Adriatic Sea Tourism Report

2022

realised by

RISPOSTE TURISMO

ADRIATIC SEA FORUM

CRUISE FERRY SAIL & YACHT

BARI, 2022
OCTOBER 6-7

Organised by

RISPOSTE TURISMO

The 2022 edition is in partnership with

Autorità di Sistema Portuale del Mare Adriatico Meridionale
Bari, Brindisi, Manfredonia, Barletta, Monopoli, Termoli

Puglia PROMOZIONE
Agenzia Regionale del Turismo

Main sponsor

Bassani GROUP

Sponsor

ECOLAB

MEDCRUISE
The Association of Mediterranean Cruise Ports

Thanks to

CAMERA DI COMMERCIO BARI

EU project spotlight on

Interreg Italy - Croatia MIMOSA
Interreg Italy - Croatia FRAMESPORT
Interreg Italy - Croatia SUSPORT
Interreg Italy - Croatia TECHERA

Under the patronage of

Mims Ministero delle infrastrutture e della mobilità sostenibili

MINISTERO DEL TURISMO

Co-financed by the European Regional Development Fund

Adriatic Sea Tourism Report

2022

realised by

RISPOSTE TURISMO

Adriatic Sea Tourism Report

2022 EDITION

INDEX

Adriatic Sea Tourism Report and Adriatic Sea Forum are projects by

RISPOSTE TURISMO

Risposte Turismo srl
Giudecca 624 Venezia (Italy)

Phone +39 041 3093260 | Skype risposte.turismo
E-mail info@rispositeturismo.it | www.rispositeturismo.it | Tw. @RisposteTurismo @AdriatiSeaForum

METHODOLOGY

Risposte Turismo produces since 2013 Adriatic Sea Tourism Report through desk research and analysis, plus direct requests addressed to the key stakeholders in maritime tourism. Answers and results are checked and integrated with other official sources. Moreover, for each edition we carry out two direct surveys to address issues related to nautical demand. The following is a list regarding the main assumptions and features of this report:

- for the purposes of this study, a cruise ship is considered to be a ship travelling to multiple destinations (so excluding day cruises) according to a fixed itinerary.
- Cruise and ferry traffic data has been directly collected from Adriatic ports and terminals, and combined and checked with data from national statistics offices.
- Cruise traffic of the entire Mediterranean Sea have MedCruise and CLIA as sources, but has been processed and integrated by Risposte Turismo with data referring to ports or companies that are not members of the associations.
- Forecasts for cruise and ferry traffic have been directly provided by single ports and terminals. Where not available, some values (passenger movements or calls) have been estimated by Risposte Turismo according to multi-year data sets, quarter trends and scheduled ships.
- Maps of the main cruise and ferry routes in the Adriatic Sea have been created by Risposte Turismo to calculate how many times a cruise ship or ferry goes from one port to another with data based on information collected from the online cruise and ferry catalogues (or booking forms) of companies sailing the Adriatic in 2019.
- As Greek and Italian coastlines exceed the Adriatic, only the ports of Corfu, Igoumenitsa and Patras are considered Adriatic, while only part of the Apulia region is included (until Punta Meliso - Santa Maria di Leuca).
- The nautical tourism data offer is compiled through an ad-hoc count of moorings and marinas based in the Adriatic Sea. Desk research was conducted in order to map all berths and marinas available for the 2022 season in the Adriatic area. Starting from the data already available from Risposte Turismo, the work carried out consisted of eliminating berths that no longer exist and adding new berths in order to complete an updated comprehensive database of berths and structures located in the Adriatic Sea.
- Two surveys were conducted from August to September on marinas and charter companies. As is the case each year, a Risposte Turismo databases of marinas and charter companies was used to send dedicated forms to the samples, who were asked to fill in the forms with data and information relating to the last season before Covid-19 pandemic (2019) and forecasts for the current and the next ones (2022 and 2023). In this edition, 58 marinas and 23 charter companies took part in the survey by completing the form.
- Regarding the common framework at the end of the first chapter, seven factors were identified and each of these factors was then rated on a scale from 0 to 5, for which 5 is the value registered by the strongest Adriatic region. Factors were calculated for cruise ships and ferries using passenger traffic and calls (demand), and for nautical tourism using the number of structures and berths in the region (supply).

