Analysis of Cruise Tourism on Croatian Rivers

1. INTRODUCTION/Uvod
Cruising on inland waterways has recorded an increasing growth since the beginning of the 21st century. Almost half of the total market is nowadays covered by cruises on the Danube, the Rhine, the Rhine-Main-Danube Canal and Dutch rivers. Given that Croatia lies on the Danube corridor with its three main rivers, namely, the Sava (562 km), the Drava (305 km) and the Danube (188 km), ithas a favourableposition for cruise tourism.

The European Agreement on Main Inland Waterways of International Importance, which Croatia has signed and ratified, has incorporated the waterways of the Sava, Drava and Danube Rivers and the future Danube-Sava Canal in the network of European inland waterways, and the ports in Osijek, Vukовар, SlavonskiBrod and Sisak in the network of ports open to the international traffic. However, this network of inland waterways is still underutilized.

Although Croatia records a constant increase in the number of calls and passengers in its river ports, it is still lagging behind other European countries in this respect. The aim of this paper is to evaluate the current condition of waterways and port infrastructure for the purpose of their modernization and improvement and expansion of the existing tourism offer.

2. THEORETICAL DETERMINANTS OF CRUISING / Teoretske odrednice kruzing turizma
Cruising involves passenger travel on special passenger ships for pleasure voyages on the sea, rivers and lakes with calls at several ports and, typically, return to the port of departure. It includeescabotage, or coastal sailing exclusively within the territorial waters of the home country, and international cruises, or voyages with calls at ports of several, or at least two, countries. Byits nature, cruising is a segment of nautical tourism, because it is based on ships and sailing.

On ship cruises, the ship represents a floating hotel transporting passengers from one place to another, or from port to port. In the case of large ships, however, due to the diversity of offer on them, the ships actually a mobile or floating destination itself. According to Dowling, such ships are considered to be the tourists’ primary destination and all the portas which they call secondary ones[2].

2.1. Development of cruising / Razvoj kruzing turizma
Cruise tourism entered the world
stage relatively late in comparison to other forms of tourism. The first cruise ship, the Oceanic, built for the Home Lines Company exclusively for cruises around North America, was launched in 1965, so some chroniclers take this year as the beginning of modern cruising. Wood, R. E. (2004), on the other hand, takes the year 1966, when Norwegian Caribbean Line became the first company to offer a year-round itineraries on its Sunward for cruise trips intended for a wide market [16]. Whatever the case, it was indeed in the 1960s that the development of cruising really began with the first cruises in the Caribbean organised for US and Canadian holidaymakers. According to the report on cruise ship activity, in the 1990s the trend of cruise trips spread to Europe, especially Great Britain, and then also to the Asia-Pacific region [12].

Cruises are one of the trends in the current tourist market, its tourists having different motives and characteristics and becoming ever more demanding in their needs and desires. The offer of cruises is constantly expanding so passengers can choose the type of their trip among short, long, island, coastal, river, theme, adventure or some other. The atmosphere that reigns on board has also changed significantly, former formal style having been replaced by a more casual atmosphere.

The current trend in terminal construction follows the trend of building ever larger cruise ships, so the terminals are being built at attractive locations which are in most cases fully usable throughout the year. However, in locations where cruise trips are seasonal only, the terminals are also in function for the needs of the local population. Comparison of cruise ships terminals reveals some infrastructural differences which generally reflect the stage of development of a given country.

2.2. Contemporary trends and features of cruising / Suvremeni trendovi i značajke kruzing turizma

For shipping companies, the offer in international cruising primarily implies ports for the accommodation of ships and their infrastructure, cost of services, port charges and fees, attractive tourist destinations in the vicinity of the port and the possibility of taking organized sightseeing tours to them, or some isolated tourist attractions if available through organized visits or excursions. For many years, cruises were the privilege of the rich and their offer was not intended for mass consumption, as are all-inclusive holidays in a tourist destination, for example. When in 2010 their price proved to be the key in choosing a destination, providers of cruises were faced with the fact that this type of travel had become accessible to a wider audience. Consequently, the cruise ships increased their accommodation capacity and started offering a wider range of specialised activities. The market, which had previously been reserved for wealthy guests only, thus opened up for a wide range of new potential clients.

