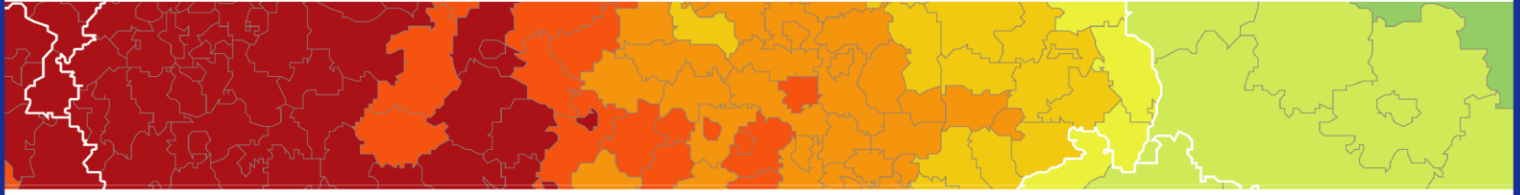


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# MSP-LSI – Maritime Spatial Planning and Land-Sea Interactions

Targeted Analysis  
Version: 20/02/2020

**Final Case Study Report: Croatia**

This targeted analysis activity is conducted within the framework of the ESPON 2020 Cooperation Programme, partly financed by the European Regional Development Fund.

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.

This delivery does not necessarily reflect the opinion of the members of the ESPON 2020 Monitoring Committee.

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**Case Study Report: Croatia**

# **MSP-LSI – Maritime Spatial Planning and Land-Sea Interactions**

## Table of contents

List of Maps .....	i
List of Figures .....	i
List of Tables .....	i
Abbreviations .....	ii
1 Main highlights and executive summary .....	1
1.1 Governance Analysis .....	1
1.1.1 Spatial Planning on the Land .....	1
1.1.2 Spatial Planning for the sea .....	1
1.1.3 Addressing LSI .....	2
1.2 Value Chain Analysis .....	3
1.2.1 Coastal tourism .....	3
1.2.2 Cruise Tourism .....	3
2 Introduction .....	4
2.1 Case study context .....	4
2.2 LSI Scoping for MSP/Territorial Planning in Croatia .....	7
3 Governance Analysis .....	9
3.1 General context of case study area and focal sectors .....	9
3.2 Spatial Planning in Croatia .....	10
3.3 Spatial Planning Governance and LSI .....	12
3.4 Stakeholder Involvement .....	13
4 Value Chain Analysis .....	14
4.1 Coastal Tourism in Croatia .....	14
4.1.1 Developing the Value Chain - methodological clarifications .....	14
4.1.2 Key characteristics of Coastal Tourism in Croatia .....	17
4.1.3 Framework conditions affecting Coastal Tourism .....	21
4.1.4 Key actors of Coastal Tourism Value Chain in Croatia .....	24
4.1.5 Tailoring the value chain .....	27
4.1.6 Statistical information on the sector .....	27
4.1.7 Identification of Land-Sea Interactions of coastal tourism in Croatia .....	29
4.2 Cruise Shipping in Croatia .....	31
4.2.1 Developing the Value Chain - methodological clarifications .....	31

4.2.2	Key characteristics of Cruise Shipping in Croatia .....	33
4.2.3	Framework conditions affecting Cruise Shipping in Croatia .....	39
4.2.4	Key actors in the Cruise Shipping value chain.....	47
4.2.5	Tailoring the Cruise Shipping Value Chain .....	50
4.2.6	Statistical information on the sector .....	51
4.2.7	Identification of land-sea interactions of Cruise Shipping in Croatia .....	53
5	Summary and Outlook.....	56
5.1	Governance Analysis .....	56
5.1.1	Spatial Planning on the Land .....	56
5.1.2	Spatial Planning for the sea .....	57
5.1.3	Addressing LSI.....	57
5.2	Value Chain Analysis .....	58
5.2.1	Coastal Tourism .....	58
5.2.2	Cruise Shipping.....	58
5.3	Recommendations for Good Management of LSI in Croatia .....	58

## List of Maps

Map 1: Case Study area - Croatian coast and islands .....	6
Map 2: Showing the boundaries of the Sibenik county spatial plan, whose maritime domain extends as far as the territorial sea.....	11
Map 3: Map of the ten tourist regions in Croatia .....	18
Map 4: Key actors of coastal tourism in the Croatian case study area .....	26
Map 5: Examples of different cruise shipping routes in Croatia: a) Worldwide shipping route ; b) Mediterranean shipping route ; c & d) Adriatic shipping routes ; e) Entire Croatian shipping route ; f) Parts of Croatia shipping route.....	34
Map 6: Key actors of the cruise shipping value chain in the Croatian case study area .....	49

## List of Figures

Figure 1: A methodology to explore LSI in MSP/Territorial Planning.....	7
Figure 2: World Trade Organization 2013 report value chain for tourism and its fit with the general value chain proposed by this report .....	15
Figure 3: General Value Chain of Coastal Tourism .....	15
Figure 4: Tailored coastal tourism value chain in the Croatian case study area.....	27
Figure 5: General value chain of cruise shipping .....	32
Figure 6: Total number of arrivals of cruise ships in Croatia 2013-2017 .....	35
Figure 7: Total number of arrivals of cruise ships per destination in Croatia in 2018 .....	36
Figure 8: Total number of arrivals of cruise ships in Croatia in 2018 (distribution on level of individual cruise ship) .....	37
Figure 9: Arrivals of cruise ships in Croatia in 2018 (distribution on monthly level).....	38
Figure 10: Tailored cruise shipping value chain in the Croatian case study area.....	50

## List of Tables

Table 1: Coastal Tourism activities and their related NACE codes.....	25
Table 2: LSI linkages to segments of the value chain- Coastal Tourism .....	31
Table 3: Cruise Shipping and related activities and their related Nace codes.....	48
Table 4: Main business data in value chain, 2017 .....	51
Table 5: Main business data on business entity level, 2017 .....	52
Table 6: LSI linkages to segments of the cruise shipping value chain.....	54

## Abbreviations

EC	European Commission
EEZ	Exclusive Economic Zone
ESPON	European Territorial Observatory Network
ESPON EGTC	ESPON European Grouping of Territorial Cooperation
EU	European Union
HTZ	Croatia Tourist Board
KfW	German Investment bank
LAGs	Local Action Groups
LSI	Land-Sea Interaction
MSFD	Marine Strategy Framework Directive
MSP	Maritime Spatial Planning
NUTS	Nomenclature of Territorial Units for Statistic
ZERP	Ecological and Fisheries Protection Zone

# **1 Main highlights and executive summary**

## **1.1 Governance Analysis**

The analysis of the spatial planning system at a national and local level revealed the following insights.

### **1.1.1 Spatial Planning on the Land**

The Physical Planning Act was recently modified to incorporate the requirements of the MSP directive. Having revised the legislative context there is a need and desire to create and update all related policy documents. The State Plan for Spatial Development covers land area and sea area up to the outer limit of territorial waters. The county and municipal plans have a long established remit to cover both land and sea out to the territorial waters and these will be subject to review in due course. Spatial planning in Croatia is wide ranging in its focus covering economic, social and environmental considerations following the goals and principles defined by Article 6 and Article 7 of the Physical Planning Act. Based on the integral approach to spatial and physical planning, existing spatial plans cover both terrestrial and maritime areas within the sovereignty of the Republic of Croatia. The plans are being developed at national, regional and local levels according to the authorities prescribed by the Act. Current plans overlap in the content from more general to more detailed, depending on their level (nested planning approach). The new generation of plans is planned to be developed. According to the Physical Planning Act, spatial plans on all levels will be fully developed using GIS technologies and will cover related topics assigned by the Act and special regulations, without overlapping. All plans will be available simultaneously through the ePlans module within the Physical Planning Information System.

Furthermore, the implementation of Strategic Environmental Impact Assessment of spatial plans is a legal obligation that has to be conducted simultaneously to the development of a spatial plan following the Environmental Protection Act, for which the Ministry of Environment and Energy is responsible. Strategic Environmental Impact Assessment is a complex process that involves representatives of all relevant sectors, not only the Ministry of Construction and Physical Planning and the Ministry of Environment and Energy. Through this process, environmental aspects are considered in detail and implemented in the provisions of spatial plans.

### **1.1.2 Spatial Planning for the sea**

The State Plan for Spatial Development covers land area and sea area up to the outer limit of territorial waters and its preparation is the responsibility of the Ministry of Construction and Physical



Planning. It is also responsible for preparing spatial plans for the maritime areas beyond the territorial sea: the Spatial Plan of the Ecological and Fisheries Protection Zone (ZERP) and the Spatial Plan of the Continental Shelf of the Republic of Croatia. Spatial plans for national and nature parks, some of which contain significant marine space, are also developed at national level.

At a sub-national level both the county and municipal plans have a long established remit to cover both land and sea out to the territorial waters and these will be subject to review in due course.

### **1.1.3 Addressing LSI**

The legal and institutional framework for spatial planning in Croatia is therefore notable for its integrated coverage of both land and sea areas. Indeed an integrated approach to spatial planning is named as the first principle under Article 7 of the Physical Planning Act. It is also wide ranging in its focus covering economic, social and environmental considerations (see for example Article 6 of the Physical Planning Act). Together with the country's participation in the UNEP/MAP Barcelona Convention (For the Protection of the Marine Environment and Coastal Region in the Mediterranean) these attributes provide a positive context for addressing LSI issues.

This is further supported by provisions that recognise the importance of drawing upon appropriate expertise in spatial planning activities. For example, each Croatian county has an established County Institute for Physical Planning. County Institutes participate in the spatial planning process as expert developers. In case of need for additional specialist inputs however, other Institutes, legal persons and approved architects registered for performing professional planning activities can be subcontracted to ensure that the process of development and adoption of plans is carried out based on appropriate expertise and within the legally determined deadlines.

In addition where a spatial plan competent development authority (e.g. the Ministry, professional administrative body of the county, city or municipality) does not have sufficient capacity for the preparation or the adoption of spatial plans, legal possibilities are being introduced to solve such problems.

Croatia was involved in several EU funded projects which have relevance to MSP. The latter was the SUPREME project, which general objectives include: the implementation of MSP in EU Member States, developing specific criteria and indicators to evaluate the MSP process at different scales and at different stages, launching and carrying out cross-border MSP initiative between Member States. Component 1.3.5. of the Project considered the definition of the most appropriate geographical scale for MSP, while detailed LSI analyses, combining MSP and ICZM, were performed within the component 1.3.7.

## **1.2 Value Chain Analysis**

### **1.2.1 Coastal tourism**

Tourism in Croatia contributes significantly to the national economy and coastal tourism in particular is the largest blue economic sector, especially in relation to jobs, even though 45% of workers are temporary workers. 2017 was the best season with 17.4 million tourists who had 86.2 million overnight stays and contributed almost 20% of GDP. Recent growth in part has been a function of political instability in other parts of the Mediterranean. There is a concentration of tourism activities over the summer months and many island communities find it hard to cope with the volume of tourists, including issues of water scarcity, managing waste (solid and sewerage), and energy demand. Some of these issues, especially in relation to waste management are particularly acute for many of the uninhabited islands which are used during the summer months by nautical tourists. Nautical tourism is envisaged as a potential area of further coastal tourism development. Whilst tourism growth remains a national priority, carrying capacity in coastal communities is nearing saturation point and new national tourism initiatives in Croatia are likely to be focused on inland areas.

### **1.2.2 Cruise Tourism**

This is a particular aspect of the tourism industry in Croatia and involves a range of activities and boats of various sizes, from global and Mediterranean routes to more nationally focused activities covering all or parts of the Croatian coast. With some forms of cruise tourism, especially that associated with large ships and a focus on Dubrovnik, a decreasing number of ships and passengers are being accepted because of overcrowding in the key stop off points. The concern is that the volume of cruise ship passengers is stretching local infrastructure and having adverse effects on the experience of land based tourist who generate more local revenue (through overnight accommodation purchasing of other goods and services).

## 2 Introduction

### 2.1 Case study context

The present case study report on Croatia is a scientific annex to the final report of an ESPON targeted analysis on Maritime Spatial Planning and Land-Sea Interactions, conducted within the framework of the ESPON 2020 Cooperation Programme. Among other objectives, the project aimed to establish the main impacts on land of key maritime activities and to explore how these are managed and incorporated in terrestrial planning. In particular the project looked at sectors such as maritime energy, maritime transport, fisheries, environmental protection, coastal tourism and urban development. Croatia is one of five case studies selected in the project, which are representing different European regional seas, types of coastlines, sectors and LSI challenges. The focal sectors selected for the Croatian case study are coastal tourism and cruise shipping and an understanding of what the implications for land sea interaction might be.

On the seaward side, the core spatial area of this case study covers Croatia's maritime areas along the whole of the coastal strip as far out as the Ecological and Fisheries Protection Zone which is not applicable to EU member states (ZERP). Croatia has not yet laid claim to an exclusive economic zone (EEZ), but instead established the ZERP. This zone is similar to an EEZ; however, it does not entail all rights associated with an EEZ as described under the United Nations Convention on the Law of the Sea (Part 5, Articles 55-75). Instead, the ZERP does not entail sovereign rights regarding the production of ocean energy or the construction of artificial islands, installations and structures<sup>1</sup>. On the landward side the core area covers all the coastal communities at NUTS 3 level and excludes parts of the national territory that are inland. In the Croatian Islands tourism activities of various forms are an important component to the local economy. This case study will focus on the focal sectors of coastal tourism which is widely dispersed throughout the area and cruise tourism which is more focused on specific points.

As an enclosed sea the Mediterranean Sea's management requires close international co-operation and this helps to shape national action. In 1975, 16 Mediterranean countries and the European Economic Community adopted the Mediterranean Action Plan (MAP). This was a pioneering regional seas programme under auspices of the UNEP's umbrella. By 1995, an Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II) was adopted by the Contracting Parties. This replaced the Mediterranean Action Plan of 1975. Today, the Barcelona Convention and MAP are more active than

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<sup>1</sup> Petrak, M. (2006): "Should Croatia Declare an Exclusive Economic Zone". *Pravnik* 40:123–135.

<https://hrcak.srce.hr/file/20250>

ever. There are now 22\*<sup>2</sup> contracting parties and they are determined to protect the Mediterranean marine and coastal environment while boosting regional and national plans to achieve sustainable development<sup>3</sup>.

Internationally, 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, also provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests in accordance with this Agenda<sup>4</sup>.

These global and regional partnerships provide the context within which Croatian policy is framed.

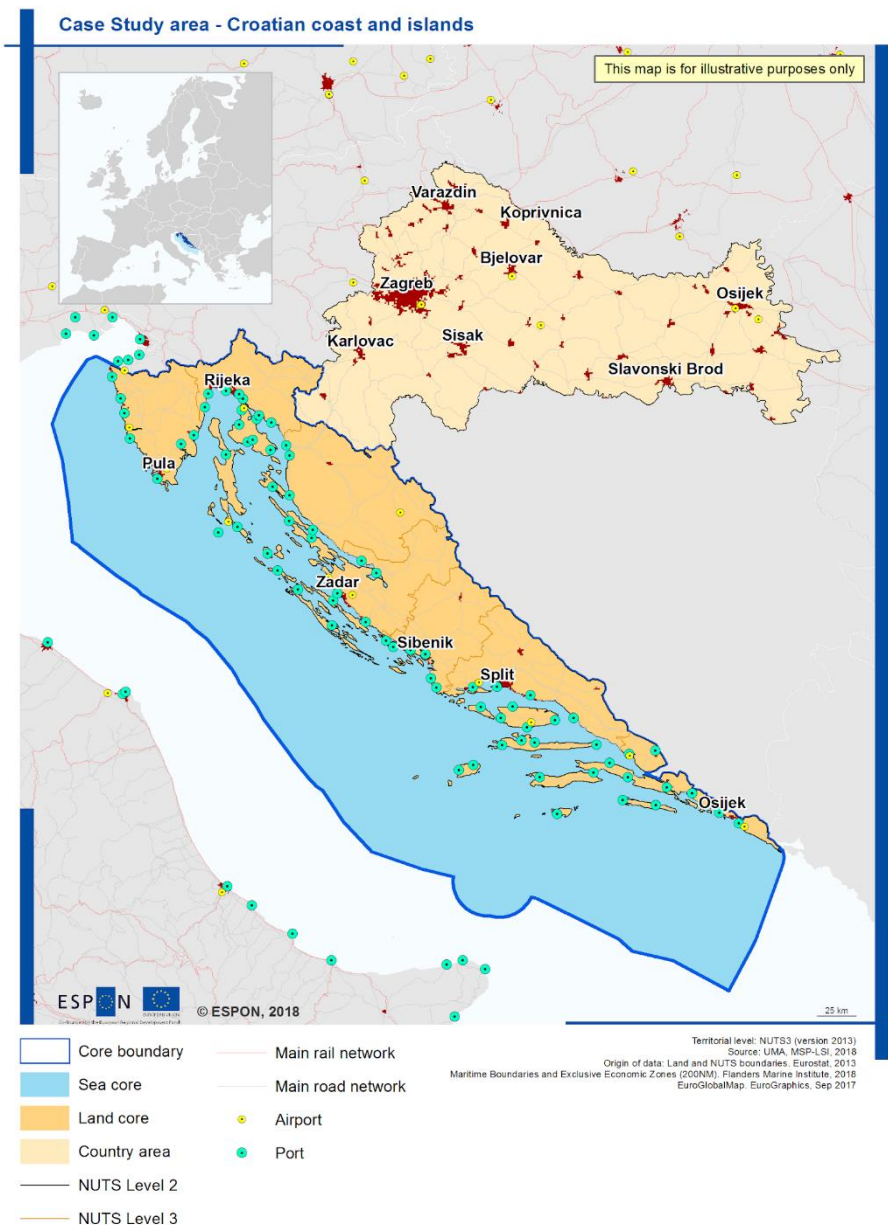
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<sup>2</sup> \* Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, the European Community, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia, Turkey