IF YOU HAVE ANY REQUEST, PLEASE SEND AN EMAIL TO ASTREPORT@ADRIATICSEAFORUM.COM

1 MARITIME TOURISM IN THE ADRIATIC SEA: 2022 and beyond

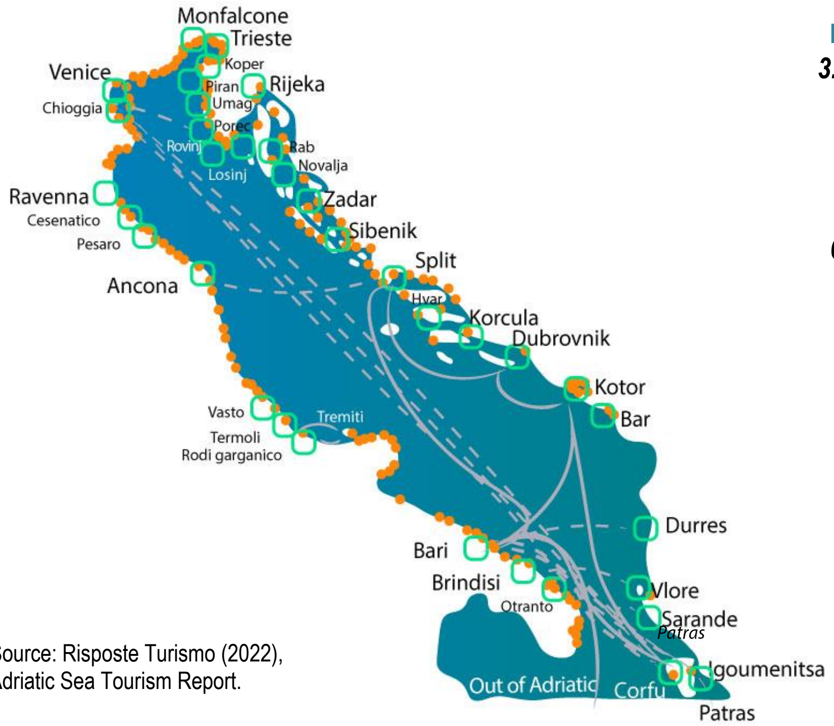
The 2022 edition of Adriatic Sea Tourism Report (ASTR) continues the series of analysis and description of maritime tourism in the Adriatic Sea, with information and data that have been updated since 2013. This report provides in-depth quantitative and qualitative information on the three sectors of maritime tourism in the Adriatic Sea: cruise, ferry and sail and yachting tourism.

As summarized in the previous methodology box, this report is the result of information and data collection directly carried out by Risposte Turismo thanks to extensive dialogue with several Adriatic stakeholders who collaborated. Among these, ports and marinas (individual and networks), passenger terminals, charter operators, navigation and tourism companies, national institutes of statistics, tourism destinations, public administrations and tourism boards. The results of this edition were presented in Bari during the 5th edition of *Adriatic Sea Forum – cruise, ferry, sail & yacht* (Bari, Oct 6-7).

The 2022 edition of the report – in addition to methodology and the present introduction – keeps the structure of three chapters, each of which focused on the cruise, ferry and sail and yachting sectors, with graphs, tables and maps and an examination of the movements of tourists by sea, directions, dimensions and behaviours. As for the previous Adriatic Sea Tourism Report, the final chapter is dedicated to a special focus, this year on four international Adriatic maritime tourism projects ongoing: MIMOSA, SUSPORT, FRAMESPORT and TECHERA. Again this year a double ad-hoc survey on the nautical sector was conducted in the summer and was addressed to marinas and charter companies. It highlights information related to demand and supply with a transnational perspective.

The Adriatic is an international space that still requires efforts to be fully recognised as a brand and a unique destination. Studies and analysis like this may give a contribution but a stronger commitment both from public and private operators is needed. The summary of data that follows below should be sufficient to give an idea of the unequivocal relevance that the Adriatic assumes in international geography and maritime tourism – even if in a year of recovery after two years of pandemic that interrupted a continuous growth that led to the 2019 records. In fact the 2019 was a remarkable year for Adriatic maritime tourism with 5 million cruise passenger movements (including transits, embarks and disembarks) recorded in more than 30 Adriatic cruise ports and more than 19 million passengers travelled on a ferry hydrofoil or fast catamaran in the Adriatic (with additional travellers crossing domestic channels and reaching islands by sea). The estimates presented in this report for 2022 show an interesting recovery trend leaded with the ferry traffic that should close the year with almost 18 million passenger movements, 6 of them on international routes and 3.37 million passenger movements returning near the threshold of 3,000 cruise calls. The latest Risposte Turismo's update on nautical tourism reveals 337 structures with a a value ever closer to 80,000 moorings for boats. The map provides a summary of these key numbers.

Map 1] *Maritime tourism in the Adriatic Sea in 2022 at a glance: Adriatic gates and routes*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

more than 30 cruise ports
3.37 million passenger movements and 2,928 cruise calls