2.3. Development of cruise trips on rivers / Razvoj kruzing izleta na rijekama

Cruising on rivers is wide-spread all over Europe, but in Croatia this type of tourism is completely neglected [8]. Europe has more than 30,000 kilometres of canals and rivers that connect hundreds of major industrial towns and areas [9]. The market of river cruising has started showing numerous dynamic characteristics customarily typical of sea cruising [14]. The most visited nautical tourism ports and river docks are those located in towns with a rich tourist offer. Cruising on European rivers is seasonal, generally lasting eight months, from March to the end of November.

According to the data from 2013, the European river cruise fleet had about 260 ships of an average capacity of about 143 passenger berths and average age of 17 years. The economic effect of this type of tourism is reflected in the following: more than 12,000 jobs on board and more than 10,000 jobs associated with river cruising [5].

Over the past decade, international tourist cruises have become a tourist niche that has seen the most rapid growth globally [15]. The currently present trends in river cruising are:

- increase in the number of ships,
- increase in the size and quality of ships,
- improved overall product quality of river cruises,
- increased demand,
- main source markets: Germany and the United States,
- emergence of new markets,
- high average age of tourists [7].

Vessels on inland waters have lower deadweight capacity and a smaller freeboard, their dimensions (length, width and draft) being adapted to waterways [6]. Space is thus a major limiting factor for river ships as it precludes the possibility of a wider offer of entertainment and other leisure activities for passengers [13]. This lack of amenities on ships is compensated by the tourist offer in the ports of call, so it is the tourist product offered by a given port/destination on land that makes it more attractive or more successful than another [7]. Croatia’s geographic and natural wealth of waterways provides numerous opportunities for the development of river traffic, an asset that has not been sufficiently valued so far [3]. An attempt to enrich the tourist offer in Croatia’s inland ports and contribute to the attractiveness of river cruises can be seen in projects such as the Sava Navigo and Discover Posavina.

3. ANALYSIS OF GEOGRAPHICAL AND OTHER PREREQUISITES FOR THE DEVELOPMENT OF CRUISING ON CROATIAN RIVERS / Analiza zemljopisnih i ostalih pretpostavki za razvoj kruzing turizma na rijekama Hrvatske

Croatia is located at the crossroads between the Mediterranean and Central Europe and is known as a country with a long and indented coastline. It is also known as a country of the Danube basin with a well-developed network of inland waterways. Its largest rivers connect it with Western, Central and Eastern Europe, which is a prerequisite for the development of cruise tourism.

Inland sailing in Croatia comprises two separate subsystems with specific characteristics: the subsystem of the Danube Basin, which includes the internal waterways of the Danube and the Drava Rivers, and that of the Sava Basin, which includes the internal waterways of the Sava, the Kupa and the Una Rivers.

3.1. Characteristics of Croatia’s waterways / Značajke plovnih putova Hrvatske

The core of the Danube drainage basin is the Danube, which flows through ten countries and is navigable in all of them. Out of the 70-odd towns that are located on the Danube, three cities (Vienna, Budapest and Belgrade) have a population of over one million each. The Danube in Croatia stretches for 188 km, of which 137.5 km are navigable; it is part of the TEN-T
Rhine-Danube corridor, which connects the Black Sea to Western Europe. The river is classified as class Vicfor international navigability and represents an important international internal waterway of the country. The only international port and the largest inland port in the Croatian part of the Danube is Vukovar, the Croatian entry to the Rhine-Danube corridor.

The river Drava in Croatia has a total length of 330 km, of which 198.6 km are navigable. The part of the Drava between its confluence with the Danube and Osijek is an international waterway, and from Osijek to the Zdaličac reek is an interstate Croatian-Hungarian waterway. The port of Osijek is the most important port along the Croatian part of the Drava.