<sup>3</sup> DG Environment: Our Oceans, Seas and Coasts: The Barcelona Convention. Available at: [http://ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/barcelona-convention/index\\_en.htm](http://ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/barcelona-convention/index_en.htm)

<sup>4</sup> United Nations. Sustainable Development Goals. Available at: <https://sustainabledevelopment.un.org/?menu=1300>

Map 1: Case Study area - Croatian coast and islands



The Croatian islands extend along a 4,398 km<sup>5</sup> stretch of coastline in the eastern Adriatic Sea and cover an area of 3,259 km<sup>2</sup> (about 5.8 % of Croatian land territory)<sup>6</sup>. From the national database and classification of islands, islets and rocks, within the coastal sea areas of the Republic of Croatia there are 78 islands, 524 islets, and 642 rocks and rocks awash (low tide elevations), giving a total of 1244 land spaces within the marine environment. The total area of islands covers 3195.71 km<sup>2</sup>, while area of islets covers 62.41 km<sup>2</sup>. The largest islands in the Adriatic Sea are within Croatian waters; Cres with

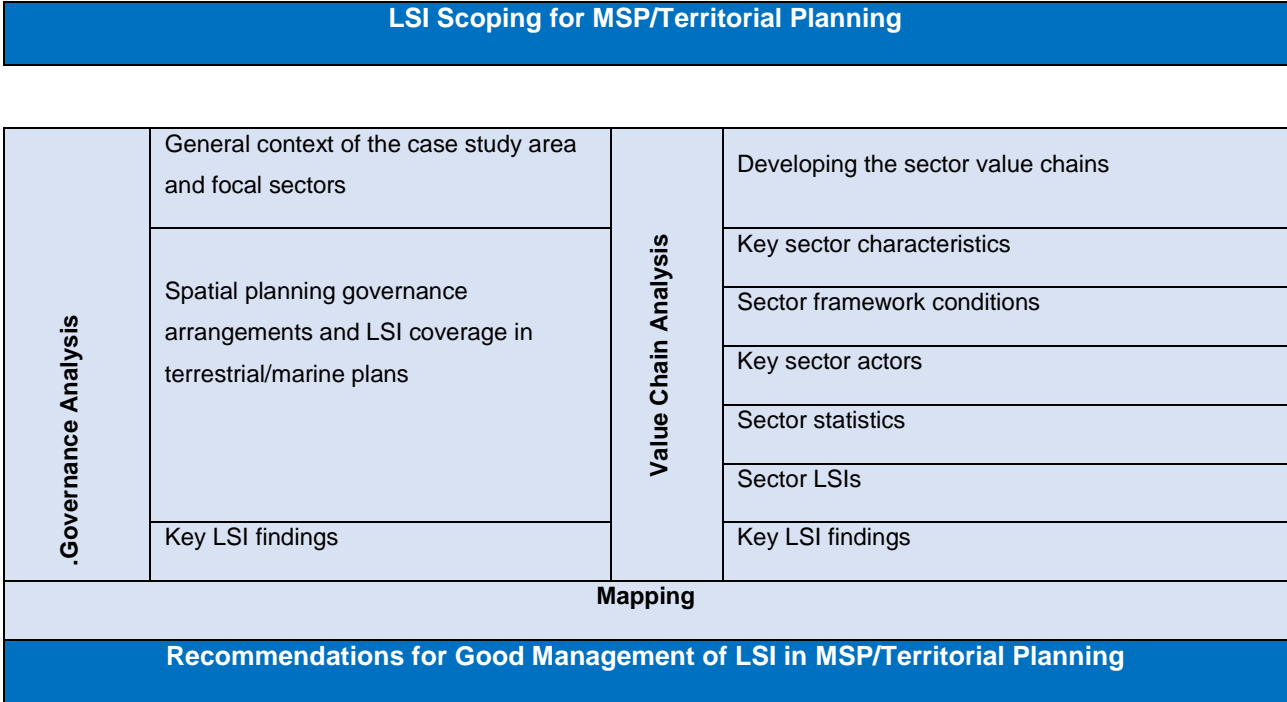
<sup>5</sup> Croatian Bureau of Statistics - Statistical Information 2015 (page 12) - Zagreb, 2015. Available at [http://www.dzs.hr/Hrv\\_Eng/StatInfo/pdf/StatInfo2015.pdf](http://www.dzs.hr/Hrv_Eng/StatInfo/pdf/StatInfo2015.pdf)

<sup>6</sup> European Environment Agency. Country profile - Distinguishing factors (Croatia). Archived 2015. Available at: <https://www.eea.europa.eu/soer/countries/hr/country-introduction-croatia/country-introduction-croatia-1>

an area of 405.70 km<sup>2</sup>, and Krk with an area of 405.22 km<sup>2</sup>. The smallest island is Smokvica Vela (Kornati) with an area 1.04 km<sup>2</sup>. The island with the longest coastline of 302.47 km is Pag, being the fifth according to area value. The island with the smallest coastline length of 5.8 km is Vele Orjule. The biggest islet is Badija with an area of 0.97 km<sup>2</sup>, while the smallest one is Galicija covering 0.01 km<sup>2</sup>.<sup>7</sup>

## 2.2 LSI Scoping for MSP/Territorial Planning in Croatia

Figure 1: A methodology to explore LSI in MSP/Territorial Planning



The methodology outlined above is designed to provide a flexible framework for LSI analysis that can be tailored for use in different contexts. It starts with an initial scoping stage where a core area for LSI examination is defined and LSI issues of particular significance in the case study context are identified. The MSP-LSI study was particularly concerned with LSI issues associated with maritime sectors and in each case 2 focal sectors were selected as the basis for more detailed LSI investigation. Following this scoping stage, 2 two aspects of analysis were undertaken related to governance and to the selected sector value chains of coastal tourism and cruise shipping. These analyses were supported by mapping activities which sought to provide visual material that could aid LSI understanding. Finally, based on these analyses recommendations for good management of LSI in the case studies were proposed, informed in some instances by stakeholder workshops. Further explanation of the methodology can be found in the MSP-LSI draft final report.

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<sup>7</sup> Leder et al. Coastline lengths and areas of islands in the Croatian part of the Adriatic Sea determined from the Topographic Maps at the scale of 1:25,000. Pg 11. (2004). Available at: <https://hrcak.srce.hr/9636?lang=en>



## 3 Governance Analysis

### 3.1 General context of case study area and focal sectors

Coastal tourism is the most relevant maritime activity in Croatia and the major blue sector in term of employment (92,000 people employed in 2017, data includes only accommodation and food preparation and serving activities<sup>8</sup>). This activity still has high potential for growth and it is identified as a strategic sector by the national authorities. A Strategy for Tourism Development by 2020 was adopted by the Parliament in 2013, within which the Ministry of Tourism adopted an Action Plan for the development of nautical tourism. Closely related to coastal tourism it focuses on yachting and the building of marinas. This activity still has very large growth potential in Croatia. Large numbers of local destinations, especially on the islands, are focusing more and more on yacht based tourism. In total, Croatia has recorded 71,605,000 overnight stays, only 5,743,000 of them by Croatian inhabitants, and the rest from abroad (15,770,000 Germany; 5,902,000 Austria; 4,812,000 Czech Republic; and 4,800,000 Italy<sup>9</sup>). Data on number of nautical tourists is not available, but the Croatian Bureau of Statistics has recorded 215,329 different vessels berthed within Croatian marinas in 2017.<sup>10</sup>

Cruise shipping is still a less prominent type of maritime shipping if compared to maritime cargo transport and passengers transport. In comparison to 2010, cruise tourism (based on total number of cruise ships) has reduced. Out of a total of 338,603 ships that arrived in 2017 on the Croatian coast, only 1,511 arrivals were related to cruise ships.<sup>11</sup>

This decrease can be explained by a combination of different factors:

1. A strategic change of vision and development strategies in coastal destinations
2. The limited capacity of available infrastructure of coastal cities to cope with the increased pressures coming from tourism
3. A diversification of the typologies of tourism affecting coastal cities (increased high-end tourism and related needs and preferred tourism locations)
4. Transport delays partially due to the limited capacity of tourism and other responsible offices to satisfy passengers' growing demands in an increasingly shorter amount of time
5. Negative impact of mass tourism on cultural heritage attractions, which prompted administrations to limit tourist accessibility to the cultural and historical sites. In 2017, the

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<sup>8</sup> Tourism in numbers 2017, Ministry of Tourism publication, page 41; Croatian Bureau of Statistics data; [https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR\\_%202017%20FINAL.pdf](https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR_%202017%20FINAL.pdf)

<sup>9</sup> Tourism in numbers 2017, Ministry of Tourism publication, page 26; Croatian Bureau of Statistics data; [https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR\\_%202017%20FINAL.pdf](https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR_%202017%20FINAL.pdf)

<sup>10</sup> Tourism in numbers 2017, Ministry of Tourism publication, page 35; Croatian Bureau of Statistics data; [https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR\\_%202017%20FINAL.pdf](https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR_%202017%20FINAL.pdf)

<sup>11</sup> Central Bureau of Statistics data, TRANSPORT AND COMMUNICATIONS: Available at: [https://www.dzs.hr/default\\_e.htm](https://www.dzs.hr/default_e.htm)



mayor of Dubrovnik announced a plan to try to manage the flow of tourists entering the city's old town, as a response to the issue of overcrowding. The two-year plan included efforts to coordinate the number of cruise ships and cruise passengers calling in Dubrovnik<sup>12</sup> This follows a 2105 UNESCO reactive monitoring mission which recommends that the Management Plan should seek to restrict the carrying capacity in the city to 8000 tourists per day<sup>13</sup>.

The most important cruise destination in Croatia is the city of Dubrovnik, where in 2017 Dubrovnik received 742,000 passengers on 538 ships<sup>14</sup>.

The importance of the islands as a distinctive component of national space is reflected in the specific emphasis on these areas in “The Republic of Croatia’s Strategy for Regional Development 2014-2020” in 2017. Indeed the Republic of Croatia along with the Republic of Finland is only state members which have their own Islands Act. From the state budget additional island specific financing for social, health, communal ( water, sewage drain systems) infrastructure, power and telephone infrastructure, road infrastructure is allocated through and some money from state budget has been placement through the Ministry of Regional Development and EU Funds, Directorate of Islands.

### **3.2 Spatial Planning in Croatia**

The Ministry of Construction and Physical Planning is the competent authority for spatial planning in Croatia at the national level. The Ministry administers tasks related to construction, physical planning and housing and develops programmes to implement EU and international funding assistance. At a county level, spatial plans are adopted by the county assemblies and elaborate objectives for physical planning and rational use of space – including features of special natural value – in coordination with neighbouring counties. At municipal level, plans are adopted by representative bodies of local self-government units following a public debate. Spatial development of settlements or parts of settlements is regulated in more detail by urban development plans.

The Physical Planning Act (2013) is currently the main legal Act regulating spatial planning in Croatia. The amendment of Physical Planning Act<sup>15</sup> (2017) transposes the EU MSP Directive (2014/89/EU).

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<sup>12</sup> <https://www.statista.com/statistics/888969/dubrovnik-call-cruise-passenger-numbers/>

<sup>13</sup> UNESCO/ICOMOS. Report on the UNESCO/ICOMOS Reactive Monitoring mission to the Old City of Dubrovnik, Croatia, from 27 October to 1 November 2015. (2015) Available at: <https://whc.unesco.org/document/141053>

<sup>14</sup> Travel Weekly. Cruise lines' Dubrovnik deal seen as way to combat overcrowding (2018). Available at: <https://www.travelweekly.com/Cruise-Travel/Dubrovnik-deal-combat-overcrowding>

<sup>15</sup> Official Gazette, OG 153/13, 65/17

Article 49a-f of the amendment prescribes that the maritime area is to be regulated by the following plans:

At national level:

- State Plan for Spatial Development (Preparation began April 2018 – to be concluded by December 2019)
- Spatial Plan of the Ecological and Fisheries Protection Zone (ZERP) (to be concluded by 31 March 2021)
- Spatial Plan of the Continental Shelf of the Republic of Croatia (to be concluded by 31 March 2021)
- Spatial plans of national parks and nature parks that cover the marine area (some have been already developed, some of them are in a process of development or revision)

At sub-national level:

- Spatial plans for all counties (regional level) and municipalities (local level) that encompass the marine area (133 already in existence, are being revised and updated according to new needs and developments)
- General urban plans and urban development plans encompassing the marine area (already in existence, are being revised and updated according to new needs and developments).

Map 2: Showing the boundaries of the Sibenik county spatial plan, whose maritime domain extends as far as the territorial sea



Area covered by the Šibenik-Knin County Plan (red boundaries define the Plan area; yellow square is the influence zone). Source: PAP/RAC, 2016. Coastal Plan for the Šibenik-Knin County <sup>16</sup>

### 3.3 Spatial Planning Governance and LSI

The Physical Planning Act explicitly addresses land-sea interactions (Art. 8, 49.b.1, 49.c) as part of the key principles of spatial planning. In addition, the Act defines the Protected Coastal Area (PCA) (Art. 45- 49.f) as a zone of special State interest, encompassing the area of coastal cities and municipalities. Within that zone, and in order to ensure protection and sustainability of development and planning, a restricted area covering 1,000 m wide continental belt (both on terrestrial part and islands) and 300 m wide sea belt, measured from the coastline, is established. Furthermore, additional limitations are determined for building within 100 m from the coastal line.<sup>17</sup>

The Strategy for Spatial Development envisaged by the Physical Planning Act was passed in 2017 and details the sustainable development and use of the coastal (including marine) area. It emphasises MSP as an important tool for developing maritime activities, conflict resolution and protection of the marine environment. The Strategy also requires an integrated approach to coastal planning and to addressing LSI.<sup>18</sup>

The legal and institutional framework for spatial planning in Croatia is therefore notable for its integrated coverage of land and sea with national and where relevant county and municipal plans all including both terrestrial and marine areas. Together with the country's participation in the UNEP/MAP Barcelona Convention (For the Protection of the Marine Environment and Coastal Region in the Mediterranean) these attributes provide a positive context for addressing LSI issues.

This is further supported by provisions that recognise the importance of drawing upon appropriate expertise in spatial planning activities. For example, each Croatian county has an established County Institute for Physical Planning. County Institutes participate in the spatial planning process as expert developers. In case of need for additional specialist inputs however, other Institutes, legal persons and approved architects registered for performing professional planning activities can be subcontracted to ensure that the process of development and adoption of plans is carried out based on appropriate expertise and within the legally determined deadlines.

In addition where a spatial plan competent development authority (e.g. the Ministry, professional administrative body of the county, city or municipality) does not have sufficient capacity for the preparation or the adoption of spatial plans, legal possibilities are being introduced to solve such problems.

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<sup>16</sup> PAP/RAC, 2016. Coastal Plan for the Šibenik-Knin County

<sup>17</sup> MSP Platform Country Fiche: Poland  
[https://www.msp-platform.eu/sites/default/files/download/croatia\\_2018.10.29\\_final.pdf](https://www.msp-platform.eu/sites/default/files/download/croatia_2018.10.29_final.pdf)

<sup>18</sup> MSP Platform Country Fiche: Poland  
[https://www.msp-platform.eu/sites/default/files/download/croatia\\_2018.10.29\\_final.pdf](https://www.msp-platform.eu/sites/default/files/download/croatia_2018.10.29_final.pdf)

Croatia was involved in several EU funded projects which have relevance to MSP. The latter was the SUPREME project, which general objectives include: the implementation of MSP in EU Member States, developing specific criteria and indicators to evaluate the MSP process at different scales and at different stages, launching and carrying out cross-border MSP initiative between Member States. Component 1.3.5. of the Project considered the definition of the most appropriate geographical scale for MSP, while detailed LSI analyses, combining MSP and ICZM, were performed within the component 1.3.7.

### **3.4 Stakeholder Involvement**

Stakeholder involvement in spatial planning in Croatia is being assisted by the creation of LAG's (Local Action Groups) supported by the national government.

LAGs gather and combine existing human and financial resources from the public, private and civil sectors and volunteers. They, bring together local stakeholders within joint projects and cross-sectoral actions to achieve synergies, establish joint ownership and get critical mass behind certain issues and topics, thereby boosting bottom-up dialogue and cooperation. According to the Physical Planning Act, authorities are not obliged to consult with LAGs. However, during obligatory public debates held in the process of developing the physical plan, LAGs can send their comments.

One LAG can be formed in rural areas with more than 10,000 and less than 150,000 inhabitants including smaller towns and cities with less than 25,000 inhabitants and structure of its most often representatives shows that all levels on regional/local level are included:

- representatives of local self-government and public institutions
- professional organizations and associations (farmers, small businesses and other businesses)
- associations (community development, environment and landscape protection, cultural services, social services, women's associations, youth, etc.)
- development agencies
- joint ventures, business incubators and other business sector organizations
- Media
- prominent individuals.

## 4 Value Chain Analysis

The following section provides an in-depth look into the two focal sectors of this case study: coastal tourism and cruise tourism utilising value chain approaches to inform LSI understanding and in particular identification of the main impacts on land of key maritime activities. The sections below detail: the development of the sector value chains; key sector characteristics; the framework conditions that they operate within (including links to governance and strategic plans), their key actors, as well as associated LSI. Analysis of these value chains aims to provide an understanding of their relative importance to the Croatian case study area, as well as how they have and are expected to develop in the future. In the context of Blue Growth, these maritime sectors undoubtedly rely on land infrastructure to support and expand their activities, which should be taken into consideration in terrestrial spatial planning. Furthermore, these sectors are important for MSP plans and the development and use of maritime space, should be taken into account within national and local MSP processes.

### 4.1 Coastal Tourism in Croatia

#### 4.1.1 Developing the Value Chain - methodological clarifications

The general value chain for the maritime activity of coastal tourism was built based on the tourism value chain provided by the WTP 2013 report<sup>19</sup>. However, the tourism value chain from this report is very detailed, includes too many segments and was not specifically built with the purpose of spatially highlighting the Land Sea Interactions of the Tourism Value Chain. Therefore, for the purpose of this report, the various segments of this chain have been merged into some more general combinations. This is why, the “general” value chain diagrams provided by this work could somehow differ from those existing ones in already available literature.

