



River Cruising Development in Croatia: Potential and Challenges

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ABSTRACT

Since the 1970s, cruises have recorded continuous growth, becoming an increasingly important segment of the global tourism market. A special growth is being experienced by river cruises, which have recorded a steady increase in the number of passenger and ship arrivals. This trend has also reached Croatia, where river cruising is gaining more importance, as it has been stimulated by natural advantages such as the length of navigable waterways and favourable geographical features.

The paper analyses the level of development of river infrastructure as well as passenger and ship traffic. The focus is on the importance of river cruising in the broader European context and on its potential for diversifying the tourism offer. The authors analyse key spatial and infrastructure prerequisites for the future development of river cruise tourism in Croatia in accordance with the Sustainable Tourism Development Strategy until 2030.

The paper aims to highlight the need for building and upgrading river infrastructure, with special attention given to the importance of enriching the tourism offer in river destinations to increase their attractiveness and competitiveness.

1. Introduction.

Cruises are a form of travel on specially designed passenger ships intended for cruising the seas, rivers, or lakes, offering passengers entertainment, relaxation, leisure, and, frequently, an educational experience. It is a form of cruise tourism that encompasses interactions and phenomena arising from passengers' stays on board and their visits to various destinations. Such voyages usually include visits to several ports, where passengers and the crew disembark to sightsee and to participate in organised tourism activities. The voyages usually end in the port of departure. The advantage of cruise tourism is the possibility of seeing more than one city or one country on a trip, and not feeling annoyed because of the organisation of hotels, transportation for each destination (Çetinkaya 2017).

River cruises have a long history dating back centuries, when rivers were the main travel and trade routes. Modern, leisure-oriented river cruises started

at the beginning of the 20th century and experienced a significant growth at the end of the 20th century and the beginning of the 21st century.

For the past two decades, the river cruise industry has experienced strong growth, stimulated by increasing demand for luxurious experiences and unique voyages. Over the past decade, the market has maintained a stable annual growth rate of 10 - 15%. According to data from CLIA (Cruise Lines International Association), trends indicate that such dynamics will not slow down.

One of the emerging trends in river cruising is the transition towards environmentally friendly innovations. Nowadays, many cruising companies invest in hybrid propulsion systems, electric ships, and technologies designed to significantly reduce emissions, which reflects the growing focus on sustainability. Another important trend is the industry's effort to at-

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tract younger passengers and multigenerational families. River cruise ships often offer more flexible itineraries, as well as modern facilities and experiences that attract different age groups. Furthermore, river cruising companies expand their itineraries to new and exciting destinations. Alongside European routes, the Amazon routes in South America, as well as the river routes in North America, Africa, and Asia, are becoming more popular. As a result of these trends, further growth in demand for river cruises is expected.

The composition, richness, and attractiveness of its natural resources put Croatia ahead of many European tourist countries (Bartoluci et al., 2007). Jugović et al. (2017) consider that Croatian cruising tourism is an increasingly important component of the economy; however, a large amount of work is still required on its development and attracting new and current guests (Dundović & Vilke, 2009). Croatia has comparative advantages in its scenic beauty, picturesque landscapes, and ecological preservation, which are important for the development and future of river nautical tourism and tourism in general. However, the development of nautical tourism depends not only on the attractiveness of Croatia's abundant natural resources but also on adequate infrastructure and additional facilities.

The Sustainable Tourism Development Strategy until 2030 (2022) is a strategic document for planning Croatian tourism, which includes river cruises. An average of 90% of all berthings take place on the Danube, while the remaining 10% take place on the Drava River. Although Croatia has been following global trends in developing various forms of tourism, river nautical tourism has not been adequately valued. Dundović & Vilke (2009) consider that the geographical and natural richness of Croatian waterways provides opportunities for the development of river transport. Enhanced development would enable the revitalisation of underdeveloped tourist areas and the continent. The National Plan for Sustainable Tourism until 2027 (2023) emphasises that investments should focus on developing tourism infrastructure and encouraging the construction of passenger berths. It should also focus on modernisation, and/or replacement of the existing berth infrastructure to follow self-sustainable trends and “green” technical solutions intended to build berth infrastructure for smaller vessels. Berths should be designed in accordance with the demands of the tourism market (interpretation centres, souvenir shops, hospitality facilities, etc.). Investments in renovating and adequately equipping river and lake beaches and swimming areas will be encouraged, as well as the development and enhancement of products and service quality for rafting, river riding, and canoeing, among others. Investments in tourism infrastructure should be made in accordance with the highest environmental standards, taking into account the exceptional sensitivity of river and lake ecosystems.