With its 562 km, the Sava is the longest river in Croatia. In terms of international navigation, it is navigable only up to Sisak, but for a limited number of days per year it is navigable also as far as Zagreb (and also to the Slovenian border for smaller vessels) [10], the overall navigability of the river basin thus spreading over 380.2 kilometres. During the summer, however, its navigability for larger vessels is limited due to the relatively low water levels. The river’s port system consists of the ports of Sisak and SlavonskiBrod, but also include the Bosnian ports of Brčko and Šamac.

Croatia has exceptional natural and cultural resources, which are a key prerequisite for the development of cruise tourism. The Danube is one of the most important European rivers which is practically always navigable. The Sava and the Drava Rivers are an excellent inland waterways with the related buildings, infrastructure in river traffic comprises waterways with the related buildings, facilities and equipment for safe navigation, and ports and docks [1]. The current condition of Croatian river ports is characterised by their inadequate capacities and technical and technological outdatedness.

3.2. Analysis of port infrastructure on Croatian rivers / Analiza lučke infrastrukture na rijekama Hrvatske

Infrastructure in river traffic comprises waterways with the related buildings, facilities and equipment for safe navigation, and ports and docks [1]. The current condition of Croatian river ports is characterised by their inadequate capacities and technical and technological outdatedness.

Of the existing inland waterways in Croatia, the Danube offers the best conditions for sailing. The navigability of the Drava is lower due to large annual fluctuations in its water level, and the Sava, despite being the longest river in Croatia, has the worst conditions for navigation. In the 1990s, due to the ongoing war, inland navigation was almost completely stopped and started to recover only in early 1999.

Internal waterways in Croatia are the jurisdiction of the port authorities of Vukovar, Osijek, Sisak and Slavonski Brod. The Port Authority of Vukovar is responsible for public ports on the Danube and the future multi-purpose Danube-Sava Canal, the Port Authority of Osijek for ports on the Drava River, while the jurisdiction over the ports on the Sava River is divided between the Port Authorities of Sisak and Slavonski Brod. Port authorities also have the jurisdiction over the issuance of operation licences for ports and docks, as well as over county ports and docks.

River docks in Croatia have usually been set up independently, separate from the port near the centre of a town or city. Most docks have the basic infrastructure for docking ships, and their operational quay with docks and moorings is approximately 100 meters long.

Although there are several docks along the Sava River waterway, they do not possess adequate infrastructure to accommodate river cruisers. The exception is the port in Sisak, in which a pontoon for docking was built in 2013. The passenger pontoon is located in the city centre itself, not far from the Port Authority office, with the ability to accommodate a large passenger ship or several smaller ones. Power supply is provided from the operational quay, which is illuminated and is also the main town promenade. Located in the immediate vicinity are a hotel, a post office, a police station, a shopping mall and other facilities important for the ship crew and its passengers. The Victor Hugo, a French river cruiser, called at the port of Sisak in 2009 with 82 passengers, in 2013 with 84 passengers, and in 2015 with 88 passengers.

Since 2002, the data on cruise ship traffic in Croatia have been officially monitored and published by the National Bureau of Statistics. However, no systematic statistical monitoring of passenger traffic or the number of ship calls on Croatian rivers has been carried out yet. The information given in the paper has been obtained from the port authorities managing the port areas on Croatian rivers.

The port of Slavonski Brod is located on the left bank of the Sava River at kilometre 363 of the river southeast of Slavonski Brod. Cruising related to this port is still in its initial stages and will receive the biggest impetus for the development from the future Danube-Sava Canal. In the last five years, only one cruise ship called at the port of Slavonski Brod annually. Its River Port Project is a priority project within the framework of the action plan for tourism development in the town. A converted ship of 72 10.2m in size is intended to serve as the office of the Customs, the Border Police, the Port Authority, Harbourmaster’s Office and the Tourist Office, and the plans also include a gift shop, a classroom, a meeting room and a small catering facility.