Although the focus is indeed different, the value chain approach adopted in our work remains coherent with the more general value chains presented in relevant literature e.g. the DG MARE Blue Growth Report<sup>20</sup>, the World Trade Organization global value chains. See the figure here below showing how the WTP 2013 report value chain for tourism and the one provided by this report fit along.

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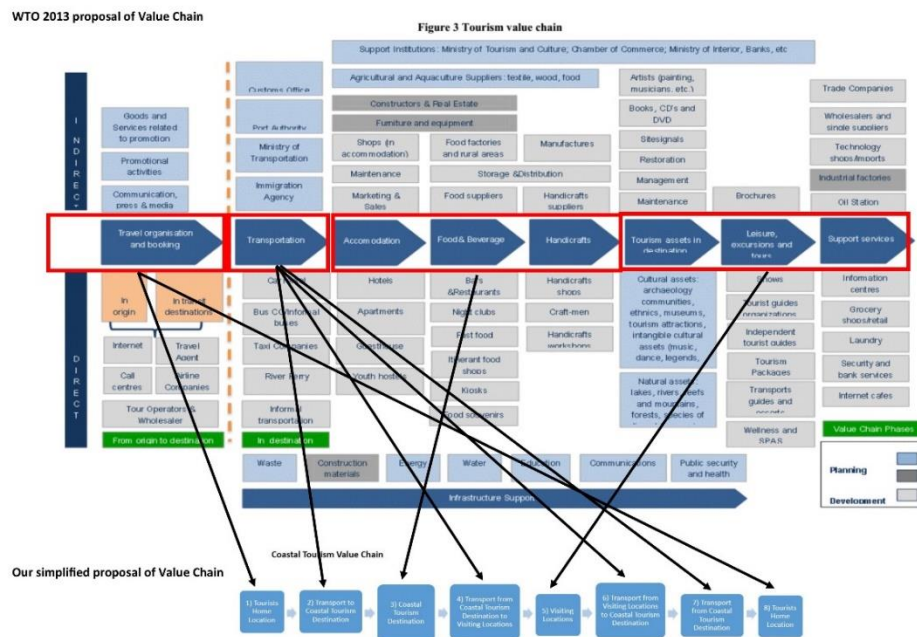
<sup>19</sup> World Trade Organization, 2013. Aid for Trade and Value Chains in Tourism. Page 23/Figure 3.

<http://www.oecd.org/dac/aft/aidfortradeandvaluechains.htm>

<sup>20</sup>

[https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/docs/publications/blue\\_growth\\_third\\_interim\\_report\\_en.pdf](https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/docs/publications/blue_growth_third_interim_report_en.pdf)

Figure 2: World Trade Organization 2013 report value chain for tourism and its fit with the general value chain proposed by this report



The following diagram shows the various segments that constitute the general value chain of Coastal Tourism<sup>21</sup>:

Figure 3: General Value Chain of Coastal Tourism



The entire coastal tourism value chain can be summarized into the following 8 segments:

- Segment 1) Tourist Home Location. Place of origin of Tourists.
- Segment 2) Transport to Coastal Tourism Destination. Ways in which tourists transport themselves to the coastal tourism destination.
- Segment 3) Coastal Tourism Destination. Tourism destination areas (where they stay most of the time)
- Segment 4) Transport from Coastal Tourism Destination to Visiting Locations. Ways in which tourists transport themselves to visiting places.

<sup>21</sup> Including Coastal Tourism activity but excluding Passengers Transport and Cruise Tourism

- Segment 5) Visiting Locations. Visited places or performed activities outside of main stay area.
- Segment 6) Transport from Visiting Locations to Coastal Tourism Destination. Ways in which tourists transport themselves from visiting places.
- Segment 7) Transport from Coastal Tourism Destination. Ways in which tourists transport themselves out of the coastal tourism destination.
- Segment 8) Tourist Home Location. Place of origin of Tourist

#### 4.1.2 Key characteristics of Coastal Tourism in Croatia

**Coastal tourism; it is the most relevant maritime activity in Croatia and the major blue sector in term of employment.** The sector has potential for further growth and has been identified as a strategic sector by the national authorities<sup>22</sup>. The combination of lengthy coastlines and favourable temperatures provide an ideal framework for the development of coastal tourism.

Croatian national waters extend for 31,479 km<sup>2</sup>, while the coastline is 6,278 km long: of which, 1,880 km are part of mainland Croatia, while 4,398 km are on islands<sup>23</sup>. There are 1244 islands, islets, rocks and reefs (islands and islets 602, rocks and reefs 642)<sup>24</sup>. Only 50 of them are permanently inhabited.

The accommodation offer is skewed towards relatively cheap structures (such as private vacation houses and camping grounds) and average tourist spending is below that recorded in EU peers.

Tourism has a long tradition in Croatia. The first tourist object in Croatia, considered the first Croatian hotel, was Villa Angiolina that was built in Opatija in 1844. In 1868 on the island of Hvar, a hygienic society was founded, and this year is considered to be the year of the beginning of organized tourism on the island. Hotel Kvarner was opened in Opatija in 1884, Hotel Therapia in 1894 in Crikvenica, and Hotel Imperial in 1896 in Dubrovnik. As early as 1914, Opatija recorded over half a million overnight stays, and tourists spent 20 days on average in the city. After WWII, Croatia became part of the Socialist Federal Republic (SFR) Yugoslavia and mass tourism started to develop. The expansion of tourism capacity building lasted until 1975, at a growth rate of 11.4% for basic capacities and 9.7% for complementary capacities. 8.2 million overnight stays were recorded in 1986, while in 1987 there were 10.5 million visitors, representing the largest number of overnight stays and visitors up until Croatia's independence from SFR Yugoslavia in 1990. During this period, Croatia accounted for about 75% of foreign tourist revenues of Yugoslavia.

"International tourists' expenditure in Croatia amounts to almost 20% of GDP – by far the largest share in the EU. Since 2000, a number of tourist overnight stays has been rising continuously (a small downfall was recorded only in 2008 due to the global financial crisis). The record tourist season with the best results in Croatia's history was recorded in 2017 when Croatia was visited by 17.4 million tourists who had 86.2 million overnight stays (13% more tourist arrivals and 11%

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<sup>22</sup> MSP Platform, MSP Country Fiche, [https://www.msp-platform.eu/sites/default/files/download/croatia\\_2018.10.29\\_final.pdf](https://www.msp-platform.eu/sites/default/files/download/croatia_2018.10.29_final.pdf)

<sup>23</sup> Tourism in numbers 2017, Ministry of Tourism, Data Source: Central Bureau of Statistics

<sup>24</sup> Tourism in numbers 2017, Ministry of Tourism, Data Source: Hydrographic Institute of the Republic of Croatia



more nights spent in comparison with 2016<sup>25</sup>). That same year, Croatia's tourism revenues amounted €9.5 billion (almost 20% of GDP<sup>26</sup>).

The increase in tourist movements has been recorded during a full 12 month period, albeit with some strong peaks in the summer time. In past years, and thanks to the constant investments in expanding and enriching the tourist offer, the seasonality issue has been substantially reduced.

Croatia features a typical "sea and sun" tourism model with stays concentrated in the coastal areas during the summer months

**The Croatian National Tourist Board has divided Croatia into ten distinct tourist regions:**

Slavonija, Središnja Hrvatska, Dalmacija–Zadar, Dalmacija–Šibenik, Dalmacija–Split, Dalmacija–Dubrovnik, Grad Zagreb, Istra, Kvarner and Lika-Karlovac<sup>27</sup>. Six of them are situated in the Adriatic part of Croatia and are described below.

*Map 3: Map of the ten tourist regions in Croatia*



**Istra:** The west coast of the peninsula of Istria has several historical towns dating from Roman times, such as the city of Umag and Rovinj. The city of Poreč is known for the UNESCO-protected Euphrasian Basilica, which includes 6<sup>th</sup> century mosaics depicting

<sup>25</sup> Central Bureau of Statistics data

<sup>26</sup> Central Bureau of Statistics data

<sup>27</sup> Croatian National Tourist Board (2019), <https://croatia.hr/en-GB>

Byzantine art. The region's largest city Pula has one of the best preserved Amphitheatres in the world, which is still used for festivals and events. It is surrounded by hotel complexes, resorts, camps, and sports facilities. Nearby is Brijuni national park, formerly the summer residence of late Yugoslav president Josip Broz Tito. The coastal waters offer beaches, fishing, wreck dives to ancient Roman galleys and World War I warships, cliff diving, and sailing. Pula is the end point of the EuroVelo 9 cycle route that runs from Gdańsk on the Baltic Sea through Poland, the Czech Republic, Austria, Slovenia and Croatia. The interior is green and wooded, with small stone towns on hills, such as Motovun. The river Mirna flows below the hill. On the other side of the river lies Motovun forest, an area of about 10 square kilometres in the valley of the river Mirna, of which 280 hectares (2.8 km<sup>2</sup>) is specially protected. This area differs not only from the nearby forests, but also from those of the entire surrounding karst region because of its wildlife, moist soil, and truffles (*Tuber magnatum*) that grow there.

**Kvarner:** One of the most varying regions, the entire Kvarner gulf provides striking scenery, with tall mountains overlooking large islands in the sea. Opatija is the oldest tourist resort in Croatia, its tradition of tourism ranging from the 19th century. The former Venetian island towns of Rab and Lošinj are popular tourist destinations. The island of Rab is rich in cultural heritage and cultural-historical monuments. Rab is also known as a pioneer of naturism after the visit of King Edward VIII and Mrs Wallis Simpson. The island offers nature, beaches, heritage, and events such as the Rab arbalest tournament and the Rab Medieval festival – Rapska Fjera. With around 2,600 hours of sunshine a year, the island of Lošinj is a tourist destination for Slovenians, Italians, and Germans in the summer months. Average air humidity is 70%, and the average summer temperature is 24 °C and 7 °C during the winter. The interior regions Gorski Kotar, Velebit and Lika have mountain peaks, forests and fields, many animal species including bears, and the national parks of Risnjak and Plitvice Lakes.

**Dalmacija–Zadar:** This region caters to yachting and leisure travel. The Kornati National Park has hundreds of mostly uninhabited islands. Zadar, the largest city in the region, gained its urban structure in Roman times; during the time of Julius Caesar and Emperor Augustus, the town was fortified and the city walls with towers and gates were built. On the western side of the town were the forum, the basilica and the temple, while outside the town were the amphitheatre and cemeteries. The aqueduct which supplied the town with water is partially preserved. Inside the ancient town, a medieval town had developed with a series of churches and monasteries being built. Zadar is connected by land with two exits from the main highway, and by sea with regular line with Ancona, Italy, and by Air mostly with Ryanair, Germanwings and Croatia Airlines.

**Dalmacija–Šibenik:** This is another yachting region, dotted with islands, and centred on Šibenik city and the Cathedral of St. James, a UNESCO World Heritage site. Several fortresses, remnants of the Renaissance era (which includes St. Nicholas Fortress)

surround the city. The interior has the Krka National Park with waterfalls and religious monasteries. Skradinski Buk has attractions and facilities available among various footpaths, sightseeing tours and presentations, boat trips, restaurants and a museum. Roški Slap, located near village Miljevcı, is the second most popular attraction of the Krka National Park in terms of numbers of visitors, and whose cascades can be visited throughout the year. Inside the park is the island of Visovac which was founded during the reign of Louis I of Hungary, home to the Roman Catholic Visovac Monastery founded by the Franciscans in 1445 near Miljevcı village.

**Dalmacija–Split:** The coastal city of Split is also the second largest city in Croatia, and is known for its unique Roman heritage which includes UNESCO-protected Diocletian's Palace. The city was built around the well-preserved palace, which is one of the most complete architectural and cultural features on the Croatian Adriatic coast. The Split Cathedral stems from the palace. Makarska Riviera is a stretch of coastline that offers beaches, clubs, cafes, kayaking, sailing, and hiking along the Biokovo range. Makarska, Brela, Omiš, and Baška Voda are the most popular. The large islands of this region, include the town of Hvar, known for its fishing and tourism industries. Hvar has a mild Mediterranean climate and Mediterranean vegetation. The island promotes itself as "the sunniest spot in Europe", with over 2,715 hours of sunlight in an average year. Other notable islands in the region include Brač, Čiovo, Šolta, and Vis. The old city of Trogir is a UNESCO World Heritage Site and contains a mixture of influence from the Hellenistic period, Romans, and Venetians with its Greek architecture, Romanesque churches, Renaissance and Baroque buildings. Trogir's grandest building is the Cathedral of St. Lawrence, whose main west portal is a masterpiece by Radovan, and the most significant work of the Romanesque-Gothic style in Croatia. Another notable attraction is the Fortress Kamerlengo.

**Dalmacija–Dubrovnik:** One of the best-known Croatian tourist sites is the fortified city of Dubrovnik with its Renaissance culture. The highlight is the Sponza Palace which dates from the 16<sup>th</sup> century and is currently used to house the National Archives. The Rector's Palace is a Gothic-Renaissance structure that now houses a museum. Its façade is depicted on the reverse of the Croatian 50 HRK banknote, issued in 1993 and 2002. The main feature of Dubrovnik is its walls that run 2 km around the city. The walls run from four to six metres thick on the landward side but are thinner on the seaward side. The system of turrets and towers were intended to protect the city. Just off the coast of Dubrovnik is the forested island of Lokrum. The small island has a castle, a thousand-year-old Benedictine monastery, and a botanical garden initially started by Archduke Maximilian in the 19<sup>th</sup> century. The nearby islands include the historical island of Korčula. The Catholic inhabitants of Korčula keep alive old church ceremonies and a weapon dance, the Moreška, which dates back to the Middle Ages. Further along the Adriatic are the forests of Mljet Island. Over 72% of the island of 98.01 square kilometres (37.84 sq. mi) is forest.

### 4.1.3 Framework conditions affecting Coastal Tourism

#### 4.1.3.1 International, national and sub-national governance

The **Tourism Development Strategy of Croatia 2014-2020** identifies key strategic objectives and use of resources, based on the principles of responsible and sustainable development. The development of so-called 'sun and sea' activities is focused on providing a more versatile offer over a longer period with a higher class of hotel. In relation to the strategic objective of developing yachting/cruising the strategy foresees a larger number of marinas, berths and regulated payment of fees. The strategy also considers the ecological impact of this expansion, defining eco-friendly marinas, better waste disposal and separation schemes, use of non-toxic paint on vessels, and definition of restricted areas to reduce underwater noise.

Tourism in Croatia is regulated by a range of sectoral legislation, primarily by the **Act on the Provision of Services in Tourism (OG 130/17)**, the **Act on Tourist Boards and Promotion of Tourism (OG 152/08)** and the **Law on Sojourn Tax** under which tourist taxes are determined at the national level. The role of the **Croatia Tourist Board (HTZ) is very important in Croatia, as this works very closely together with Ministry of Tourism** and are actively involved in discussions and activities on how to promote tourism. Under proposed changes to tourism laws, some of the existing activities will become decentralised, such as the HTZ, which will delegate some of its activities to the local level<sup>28</sup> and the sojourn tax which will be made part of decision-making at regional and local level.<sup>29</sup>

The "**Programme for promotion of tourism development on tourism underdeveloped areas**" is a fund, awarded on an annual basis, administered by the Ministry of Tourism the HTZ. Its aim is to expand the tourism offer and create new tourist destinations through support for tourism infrastructure e.g. protection of cultural and natural heritage sites, improvements to accommodation and promotion of new innovations. Nevertheless, Croatia's coastal areas will probably only benefit to a limited extent from this programme as it has already extensively developed for tourism. For this reason, it is likely that the majority of the available funds will be absorbed by inland areas.

**Act on provision of services in tourism:** regulates tourism services, the manner and conditions for providing such services, the package travel arrangements and the related travel arrangements, and the rights and obligations of the trader and the passenger in connection with those contracts.

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<sup>28</sup> <https://www.total-croatia-news.com/travel/31241-new-tourist-board-system-planned>

<sup>29</sup> <https://www.total-croatia-news.com/travel/32353-croatian-tourism>

**Strategy of tourism development 2014-2020:** gives an answer to the question what kind of tourism Croatia wants and identifies key tourism policy activities aimed at securing production, institutional, organizational and human preconditions for improving the competitiveness of Croatian tourism and the use of resource bases on the principles of responsible and sustainable development.

**Act on Tourist boards and promotion of tourism:** regulates the system of tourist boards, the organization, tasks manner of their functioning and the basic principles of their financing and management. Tourist boards are established to promote tourism of the Republic of Croatia and the economic interests of legal and natural persons providing catering and other tourist services or other activities directly related to tourism in a way to manage the destination at the level for which they are established.

**Law on Sojourn Tax:** regulates the obligation to pay the sojourn tax, the method of determining the amount of the sojourn tax, the allocation of collected sojourn tax resources, deadlines and manner of collection and payment of sojourn tax, registration and departure of tourists, and other issues of importance for collecting and allocating sojourn tax and records of tourist nights.

**Programme for promotion of tourism development on tourism underdeveloped area:** public call for the granting of non-refundable funds from the Ministry of Tourism and HTZ to co-finance projects and programs that are implemented on tourism underdeveloped areas, in order to create new tourist destinations, extensions and enrichment tourist offers, through:

1. Development and improvement of public and business tourism infrastructure (through the restoration and protection of cultural and natural heritage for tourism, as well as construction and renovation of accommodation facilities - types of camps, which are missing in the subject area),
2. Development of new innovative products and promotion of tourist offer (through development of special forms tourism, innovative products and events that promote tourism).

Coastal area will probably have just limited benefit from this programme since coastal part of Croatia is significantly more developed tourist area in comparison with inland i.e. continental tourism. Therefore, majority of allocated financing will probably be absorbed by continental tourism/area.

All listed regulations do not have a specific LSI focus.