2. Theoretical starting points.

According to the Dictionary of Travel, Tourism, and Hospitality, the term cruise is defined as a voyage by ship for pleasure, mostly by sea, but also on lakes, rivers, and canals, of varying duration, which may but need not depart from and return to the

same port or include scheduled stops at ports en route (Medlik, 2003). In his considerations, Gibson (2006) emphasises that a cruise is a way of leisure that includes travelling by sea, on lakes, or on rivers. Furthermore, a cruise could be defined as navigation for entertainment and leisure, i.e., from point to point, or place to place by boat, ship, or yacht, for pleasure, mostly by sea (more frequently), and less on lakes and rivers (more rarely) (Vukonić & Čavlek, 2001). It can be concluded that the cruise concept encompasses navigation or travelling by ship for pleasure, which can take place on the sea or inland waterways, primarily for recreation and relaxation purposes.

By its nature, cruises are a part of nautical tourism since they are based on ships and navigation. The cruise ship has quite a fixed navigation schedule (Fan et al., 2015). The ship is a floating hotel that transports passengers from place to place, i.e., from port to port. In the case of larger ships, due to the diverse offer of facilities and services, it takes on the characteristics of a mobile destination, i.e., of a “floating resort”. The tourists' primary destination is the cruise ship, while all en route destinations become secondary destinations (Dowling, 2006).

The cruise companies represent one of the most important sectors in tourism. Rathman & Varez (2014) believe that this type of tourism drives the development of various service industries and serves as a revenue source for both the private and public sectors. According to the CLIA Europe Economic Contribution Report (2024), the cruise industry supported 55 billion euros in total economic output in 2023, supporting 440,000 jobs.

River cruising is defined as a form of water tourism enjoyed on board luxurious river cruise ships making their way along inland waterways (Mańkowska, 2019) (Bosnić, 2015). River cruising is a highly developed form of tourism in which cruise companies and the crew offer passengers total comfort and entertainment during their stay on board, along with the organisation of trips to elite and high-quality destinations (Gržetić et al., 2013).

River cruises are similar to sea cruises. Both types of cruises are based on ship navigation on a particular route that includes navigation and stopping in ports en route. The purpose of the voyage is relaxation, leisure, and entertainment on board a ship where passengers also spend time during their voyage. All of the above are the fundamental aspects of cruising (Ban, 1998).

Although there are similarities between river and sea cruises, according to some authors, there are also differences regarding vessel characteristics, their routes, on board facilities, and the travel itinerary. Much more effort and means are to be invested in inland waterway transport than in seawater transport (Kovačić et al., 2010). River cruise boats are much smaller than their ocean-going counterparts and must necessarily conform to water level and bridge height restrictions (Jones et al., 2016). Ship dimensions (length, width, and draft) are adapted to the waterway (Grubišić, 2010). Vojvodić (2006) considers the space a restricting factor for river ships, so there are no adequate entertainment facilities or other services that could be offered to passengers. However, Poletan Jugović et al. (2020) consider that the lack of a smaller capacity is sought to be compensated by a combination of construction characteristics of the

ship and active social programmes with the aim of creating a friendly and “leisure” atmosphere among passengers.

The sea cruise industry can change and adjust the itineraries so as to correspond to the tourist demand and to take place in politically stable regions of different parts of the world, while the river cruise industry does not have such flexibility (Bosnić & Gašić, 2019). River cruise boats stop at large cities and small towns, and villages, and river cruising packages normally offer, or can include, a range of land-based excursions at many of their stopovers (Jones et al., 2016). A significant strength of inland navigation is its environmental friendliness (Borca & Putz, 2023).

3. Analysis of cruises on European and other rivers.

Europe has the leading role and the largest share of the world’s river cruises, where the most frequent cruises happen on the Danube River and its tributaries, and along the Rhine – Main – Danube Canal. Over the last couple of years, the international river cruise market has recorded a significant growth in tourism demand, followed by the construction of new vessels, the introduction of higher-quality services, and the expansion to new destinations and rivers.

Large companies, specialised river cruise operators (shipping companies), and tour operators have key roles in the river cruise market (Ban, 1998). Numerous companies offer river cruises nowadays, and the market is considerably less concentrated than the ocean cruise market.

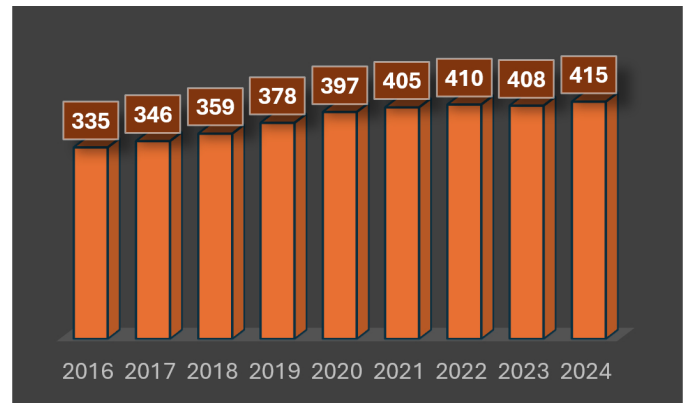
In the river cruise operators’ market, Viking Cruises has the largest fleet of no less than 80 river cruise ships. The largest share of the global river cruise market currently belongs to Europe, followed by Egypt and cruises on the Nile. Alongside the European and African fleets, the North American, South American, and Asian fleets are gaining more importance.

