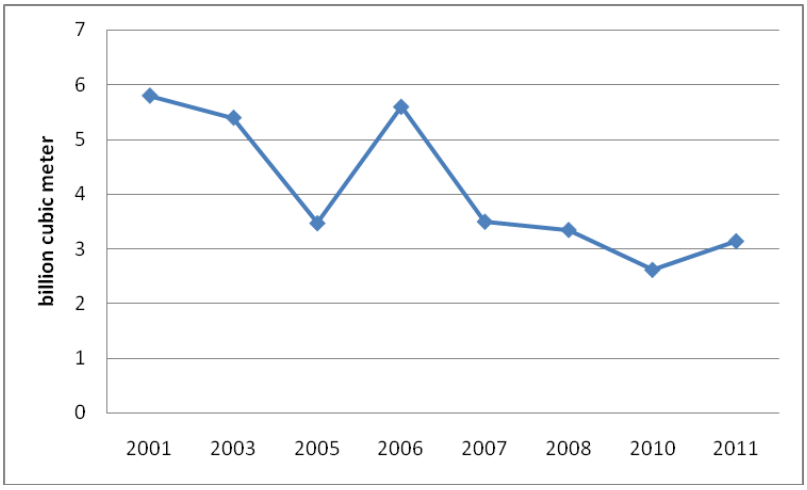
Offshore oil and gas

Extracted natural gas – mln m^3

	2006	2007	2008	2009	2010	2011
Mln m^3	509	295	214	15	74	443

Source: Bulletin for the state and development of the energy sector in the Republic of Bulgaria, MIET, (2011)

Natural gas consumption in Bulgaria



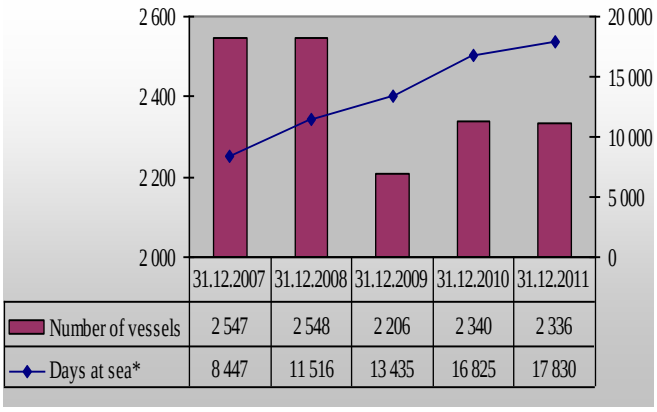
Source: http://www.indexmundi.com/bulgaria/natural_gas_consumption.html

Consumption of natural gas by sectors in %

2009	Residential	Industry	Energy	Other
Bulgaria	1.60%	56.70%	28.80%	12.90%
EU-27	28.40%	25.00%	31.80%	14.80%

Fishing for human consumption

The state of the fishing fleet by years: number of vessels and days at sea



Data source: NAFA, 2012

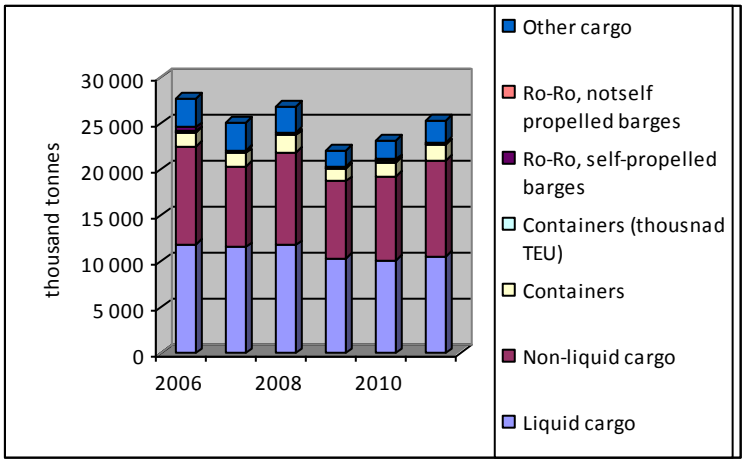
Short-sea shipping (incl. Ro-Ro)

Loaded and unloaded freight in marine ports (thousand tonnes)

	2005	2006	2007	2008	2009	2010	2011
Total	24.841	27.513	24.900	26.576	21.893	22.946	25.185
Import – uploaded	14.293	16.250	15.853	16.791	11.797	11.847	13.036
Export – loaded	10.548	11.263	9.047	9.785	10.096	11.099	12.149

Source: National Statistics (2011)

Cargo transportation by short sea shipping (thousand tonnes)



Source: Marine administration, EUROSTAT (2011)

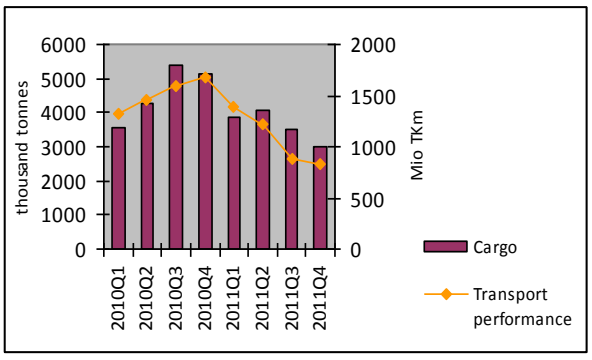
Loaded and unloaded freight by NUTS 2 regions (thousand tonnes)

	2006	2007	2008	2009	2010	2011
Total	27.511	24.899	26.570	21.893	22.946	25.130
Severoitochen NUTS 2 region	9.962	8.954	10.638	8.556	10.125	11.665
Yugoiztochen NUTS 2 region	17.551	15.946	15.932	13.337	12.822	13.520

Data source: Marine administration, EUROSTAT (2011)

Inland waterway transport

Quarterly cargo transportation (thousand tonnes) and transport performance (mio Tkm) in 2010-2011



Source: EUROSTAT, 2012

Cargo and transport performance in 2008-2011 and growth rates in 2010-2011

	2008	2009	2010	2011				Growth rates 2010-2011			
				national	Inter national	transit	total	national	Inter national	transit	total
Cargo (thousand tonnes)	**1.0956**	**1.7104**	**1.8372**	**1.579**	**2.666**	**1.0219**	**1.4465**	**10.2%**	**-13.7%**	**-28.2%**	**-21.3%**
Mio (TKm)	**2.890**	**5.436**	**6.048**	**42**	**412**	**3.856**	**4.311**	**0.3%**	**-23.7%**	**-29.4%**	**-28.7%**

Source: EUROSTAT, 2012

Water projects

Operation and effect indicators

Indicators (Left: Port of Bourgas; Right: Port of Varna)	Baseline (2006 figures)		Targets (2017, 2 years after project completion)	
Container handling volume (TEUs)	26.000	94.000	454.000	375.000
Total tonnage of ships entering ports (1,000GT)	845	2.451	14.437	10.510
Berth occupancy rate(%)	14,2	42,0	34,7	38,9
Average demurrage period (Hours/ship)	13,5	10,3	1,0	1,0

Source: "New Container Terminals Development Project at the Ports of Varna and Bourgas" (2008)