#### **4.1.3.2 Economic framework conditions**

**Significant steps were made through the construction of modern highways connecting the coast with inland parts of the country, as well as with the rest of Europe** (e.g. towards Slovenia and Hungary). **This has resulted in a significant increase of tourists visiting Croatia**, either by bus or car. At the same time, railroad infrastructure has almost remained unchanged since the 1970's, though has gradually changed in recent years. Nearly the entire railway network of the Republic of Croatia is being developed with large support from EU funding. Also, along the Adriatic coast and on the islands, many improvement projects and construction of port infrastructure have been implemented both at the level of large ports as well as those of regional and local significance. In addition, the ongoing construction of the so-called Pelješac Bridge will ensure the connection between the peninsula of Pelješac and Dubrovnik and its surroundings. **The renovation of the airports in Zadar, Split and Dubrovnik, coupled with the availability of low budget and charter flights towards these locations, has contributed to the increase of the attractiveness of these towns.**

*“Foreign tourists tend to arrive in Croatia by car, mainly from nearby EU Member States. For many EU countries in Central and Eastern Europe it represents the closest access to the Mediterranean Sea. While this contributes to lower travelling costs, it also leads to congestion at the borders, as frequently shown by the long queues at the border with Slovenia, with negative impacts on the environment – particularly air quality”<sup>30</sup>.*

**The steep increase of tourist arrivals appears to have put the infrastructure of tourist destinations under pressure.** Typically narrow streets and small places built during ancient Roman times are finding it hard to cope with higher volume of tourists. Consequently, sewerage networks have proven their limitations. In some cases, they are not installed, for instance in smaller villages, where tourism may also affect the quality, availability and accessibility of natural resources for local users. It may also contribute to problems such as acidification (through transport-related emissions), water scarcity and increased energy demand. As Dalmatian Islands are a recognised popular touristic attraction for yachts, uninhabited islands are also affected by waste collection issues. Numerous efforts are being done, for instance in the area of energy efficiency, building of new sewerage collection and process plants, building of additional garbage facilities in line with ecological standards.

The increase of tourists in recent years is partially explained by the geopolitical instabilities and security unrest of south Mediterranean and Middle East countries, where the impact was particularly felt by their tourism sector. Large numbers of tourists opted to visit Croatia instead. These events had positive effect on Croatian tourism but it is not likely their effect will be long-lasting.

Croatian tourism has very seasonal character. High seasonality impacts the stability of employment year: **around 45% of workers employed in the tourism industry are temporary**

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<sup>30</sup> *Op.cit.*

**workers – this represents the highest share in the EU**<sup>31</sup>. Peak of the season were previously July and August but tourist workers are trying to prolong season by wider offer, not focusing only on sea and sun and stretching their season with organisation of different events.

National Strategies have been integrated within Ports development's strategies and some Ports have also prioritize on certain infrastructure needs for the forthcoming years.

As such, with the aim of keeping up pace with the competing ports, the Port of Rijeka Authority has begun the development of a nautical/passenger terminal. At the same time, the railway terminal interface will be reconstructed and the connecting road D-403 will be built. An international tender is expected to be launched for the development of the remaining phases.

According to information available on the web page of the Ministry of the Sea, Transport and Infrastructure<sup>32</sup>, in 2009 the construction of a new terminal and new port infrastructure started was started for Zadar in the suburb of Gaženica. This new terminal, with the first phase of the project completed in 2010, and phases II and IIIA completed in the summer of 2014, began its operations with some temporary facilities at the end of March 2015, and the final phase of the project was completed in 2018 This new port for Zadar is named the Port of Gaženica.

Building this new terminal has allowed to ensure better reception of passengers and vehicles in domestic and international ferry traffic as well as the possibility to perform all operations typical for cruise ships. The project will have created the possibility of simultaneously accepting seven ships in domestic ferry traffic, two ships in international ferry traffic as well as three cruise ships. Furthermore, the project will enable the unification of all Public Services around the same port: the Maritime Police, the Customs authority, the Port Authority and the Harbour Master's Office. This will further facilitate mutual coordination and thus simplify and speed up procedures for the benefit of end users.

#### **4.1.4 Key actors of Coastal Tourism Value Chain in Croatia**

We gathered all information that was available regarding the following NACE codes businesses of the Coastal Tourism Activity.

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<sup>31</sup> Ibid.

<sup>32</sup> <http://www.mppi.hr/default.aspx?id=666>

Table 1: Coastal Tourism activities and their related NACE codes

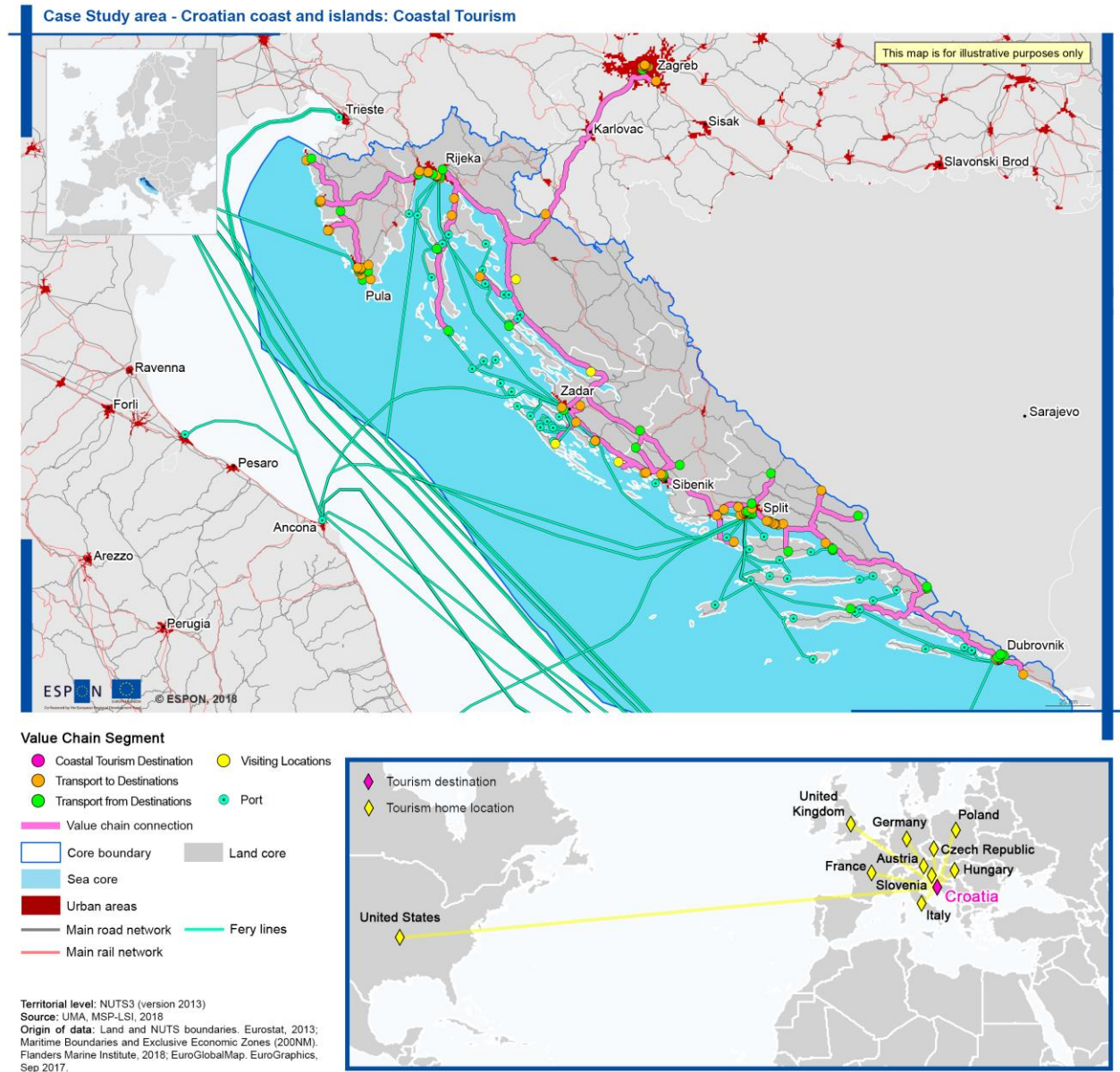
Sector/Group		Activity	Nace code <sup>33</sup>
Coastal Tourism	Tourism: Accommodation	Hotels and similar accommodation	I.55.10
		Holiday and other short-stay accommodation	I.55.20
		Camping grounds, recreational vehicle parks and trailer parks	I.55.30
		Other accommodation	I.55.90
	Tourism: Transport	Retail sale of automotive fuel in specialised stores	G.47.30
		Passenger rail transport, interurban	H.49.10
		Urban and suburban passenger land transport	H.49.31
		Passenger air transport	H.51.10
	Tourism: Other	Retail sale of cultural and recreation goods in specialised stores	G.47.6
		Retail sale of other goods in specialised stores	G.47.7
		Food and beverage service activities	I.56.00
		Travel agency, tour operator and other reservation service and related activities	N.79
	Cruise Tourism	Cruise tourism (+ cruise transport- H.50.10)	n.a.

Coastal Tourism in Croatia involves, amongst others, the following Actors within its value chain: Airports; Associations; Chambers of Commerce; Cities; Companies; Land Transport services; The Ministry of Maritime Affairs, Transport and Infrastructure; National Parks / Nature Parks; Rail Transport services; Sea and Coastal Transport services; Taxi Services; Tourist Boards and Travel Agencies.

<sup>33</sup><https://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF>



Map 4: Key actors of coastal tourism in the Croatian case study area



The mapping of actors allows us to see how coastal tourism value chain is concentrated in the mains Ports, coastal areas and main visiting places of Croatia reaches more central inland Croatia areas.

A total of 195 Actors were gathered and geo-located so as to understand the geographical area covered by these actors involved in the coastal tourism value chain. The map above shows how most of these actors are located nearby the mains Ports, coastal areas and main visiting places of Croatia. However, this mapping of the actors also allows us to see how the value chain also reaches more inland areas (mainly as headquarters for the Ministry of Economy, Entrepreneurship and Crafts; Ministry of the Sea, Transport and Infrastructure; chamber of commerce; associations; airports; transport headquarters and tourism boards); and

even International locations (mainly as tourists home locations). Travel within Croatia to and from those areas usually occurs through road or ferry services so these infrastructures are of high importance when connecting these actors, allowing for the entire well-functioning of the coastal tourism value chain.

#### 4.1.5 Tailoring the value chain

Figure 4: Tailored coastal tourism value chain in the Croatian case study area



Each segment of the value chain corresponds to specific activities and their land-sea dynamics. Four boxes are depicted within a green frame and in a bigger size than the remaining ones, suggesting that the value chain segments ‘Coastal Tourism Destination’ ‘Transport from Coastal Tourism Destination to Visiting Locations’, ‘Visiting Locations’ and ‘Transport from Visiting Locations to Coastal Tourism Destination’ are particularly relevant to the Croatian case study.

The figure above highlights sub segments 3-6 from the general value chain of coastal tourism as Croatia is highlighted as being an important coastal tourism destination as well as an important place for visiting locations in regions such as Istria, Kvarner and Highlands, Zadar, Šibenik, Split and Dubrovnik.

Sub segments 4 and 6 are also important as visiting locations are located along the entire coastline and at islands, what implies that visitors have to use current travelling infrastructures and transport services so as to arrive to their visiting destinies.

#### 4.1.6 Statistical information on the sector

The following section aims at providing additional insight on the key characteristics of the coastal tourism sector in the Croatian case study area. The statistical information has been retrieved from the most recently available sources, and generally includes data on relevant accommodation facilities, number of tourists, sector employment, and revenues.

To suggest the constant growth of the sector in the country, the total number of beds has been constantly rising since 1995, when the total number of beds was 609,000. In 2017, this number corresponded to 1,029,000 beds in total. In the same period, the number of tourists increased from 2,438,000 in 1995 to 17,400,000 in 2017. The rise is constantly progressing on a yearly basis. Similarly, the number of overnights stays increased from 21% in 1995 to 70% in 2015.

**Specific for Croatia, tourism is based on privately held facilities** (i.e. rent of rooms and private apartments), so 741,509 of beds in 2017 was related to this type of accommodation (61.4% of total number) while 241,819 of beds were available in tourist camps and 132,576 in 700 hotels. Majority of those hotels had 3 (306 hotels, 44%) and 4 star category (290 hotels, 41%).

**The majority of non-resident tourist overnight stays in Croatia is spent in private houses and camping grounds.** Tourist accommodation in Croatia is often provided in vacation homes or rented rooms. Rented rooms and private apartments represented 741,509 of total beds in 2017 (61.4%) while 241,819 of beds were available in tourist camps and 132,576 in 700 hotels. Majority of those hotels had 3 (306 hotels, 44%) and 4 star category (290 hotels, 41%)<sup>34</sup>.

In the same year, tourists came from Germany (24.2%), Slovenia (8.7%), Austria (8.4%), Poland (7.3%), the Czech Republic (6.2%) and Italy (6.0%)<sup>35</sup>.

In terms of duration of their visit, in 2017 Germans were staying 7.5 days on average, Czechs 6.8, Polish 6.5, Slovenians 5.5 and Austrians 5.3.

In 2017, 15,593,000 foreign tourists visited Croatia. In that same year, 1,838,000 domestic tourists were registered. Although more and more people visit Croatia outside the high season, the majority of arrivals are concentrated between the month of June and August. During this period, in 2017, the highest point of 4 million arrivals has been registered.

Regarding regional distribution, largest number of arrivals in 2017 was recorded in Istria county (4,104,000), Splitsko-Dalmatinska county (3,160,000), Primorsko-Goranska county (2,789,000), followed by Dubrovnik county (1,864,000), Zadar county (1,559,000) with Ličko-Senjska county 873,600) at the back.

In 2017 Dubrovnik was the most visited city in Adriatic region (NUTS II) with 1,174,800 arrivals and 3,886,000 overnight stays, closely followed by Rovinj (in Istria) with 3,329,700 overnight stays but much less arrivals (625,600). This suggests that tourists are staying more than 2 times longer in Rovinj in comparison to Dubrovnik.

When it comes to Croatian islands, in 2017 the most visited islands were Krk (797,900 arrivals) and Pag (402,400). Their attractiveness can partially be explained by the fact that they are the only two Croatian islands connected by bridge with the land (and not solely relying on ferry connections).

In 2017, Croatia had 57 marinas with 17,067 moors. 215,329 vessels were registered the same year. The majority of these vessels were registered under Croatian flag (96,759), followed by Italy (30,484), Germany (26,943), Austria (16,456) and Slovenia (8,077). While Croatia represents a traditional summer destination for nautical tourists from abovementioned countries,

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<sup>34</sup> Tourism in numbers 2018, Ministry of Tourism, Croatian Bureau of Statistics.

<sup>35</sup> Tourism in numbers 2018, Ministry of Tourism, Croatian Bureau of Statistics.

notice considerable increase of nautical tourists from other countries such as the U.K. has been observed (from 1,764 in 2016 to 4,054 in 2017).

Number of employees in hotels and restaurants in 2017 was 92,000 which represents 6.8% in total workforce. The majority of them were employed in private companies e.g. limited liability companies, stock companies, etc. (61,000) and the rest in artisanal and as a freelancers (31,000).

Tourism consumption (i.e. monetary transactions and other services related to tourism offers within a country) in 2016 amounted to 78,616,000 HRK, of which 66,433,000 HRK were attributed to foreign visitors (only 3,907,000 from one day visitors i.e. cruise tourism) and 10,523,000 attributed to domestic visitors.

The gross value added of tourism industries in 2016 amounted to 69,948 million HRK, which represents 24.01% of the total gross value added realised in 2016 in Croatia.

The direct gross value added of the sector amounted to 31,734 million HRK in 2016 and accounted for 10.89% of total gross value added. The tourism direct gross domestic product in 2016 amounted to 40,040 million HRK and its share in total gross domestic product amounted to 11.40 %. In 2016, the share of tourism direct gross value added of tourism industries in the total tourism direct gross value added amounted to 88.34%, while the share of tourism direct gross value added of other industries in the tourism direct gross value added amounted to 11.66%.

The fact that the majority of tourists overnight stays is spent in private houses and camping grounds may explain the relatively low share of employment in the tourism sector compared to the overall size of tourists' expenditure in GDP. In addition, it seems that the high seasonality impacts the stability of employment year: around 45% of workers employed in the tourism industry are temporary workers – this represents the highest share in the EU<sup>36</sup>.

Tourism ratio (the ratio of the internal consumption and the total supply of goods and services) in 2016 amounted to 0.0975, that is, 9.75% of the total supply of goods and services were used to meet tourist demand.

#### **4.1.7 Identification of Land-Sea Interactions of coastal tourism in Croatia**

Apart from the coastal and maritime dimension of coastal tourism, the sector has important onshore components and implications.

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<sup>36</sup> Ibid.

Hereafter, we focus our attention on specific land and sea impacts of coastal, which are very much related to the economic development of the Croatian case study area. They are organized in three typologies: environmental; socio-economic; technical<sup>37</sup>.

**Environmental LSIs:**

- intensive use of space and resources which may exacerbate scarcity of water, and insufficiently developed drainage and sewage systems in coastal regions (in coastal areas) and environmental quality;
- pollution, noise or species' disturbance;
- building new marinas, piers or berths has an impact on marine and coastal habitats;
- impacts on fish stocks

**Socio-economic LSIs:**

- competition for coastal space with sectors such as aquaculture, offshore energy production and port development;
- impacts on income and job creation in coastal communities (direct employment at the port, or secondary from increased tourism spend in/at local businesses);
- impact on fish stocks, potentially leading to changes in commercial fishing activities and subsequent impact on fishermen's income, jobs and fishing communities

**Technical LSIs:**

- innovation in terms of infrastructure to limit environmental pressures;
- provision of suitable access of boating locations (access to marinas, boat ramps, moorings);
- impacts on land infrastructure (increased beach access through roads and car parks).