The active European fleet, which makes up 40% of the world’s active river fleet, is mostly concentrated on the central European waterways (Rhine-Main-Danube), and makes up almost 75% of the total river fleet in Europe. Based on data from the CCNR (Central Commission for the Navigation of the Rhine), in 2023, the number of active river cruise ships in Europe reached the number of 408 ships with 60,702 beds when compared to 410 active river cruise ships and 60,639 beds in 2022. The number of river cruise ships in the EU, in the period from 2016 to 2023, is presented in Figure 1.

The number of river cruise ships in the EU has shown steady growth from 2016 to 2022, when the fleet increased from 335 to 410 vessels. In 2023, there was a slight decline to 408 vessels. Based on the CCNR data, in 2024, the expected number of vessels was 415, primarily due to newbuilds on order. However, some ships, around 18 of them, are temporarily used as floating hotels, which shows that the market is still adjusting after the pandemic and rising operating costs. Most of the fleet is still concentrated on major European waterways, primarily on the Rhine, Main, and the Danube.

In the period from 2016 to 2022, the number of river cruise ships grew steadily, rising from 335 to 410 vessels, indicating

Figure 1: Number of river cruises in the EU, 2016–2024.

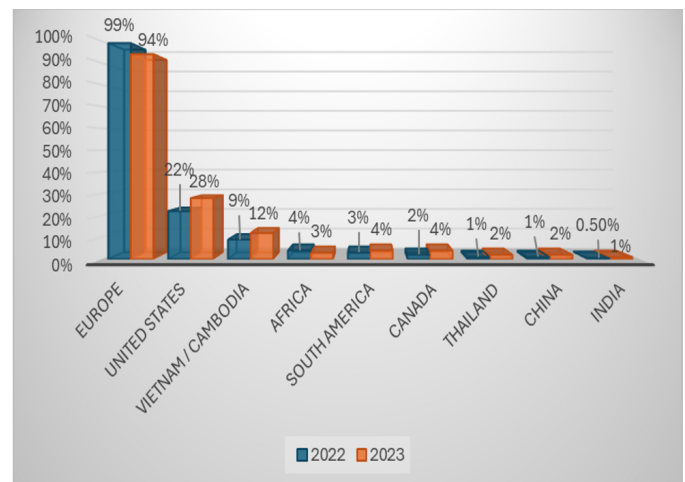


Source: Authors, according to the data retrieved from CCNR Market Observation - Annual reports 2017–2024.

the strong market expansion. That growing trend stopped in 2023 when the number of vessels was reduced to 408. For the first time in several years, the fleet expansion has come to a standstill, pointing to market saturation and the impact of external factors such as increased construction costs, changes in demand, and the effects of the COVID-19 pandemic. The highest concentration of cruise ships is still on the main European waterways, especially on the Rhine-Main-Danube.

Although Europe leads in the number of river cruises, they are becoming increasingly popular in other parts of the world as well. The global river cruise industry has experienced significant expansion and diversification over the last couple of years (Figure 2).

Figure 2: Top destinations sold for river cruise, 2022–2023.



Source: Authors, according to the data retrieved from Travel Market Report’s (2023).

Although Europe is, without a doubt, the most popular river cruise destination, the United States of America recorded a significant growth in the popularity of river cruises in 2023. Compared to 2022, the 6% growth confirms the increasing attractiveness of American rivers for international passengers and their

desire to explore different landscapes and cultural experiences. Increasing popularity and interest have also been recorded in Southeast Asia, primarily in Vietnam and Cambodia, and in Africa and Canada. Vietnam and Cambodia have recorded 3% growth in one year, while Africa has recorded 2% growth. This indicates a diversification of the offer and a growing interest in exotic and far destinations. The Mekong River cruise (Southeast Asia) allows passengers to explore and find out about the rich cultural heritage, local traditions, and exceptional natural beauties of the region, while the cruises along the Nile and the Chobe (Africa) offer a combination of historic exploration and wildlife observation. Thailand, China, and India have experienced minimal growth. Although they have potential, Asian destinations, except for those in Southeast Asia, remain underdeveloped in terms of the market within the global river cruise industry. Slow growth could be attributed to factors such as geopolitical problems, transport infrastructure, and competition with better-known river cruise regions. Although Europe remains the synonym for river cruises, 2023 data show that the market is gradually expanding to other geographical regions.