The dock in Osijek, located on the Drava River, is actually a converted ship that is also a restaurant. In 2009, the ship hull was reinforced and supplied with ramps for docking river cruisers. Year after year, the Galijadock has been receiving an increasing number of river cruise ships (Table 1).

Table 1 Passenger traffic at the Galijadock in Osijek, 2009-2015

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Number of cruisers</th>
<th>Number of passengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2009</td>
<td>4</td>
<td>475</td>
</tr>
<tr>
<td>2</td>
<td>2010</td>
<td>4</td>
<td>280</td>
</tr>
<tr>
<td>3</td>
<td>2011</td>
<td>2</td>
<td>145</td>
</tr>
<tr>
<td>4</td>
<td>2012</td>
<td>14</td>
<td>1726</td>
</tr>
<tr>
<td>5</td>
<td>2013</td>
<td>10</td>
<td>1118</td>
</tr>
<tr>
<td>6</td>
<td>2014</td>
<td>50</td>
<td>5404</td>
</tr>
<tr>
<td>7</td>
<td>2015</td>
<td>34</td>
<td>3293</td>
</tr>
</tbody>
</table>

Source: Authors, according to the data submitted by the Port Authority of Osijek
By August 2016, the Galijadock had recorded traffic of 3,715 passengers and 31 cruise ship calls. Thereafter years recorded a substantial increase from mere 4 cruises calls in 2009 to 34 in 2015, with a substantial increase also in the number of passengers, which is the result of improved offer in the destination.

On the Danube, there are four docks: Batina, Aljmaš, Vukovar and Ilok. Batina, Aljmaš and Ilok have floating docks, while Vukovar has the busiest and best equipped port, located on the well kept bank in the city centre. The dockfacilities are located on a converted ship, with a restaurant on its deck and a multimedia hall in the boatdecks used for the reception and customs control of passengers and information about Croatia’s tourist potentials. The number of cruise ships dockings in the ports of Vukovar, Ilok and Batina in the period 2012-2016 is given in Table 2.

Table 2 Number of cruise ship dockings on the Danube River, 2012-2016

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vukovar</td>
<td>212</td>
<td>235</td>
<td>229</td>
<td>227</td>
<td>221</td>
</tr>
<tr>
<td>Ilok</td>
<td>17</td>
<td>12</td>
<td>14</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>Batina</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Port Authority of Vukovar[17]

Although the newly opened port in Aljmaš is expected to give a significant contribution to further development of nautical tourism, no announcements of cruise ship calls at this port have been recorded to date. As plans and schedules for cruise ships docking are made a year in advance, this period of time could enable better positioning of the port of Aljmaš on the cruise market. This, however, requires promotion of tourism and cooperation with tour operators who participate in setting up new cruising destinations on the Danube.

The full capacity of the Danube waterway in Croatia has not yet been reached. Cruises on the Danube are a welcome boost to the development of continental tourism, especially in the eastern part of Croatia, which still suffers great consequences of the war aggression.

### 3.3. Projects in the function of development of nautical tourism / Projekti u funkciji razvoja nautičkog turizma

In 2011, the Sava Navigo project - development of nautical tourism on the Sava River and the promotion of the Posavina region – was implemented. The aim of the project was to create a regional identity of the tourist region of Posavina, which encompasses the counties of Sisak-Moslavina, Slavonski Brod-Posavina and Vukovar in Croatia, and the bordering municipalities in Bosnia and Herzegovina (Kostajnica, Kozarska Dubica, Novi Grad, Brod, Gradiška, Srbc, Derventa, Orašje, Šamac, Ođak and Brčko).

Within the project, the following was performed: an atlas of tourist navigation charts of the Sava River, a study of cross-border procedures for tourist vessels, a study of the tourism offer of Posavina, and promotional CDs and maps, and the «Find yourself, discover Posavina» slogan was launched. The project defined the conditions for safe navigation on the Sava River and also simplified cross-border procedures for tourist vessels. The project worth was 152,000 Euros, 85% of which were co-financed by the European Union.