The below table provides additional information on **specific land-sea implications per each segment of the coastal tourism value chain**. Each segment has, in fact, direct or indirect land-sea interactions. Naturally, these are more apparent at the land-sea interface where segments of the value chain are occurring, such as operation services at terminals or the maritime transport of passengers. The table highlights the key LSIs for the four key value chain segments of coastal tourism in the Croatian case study area, 'Coastal tourism destination', 'Transport from Coastal Tourism Destination to Visiting Locations', 'Visiting locations' and 'Transport from Visiting Locations to Coastal Tourism Destination'.

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<sup>37</sup> As defined in the European Commission Report "Land Sea Interactions in Maritime Spatial Planning Report". Available at [http://ec.europa.eu/environment/iczm/pdf/LSI\\_FINAL20180417\\_digital.pdf](http://ec.europa.eu/environment/iczm/pdf/LSI_FINAL20180417_digital.pdf)

Table 2: LSI linkages to segments of the value chain- Coastal Tourism

Segments of the Value Chain	Main elements characterizing the LSI
1) Tourists Home Locations	Impact of waste management; Employment and Income generation; Impacts on land infrastructure
2) Transport to Coastal Tourism Destination	Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure
<b>3) Coastal tourism destination</b>	<b>Impact of waste management; Displacement of other sectors, Employment and Income generation; Impact on coastal processes; Invasive non-native species; Impact on air quality, impact on exacerbating the shortages (availability)of drinking water, Impacts on land infrastructure; Pollution, noise or species' disturbance</b>
<b>4) Transport from Coastal Tourism Destination to Visiting Locations</b>	<b>Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure; Pollution, noise or species' disturbance</b>
<b>5) Visiting locations<sup>38</sup></b>	<b>Impact of waste management; Displacement of other sectors, Employment and Income generation; Impact on coastal processes; Invasive non-native species; Impact on air quality, Impacts on land infrastructure, impact on exacerbating the shortages (availability)of drinking water,</b>
<b>6) Transport from Visiting Locations to Coastal Tourism Destination</b>	<b>Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure, impact on exacerbating shortage (availability)of drinking water,</b>
7) Transport from Coastal Tourism Destination	Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure generation; Impacts on land infrastructure; Pollution, noise or species' disturbance
8) Tourists home location	Impact of waste management; Employment and Income generation; Impacts on land infrastructure

## 4.2 Cruise Shipping in Croatia

### 4.2.1 Developing the Value Chain - methodological clarifications

The general value chain for the maritime activity of cruise shipping was built based on previous cruise shipping value chain literature such as DG MARE Blue Growth Report<sup>39</sup>. However, some

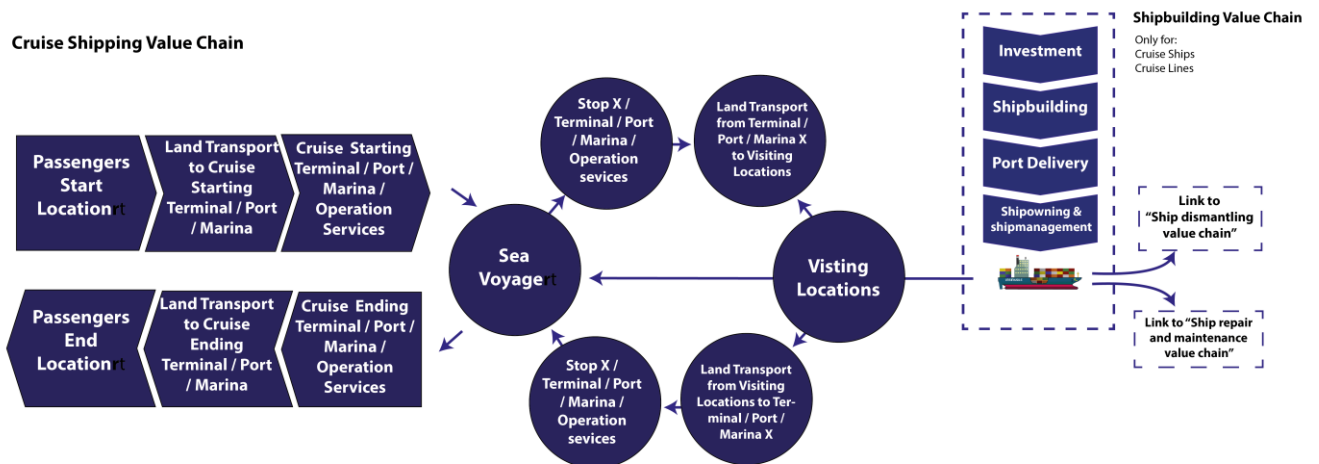
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<sup>38</sup> Highlighted LSI if visiting locations are located at the Land Sea interface. Not to be highlighted if these are inland.

other segments were added to these value chains so as to spatially highlighting the Land Sea Interactions of the Cruise Shipping Value Chain.

The following diagram shows the various segments that constitute the general value chain of cruise shipping:

Figure 5: General value chain of cruise shipping



The entire cruise shipping value chain can be summarized into the following 13 segments:

- Segment 1) Passengers Start Location. Cruise start location.
- Segment 2) Land Transport to Cruise Starting Terminal/Port/Marina. Ways in which cruise passengers arrive to their cruise starting terminals, ports or marinas.
- Segment 3) Cruise Starting Terminal /Port/ Marina Operation Services. Terminal where the cruise starts.
- Segment 4) Sea Voyage. Main cruise shipping routes.
- Segment 5) Stop X Terminal / Port/ Marina Operation Services. Terminal where cruise shipping routes temporary stop (stop-overs).
- Segment 6) Land Transport from Terminal / Port / Marina X to Visiting Locations. Ways in which cruise passengers arrive to their visiting locations.
- Segment 7) Visiting Locations. Visited places and activities performed at those places.
- Segment 8) Land Transport from Visiting Locations to Terminal / Port / Marina X. Ways in which cruise passengers arrive from their visiting locations back to the cruise ship,

- Segment 9) Stop X Terminal / Port/ Marina Operation Services. Terminal where cruise shipping routes temporary stop (stop-overs).
- Segment 10) Sea Voyage. Main cruise shipping routes
- Segment 11) Cruise Ending Terminal /Port/ Marina Operation Services. Terminal where the cruise ends.
- Segment 12) Land Transport from Cruise Ending Terminal/Port/Marina. Ways in which cruise passengers leave their cruise starting terminals, ports or marinas.
- Segment 13) Passengers End Location. Cruise end location.

#### 4.2.2 Key characteristics of Cruise Shipping in Croatia

**Cruise shipping is still a less relevant type of maritime shipping if compared to maritime cargo transport and passengers transport.** Out of a total of 338,603 ships that arrived in 2017 to the Croatian coast, only 1,511 arrivals were related to cruise ships<sup>40</sup>.

**Main harbours involved in cruise shipping are located at: Port of Zadar** (City ferries harbour and Gaženica harbour); **Port of Šibenik**; **Port of Split** (Ferries harbour and Northern harbour); **Port of Dubrovnik**; **Port of Rijeka** (passenger docks); and **Port of Pula**<sup>41</sup>.

Cruise shipping in Croatia can be, in general, divided into:

1. Worldwide shipping of large cruise ships around the world or transatlantic routes
2. International shipping routes covering the Mediterranean sea and the Adriatic sea
3. International shipping routes covering the Adriatic (mostly Montenegro, Croatia and Italy)
4. National shipping routes covering the entire Croatian coast
5. National shipping routes covering parts of the Croatian coast

Examples of different types of routes are shown in the maps below.

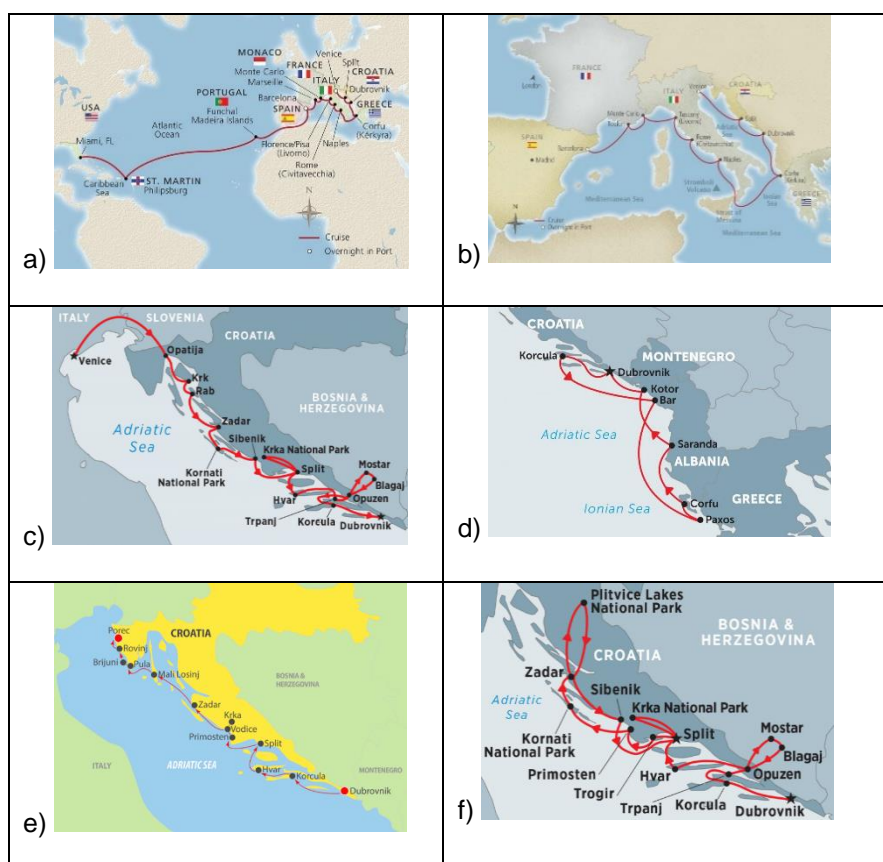
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<sup>40</sup> Central Bureau of Statistics data, TRANSPORT AND COMMUNICATIONS

<sup>41</sup> Tourism in numbers, Ministry of Tourism, 2018



Map 5: Examples of different cruise shipping routes in Croatia: a) Worldwide shipping route<sup>42</sup> ; b) Mediterranean shipping route<sup>43</sup> ; c & d) Adriatic shipping routes<sup>44</sup> ; e) Entire Croatian shipping route ; f) Parts of Croatia shipping route.



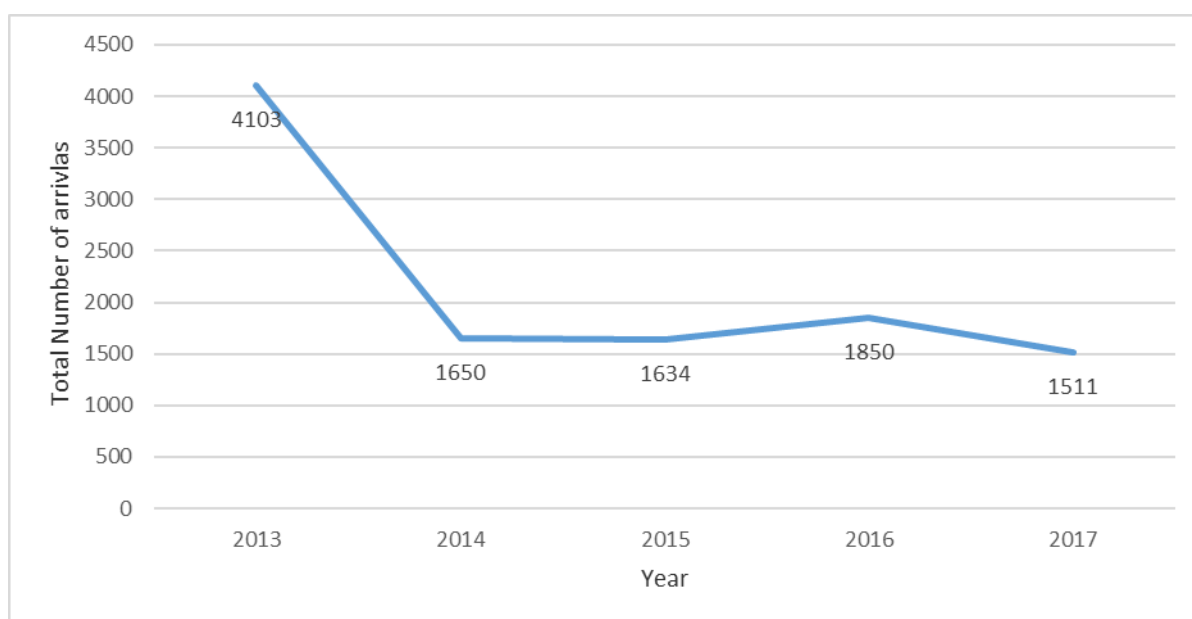
At the same time, cruise shipping is a relatively recent form of shipping. This can be partially explained by the fact that tourism started developing only after the ‘Homeland war’ (1991-1995). **After a constant increase in the arrival of cruise ships from 2009 to 2013, arrivals of cruises significantly decreased in 2014 and have kept more or less stable since then receiving a total of 1,511 arrivals in 2017, as presented in the figure below.**

<sup>42</sup> Data from <https://cruises.affordabletours.com>

<sup>43</sup> Ibid

<sup>44</sup> Data from <https://www.peregrineadventures.com>

Figure 6: Total number of arrivals of cruise ships in Croatia 2013-2017



Data source: Own calculations based on Central bureau of Statistics (Hereinafter: CBS) data<sup>45</sup>

This decrease can be explained by a combination of different factors:

1. A strategic change of vision and development strategies in coastal destinations
2. The limited capacity of available infrastructure of coastal cities to cope with the increased pressures coming from tourism
3. A diversification of the typologies of tourism affecting coastal cities (increased high-end tourism and related needs and preferred tourism locations)
4. Transport delays partially due to the limited capacity of tourism and other responsible offices to satisfy passengers' growing demands in an increasingly shorter amount of time
5. Negative impact of mass tourism on cultural heritage attractions, which prompted administrations to limit tourist accessibility to the cultural and historical sites. In 2017, the mayor of Dubrovnik announced a plan to try to manage the flow of tourists entering

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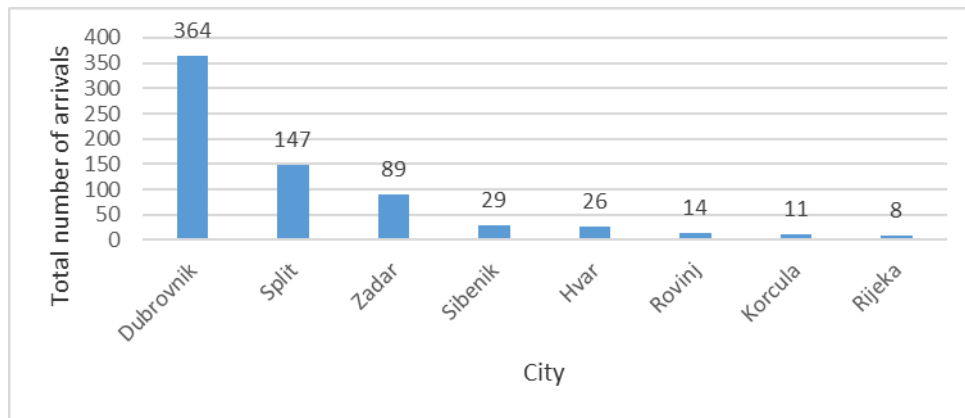
<sup>45</sup> The Croatian Bureau of Statistics carries out the statistical survey on maritime transport by using data from the Vessel Traffic Monitoring and Information System of the Ministry of Maritime Affairs, Transport and Infrastructure. The Croatian Bureau of Statistics takes the database over from the Ministry of Maritime Affairs, Transport and Infrastructure, after which it performs a further processing. The Croatian Integrated Maritime Information System (CIMIS) has been used as a uniform platform for the recording of arrivals and departures of ships since 1 July 2013 in the international navigation and since 26 November 2013 in the national traffic. Among other data, the ships submit to CIMIS, through authorised maritime agents and shippers, information on the traffic of goods and passengers. The accuracy and completeness of data in the official proceedings of registration is verified by harbour master's offices. The statistical survey is carried out in line with the statistical standards of the European Union: the Directive No. 2009/42/EC of the European Parliament and the Council on statistical returns in respect of the carriage of goods and passengers by sea (recast) as well as with all its amending regulations.

the city's old town, as a response to the issue of overcrowding. The two-year plan included efforts to coordinate the number of cruise ships and cruise passengers calling in Dubrovnik<sup>46</sup>

The impact of a decrease in arrivals via cruise ships has been partially limited by an increase in size of ships, especially in larger ports. The tendency of using bigger ships has also triggered smaller ports to invest in harbour expansion, so to accommodate larger size ships.

A detailed analysis of the crew-centre.com 2018 arrivals data<sup>47</sup> shows that the majority of cruise ships visit Dubrovnik, followed by Split, Zadar and Šibenik as these are large cities with large harbours. However, major routes are also including visits to smaller places such as Hvar, Rovinj and Korčula.

*Figure 7: Total number of arrivals of cruise ships per destination in Croatia in 2018*



*Data source: Own calculation based on crew-center.com data. Methodical note: This data are covering only part of the total cruise traffic in Republic of Croatia (688).*

According to crew-centre.com<sup>48</sup>, in 2018, total arrivals in Croatia amounted to 688. AIDA Cruises is the largest cruise line provider of cruise routes in Croatia (i.e. largest number of arrivals), followed by MSC Cruises, Costa Cruises, Marella Cruises and NCL<sup>49</sup>.