4. Main features and analysis of the current state of river cruises in Croatia.

Three main waterways connect and form a river network in Croatia (Figure 3). The Danube Waterway is one of the most important European river corridors, connecting Central and Southeastern Europe, and enabling international trade and travel. The Sava Waterway is of significant regional importance since it connects the interior regions of the continent with the Danube, providing access to a broader transport system. The Drava Waterway, although shorter and with less traffic, is important for local transport and contributes to the economic connectivity of coastal regions.

Figure 3: Main waterways in Croatia.



Source: The medium-term development plan for waterways and ports of the inland waters of the Republic of Croatia (for the period 2009-2016), 2008.

Port Authority Vukovar manages public ports on the Danube and the planned multipurpose Danube-Sava Canal. Port Authority Osijek manages ports on the Drava River. Port Authority Sisak and Port Authority Slavonski Brod share the authority over ports on the Sava River.

The inland waterway ports of the Republic of Croatia are the Port of Osijek, the Port of Vukovar, the Port of Slavonski Brod, and the Port of Sisak. Ports of Vukovar and Slavonski Brod are classified as main ports of the TEN-T network (Rhine-Danube corridor). The Ports of Osijek and Sisak are classified as ports on the comprehensive TEN-T network in the Republic of Croatia. Apart from the inland waterway ports, Croatia also has several berths. The most important passenger berths are Vukovar, Batina, Aljmaš, and Ilok.

4.1. The Danube Waterway.

There are four berths located on the Danube: Vukovar, Ilok, Batina, and Aljmaš. Technical characteristics of the berths are presented in Table 1.

Table 1: Technical characteristics of the berths on the Danube.

Technical data	Vukovar	Ilok	Batina	Aljmaš
Position of the passenger terminal	R km 1,333 + 000 right bank of the Danube	R km 1,298 + 680 right bank of the Danube	R km 1,425 + 500 right bank of the Danube	R km 1,380 + 200 right bank of the Danube
Purpose	Passenger vessel berthing	Passenger vessel berthing	Passenger vessel berthing	Passenger vessel berthing
Developed riverbank	In its entirety	In its entirety	In its entirety	In its entirety
Type of the riverbank	Sloping bank	Sloping bank	Sloping bank	Sloping bank
Type of the pontoon	Floating structure - steel	Floating structure - steel	Floating structure - steel	Floating structure - steel
Number of berths	1 berth	1 berth	1 berth	1 berth
Permitted number of vessels per berth	4 vessels (floating structures + 3 vessels)	3 vessels (floating structures + 2 vessels)	2 vessels (floating structure + 1 vessel)	2 vessels (floating structure + 1 vessel)
Length of the floating structure	75.20 m	57.22 m	14.53 m	14.53 m
Maximum width of the floating structure	10.00 m	7.93 m	8.02 m	8.02 m
Additional services at the passenger terminal	Water supply, electricity supply, waste removal	Water supply, electricity supply, waste removal	Water supply, electricity supply, waste removal	Water supply, electricity supply, waste removal, sewage disposal

Source: Authors based on data from the Port Authority of Vukovar.

The most attractive river berth in Croatia is located in Vukovar, along the Danube riverbank in the very town centre, where it represents an important urban and tourism feature. Its distinctive feature is the repurposed ship used as a berth and a cultural and tourist area. On its deck, there is a restaurant, and in the under-deck area, there is a modern, fully equipped multimedia hall. It has a dual function. It serves as a facility for passenger reception and customs control, as well as an interactive space for interpreting Croatia's cultural and tourism offer. Such a solution incorporates functionality and attraction, making the berth one of the town's recognisable symbols.

Vukovar is Croatia's largest port on the Danube. Its systematic development started in 2002, with the intention of creating adequate capacities for the reception of cruise ships. Vukovar's geographic location on the middle course of the Danube makes it strategically important for the international itineraries of the river cruises, which connect Middle and Southeast Europe. The interest in berthing in Vukovar is extremely high, particularly

during the main season from March to October. Vukovar's another competitive advantage is the navigability of the Danube in this area throughout the year, regardless of the water level.

Berth in Ilok is located at the far east of the country, on the border with Vojvodina (Serbia), at the entrance to Croatia from the direction of the upstream Danube routes. Therefore, it holds a strategic role in the reception of passengers and in connecting local tourism attractions with river transport. The construction of the passenger berth in Ilok began in 2002 as part of the programme to improve public river ports. Berthing season lasts from March to October.

Ilok, as the Eastern Croatian town on the Danube, gained an additional international recognition with its berth. The Danube's navigability throughout the year provides stable conditions to accommodate river cruise ships. The attractive local offer and the integration in the regional and international itineraries make the Ilok berth an important element in positioning Croatia on the map of European river tourism.