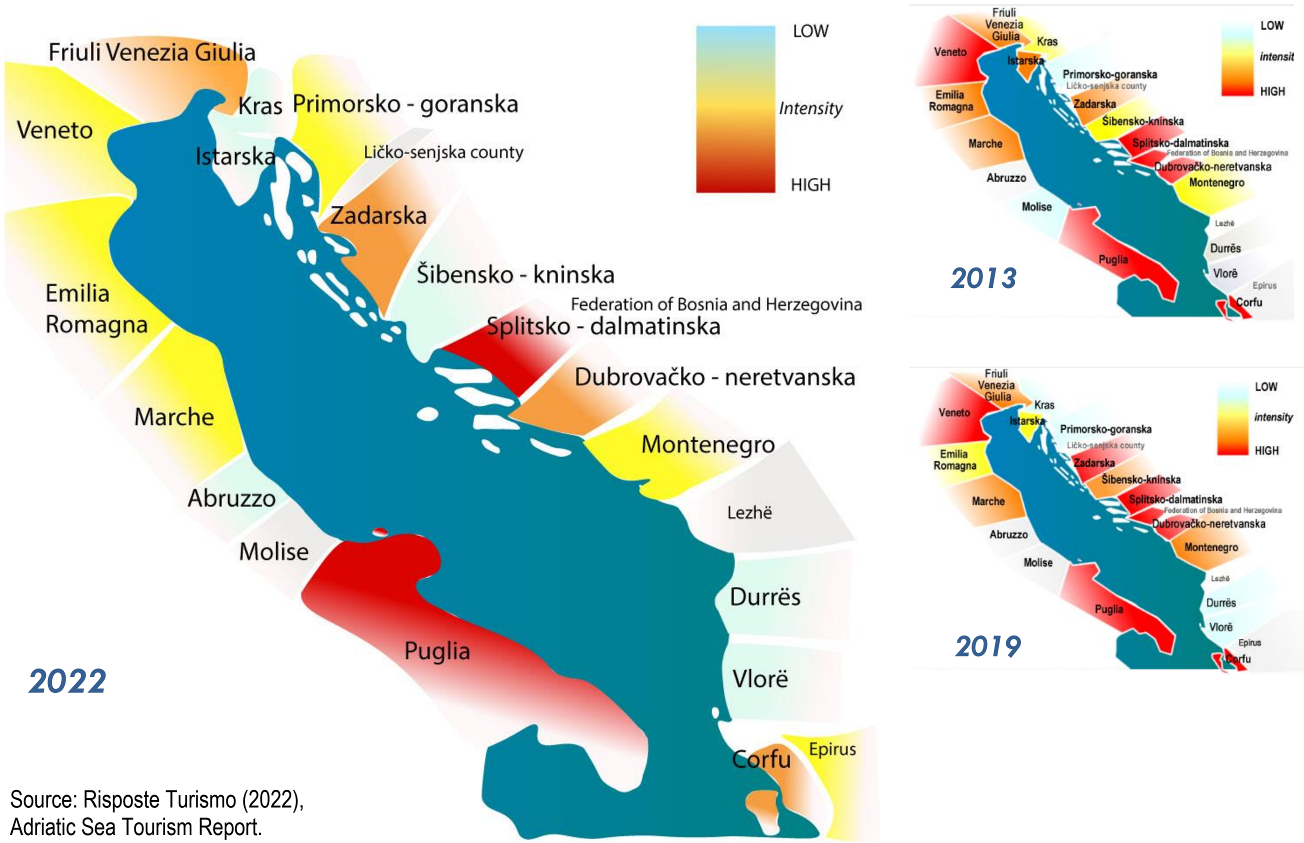
more than 40 ferry ports
almost 18 million passengers, 6 of them on international routes

337 structures for boat tourism
more than 79,000 moorings

The relevance and potentialities of the Adriatic as a tourist destination, and the opportunity to consider maritime tourism as a whole, should be reminded and used by all stakeholders. Since the very first edition of Adriatic Sea Tourism Report we affirm how each of its components is influenced by issues and challenges that the businesses have in common, such as for example land accessibility, port facilities and infrastructures, relationships with local communities, investments and promotional activities.

The following map illustrates the present intensity of maritime tourism (as a combination of the three components) of each Adriatic region compared with the intensity we recorded in 2013 and 2019 on the occasion of the first and last edition of the report (on the right). It shows how traffics and activities are (or are not) distributed and balanced in the various areas and how the regions can benefit from maritime tourism as an economic source. 2 regions (Puglia in Italy and Split in Croatia) confirm their high level of intensity in each sector, while on the other hand there are areas with a low involvement in maritime tourism, with no more than small ports able to host cruise or ferry ships, mainly not so big, or with a limited marinas offer. It is not just a way to express ranking, but to understand if an area has maritime tourism gaps to be filled through addressing investments, activities, programs, initiative and so on, always keeping in mind, of course, that each region may have its own priorities and aims. The 2022 overall framework of the maritime tourism intensity shows some changes in comparison to previous edition. Montenegro was the area that had registered the higher changes (thanks to a growth both in cruise traffic in Kotor, and nautical sector for the region) but also Šibenik and Zadar regions increased their level (thanks to the more intense activity in particular in the two main ports). But not all the regions are growing, with Veneto to show a decrease (mainly due to cruise traffic) meaning that results should not be taken from granted in this sector, even considering its already achieved thresholds.

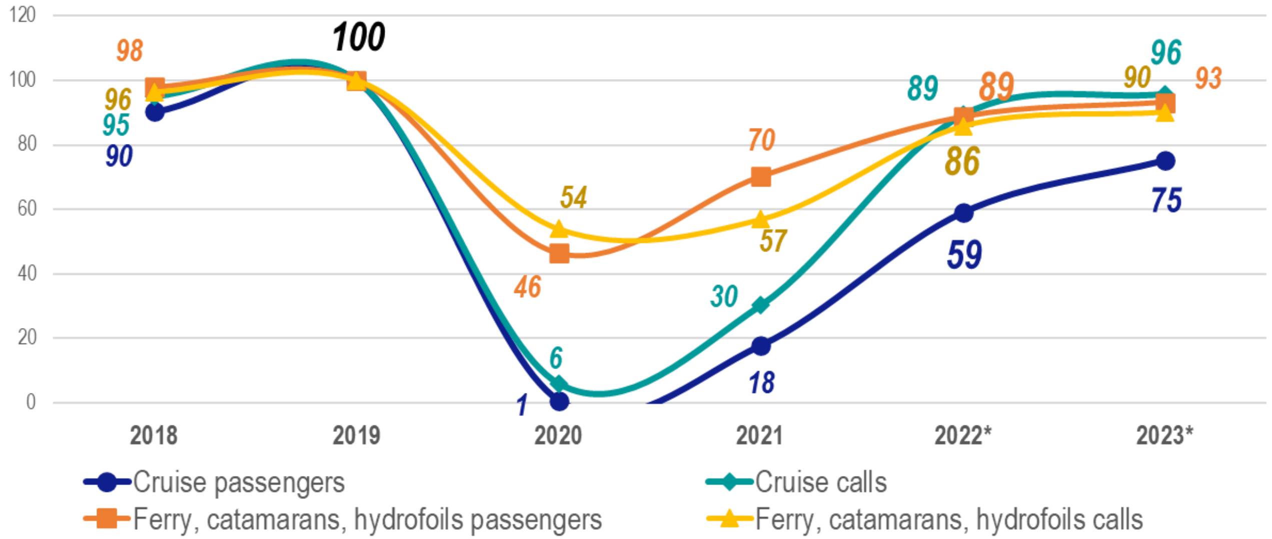
Map 2] *Maritime tourism intensity in the Adriatic regions (combination of cruise, ferry, sail and yacht tourism), 2013 and 2019*