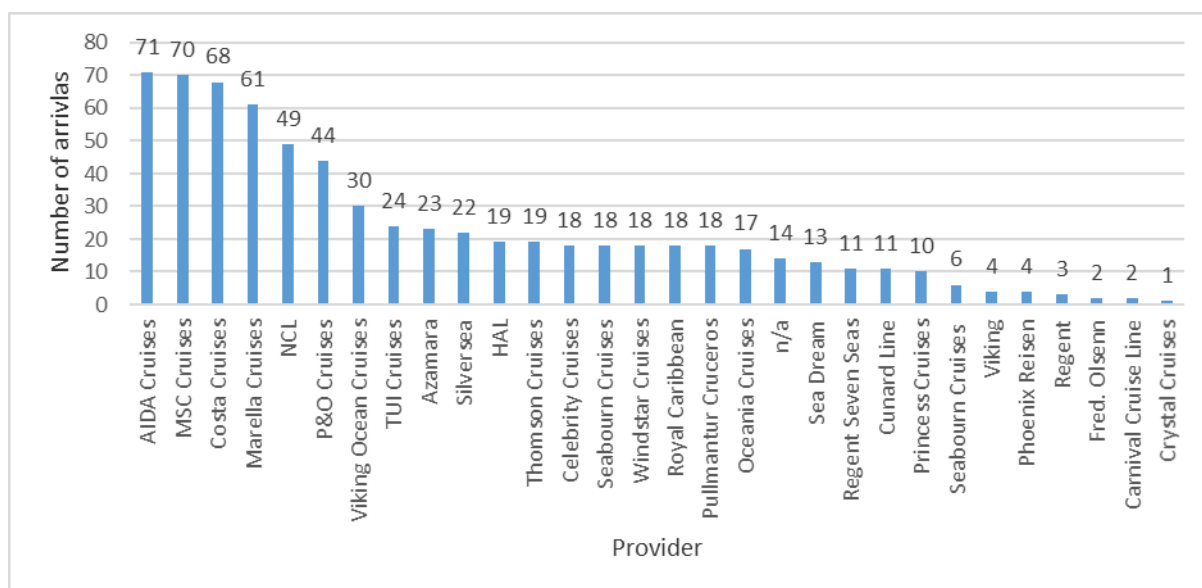
<sup>46</sup> <https://www.statista.com/statistics/888969/dubrovnik-call-cruise-passenger-numbers/>

<sup>47</sup> crew-center.com is collecting data on foreign cruise lines arriving in Croatia. Their data set is created by using the itineraries of the following cruise lines: Aida, Azamara Club Cruises, Carnival Cruise Line, Celebrity Cruises, Crystal Cruises, Cunard, Disney Cruise Line, Fred Olsen, Holland America Line, Hapag Lloyd, MSC, Norwegian Cruise Line, Oceania, P&O Cruises, Princess Cruises, Royal Caribbean, Regent Seven Seas, Seabourn, Silversea, Star Clippers, Viking Ocean Cruises, Windstar, Costa Cruises, Pullmantur and TUI. These companies are covering almost half of total arrivals in Croatia. This is their detailed analysis of data for 2018.

<sup>48</sup> Data from some companies covering almost half of total arrivals in Croatia.

<sup>49</sup> Main cruise lines are: Aida, Azamara Club Cruises, Carnival Cruise Line, Celebrity Cruises, Crystal Cruises, Cunard, Disney Cruise Line, Fred Olsen, Holland America Line, Hapag Lloyd, MSC, Norwegian Cruise Line, Oceania, P&O Cruises, Princess Cruises, Royal Caribbean, Regent Seven Seas, Seabourn, Silversea, Star Clippers, Viking Ocean Cruises, Windstar, Costa Cruises, Pullmantur and TUI.

Figure 8: Total number of arrivals of cruise ships in Croatia in 2018 (distribution on level of individual cruise ship)

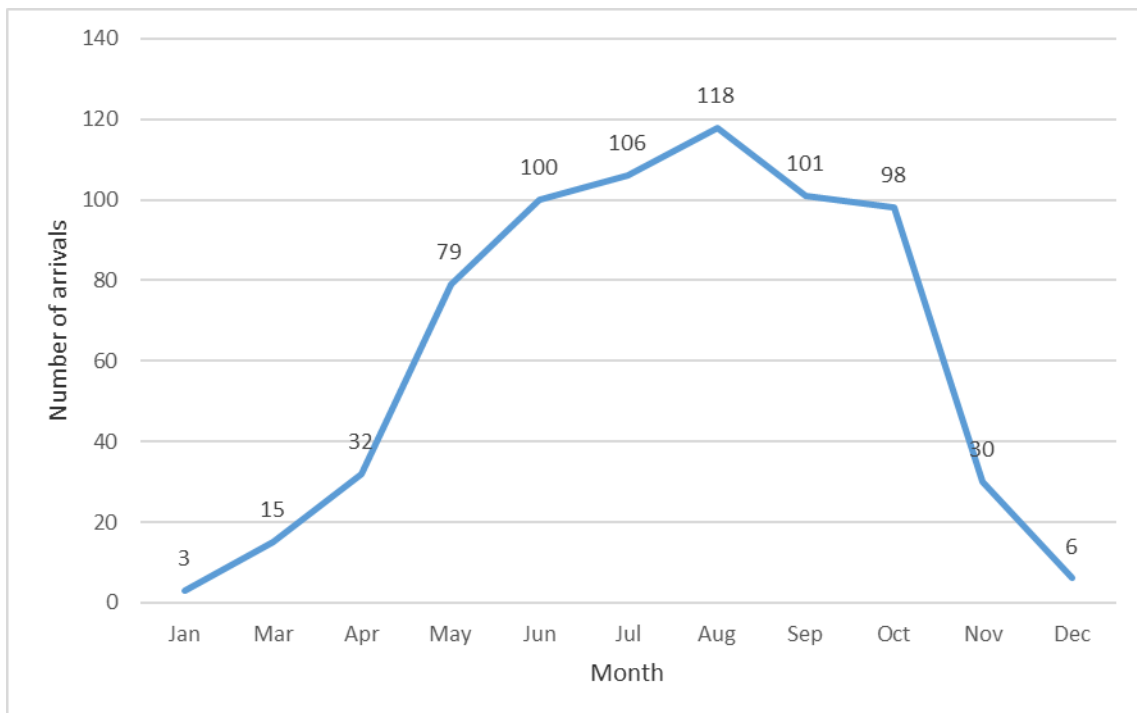


Data source: Own calculation based on crew-center.com data. Methodical note: This data are covering only part of the total cruise traffic in Republic of Croatia (688)

**A total of 56 cruise ships are active in the Croatian market.** From these ships the ship named “AIDAblu” is at first place with 64 arrivals (owned by AIDA Cruises), followed by MSC Sinfonia with 42 arrivals (owned by MSC Cruises) and Costa Luminosa with 38 arrivals (owned by Costa Cruises).

Despite the seasonal character of Croatian tourism, with its peak around August (when highest number of arrivals are recorded), cruise ships are arriving during the whole year.

Figure 9: Arrivals of cruise ships in Croatia in 2018 (distribution on monthly level)



Data source: Own calculation based on crew-center.com data. Methodical note: This data are covering only part of the total cruise traffic in Republic of Croatia (688).

The majority of those ships arrive at the ports towards 8 am (140 out of 688), spending an average time of 8 to 12 hours on-shore<sup>50</sup>. In the case of Dubrovnik, cruisers stay in average 13 hours, while passengers spend five to six hours on the shore in the destination<sup>51</sup>. Passengers arriving to Dubrovnik predominantly stay on the shore and experience organized city trips (42%), independent sightseeing (69%), during which time 81% spend money consuming drinks (81%) and 48% buying food<sup>52</sup>.

In general, when onshore most visited places include cities, such as: Dubrovnik (walls and fortifications), Split (Diocletian palace – roman emperor), Šibenik (renovated maritime fortification), Zadar (middle age fortification surrounding central part of the town located at small peninsula) and Pula (one of the best preserved Roman amphitheatres in the world). Visits may also include short trips to Croatian National and Nature Parks such as: Brijun, Krka, Kornati Islands, Mljet, Plitvička Jezera, Paklenica, Risnjak, Sjeverni Velebit National Parks and/or Javna ustanova, Lastovsko otočje Telašćica, Učka, Velebit Vransko jezero, , Nature Parks.

<sup>50</sup> Data source: crew-center.com website data

<sup>51</sup> Hrvoje Carić (2011), *Cruising tourism enviromental impacts: case study of Dubrovnik, Croatia* , Institute for tourism

<sup>52</sup> Jelena Matković , Ljudevit Pranić ( 2010), *Zanemareni segment turizma RH: Tuzemna višednevna krstarenja malim plovilima*, Ekonomski fakultet Sveučilišta u Splitu

## 4.2.3 Framework conditions affecting Cruise Shipping in Croatia

### 4.2.3.1 International, national and sub-national governance

Prior to accession to the European Union, the Croatian government defined a wide range of priorities in relation to port development<sup>53</sup>. **Of interest to spatial planning are the priorities of modernisation and construction of new port capacities and their inland connections via modern highways.** In 2017 the national government adopted the “**Programme of state aid for development of ports opened for public transportation in Republic of Croatia 2017-2020**”<sup>54</sup>. Among its main goals are the development of ports and their capacities to receive larger ships and provide more services as well as increased competitiveness in comparison to ports of surrounding countries.

Nonetheless, shipping legislation in Croatia is rather fragmented and is covered by a large number of laws, regulations and policies that cover different and very specific topics e.g. ports, port authorities, ports of special purposes, line shipping and seasonal transport to name but some. The website of the Ministry of the Sea, Transport and infrastructure<sup>55</sup> defines all regulation related to different areas of shipping. This amounts to 191 different regulations – just at the national level and not including international legislation. **There is no legislation specifically relating to cruise shipping.**

Following legislation is being implemented due to international status of Adriatic Sea:

- Sea and submarine areas of the Republic of Croatia<sup>56</sup>
- United Nations Convention on the Law of the Sea (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Regulations 9/2000)<sup>57</sup>
- Agreement between the Government of the Republic of Croatia and the Republic of Italy on the demarcation of the Epicontinental Belt between the two countries (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements and other Agreements 28/70)
- Waterways, navigation and piloting

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<sup>53</sup> Morske luke - činitelji logističkog i prometnog razvitka Republike Hrvatske; Dundović Č, Kolanović I.; <https://morehrvatskobлаго.files.wordpress.com/2016/03/76-ccc8c-dundoviccc81.pdf>

<sup>54</sup> Programme of state aid for development of ports opened for public transportation in Republic of Croatia 2017-2020, Zagreb, 2017; [http://www.mppi.hr/UserDocImages/PDP%20za%20razvoj%20luka%202017.%20-2020.%2021.09\\_17.pdf](http://www.mppi.hr/UserDocImages/PDP%20za%20razvoj%20luka%202017.%20-2020.%2021.09_17.pdf)

<sup>55</sup> Web site of the Ministry of the Sea, Transport and infrastructure <http://www.mppi.hr/default.aspx?ID=850>

<sup>56</sup> Official Gazette. Sea and submarine areas of the Republic of Croatia (1994) Available at: [https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/HRV\\_1994\\_Code.pdf](https://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/HRV_1994_Code.pdf)

<sup>57</sup> United Nations. (1982). Convention on the Law of the Sea.

- Maritime Search and Rescue Convention 1979 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 14/96)
- Convention on International Maritime Deterrence Convention 1972 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 1/92)
- Memorandum of Understanding between the Government of the Republic of Croatia and the Government of the Italian Republic in Search and Rescue Operation in the Adriatic Sea (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 4/01)
- Memorandum of Understanding between the Government of the Republic of Croatia, the Government of the Italian Republic and the Government of the Republic of Slovenia on the Establishment of a Common Navigation System and Directed Navigation System in the Northern Part of the North Adriatic (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 4/01)
- Memorandum of Understanding between the Government of the Republic of Croatia and the Government of the Italian Republic on the Establishment of a Joint Navigation and Navigation System and Navigation Systems in the North and Mid-Adriatic Region (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements No. 4/01)
- Memorandum of Understanding between the Government of the Republic of Croatia, the Government of the Italian Republic and the Government of the Republic of Slovenia on Obligatory Ship Repairs Reporting in the Adriatic Sea (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements No. 4/01)
- Memorandum of Understanding between the Government of the Republic of Croatia and the Government of the Italian Republic on the Establishment of a Common Maritime Navigation System on the Adriatic (VTS System), (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 4/01)
- Law on Confirmation of the Memorandum of Understanding between the Government of the Republic of Croatia and the Government of the Italian Republic on the Establishment of a Joint Maritime Navigation Management System in the Adriatic (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 4/01)
- Regulation on the publication of the Memorandum of Understanding between the Government of the Republic of Croatia and the Government of the Italian Republic in Search and Rescue Operation in the Adriatic Sea (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Treaties No. 4/01)
- Regulation on the publication of the Memorandum of Understanding between the Government of the Republic of Croatia, the Government of the Italian Republic and the

Government of the Republic of Slovenia on the Establishment of a Common Navigation System and Directed Navigation System in the Northern Part of the North Adriatic (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements No. 4/01)

- Regulation on the publication of the Memorandum of Understanding between the Government of the Republic of Croatia and the Government of the Italian Republic on the Establishment of a Common Navigation and Navigation System and Navigation System in the North and Mid-Adriatic Part (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 4/01)
- Convention on the Facilitation of International Maritime Traffic (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - 1/92)
- International Convention on Cargo Lines, 1966 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 1/92)
- The 1988 Protocol relating to the International Convention on Cargo Lines, 1966 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 13/99)
- International Convention on the Calibration of Ships, 1969 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 1/92)
- International Convention on Container Safety (CSC), 1972 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 1/92)
- Ship crew
- Paris Memorandum of Understanding on Port State Control - volume I, 1978 (Paris MOU)
- Manual for PSC inspectors - volume I (Paris MOU)
- Manual for PSC inspectors - volume II (Paris MOU)
- Ordinance on the conditions to be met by legal persons providing services of embarkation of armed security personnel on board of Croatian flag ships
- Contracts on utilisation of ships
- Athens Convention on the Carriage of Passengers and Their Luggage by Sea of 1974 on the relevant protocols of 1976 and 1990 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Treaties 2/77)
- Convention on the Limitation of Liability for Maritime Claims (1976) (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA -International Agreements 2/92)



- Protocol (1976) of the Athens Convention on the Carriage of Passengers and their Luggage by Sea (1974) (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA-International Agreements 2/97)
- Protocol (1990) of the Athens Convention on the Carriage of Passengers and their Luggage by Sea (1974) (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA-International Agreements 2/97)
- International Convention on the Prohibition of Maritime Ships (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - International Agreements 1/92)

**Main National Legislation (and their amendments):**

- **Maritime Code:** This Act gives main provisions related to maritime affairs, defines additional sub regulations and deadlines for their drafting/implementation as well as defines institutions in charge for their implementation. (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA - 181/2004)
- **Act on the security of ships and ports:** This Act establishes security procedures and measures in the event of security threats and security-threatening events to ensure and enhance the security of ships and ports, as well as other issues related to the security of ships and ports open to international traffic. 2009 (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA 59/2012)
- **The Harbour Masters Offices' Act:** This Act defines task of harbourmasters' offices: to control navigation in the internal and territorial waters of the Republic of Croatia, actions of search and rescue on sea, inspection of navigation safety, inspection of the maritime domain, registration and deletion of vessels as well as organising a register of vessels. (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA 124/97)
- **Regulation on classification of ports open to public transport and ports of special purposes:** This Regulation lays down the conditions for the classification of ports open to public transport and conditions for the classification of ports of special use. (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA 110/04)
- **Law on Liner shipping and Seasonal Coastal Maritime Transport:** This Law regulates the terms and conditions for the provision of public transport services of general economic interest with a public service obligation, performance of public transport without public service obligation, establishment of an IT system, public transport of passengers and vehicles, classification of public transport lines, publication of schedules of lines and provision of funds for continuous, regular and uninterrupted public transport. It also determines what is meant by international liner shipping, the conditions that must be fulfilled by the ship and the carrier, schedules in international liner shipping, as well as occasional carriage of passengers.

As it is possible to see, all listed acts are quite specific, covering just small, specific areas and neither one is significantly taking into account LSI. (OFFICIAL GAZETTE OF THE REPUBLIC OF CROATIA 33/06)

#### **4.2.3.2 Economic framework conditions**

Strategy of Regional Development 2014-2020 from the state budget has been constantly invest in social, economic, health

**Cruise harbours are sharing the same infrastructural issues as the main cargo harbours and passengers ports** (i.e. great road connection – new, modern highways; bad train connection – limited infrastructure, last large investments in past century and not much lines connecting them with inland; relatively good airplane connection with increasing number of low cost companies and charter flights, especially at the peak of the season). While nothing significant changed in terms of railway connections between inland with coastal areas of Croatia, **fast improvement of highway network connecting the Croatian coast with the rest of Europe significantly improved the interaction between land and sea areas**. This allowed Croatian and foreign passengers to arrive to the coast significantly faster, by their own means of transportation or by bus.

Within this context, and during pre-accession period, the Republic of Croatia Government included “wider picture” of port development defining its priorities in following manner<sup>58</sup>:

1. Stabilisation of political and economic situation in Republic of Croatia
2. Development of national economy and increase of national transport
3. Return of lost cargo in transit
4. Gradual implementation of EU legislation
5. Restructuring and privatisation of port system
6. Modernisation and construction of new port capacities
7. Connection of ports with inland via modern highways

**Since 2013, total value of investments in ports was of EUR 499.5 million**. Investments were funded from state budget, World Bank European Investment Bank, European Bank for Research and Development and German Investment bank (KfW) loans along with state guarantees.

Furthermore, in 2017 the Republic of Croatia Government adopted a “**Programme of state aid for development of ports opened for public transportation in Republic of Croatia 2017-2020**”<sup>59</sup>. This document defines its main goals as it follows:

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<sup>58</sup> Morske luke - činitelji logističkog i prometnog razvitka Republike Hrvatske; Dundović Č, Kolanović I.; <https://morehrvatskoblagog.files.wordpress.com/2016/03/76-ccc8c-dundoviccc81.pdf>

1. Balanced, coherent and sustainable development of ports
2. Increase of their competitiveness in comparison with ports in surrounding countries
3. Removal of deficiencies in ports that doesn't have sufficient quality of port infrastructure
4. Increase of port capacities in manner that they provide more services
5. Increase of port capacities for larger ships

According to information available on the web page of the Ministry of the Sea, Transport and Infrastructure<sup>60</sup>, renovation of Vrulje Quay at the Port of Sibenik in 2007 has considerably changed the image of Sibenik region. The port now accommodates vessels of international and domestic passenger transport, as well as cruise ships of up to 240 m. As a last phase of this project, the Authority of the Port of Sibenik plans to build the Maritime Passenger Terminal building by May 2020. The main result will be a new two-storey passenger terminal.