The passenger berth Batina was built in 2015 as a floating berth with the accompanying infrastructure. Its purpose is to accommodate and moor larger passenger cruise ships that cruise along the Danube. From a functional perspective, the Batina berth records around 30 to 50 berthings annually. From a tourism perspective, it represents the new starting point when visiting Osijek-Baranja County, thus relieving Vukovar as the main berth in the region. This contributes to a more even spatial distribution of tourist traffic and enhances Baranja's greater visibility in respect to river tourism.

However, infrastructure and hydrological constraints present significant challenges. In other words, because of the specific location and accumulation of sand deposits during low water levels of the Danube, the safety of cruise ship berthing is not always guaranteed. Consequently, during the summer months, cancellations of previously scheduled cruise ship arrivals are frequent, thus limiting the commercial effects of the berth and creating uncertainty when planning tourism itineraries.

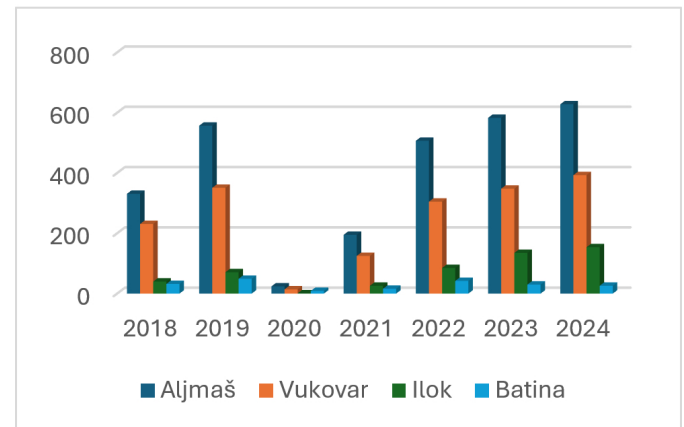
The passenger berth in Aljmaš was built in 2013. It is a floating berth designed to accommodate passenger ships and to improve the transport and tourism infrastructure of the Osijek-Baranja County.

The interest of river cruise companies in berthing at Aljmaš increased when the low water levels made it difficult to enter the Drava River and to berth in Osijek. Therefore, Aljmaš became the alternative and the closest mooring point, thus enabling continuity of the itineraries. This trend has shown that the berth has the potential to accommodate a large number of cruise ships during the navigation season (similar to the berth in Batina). Therefore, it can be regarded as an essential part of the river berth network in Eastern Croatia.

International cruises on the Danube in Croatia have experienced a significant growth recently, reflected in an increase in cruise ship berthings (Figure 4) and a rise in passenger numbers (Figure 5).

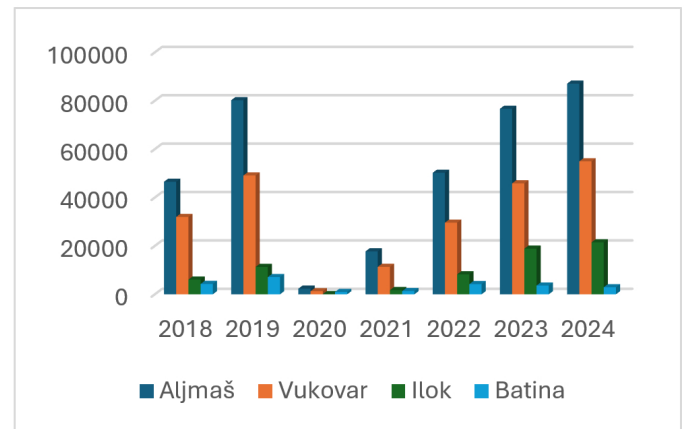
International cruises on the Danube in Croatia have recorded significant growth recently, which is evident in the increase in the number of cruise ship berthings and the increase in the total number of passengers. The number of berthings in the observed

Figure 4: Number of cruise ship berthings on the Danube River, 2018–2024.



Source: Authors based on data from the Port Authority of Vukovar.

Figure 5: Number of passengers on the Danube River, 2018–2024.



Source: Authors based on data from the Port Authority of Vukovar.

period shows a clear upward trend. After the noticeable decline during 2020, caused by the COVID-19 pandemic and the resulting travel restrictions, a strong recovery followed, with continued growth in the years following the pandemic, culminating in record values in 2024.

The tourist structure by country of origin in 2024 indicates the dominance of foreign guests, primarily from the United States, Germany, the United Kingdom, Austria, and Switzerland. Such a profile reflects the typical structure of river cruise participants in Europe, with American guests representing a significant share due to that market's strong interest in cultural and luxury travel. The participation of tourists from neighbouring European countries is associated with geographical vicinity and a long tradition of Danube cruises.