Source: Risposte Turismo (2022),
Adriatic Sea Tourism Report.

The indexed graph below shows both cruise and ferry traffic using the results in 2019 as value 100. It is possible to notice the very strong drop in cruise traffic while instead the ferry held also in 2020. Cruising starts its recovery between 2021 and 2022 in particular in terms of number of ships cruising the Adriatic while the volume of passenger movements has lower indexed values. (the blue line). The first 2023 estimates all indicate growing values in comparison to 2022 but still not an indicator will fully recover reaching the 2019 records.

Graph 1] *Cruise and ferry traffic in Adriatic (indexed value 2019 = 100)*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

In looking beyond 2022 and 2023 it should be remarked how the Adriatic and passenger movements in the Adriatic by sea have a bond that spans centuries, on a "portion" of the Mediterranean that has seen people cross its waters for hundreds of years, whether for economic, political and sometimes warlike, or even romantic, reasons, not to mention for exploration, holidaymaking, and recreation. The Adriatic had Venice as a kind of de facto capital, and it's certainly an attractive location, not only from the historical and artistic points of view. Today (but perhaps it's best to say yesterday, too), this sea faces (and has faced) difficulties of various types and natures, which, on the maritime tourism front, have prevented the area's full affirmation, and recognition of its prerogatives.

In spite of the difficulties, we can take a second look at what can be decided on and accomplished to change the pace of developments. And entrepreneurs, managers, professionals and administrators certainly did so in the past, as they do today, perhaps focusing on certain specificities and instances of excellence that could cast the Adriatic in a new positive light. Gaps require filling so as not to be left out of the upcoming geography 'loop' for cruise itineraries and ferry connections (and soon, also for large yacht movements).

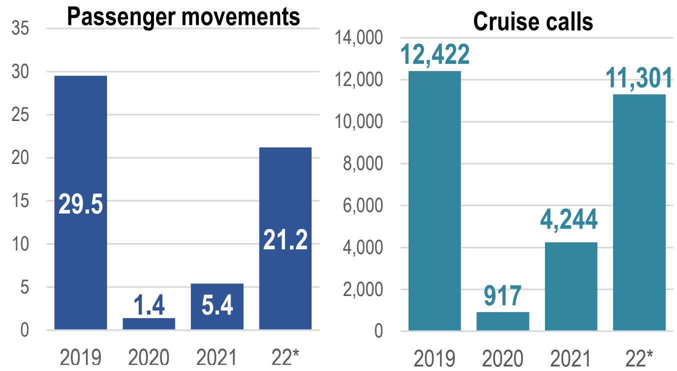
There is no shortage of elements to start out from, and notably the infinitely varied landscapes and historical and artistic heritage that the entire Adriatic macro-region can boast. A heritage that must be enhanced and promoted, and made accessible both from the informational angle and physically. And here, mobility becomes a core issue, requiring investment. Indeed, the attractions of the Adriatic Sea go beyond the undoubted marvels of the coast into the hinterland, to which access must be ensured. We must work on a "sea-land" axis level, by impelling or intensifying exchanges and collaboration among those who manage maritime tourism trade, those who host tourists at ports or marinas, and those who are responsible for the various destinations and destinations that can boost and complement the attractions of the Adriatic. This is a front for action that would benefit not only boating and cruising, but also ferries (a component that is often less closely linked with tourism than with transport as such).

There has always been a firm belief in the need to promote and affirm the Adriatic as a brand. The goal is certainly an ambitious one, but it is within reach. It may mean following in the footsteps of other "regions" that have long since succeeded in establishing and promoting themselves as such (think, for example, of the Caribbean and the Baltic). We therefore look to the sum, or combination if you prefer, of the various destinations and openings for discovery and for local holidaymaking. But this is a job that requires long time-frames, a strategic horizon that is certainly not short-lived, and consequently foresight, vision, perspectives, which are aptitudes not always possessed by those (primarily public-sector players) who are called upon to initiate actions regarding mobility, accessibility, promotion, enhancement of the sea-land axis, and (last but not least!) commitment to curbing environmental impacts. Quantitative and qualitative growth of maritime tourism in the Adriatic, however slow in taking off, can only start out from these premises.