**Since the cruise industry in the world is in constant growth, new ports and terminals are in demand.** New itineraries and destinations are searched by cruise lines: this appears to be particularly beneficial for the ports, since smaller ports like Sibenik can promote themselves more actively. The increased interest for new itineraries has a natural impact on the needs and pressures on existing passenger terminals. Continuous modernisation of current terminals and investments in new facilities are expected. With the creation of its Maritime Passenger Terminal Project, the Port of Sibenik tries to respond to such challenges.

As consequence of the increase demand for port facilities at Port of Split, port facilities are increasingly under pressure. In order to satisfy this demand, and with a view to improving the safety of flow of passengers and vehicles, as well as the security of traffic in the port, in 2014 the Port Authority of Split launched the Port of Split Infrastructure Rehabilitation Project. The extension and rehabilitation of passenger berths at the outer side of the breakwater aims at increasing the propulsion features of the city port.

The Port of Split infrastructure rehabilitation project and the construction of passenger wharves are also part of an investment strategy of the Croatian Government. The aim is to provide support to the strengthening of traffic infrastructure and tourist network in Croatia, and therefore the strengthening of the City of Split itself. The importance of efficient local traffic infrastructure is recognised as one of key elements in ensuring the quality of service and extension of tourist offer in Croatia beyond already famous tourist destinations.

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<sup>59</sup> Programme of state aid for development of ports opened for public transportation in Republic of Croatia 2017-2020, Zagreb, 2017;

[http://www.mppi.hr/UserDocImages/PDP%20za%20razvoj%20luka%202017.%20-2020.%2021.09\\_17.pdf](http://www.mppi.hr/UserDocImages/PDP%20za%20razvoj%20luka%202017.%20-2020.%2021.09_17.pdf)

<sup>60</sup> <http://www.mppi.hr/default.aspx?id=666>

Similarly, there is an ongoing project of modernization of the Port of Dubrovnik, which aims at transforming the port area into a multi-purpose commercial and tourist zone, one of strategic importance at both city as well as regional level. The part of the port into the bay of Gruž will likely be earmarked for international and domestic passenger traffic, i.e. the ships on a cruise travel and luxury yachts, while the Batahovina area will be assigned as ferry passenger port. This area will be of strategic importance, with the Zagreb-Dubrovnik highway enabling the direct connection with road transport. Overall, this project represents a step forward in ecologic terms as well as for the spatial organisation of the city and the country as a whole.

The final phase of the project includes the construction of a modern multipurpose terminal for cruise ships passengers in the area of the bay and the ferry terminal in the area of ferry berths. In addition, the Port authority of Dubrovnik, in collaboration with partners, is preparing the construction of a platform to supply ships with electricity from the mainland during their stay at the berth. This is expected to significantly reduce the emission of harmful gases during the stay of the ships in the harbour, while contributing to a better and cleaner environment.

During the pre-accession period (2001 to 2013), the Croatian Government defined the key priorities of Croatian ports which include<sup>61</sup>:

1. Restructuring and privatisation of the port system
2. Modernisation and construction of new port capacities
3. Connection of ports with inland via modern highways

Furthermore, in 2017 the national government adopted the “Programme of state aid for development of ports opened for public transportation in the Republic of Croatia 2017-2020”<sup>62</sup>. As key strategic objectives, the Programme includes the following objectives:

- a. Balanced, coherent and sustainable development of ports
- b. Increase of their competitiveness in comparison with ports in surrounding countries
- c. Removal of deficiencies in ports that doesn't have sufficient quality of port infrastructure
- d. Increase of port capacities in manner that they provide more services
- e. Increase of port capacities for larger ships

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<sup>61</sup> Morske luke - činitelji logističkog i prometnog razvitka Republike Hrvatske; Dundović Č, Kolanović I.; <https://morehrvatskoblagog.files.wordpress.com/2016/03/76-ccc8c-dundoviccc81.pdf>

<sup>62</sup> Programme of state aid for development of ports opened for public transportation in Republic of Croatia 2017-2020, Zagreb, 2017; [http://www.mppi.hr/UserDocImages/PDP%20za%20razvoj%20luka%202017.%20-2020.%2021.09\\_17.pdf](http://www.mppi.hr/UserDocImages/PDP%20za%20razvoj%20luka%202017.%20-2020.%2021.09_17.pdf)

Two main strategic documents reflect on the country's **exposure to external factors**: the **Strategy of Traffic Development for Republic of Croatia 2014-2030** (OG 131/14<sup>63</sup>) and the Strategy of maritime development and integrated maritime policy for Republic of Croatia 2014-2020 (OG 93/14<sup>64</sup>).

The first document defines the major limits for the transport sector according to a geographical classification:

#### **Northern Adriatic**

- Limited development of basic and business infrastructure and entrepreneurship
- Growing unemployment rate

#### **Dalmatia Region**

- Intensifying separation effect (i.e. increasing regional differences)
- Decreasing cargo transport
- Polarisation of developments towards the coastline (i.e. depopulation of islands and inland while majority of population is moving to the coast)
- Growing unemployment rate
- Weakening of industrial production
- High risk of marine pollution
- Depopulation and the reduction of economic activities on islands

The second document, the '**Maritime development and integrated maritime policy strategy of the Republic of Croatia for the period from 2014 to 2020**'<sup>65</sup> identifies specific risks for maritime transport, such as:

- Great risk of sea pollution affecting economic development and sustainability

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<sup>63</sup> Strategy of Traffic Development for Republic of Croatia 2014-2030; defining main strategical direction of Republic of Croatia in relation to traffic development, including maritime transport of passengers; <http://www.mppi.hr/UserDocImages/MMPI%20Strategija%20prometnog%20razvoja%20RH%202017.-2030.-final.pdf>

<sup>64</sup> Strategy of maritime development and integrated maritime policy for Republic of Croatia 2014-2020, [http://www.mppi.hr/UserDocImages/JS%20MPPI%20STR-POM-R%2021-II-7-III\\_14%20OKN%2025-2\\_15.pdf](http://www.mppi.hr/UserDocImages/JS%20MPPI%20STR-POM-R%2021-II-7-III_14%20OKN%2025-2_15.pdf)

<sup>65</sup> Maritime development and integrated maritime policy strategy of the Republic of Croatia for the period from 2014 to 2020, Pg 37, Zagreb, 2014; <http://www.csamarenosturm.hr/userfiles/files/Nacion%20zakon%20engl/MDIMPSRC.pdf>

- Great risk of damaging natural water resources on some islands and in most of the most coastal regions due to massive tourism. Today many coastal regions experience an acute shortage of available drinking water
- Increasing risk for people and the environment due to the increase in human activities on the sea and in coastal areas
- Long-time crisis in shipping and drop in demand for maritime transport and services
- Continuous drop in gross tonnage of the Croatian merchant fleet due to increased market competition,
- Increase in competition in the international labour market in the maritime sector
- Population decline and reduction of economic activity on the islands
- Risks of further developments in shipbuilding (i.e. Uljanik and 3. Maj shipyards in bankruptcy procedure)
- Technical and technological non-conformity of the Croatian fleet to global standards of excellence
- Discrepancies in the development of railway and maritime infrastructure

As main goals, both strategies are setting (in relation to cargo transport):

1. Better quality of international rail lines
2. Better connection with islands
3. Develop potential of main logistic centres
4. To promote development and increase competitiveness of port Rijeka
5. Increase share of maritime transport in coastal area (i.e. reduce road transport)
6. Increase efficiency of maritime transport
7. Increase safety of maritime transport
8. Improve integration of ports into local transport

#### **4.2.4 Key actors in the Cruise Shipping value chain**

We gathered all information that was available regarding the following NACE codes businesses of the Cruise Shipping Activity:

*Table 3: Cruise Shipping and related activities and their related Nace codes*

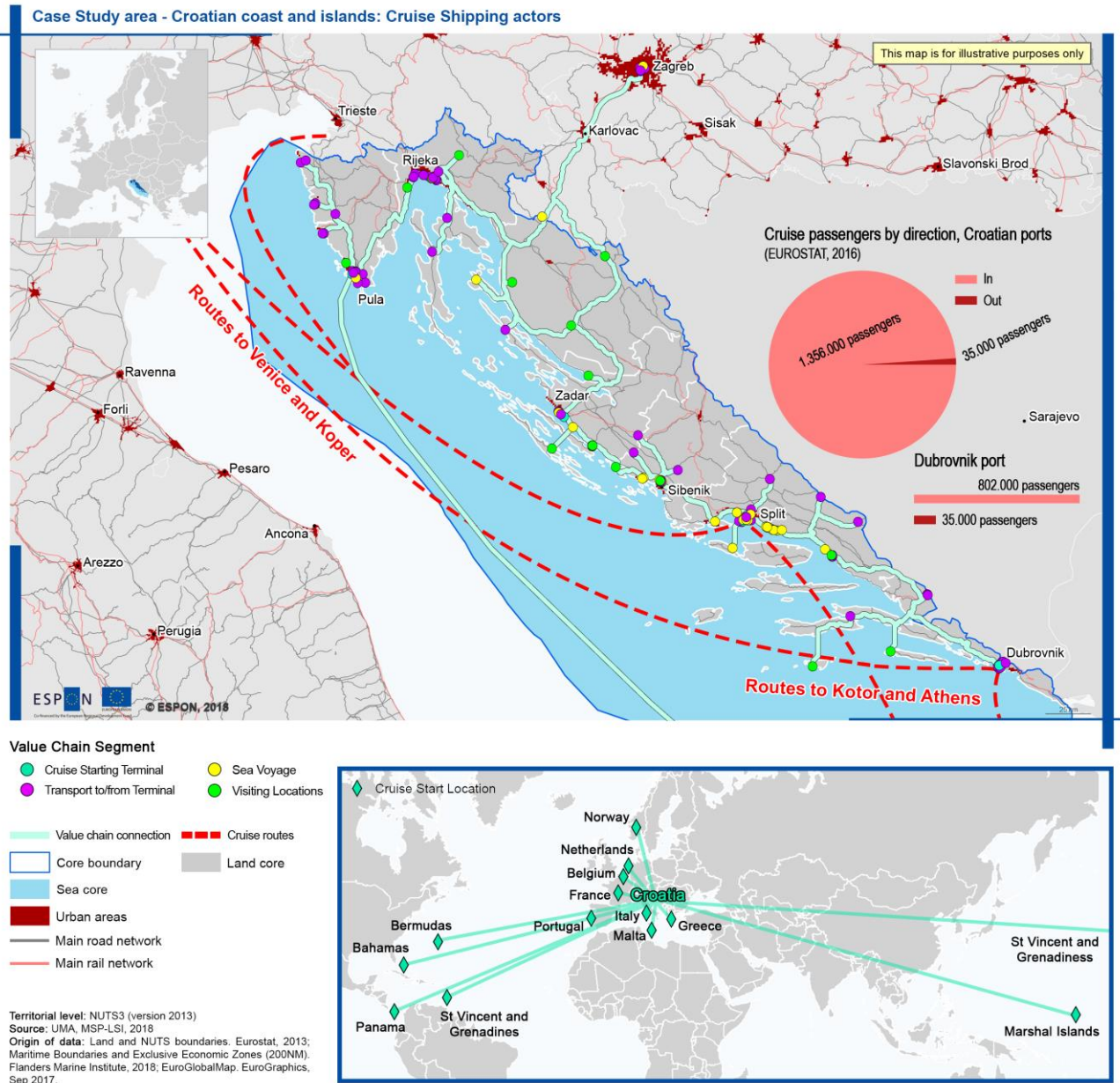
Sector/Group		Activity	Nace code <sup>66</sup>
Cruise Shipping	Tourism: Transport	Retail sale of automotive fuel in specialised stores	G.47.30
		Passenger rail transport, interurban	H.49.10
		Urban and suburban passenger land transport	H.49.31
	Tourism: Other	Retail sale of cultural and recreation goods in specialised stores	G.47.6
		Retail sale of other goods in specialised stores	G.47.7
		Food and beverage service activities	I.56.00
		Travel agency, tour operator and other reservation service and related activities	N.79
	Cruise Tourism	Cruise tourism (+ cruise transport- H.50.10)	n.a.

Cruise Shipping in Croatia involves, amongst others, the following Actors within its value chain: Associations; Chambers of Commerce; Cruise Companies; Harbours; Land Transport sectors; The Ministry of Maritime Affairs, Transport and Infrastructure; National Parks / Nature Parks; Passenger rail transport services; State Business; Taxi Services; Terminal Operators and Travel Agencies.

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<sup>66</sup> NACE Rev 2 Statistical classification of economic activities in the European Community. 2008. Eurostat Methodologies and working papers, European Commission, Luxembourg. ISBN 978-92-79-04741-1. Available at <https://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF>

Map 6: Key actors of the cruise shipping value chain in the Croatian case study area



The mapping of the actors allows us to see how the cruise shipping value chain is spread all along Croatian coast and islands, nearby main cruise shipping ports, coastal areas and main 1-day visiting places around Croatia. The value chain has inland connections and reached other coastal and island areas, as well as international locations.

A total of 174 Actors were gathered and geo-located so as to understand the geographical area covered by these actors involved in the cruise shipping value chain. The map above shows how most of these actors are undoubtedly located nearby main Cruise Shipping Ports, coastal areas and main 1-day visiting places around Croatia. However, this mapping of the actors also allows us to see how these value chain also reaches more central inland Croatia

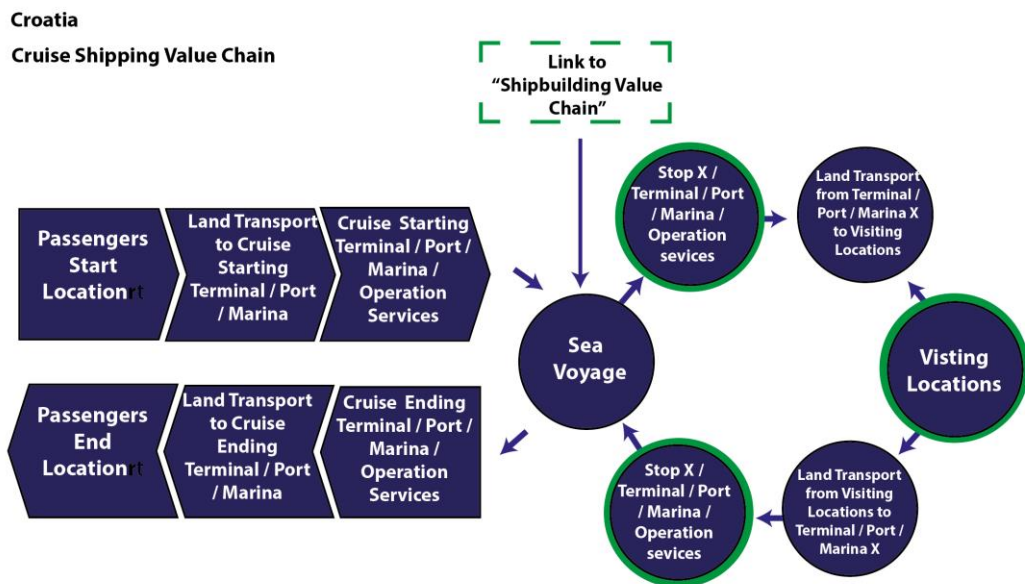


**areas** (mainly as headquarters for the Ministry of Economy, Entrepreneurship and Crafts; Ministry of the Sea, Transport and Infrastructure; chamber of commerce; associations; airports; transport headquarters (land transport) and travel agencies); **other coastal and island areas** (mainly for visiting); and even **International locations** (mainly as cruises start locations). Travel within Croatia to and from those areas usually occurs through road or ferry services so these infrastructures are of high importance when connecting these actors, allowing for the entire well-functioning of the cruise shipping value chain.

#### 4.2.5 Tailoring the Cruise Shipping Value Chain

The below value chain aims at bringing forward the land-sea component of activities stemming from the cruise shipping value chain in the Croatian case study area

Figure 10: Tailored cruise shipping value chain in the Croatian case study area



Each segment of the value chain corresponds to specific activities and their land-sea dynamics. Three boxes are depicted within a green frame and in a bigger size than the remaining ones, suggesting that the value chain segments ‘Stop X Terminal/ Port/ Marina Operation Services’, which appears twice, and ‘visiting locations’ are particularly relevant to the Croatian case study.

The figure above highlights segments 5, 7 and 9 from the general value chain of cruise shipping as the majority of cruise ships arrive to Croatia as part of their international cruise routes as well as for visiting Croatian coastline areas. Visits are usually around those places nearby the cruise terminals (at most ½ day visits nearby) and this is why segment 6 and 8 of transport to those visiting locations has not been highlighted.

#### 4.2.6 Statistical information on the sector

The following section aims at providing additional insight on the key characteristics of the cruise shipping sector in the Croatian case study area. The statistical information has been retrieved from the most recently available sources, and generally includes data on Croatian businesses, and sector employment.

Data is publically available only for limited part of value chain. In the case of ports, it is not possibly to disaggregate specific business and financial data (i.e. to know which part of financial data is related to which business activity). A similar issue regards company information: most of these are owned by bigger groups and it is only at group-level that financial information is made publicly available.

At the same time the majority of Croatian companies are also involved in cruise liners activities and other maritime related activities, while at their financial reports they are showing only total income data. Therefore, it is not possible to calculate potential impact and importance of each of the sub segments involved in the value chain of this sector as statistics are not broken down. Furthermore, almost half of the cruise ships arriving into Croatia sail under a foreign flag (from the 1,511 arrivals of cruise ships in 2017, 820 arrivals were for ships under Croatian flag while 691 where for arrivals of ships under a foreign flag).