4.2. The Drava Waterway.

Since 1975, the port of Osijek has had the status of an international river port, and the passenger berth has been classified

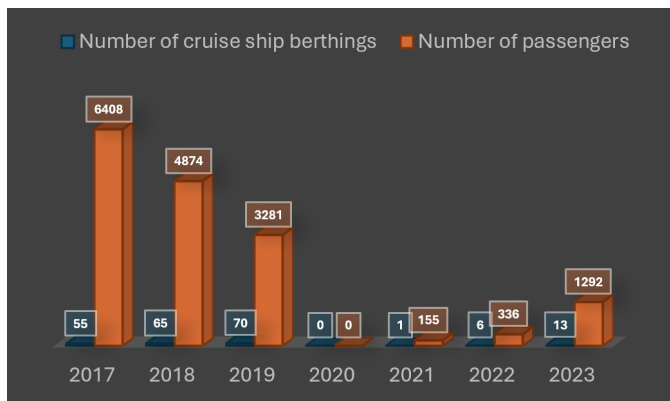
as a public passenger berth of national importance. It is intended for the berthing and unberthing of passenger and other vessels, the reception and dispatch of passengers, as well as providing accompanying services that are functionally and technologically connected with the abovementioned activities. It is located on the right bank of the Drava River in the town centre (rkm 21+282 to rkm 21+402), which gives it a direct spatial and infrastructure importance for the development of river traffic and tourism in Eastern Croatia. The port area encompasses 5,400 m². The floating structure (OK-23) has been repurposed as a restaurant and serves as a pontoon for berthing passenger ships.

Low water levels make it difficult for river cruise ships to enter the port at certain times of the year, representing an infrastructure limitation regarding international itineraries. However, since 2009, cruise ships have occasionally berthed in Osijek. Their stay is usually connected with visits to the baroque Tvrđa fortress, museums, and the town's cultural institutions, as well as the broader region. It is the central urban location of the berth and the richness of cultural and historic resources that make the town an attractive element of the tourism offer.

A construction project for a new passenger terminal on the site of the old port started in 2018 to increase competitiveness. The planned investment aims to adapt the infrastructure for larger cruise ships and to provide additional facilities and capacities to accommodate international cruise ships.

The number of cruise ships and passengers is presented in Figure 6.

Figure 6: Number of cruise ships and passengers in Osijek, 2017–2023.



Source: Authors based on data from the Port Authority of Osijek.

An increase in the number of cruise ship berthings is evident in the period from 2017 to 2019. However, there was a complete stagnation in 2020 as a result of the global COVID-19 pandemic. A gradual recovery was noticed in the years following the pandemic. However, despite the positive trend, figures are still considerably below pre-pandemic levels.

There are noticeable differences in passenger numbers compared to the number of berthings. The highest number of passengers was recorded in 2017, and in the next two years, the number of passengers decreased, although the number of cruise

ships increased. In the pandemic year 2020, passenger traffic was completely absent, with only a marginal recovery observed in 2021 and 2022. A significant increase was noticed in 2023; however, still below pre-pandemic levels.

The potential of the Osijek berth is confirmed by the announcements of the first international river cruise programmes departing from Croatia, organised by Avalon Waterways. The programme called The Danube from Croatia to the Black Sea includes a nine-day journey from Zagreb through Osijek, Novi Sad, Beograd, Lepenski Vir, and Romanian and Bulgarian towns to Constanta and Bucharest. The second programme, called the Balkan Odyssey, starts in Bucharest and ends in Osijek. It also includes Ilok as an additional destination for Croatian river cruises.

4.3. The Sava Waterway.

Although there are only several berths along the Sava Waterway, they do not have the adequate infrastructure to accommodate river cruise ships. The exceptions are berths in Sisak and Slavonski Brod.

Public passenger berth in Sisak is located on the Kupa River, which is a part of the Sava Waterway. The passenger pontoon was built in 2013 and is located in the very town centre, not far from the Harbour Master's building. It has the capacity to accommodate one larger passenger ship or several smaller vessels. Power supply is available from the operational shore, which is illuminated and is the town's main promenade.

The berth has adequate infrastructure to accommodate cruise ships. However, its functionality is limited by the unreliability of the Sava River's navigational regime caused by low water levels. For example, the navigation on the Sava River towards Sisak was not possible in 2013 for more than 100 days, highlighting the dependence of river tourism on hydrological conditions.

Passenger ships berth on the left bank of the river Kupa in the centre of the town. The narrow riverbed prevents ships from turning at this location, so they have to navigate backwards to the mouth of the river Kupa into the Sava. The berth's infrastructure was gradually improved, i.e., the pontoon installed in 2013 near the earth bank enabled simpler berthing and power supply. In 2018, the new public passenger berth was built, where the repurposed river ship Biokovo is located. This berth is situated on the river Kupa, on rkm 3+900 to 4+000. There are four bollards on the bank within a 40m distance, and two fenders. The access bridge connects the berth to the riverbank.