Following up on the Sava Navigo project was the «Discover Posavina - Development of Joint Tourist Offer of the Posavina Region» project, conducted by the Centre for Environmentally Sustainable Development of Bosnia and Herzegovina in cooperation with Croatia-Inland Navigation Development Centre within the IPA CBC program between Croatia and Bosnia and Herzegovina. The project lasted one and a half years, from December 2012 to June 2014, and its total value amounted to 211,255 Euros. The project aimed to develop recognizable joint tourist offer, promote regional identity and tourist attractions. The main results of the project were the creation of a common package of tourist offer, the establishment of the Association of Tourism Operators of Posavina, creation and publication of a tourist guidebook and creation of the web portal of the Tourist Board.

### 4. ANALYSIS OF CRUISE TRIPS ON EUROPEAN AND OTHER RIVERS / Analiza kružnog izleta na europskim i inim rijekama

In 2012, 16 new ships were included in the traffic on European rivers, followed by another 23 in 2013 and 28 in 2014. Today, ever more comfortable ships are being constructed, with a capacity of up to 220 beds. Passengers are being offered new thematic contents during cruising itself and during their visits on land, which include music, art, cooking, cycling, golf, history, wine, health, beauty treatments and during their visits on land, which include music, art, cooking, cycling, golf, history, wine, health, beauty treatments etc. These are being introduced in an attempt to attract all age groups of users of this tourism product. In 2013, the number of passengers on river cruises in Europe was roughly 940,000 and about 1.25 million worldwide. In comparison with 2012, this is an increase of 12% in Europe, and 14% at the global level [7], the main source markets being Germany and the United States (Table 3). Hungary, Romania, Slovakia, Croatia and Serbia are new market for cruise trips. The most common users of the tourist product are those of the so-called grey market, namely, people over 60 years of age.

River cruises are an especially popular form of tourism in the UK. Since 2010, there has been an increase in the demand for European river cruises (Table 4), primarily due to the political situation in Egypt, a previous top destination for British holidaymakers.

#### Table 3 Structure of passengerson cruiseson European rivers in 2012 by the source country

<table>
<thead>
<tr>
<th>Country</th>
<th>Germany Njemačka</th>
<th>USA Sjednjene Američke Države</th>
<th>France Francuska</th>
<th>Great Britain Velika Britanija</th>
<th>Australia Australija</th>
<th>Switzerland Švicerarska</th>
<th>Austria Austrija</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share</td>
<td>37%</td>
<td>30%</td>
<td>15%</td>
<td>10%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Authors, according to the Action Plan for the Development of Nautical Tourism, Institute for Tourism, 2015 [7]
Table 4 Number of passengers, UK
Tablica 4. Broj putnika, Velika Britanija

<table>
<thead>
<tr>
<th>Destination</th>
<th>2010 (000)</th>
<th>2011 (000)</th>
<th>2012 (000)</th>
<th>2013 (000)</th>
<th>2014 (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danube</td>
<td>12.5</td>
<td>12.9</td>
<td>15.0</td>
<td>17.3</td>
<td>24.4</td>
</tr>
<tr>
<td>Rhine/Danube</td>
<td>4.1</td>
<td>8.3</td>
<td>4.6</td>
<td>5.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Nile</td>
<td>58.0</td>
<td>25.2</td>
<td>28.3</td>
<td>12.2</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Source: Authors, according to the UK-Ireland Market Report, 2014 [4]

Compared with 2013, the year 2014 saw a 41% growth in demand for cruises on the Danube, and of 37% for those on the Rhine-Danube. In contrast, the demand for cruises on the Nile fell by 27% in the same period.

Docks in Western Europe are equipped with supplementary infrastructure, in addition to the basic one, in order to provide shippers and tourists the highest quality service. Additional infrastructure includes outlets for electric power and drinking water and connections to the sewerage system.