2 CRUISE TRAFFIC

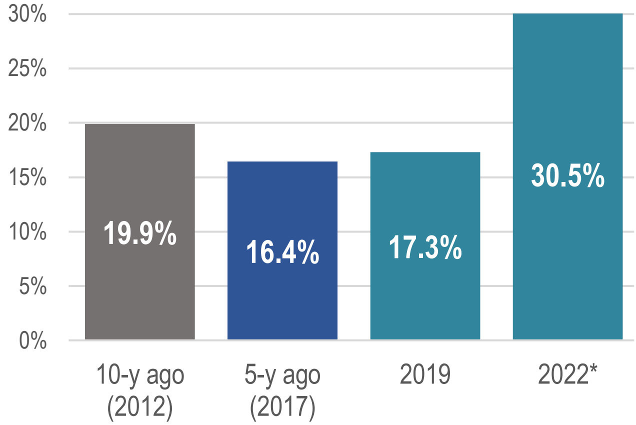
Graphs 2 & 3] *Cruise passenger movements and deployment of ship cruises in the Mediterranean and Black Sea, 2012-2022*

CRUISE TRAFFIC IN THE MED AND BLACK SEA



Source: Risposte Turismo (2022), Note: (*) forecast by Risposte Turismo.

GLOBAL CRUISE DEPLOYMENT, SHARE OF THE MED



Source: elaborations from data appeared in CLIA "State of the Industry", various ed.; 2022 forecast by Tourism Economics Cruise Platform / Travech (2022).

Before the pandemic, the Med region as a whole and the Adriatic reached new records for numbers of cruise passengers arriving at ports: 29.5 million in 2019 (+4% vs 2019/2018), thanks to 12,400 cruise calls (+10%), generating an average of 2,359 passengers carried per call (vs 2,013 in 2018). with a similar ratio for the Adriatic area (2,016), and with the area's almost 6 million passengers. In 2020 and 2021, traffic performance levels plummeted, with a significantly lower value for the pax/call ratio: 1,527 in 2020 and 1,272 last year.
For 2022, a year in which an increase in cruise calls is expected, the ratio is forecasted to grow significantly at around 1,867 passengers per call (+47% 2022/2021). According to CLIA, cruise tourists in 2019 came to 29.7 million (of which 26% from Europe), down to 5.7 million (benefiting from borders open in the first months of the year) and 4.8 million in 2020 and 2021.
If cruise deployment in the Med saw a decrease vs 10 years ago (-11%), the last 3 years displayed an increase in the Mediterranean share. Because 2020 and 2021 deployment was chaotic, it was decided to skip these years and to present the projection for 2022 (highlighting a 30.5% global share).

Table 1] *The 20 major Mediterranean ports for number of passenger movements according to forecasts for 2022 and variation on 2021*

PORTS	2022		Variation 2022/2021		2021	
	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls
Barcellona	2,300,000	800	341.6%	194.1%	520,854	272
Civitavecchia	1,900,000	827	266.0%	201.8%	519,060	274
Marseille	1,731,737	608	392.1%	277.6%	351,887	161
Palma de Mallorca	1,328,216	178	285.5%	-21.6%	344,569	227
Santorini	980,000	728	841.6%	281.2%	104,074	191
Genoa	950,000	325	128.2%	128.9%	416,386	142
Napoli	900,000	460	257.4%	198.7%	251,821	154
Piraeus	850,000	748	320.8%	175.0%	202,012	272
Mykonos	770,000	917	281.5%	263.9%	201,821	252
Corfu	**558,903**	**411**	138.1%	105.5%	**234,699**	**200**
FIRST 10 PORTS	**12,268,856**	**6,002**	**289.8%**	**179.8%**	**3,147,183**	**2,145**
Valencia	550,000	291	-25.9%	-38.6%	742,286	474
Valletta	500,000	250	-32.0%	-39.5%	735,832	413
Ajaccio	485,701	226	-30.8%	-53.3%	702,256	484
La Spezia	480,000	176	-43.4%	-9.7%	848,487	195
Palermo	480,000	238	-34.5%	-45.7%	732,431	438
Haifa	407,404	197	-9.1%	52.7%	448,204	129
Savona	400,000	153	-18.8%	-62.8%	492,475	411
Kotor	**400,000**	**440**	**4276.8%**	**587.5%**	**9,139**	**64**
Trieste	**380,000**	**182**	**182.9%**	**156.3%**	**134,315**	**71**
Dubrovnik	**365,950**	**321**	**-36.7%**	**86.6%**	**577,934**	**172**
TOTAL 20 PORTS	**16,621,961**	**8,305**	**74.8%**	**54.6%**	**9,507,354**	**5,372**

Source: Risposte Turismo (2022)

In 2022, the 20 major ports in the Mediterranean will see a 75% increase in passenger movements and a 55% increase in cruise calls vs 2021. We do well to note that, if in 2019 there were 5 Adriatic ports in the top 20, in 2022 there will be 4 (with Venice and Bari out of the ranking). After the two-year stop, Kotor sees the greatest increase vs 2021 both for passengers and calls. It expects to welcome 400,000 passengers, with 440 calls.