The arrival of larger river cruise ships confirms the berth's capacity and functionality. In 2018, the river cruise ship Prinzessin Sisi entered the Port of Sisak. It was the largest cruise ship to enter the town, measuring 110 m in length, 11.5 m in width, with a capacity of 160 passengers accommodated in 78 cabins. The arrival of the ship Victor Hugo has also been recorded. It is 82m long, 9.5m wide, with a draft of approximately 1 m, 52 passenger cabins, and a tonnage of 550 tons.

In the period from 2019 to 1st May 2025, four cruise ships entered the berth of Sisak. The traffic in the berth of Sisak is presented in Table 2.

Table 2: Traffic in the berth of Sisak 2019–2025.

Year	Number of cruise ships	Number of passengers	Number of crew members	Mooring
2019	2	175	62	Biokovo pontoon
2020	0	0	0	/
2021	0	0	0	/
2022	0	0	0	/
2023	1	73	25	Old Bridge pontoon
2024	0	0	0	/
2025 (till 1 st May)	1	68	24	Old Bridge pontoon

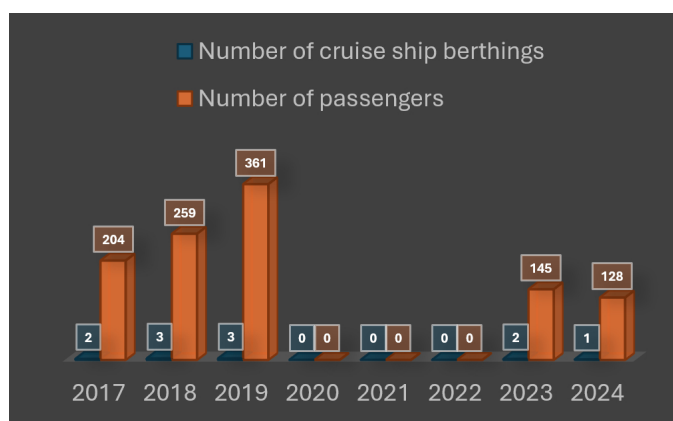
Source: Authors based on data from the Port Authority of Sisak.

Sava Waterway, which enables navigation reliability and the continuous arrival of river cruise ships.

The Port of Slavonski Brod is located on the left bank of the Sava River, at km 365 southeast of the town centre. River cruising, as a form of tourism, is still in its early stages in Slavonski Brod, and its future development depends on the construction of the Danube–Sava Canal. At present, the port does not fulfil the conditions for formal operations and currently operates only in exceptional cases, subject to special authorisation.

Over the past five years, only one cruise ship has arrived at the port each year, indicating limited current activity but also potential for development. Traffic at the berth of Slavonski Brod is presented in Figure 7.

Figure 7: Traffic at the berth of Slavonski Brod 2017–2024.



Source: Authors based on data from the Port Authority of Slavonski Brod.

During the observed period, a total of 11 berthings and 1,097 passengers were recorded, with the highest frequency registered in 2018 and 2019. In 2020, 2021, and 2022, there was a total suspension of traffic, which can be attributed to the COVID-19 pandemic. The cruise traffic gradually resumed in 2023 and 2024.

The priority project of the Action Plan for Tourism Devel-

opment of Slavonski Brod is the so-called Riječna porta, which foresees repurposing a ship measuring 72×10.2 m for multiple functions, i.e., as a pontoon for mooring passenger ships, and to accommodate the needs of the Customs, Border Police, Port Authority, Harbour Master's Office, and the Tourist Board. The plan is to build additional facilities, such as souvenir shops, classrooms, conference halls, as well as a small hospitality facility, thus transforming the berth into an educational and tourist centre for domestic and international visitors. Access to the future berth is ensured through a developed promenade, an access road, and a parking area. Its location near the town centre connects it to the urban, cultural, and tourist facilities of Slavonski Brod.

The integration of transport, cultural, and tourism functions is planned through the modernisation of the Slavonski Brod river berth. It provides a foundation for the development of river cruise tourism and the appreciation of the town's historic heritage.

5. Potential and guidelines for the development of river cruise tourism in Eastern Croatia.

The development of river cruise tourism in Eastern Croatia is of great potential for the national and regional economy. It is based on natural resources, cultural and historic heritage, and infrastructure investments. The Danube, Drava, and Sava Rivers connect several destinations that offer a range of tourism facilities. Their interconnection enables the creation of a competitive and sustainable tourism product.

Batina, located in Baranja, is an example of a settlement whose development can be based on archaeological findings and cultural heritage, including the Church of St. Valentine the Martyr and the archaeological sites Gradac, Sredno, and Parlog. Furthermore, the traditions of winemaking and fishing create opportunities for developing specialised forms of tourism. However, for the berth to reach its fullest potential, it is important to maintain waterways systematically and to address the problems of low water levels and sand deposits.