5. EVALUATION OF THE CURRENT SITUATION AND MEASURES FOR IMPROVING CRUISE TRIPS ON CROATIAN RIVERS / Procjena trenutne situacije i mjere za poboljšanje kruzing izleta na rijekama Hrvatske

The infrastructure of Croatian docks lags behind other European countries. Technical shortcomings are mainly related to the level of equipment with connections to electricity, drinking water and sewerage system, the possibility of waste disposal and supply of ships with fresh foodstuff, as well as the size and layout of the docks themselves.

A comparative analysis of Croatian river docks and those of other countries shows that the docks in Croatia perform only their primary function, that is, accommodation of ships and loading/unloading of passengers. In other European countries, the design and layout of river docks depends on the variability of water level. Upstream ports are built on the shore itself, while downstream ones are typically floating. The docks in Osijek and Vukovar, which are best equipped, are actually converted ships, while those in other European countries are facilities built specially for their current purpose and thus contain additional amenities such as restrooms, tourist offices, souvenir shops and all necessary services.

Sisak appears to be a favourable location for the construction of a passenger terminal due to its geographically advantageous traffic position, proximity to the capital and distinctive history. Due to the width and depth of the Kupa River, the waterway and basin of the passenger terminal should be reconstructed to enable the manoeuvring of the ships in it. In addition to docks for accommodation of cruise ships, the terminal should comprise mooring berths for pleasure boats and small tourist boats.

The passenger terminal in Osijek has recorded a steady growth since its opening in 2009. Although it currently meets the needs, this steady increase in the number of calls makes it necessary to increase the capacity, quality and scope of service delivery. Due to the proximity of famous tourist destinations in Slavonia, it is also a favourable starting point for organizing day- or multi-day trips for cruise tourists by other means of transport. As well, due to the inability of sailing further upstream on large tourist boats, tourists should be offered the opportunity to sail on the Drava River upstream from Osijek on smaller excursion boats.

Owing to its geographical position, Vukovar has a great potential for construction and provision of additional services as it has recorded an increasing number of calls by cruise ships sailing from EU countries to the Black Sea. Although it is the best equipped port in Croatia, adding a pontoon to the existing dock would increase its capacity. Needless to say, the approaching roads should also be adapted and parking space for buses secured. The expansion of the port and of its supply of services would no doubt attract a larger number of ships.

Alongside the improvement of the infrastructure, it is necessary to expand the offer of activities and introduce attractive elements, as these have shown to attract more tourists. The city of Vukovar has recognized the needs and demands of cruise ship tourists and has opened a multimedia lounge that allows exploring the Croatian culture, traditions and sights.

Croatia’s natural beauty, attractions and cultural heritage are a great potential for attracting tourists. What Croatia wishes to achieve by 2020 is to have almost all international river cruises on the Danube stop at one of its four river ports [11]. It is therefore necessary to upgrade the existing docks with all the features of a terminal or passenger port, and increase the range of their amenities. This in turn could open the possibility for some ports to become the starting or end point of a cruise, while others could be used as intermediate ones, each with its own speciality in terms of offer of attractive and specific elements.

6. CONCLUSION/Zaklučak

Although still underestimated in comparison to sea cruising, cruising on inland waterways has recorded a constant growth in the early 21st century and has become one of the most frequent forms of continental tourism. Development of cruise tourism, especially on European rivers, points to the already existing increased demand, which is also expected to expand to Croatia in the coming years.

The most important waterways in Croatia are those of the Danube, the Sava and the Drava. Croatia’s natural beauty, attractions and cultural heritage are great potentials for the development of cruise trips on Croatian rivers.

However, the infrastructure of Croatia’s ports is still inadequate in comparison with other European countries. Although investments made in ports on inland waterways are visible, they are still insufficient. First of all, it is necessary to modernize the infrastructure for accommodation of cruisers and reconstruct waterways. Second, the tourist offer should be expanded to provide additional services, such as a restaurant, a gift shop, and various forms of entertainment and recreational facilities.

Development of cruise trips on Croatian rivers deserves special attention because this form of tourism has a great potential to become one of the
most recognisable forms of continental tourism and thus position Croatia as a significant river cruising destination.

REFERENCES/Literatura