Table 2] *Cruise passenger traffic in the 4 macro areas of the Mediterranean in MedCruise ports, share percentages, 2017-2021*

Region	2021	2020	% Variation 2021 on 2020	2019	2018	2017	% Var. 2021 on 2017
WEST MED	4,403,046	1,920,403	129.3%	23,348,849	21,507,804	19,721,802	-77.7%
ADRIATIC	**842,737**	**32,838**	**2466.3%**	**5,431,388**	**4,889,351**	**4,447,033**	**-81.0%**
EAST MED	646,514	80,563	702.5%	2,365,163	1,638,816	1,740,289	-62.9%
BLACK SEA	303	0	100.0%	1,200	2,565	6,449	-95.3%
Total	**5,892,600**	**2,033,804**	**189.7%**	**31,146,600**	**28,038,536**	**25,915,573**	**-77.3%**

Source: MedCruise (2021), "Cruise Activities in MedCruise ports" and previous editions. Note: the figures refer to the members of MedCruise and therefore, even if they are representative of the entire Mediterranean area, they account for 63.1% of total cruise passenger movements in the Med, even if West Med region includes some Atlantic ports.

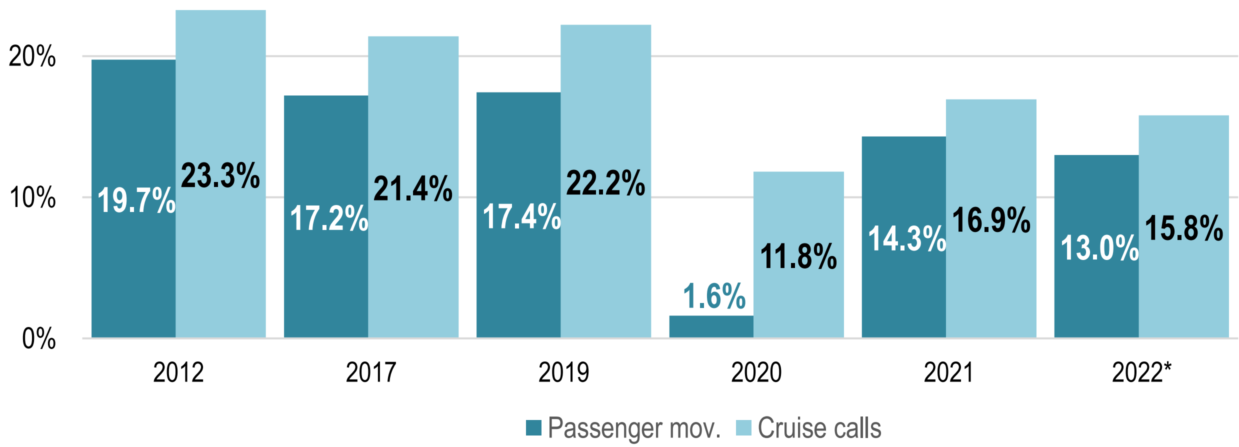
Table 3] *Cruise calls in the 4 macro areas of the Mediterranean in MedCruise ports, share percentages, 2017-2021*

Region	2021	2020	% Variation 2021 on 2020	2019	2018	2017	% Var. 2021 on 2017
WEST MED	3,444	977	252.5%	9,025	9,038	8,383	-58.9%
ADRIATIC	**878**	**148**	**493.2%**	**3,019**	**2,683**	**2,596**	**-66.2%**
EAST MED	855	129	562.8%	1,550	996	1,141	-25.1%
BLACK SEA	5	0	100.0%	2	17	19	-73.7%
Total	**5,182**	**1,254**	**313.2%**	**13,596**	**12,734**	**12,139**	**-57.3%**

Source: MedCruise (2021 and previous ed.), "Cruise Activities in MedCruise ports". Note: see table 1 note.

Ports associated with MedCruise include many of the cruise ports in the Mediterranean and its adjoining seas. As presented in MedCruise's latest statistics report, the passengers hosted by Mediterranean ports totalled 5.8 million in 2021 (a 190% increase on 2020, but still -60% vs record year 2019). 2021 also saw increased cruise calls (+313% 2021/2020) with the gradual return to operations of several cruise lines. From these tables it emerges that the Adriatic stood at near-zero traffic in 2020 and that in 2021 it reclaimed its second position in the ranking, surpassing the East Med. The year in which a recovery of the deployed ships took place was not accompanied by client numbers, generating the effect (fairly news for this industry) of ships sailing with an average occupancy rate significantly lower than usual. In any case, as it may be seen below, this rate is continuing its rise.

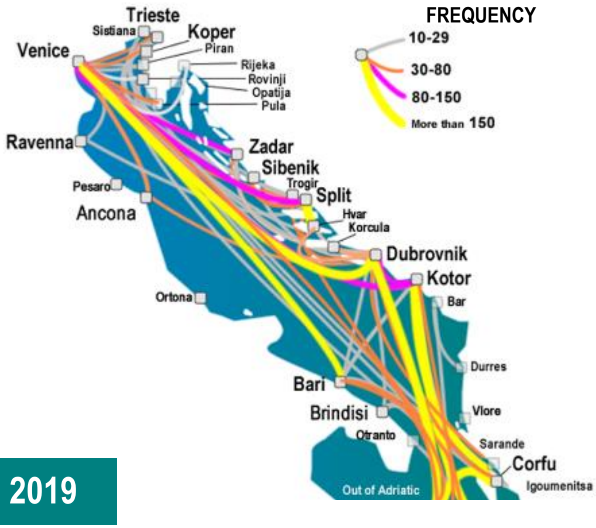
Graph 4] *Adriatic cruise passenger movements and cruise calls share of the Mediterranean 2012, 2017, 2019-2021 and 2022 forecast*