Aljmaš, due to its geographical location on the Danube and the cultural and religious importance of the Shrine of Our Lady of Refuge, is one of the most visited pilgrimage destinations in Croatia. This destination can develop cultural, pilgrimage, and wine tourism, creating an offer worthy of being included in river cruise itineraries.

Vukovar, a town of impressive cultural, historic, and symbolic value, is particularly notable for memorial tourism, museums, and natural resources. Its attractiveness is the result of the combination of cultural and historic heritage, archaeology, and enogastronomy, which make it a must-see destination for river cruise tourism.

Ilok, with its 14th and 15th-century fort, the Church of St. John of Capistrano, and the widely renowned wine cellars, confirms that river berths can serve not only as transit points, but also as the starting points of cultural and gastronomic tours, thereby allowing tourists to enjoy the broader regional attractions of Syrmia and Baranja.

Osijek, the largest urban centre in Eastern Croatia and the administrative centre of Slavonia, is one of the key river tourism destinations due to the synergy of cultural and historic heritage, urban attractions, and enogastronomic offer. Among its most significant resources are the Baroque fort Tvrđa, one of the best-preserved fortifications in the region; the Neo-Gothic Cathedral of St. Peter and Paul; and the Secessionist architecture along the European Avenue. The Drava River promenade and the town's museums additionally validate the town's tourism offer. Including Osijek in the international itineraries of river cruises enables the connection to the Kopački Rit Nature Park and the wine routes of Baranja and Erdut, which, consequently, incorporate cultural, natural, and enogastronomic elements into a unique tourism product. Such a model of development creates a diverse and sustainable offer that positions Osijek as a strategic centre of river cruise tourism in Croatia. Moreover, including Osijek in the itineraries of renowned shipping companies such as AvalonWaterways confirms the efficiency of infrastructure investments in passenger berths and contributes to the international recognition of Croatia as a cruise destination. Therefore, further infrastructure improvement and more intensive promotion are the key factors to increase the number of visitors and to enhance economic effects at the local and regional level.

By connecting Sava River cruises to the natural resources of the Lonjsko Polje Nature Park, Sisak shows how combining natural and cultural heritage can create a sustainable and appealing tourism product. It is particularly noteworthy to mention the ship *Juran i Sofija*, adapted for educational and promotional programmes, which enriches the offer of river tourism on the Sava River.

Slavonski Brod, with its monumental Brod Fortress and Franciscan heritage, offers outstanding cultural and historic attractions revitalised for tourism purposes, making the town an important stop on river cruise itineraries.

To attract as many river cruise passengers as possible, it is important to develop integrated thematic tours that combine cultural and historic, enogastronomic, pilgrimage, and natural attractions. Investments in berth infrastructure and systematic maintenance of waterways are a prerequisite, while integrating destinations into a unique network allows the creation of a coherent regional product that can compete with established Danube destinations in neighbouring countries. Promotion on the international market and cooperation with global tour operators would further enhance the visibility of these destinations.

Finally, the development of river cruise tourism in Eastern Croatia requires a combination of infrastructure investments, the valuation of cultural, historic, and natural heritage, as well as strategic promotion. Thus, a distinctive and competitive destination could be created that would attract many visitors, contribute to the sustainable development of local communities, and confirm the strategic importance of river tourism for the national economy.

6. Conclusions.

Based on the specific qualities of river cruises, it can be concluded that they offer a unique travel experience that combines peaceful river navigation, ship comfort and facilities, picturesque landscapes, exploration of towns situated along the river, and exploration of attractive destinations in their vicinity. Such voyages attract tourists, particularly those who want to combine relaxation and exploration, free from the rush and crowds that usually accompany other tourist voyages.

Although three international waterways run through the Republic of Croatia, the international river cruise traffic prevails on the Danube. Such a distribution results from the Danube's stable hydrological conditions throughout the year and the existence of four passenger berths that can accommodate river cruise ships. On the other hand, the Drava River is characterised by water oscillations that obstruct the navigation of larger passenger ships. The Sava River, due to the restricted navigability and the lack of appropriate berth infrastructure, has not recorded a significant international river cruise traffic. However, the Sava has a distinctive tourism potential based on its natural features and spatial characteristics, and its inclusion in the international cruise programmes can be expected only following systematic infrastructure investments and strategic river tourism planning.

Development of river tourism is a strategically important potential that can contribute significantly to the diversification of tourism offer and enhancement of the regional economy. The key components for future development are valuing cultural, historic, and natural heritage, incorporating enogastronomic and religious elements, and continuously improving port and transport infrastructure. Special attention should be given to integrating destinations into a coherent river tourism network, which would enhance competitiveness in relation to the established Danube corridors in neighbouring countries. The efficient promotion in the international market, in cooperation with shipping companies and global tour operators, would further enhance the region's visibility and attractiveness. Thus, Croatia could be positioned as a sustainable and distinctive cruise destination whose development would generate positive economic, cultural, and social impact on the local and national level.

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