*Table 4: Main business data in value chain, 2017*

<b>Nace Code</b>	<b>Nace Title</b>	<b>Total N° of companies</b>	<b>Total Revenues (Year 2017, HRK)</b>	<b>N° Employed people</b>
H 49.10	Passenger rail transport, interurban	3	838,045,387	1,940
H 49.31	Urban and suburban passenger land transport	43	554,958,814	2,246
H 49.32	Taxi service	280	140,953,203	1,190
H 49.38	Other passenger land transport n.e.c.	396	2,227,953,645	6,007
H 50.10	Sea and coastal passenger water transport	55	1,503,112,769	2,575
N 79.11	Activities of travel agencies	1,559	-100,847,863	5,626

Some economic data for 2017 can be found at ports and some business level and is summarized here below:

Table 5: Main business data on business entity level, 2017

Port Company /	Main Company	Group companies	Revenues (1,000 HRK)	Expenses (1,000 HRK)	EBIT <sup>67</sup>	EBITDA <sup>68</sup>	Assets / liabilities (1,000 HRK)	Employees
Port Rijeka <sup>69</sup>	LUKA RIJEKA d.d. Rijeka	+ 2 Companies	179,801	186,319	- 10,711	-563	724,646	-----
Port Split <sup>70</sup>			43,709,884	36,542,177			432,005,190	
Port Dubrovnik <sup>71</sup>			39,413,505	30,583,083				24
Port Šibenik <sup>72</sup>			7,445,315	8,776,503			125,198,048	
Port Zadar <sup>73</sup>			62,010,252	47,644,836			1,716,063,372	

Dubrovnik is one of the principal ports-of-call in the Mediterranean, with a 748,918 passengers having visited in 2017 (a decrease when compared to 2016)<sup>74</sup>. Nadramija's (2018)<sup>75</sup> estimation of economic and social impacts of cruise tourism in Dubrovnik shows that while an increase in ships and passengers visiting Dubrovnik has increased tourism incomes, it has come at the expense of quality of service. Cruise management in organization and acceptance of cruise travellers remains a weak point that influences the life quality of residents and the tourists themselves.

<sup>67</sup> Earnings Before Interest and Taxes

<sup>68</sup> Earnings Before Interest Taxes Depreciation and Amortization

<sup>69</sup> Data source: Annual Report for the year ended 31 December 2017; [http://www.lukarijeka.hr/\\_Data/Files/196\\_20180427145241355/Annual%20financ.report%202017%20consolid.%20.pdf](http://www.lukarijeka.hr/_Data/Files/196_20180427145241355/Annual%20financ.report%202017%20consolid.%20.pdf)

<sup>70</sup> Data source: Financial report for NGO's for 2017; [https://portsplit.hr/wp-content/uploads/295516\\_1.pdf](https://portsplit.hr/wp-content/uploads/295516_1.pdf)

<sup>71</sup> Data source: Financial and revision reports on revision of financial reports for 2017;

[http://www.portdubrovnik.hr/assets/Financije%20i%20revizija\\_2017.pdf](http://www.portdubrovnik.hr/assets/Financije%20i%20revizija_2017.pdf)

<sup>72</sup> Data source: Financial report for NGO's for 2017; <http://www.portauthority-sibenik.hr/dokumenti/pdf/izvjesca/2018/27-06-2018/LUS-Izvjestaj-revizora-2017-NO.pdf>

<sup>73</sup> Data source: Financial report for NGO's for 2017; [http://www.port-authority-zadar.hr/download/SKMBT\\_C22017062915230.pdf](http://www.port-authority-zadar.hr/download/SKMBT_C22017062915230.pdf)

<sup>74</sup> Contribution of Cruise Tourism to the Economies of Europe 2017, available at <https://es.cruiseexperts.org/media/2971/2017-europe-economic-impact-report.pdf>

<sup>75</sup> Nadramija, Mislav (2018), *Cruise Tourism in Dubrovnik: Economic Benefits and Social Impacts*, Rochester Institute of Technology Croatia.

Employment impacts of the cruise industry are concentrated in 10 EU countries, of which Croatia is not part of. Nevertheless, **this sector generated 3,988 jobs in Croatia in 2017, which constituted 1% of the total employment produced by the EU cruise industry<sup>76</sup>**. The cruise industry generated some compensation impacts mainly through income creation. Croatia is mainly impacted by the cruise industry as a destination market and in 2017 it gained an estimated €60 million in compensation impacts.

According to the Croatian Tourist Agency<sup>77</sup>, the number of employees in the tourism sector in 2017 amounted to 35,515<sup>78</sup>. Estimates made by the Croatian National Bank show that revenues generated from tourism in 2016 were €8.635 million, while estimated revenues for 2017 amount to €9.492 million. These represent 18.9% and 19.6% of Croatia's GDP in 2016 and 2017, respectively<sup>79</sup>.

#### **4.2.7 Identification of land-sea interactions of Cruise Shipping in Croatia**

Apart from the coastal and maritime dimension of cruise shipping, the sector has important onshore components and implications.

Hereafter, we focus our attention on specific land and sea impacts of cruise shipping, which are very much related to the economic development of the Croatian case study area. They are organised in three typologies: environmental; socio-economic; technical<sup>80</sup>.

##### **Environmental LSIs:**

- impacts on habitats and species associated with port development and channel dredging;
- impacts on marine and coastal habitats coming from building new marinas, piers or berths;
- modification of hydrographic conditions, underwater noise, increased risk of collision (e.g. by mammals), increased risk of accidents, pollution from marine litter and the introduction of non-indigenous species by vessels;
- wider impacts including poor air quality, airborne noise and traffic.

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<sup>76</sup> Contribution of Cruise Tourism to the Economies of Europe 2017, available at <https://es.cruiseexperts.org/media/2971/2017-europe-economic-impact-report.pdf>

<sup>77</sup> Croatian Tourist Agency Report - Turizam u brojkama, available in Croatian at [https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR\\_%202017%20FINAL.pdf](https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR_%202017%20FINAL.pdf)

<sup>78</sup> This number included all jobs relating to touristic activities (including waiters, chefs, barmens, cleaning personel, etc.)

<sup>79</sup> Croatian Tourist Agency Report - Turizam u brojkama, available in Croatian at [https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR\\_%202017%20FINAL.pdf](https://www.htz.hr/sites/default/files/2018-08/HTZ%20TUB%20HR_%202017%20FINAL.pdf)

<sup>80</sup> As defined in the European Commission Report "Land Sea Interactions in Maritime Spatial Planning Report". Available at [http://ec.europa.eu/environment/iczm/pdf/LSI\\_FINAL20180417\\_digital.pdf](http://ec.europa.eu/environment/iczm/pdf/LSI_FINAL20180417_digital.pdf)

### Socio-economic LSIs:

- the impacts of port activity on income and employment and facilitation of ancillary and supply chain businesses;
- the displacement of other sectors including mineral extraction, offshore energy, aquaculture and other coastal maritime activities.

### Technical LSIs:

- the achievement of efficient connectivity with terrestrial transport networks.
- the setting up of efficient and new type of infrastructure to limit environmental pressure whilst providing suitable access at the coast.

The below table provides additional information on specific land-sea implications per each segment of the cruise shipping value chain. Each segment has, in fact, direct or indirect land-sea interactions. Naturally, these are more apparent at the land-sea interface where segments of the value chain are occurring, such as operation services at terminals or the maritime transport of passengers. The table highlights the key LSIs for the two key value chain segments of cruise shipping in the Croatian case study area: 'Stop X Terminal/ Port/ Marina Operation Services' and 'Visiting Location'.

*Table 6: LSI linkages to segments of the cruise shipping value chain*

<b>Segments of the Value Chain</b>	<b>Main elements characterizing the LSI</b>
1) Passengers Start Location	Impact of waste management; Employment and Income generation; Impacts on land infrastructure, <b>Impacts on drinking water and sewage systems</b>
2) Land Transport to Cruise Station/Terminal Ports/ Marinas	Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure, <b>Impacts on drinking water and sewage systems</b>
3) Cruise Starting Terminal/ Port/ Marina Operation Services	Impact of waste management; Displacement of other sectors, Employment and Income generation; Impact on coastal processes; Invasive non-native species; Impact on air quality, Impacts on land infrastructure, <b>Impacts on drinking water and sewage systems</b>
4) Sea Voyage	Invasive non-native species; Impact on air quality; Displacement of other sectors; Employment and Income generation
<b>5) Stop X Terminal/ Port/ Marina Operation Services</b>	<b>Impact of waste management; Displacement of other sectors, Employment and Income generation; Impact on coastal processes; Invasive non-native species; Impact on air quality, Impacts on land infrastructure, Impacts on drinking water and sewage systems</b>
6) Land Transport from Terminal / Port / Marina X to	Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure, <b>Impacts on drinking water and sewage</b>

Visiting Locations	<b>systems</b>
<b>7) Visiting Location</b>	<b>Impact of waste management; Employment and Income generation; Impacts on land infrastructure, Impacts on drinking water and sewage systems</b>
8) Land Transport from Visiting Locations to X Terminal / Port / Marina	Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure- <b>Impacts on drinking water and sewage systems</b>
<b>9) Stop X Terminal/ Port/ Marina Operation Services</b>	<b>Impact of waste management; Displacement of other sectors, Employment and Income generation; Impact on coastal processes; Invasive non-native species; Impact on air quality, Impacts on land infrastructure-- Impact on water system and sewage system</b>
10) Sea Voyage	Invasive non-native species; Impact on air quality; Displacement of other sectors; Employment and Income generation, Pollution, noise or species' disturbance
11) Cruise Ending Terminal/ Port/ Marina Operation Services	Impact of waste management; Displacement of other sectors, Employment and Income generation; Impact on coastal processes; Invasive non-native species; Impact on air quality, Impacts on land infrastructure-impact of availability of resources of drinking water and sewage system
12) Land Transport from Cruise Station/Terminal Ports/ Marinas	Accessibility to Infrastructure; Employment and Income generation, Impacts on land infrastructure
13) Passengers End Location	Impact of waste management; Employment and Income generation; Impacts on land infrastructure Impact on availability of water and sewage system

## **5 Summary and Outlook**

### **5.1 Governance Analysis**

The analysis of spatial planning in Croatia at different levels revealed the following.

#### **5.1.1 Spatial Planning on the Land**

The Physical Planning Act was recently modified to incorporate the requirements of the MSP directive. Having revised the legislative context there is a need and desire to create and update all related policy documents. The State Plan for Spatial Development covers land area and sea area up to the outer limit of territorial waters. The county and municipal plans have a long established remit to cover both land and sea out to the territorial waters and these will be subject to review in due course. Spatial planning in Croatia is wide ranging in its focus covering economic, social and environmental considerations following the goals and principles defined by Article 6 and Article 7 of the Physical Planning Act. Based on the integral approach to spatial and physical planning, existing spatial plans cover both terrestrial and maritime areas within the sovereignty of the Republic of Croatia. The plans are being developed at national, regional and local levels according to the authorities prescribed by the Act. Current plans overlap in the content from more general to more detailed, depending on their level (nested planning approach). The new generation of plans is planned to be developed. According to the Physical Planning Act, spatial plans on all levels will be fully developed using GIS technologies and will cover related topics assigned by the Act and special regulations, without overlapping. All plans will be available simultaneously through the ePlans module within the Physical Planning Information System.

Furthermore, the implementation of Strategic Environmental Impact Assessment of spatial plans is a legal obligation that has to be conducted simultaneously to the development of a spatial plan following the Environmental Protection Act, for which the Ministry of Environment and Energy is responsible. Strategic Environmental Impact Assessment is a complex process that involves representatives of all relevant sectors, not only the Ministry of Construction and Physical Planning and the Ministry of Environment and Energy. Through this process, environmental aspects are considered in detail and implemented in the provisions of spatial plans.

### **5.1.2 Spatial Planning for the sea**

The State Plan for Spatial Development covers land area and sea area up to the outer limit of territorial waters and its preparation is the responsibility of the Ministry of Construction and Physical Planning. It is also responsible for preparing spatial plans for the maritime areas beyond the territorial sea: the Spatial Plan of the Ecological and Fisheries Protection Zone (ZERP) and the Spatial Plan of the Continental Shelf of the Republic of Croatia. Spatial plans for national and nature parks, some of which contain significant marine space, are also developed at national level.

At a sub-national level both the county and municipal plans have a long established remit to cover both land and sea out to the territorial waters and these will be subject to review in due course.

### **5.1.3 Addressing LSI**

The legal and institutional framework for spatial planning in Croatia is therefore notable for its integrated coverage of both land and sea areas. Indeed an integrated approach to spatial planning is named as the first principle under Article 7 of the Physical Planning Act. It is also wide ranging in its focus covering economic, social and environmental considerations (see for example Article 6 of the Physical Planning Act). Together with the country's participation in the UNEP/MAP Barcelona Convention (For the Protection of the Marine Environment and Coastal Region in the Mediterranean) these attributes provide a positive context for addressing LSI issues.

This is further supported by provisions that recognise the importance of drawing upon appropriate expertise in spatial planning activities. For example, each Croatian county has an established County Institute for Physical Planning. County Institutes participate in the spatial planning process as expert developers. In case of need for additional specialist inputs however, other Institutes, legal persons and approved architects registered for performing professional planning activities can be subcontracted to ensure that the process of development and adoption of plans is carried out based on appropriate expertise and within the legally determined deadlines.

In addition where a spatial plan competent development authority (e.g. the Ministry, professional administrative body of the county, city or municipality) does not have sufficient capacity for the preparation or the adoption of spatial plans, legal possibilities are being introduced to solve such problems.

Croatia was involved in several EU funded projects which have relevance to MSP. The latter was the SUPREME project, which general objectives include: the implementation of MSP in EU



Member States, developing specific criteria and indicators to evaluate the MSP process at different scales and at different stages, launching and carrying out cross-border MSP initiative between Member States. Component 1.3.5. of the Project considered the definition of the most appropriate geographical scale for MSP, while detailed LSI analyses, combining MSP and ICZM, were performed within the component 1.3.7.

## **5.2 Value Chain Analysis**

### **5.2.1 Coastal Tourism**

Coastal tourism is the dominant maritime sector in the core area of the Croatian case study. It creates lots of local employment opportunities and many of the associated economic benefits stick within the area. However at the same time tourism activity is highly seasonal and exerts extreme pressure on local infrastructure provision during the peak season, and for the rest of the year there is an excess of capacity. In recent times the popularity of coastal Croatia as a tourist destination has increased in part due to the displacement effects of political instability on other parts of Mediterranean Europe, with many of the visitors continuing to come from neighbouring countries. Critical issues associated with the sector include how to more effectively manage the strain on local infrastructure and how to extend the season. There is some aspiration to increase nautical tourism which would in turn require new marinas to be built. At the same time, many people have been berthing on uninhabited islands, creating litter and waste disposal issues in some areas. National policy is geared towards targeting tourism development in other parts of the country rather than envisaging a major expansion of the industry in coastal areas.

### **5.2.2 Cruise Shipping**

Whilst cruise shipping is often seen as a buoyant blue economy growth sector, this case study has indicated that cruise shipping can take different forms with different effects and degrees of local stickability. In some of the key hotspot destinations, especially Dubrovnik, the impacts of cruise shipping is seen as disproportionately negative compared with any local benefits and there is now a deliberate policy to manage demand, and reduce the number of cruise ships and passengers visiting critical sites. This is felt to be necessary to retain the attractiveness of these visitor locations for land based visitors, who stay for longer in the place and spend much more money in the local economy. A spatialized approach to value chain analysis helps to tease out these tensions and assist future planning and management of this important maritime sector.

## **5.3 Recommendations for Good Management of LSI in Croatia**

Based on the desk based analysis and workshop held in Zagreb the following observations are made for further consideration.

#### **Recommendation 1**

**At a national and local level the current phase of spatial plan development and review presents new opportunities for innovation in the approach to LSI and the associated development of synergies between plans taking forward the principles of integration set out in Article 7 of the Physical Planning Act. Consideration could be given to ways in which these LSI opportunities might be fostered, for example by supporting ongoing dialogue between stakeholders at national, county and municipal levels.**

#### **Recommendation 2**

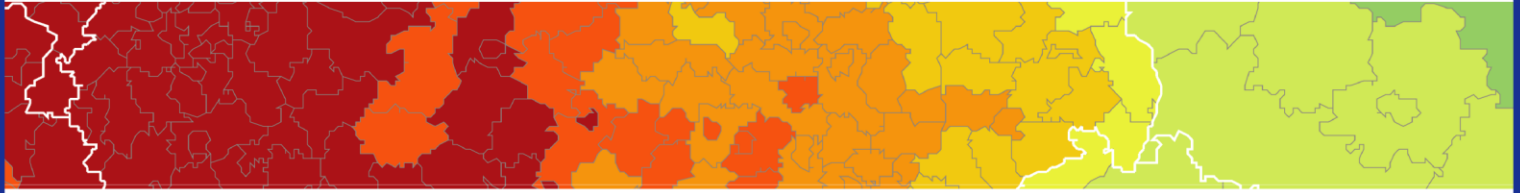
**Given the supportive structures available to draw in specialist expertise into plan making processes, consideration could be given to where and in what form this might assist the consideration of LSI in national, county and municipal plans.**

#### **Recommendation 3**

**Whilst coastal tourism is likely to remain the dominant maritime sector in Croatia, there are signs that in many places the seasonality of demand is placing undue pressure on the carrying capacity of local infrastructure and environmental quality. With this in mind an innovation dynamic seems desirable in the tourism sector and more attention could perhaps be given to broader diversification of coastal economies, recognising that the coastal regions are relatively peripheral in national space and that small scale alternative development opportunities might lie in their maritime location.**

#### **Recommendation 4**

**It is also envisaged that cruise tourism will remain an important element of Croatia's coastal economy. However, there may be a case to review the current pattern of activities drawing upon value chain understanding in order to inform future planning and management of the industry and foster the sustainable development of Croatia's marine and coastal areas.**



### **ESPON 2020 – More information**

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The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.