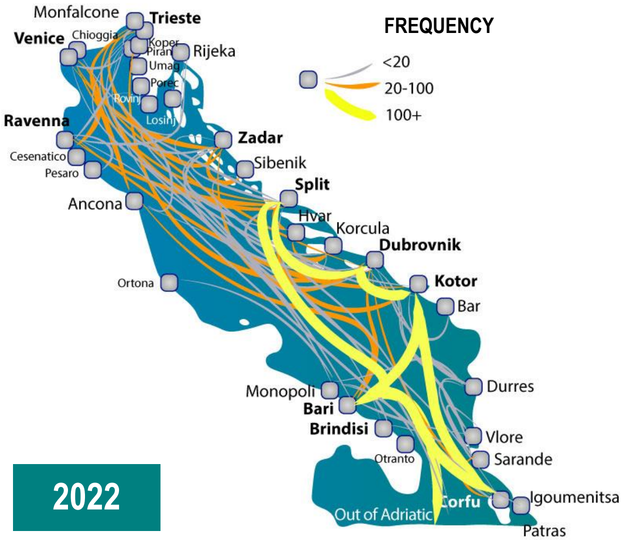


Source: MedCruise (2022), "Cruise Activities in MedCruise ports" and previous editions. 2022 data is a forecast by Risposte Turismo. Note: the figures refer to MedCruise members, therefore, even if they represent the entire Mediterranean area, the traffic is underestimated.

According to MedCruise statistics, in 2012 the Adriatic Sea accounted for 19.7% of Mediterranean cruise passengers and 23.3% of cruise calls (considering only the ports that are MedCruise members). The Adriatic share did not remain stable over the next years, and even displayed a fluctuating trend. A significant decrease was noted in the area in 2020 and 2021, for a variety of reason, there being a lack of cruise itineraries in the Adriatic in late 2020, and extra-Schengen ports were off-limits. Add to this the Venice ban on cruising for cruise ships in excess of 25,000 GRT (or in excess of a length of 180 meters and taller than 35 meters). The 2022 forecast is based on estimates made by Risposte Turismo, It foresees a significant increase in the share of cruise traffic in the Adriatic area vs 2022 and 2021.

Map 3] *Main cruise routes in the Adriatic Sea, 2022 vs 2019*





Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

The main cruise routes in the Adriatic for 2022 reflect a marked change vs the 2019 scheme. Overall, there are much fewer connections with a higher frequency. The reduction of traffic to and from Venice meant fewer links to the central Croatian ports. A rise may be noted for routes in the central and southern Adriatic with Split, Dubrovnik, Kotor, Bari and Corfu.

Table 4] *The main 20 cruise ports of the Adriatic and overall traffic, absolute values and percentages, 2021 and variations on 2020*

	Cruise port	Country	Cruise traffic		Share % on total		Variation % on 2020	
			passenger movements	*calls*	*passenger movements*	*calls*	*passenger movements*	*calls*
1	Corfu	GRE	234,699	200	23.1%	20.1%	2146%	1438%
2	Bari	ITA	210,785	112	20.7%	11.3%	3332%	918%
3	Trieste	ITA	134,315	71	13.2%	7.2%	2283%	184%
4	Dubrovnik	HR	110,130	134	10.8%	13.5%	3083%	283%
5	Monfalcone	ITA	104,184	35	10.3%	3.5%	-	-
6	Split	HR	89,148	105	8.8%	10.6%	17623%	855%
7	Ancona	ITA	36,934	19	3.6%	1.9%	2608%	850%
8	Venezia	ITA	29,115	33	2.9%	3.3%	415%	230%
9	Zadar	HR	10,164	30	1.0%	3.0%	1324%	131%
10	Rijeka	MON	9,996	4	1.0%	0.1%	-	-
11	Kotor	ITA	9,126	60	0.9%	6.4%	203%	611%
12	Brindisi	HR	8,568	6	0.8%	0.6%	274%	50%
13	Sibenik	HR	8,164	43	0.8%	4.3%	1065%	153%
14	Korcula	HR	6,845	57	0.7%	5.7%	853%	200%
15	Koper	ALB	4,448	11	0.4%	1.1%	-	-
16	Durres	HR	2,305	12	0.2%	1.2%	5138%	1100%
17	Rovinij	ITA	2,048	nd	0.2%	0.0%	1172%	nd
18	Ravenna	HR	1,554	8	0.2%	0.8%	-	-
19	Igoumenitsa	GRE	558	2	0.1%	0.2%	447%	100%
20	Bar	MON	436	4	0.0%	0.4%	-	-
	Other ports		2,560	46	0.3%	4.6%	48.1%	91.7%
	TOTAL		**1,016,082**	**993**	**100%**	**100%**	**2281%**	**409%**

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Data provided to Risposte Turismo directly by cruise ports.

As explained for graph 3, the cruising ban in Venice affected not only the performance rating for the port itself but also the Adriatic area as a whole. Venice lost its leading position, and hosted less than 30,000 passengers (with around 30 vessel visits in 2021). Corfu acquired the status of top Adriatic Sea port, with 230,000 passengers and 200 calls (and yet we see -69% vs 2019). The ports ranking second and third in the area are Bari and Trieste (which improved its performance and reduced negative variation 2021/2019 to -24%). The ranking also presents Monfalcone as a new-entry hosting its first cruise traffic as from 2021, operating mostly as an MSC Cruise homeport. The area saw more than 5 million cruise passengers in 2019, and an 80% fall vs 2021 and 2019. Concurrently, gradual recovery of the industry in this area, vs 2021 to 2020, is undeniable. The cruisers hosted totalled 42,000 (170 cruise calls).

Table 5] *Concentration of cruise passenger movements in Adriatic ports, 2019-2021*

Passenger movements	first 3	first 5	first 10
2021	57.1%	78.2%	95.4%
2020	52.9%	74.5%	93.7%
2019	55.0%	77.8%	94.2%

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

The concentration for the top 10 ports slightly increased in 2021, vs 2019. Almost 6 out of 10 passengers were noted in the top 3 ports, and more than 9 out of 10 were noted in the top 10 ports.

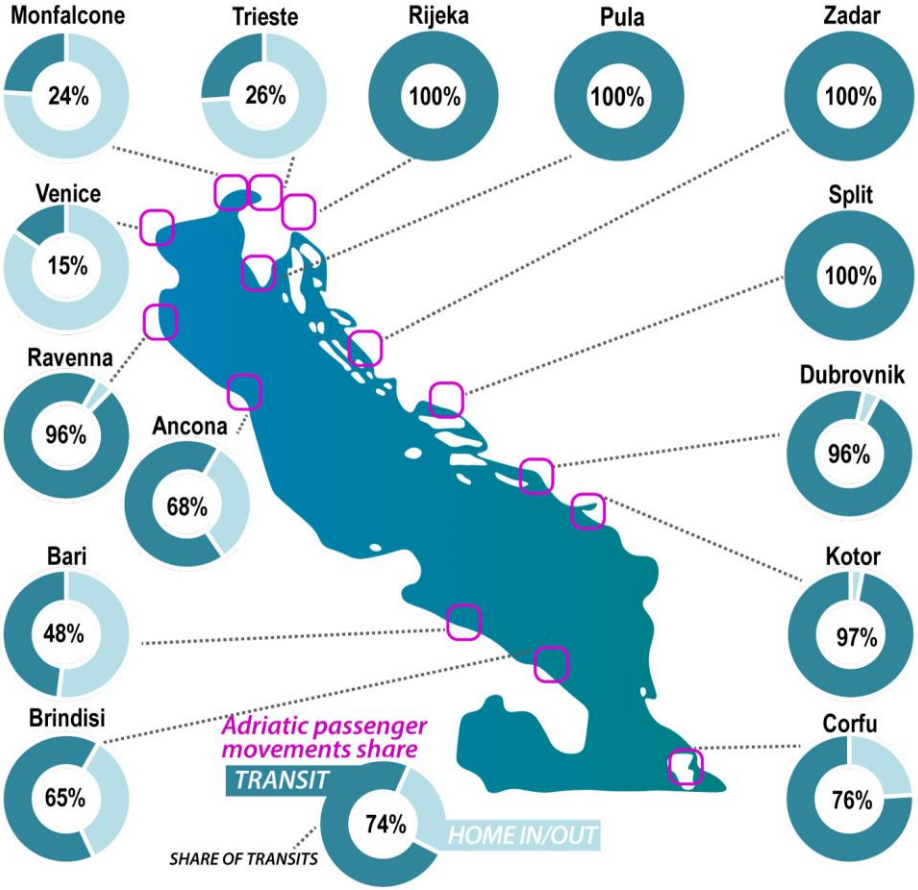
Table 6] *Cruise traffic by country, absolute values and share percentages and variation, 2019, 2021 and forecast for 2022*

PORTS	2022**		Share % on total		2021		2019		Variation % 2022/2021		Variation % 2022/2019	
Country	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls
ITALY*	1,367,046	927	40.5%	31.7%	526,438	300	2,668,014	1,021	159.7%	209.0%	-48.8%	-9.2%
CROATIA	900,404	995	26.7%	34.0%	237,354	378	1,417,210	1,193	279.4%	163.2%	-36.5%	-16.6%
GREECE*	560,282	415	16.6%	14.2%	235,594	210	769,945	427	137.8%	97.6%	-27.2%	-2.8%
MONTENEGRO	415,000	453	12.3%	15.5%	9,562	68	642,558	480	4240.1%	566.2%	-35.4%	-5.6%
SLOVENIA	76,389	94	2.3%	3.2%	4,829	22	117,933	106	1481.9%	329.5%	-35.2%	-10.9%
ALBANIA	56,280	44	1.7%	1.5%	2,305	12	97,053	60	2341.7%	264.7%	-42.0%	-27.1%
BOSNIA-HERZEGOVINA	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**3,375,402**	**2,928**	**100%**	**100%**	**1,016,082**	**993**	**5,712,713**	**3,287**	**232.2%**	**194.9%**	**-40.9%**	**-10.9%**

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note (*): both for Italy and Greece, only their Adriatic ports are considered. (**) 2022 data is a forecast by Risposte Turismo.

Looking at the traffic, nationally, Italy still leads the ranking of passenger movements in 2022, as in 2021 and 2019, but with a lower share (40.5% in 2022 vs 46% in 2019). While, in the three years considered, Italy maintains its position as Country hosting more passengers, Croatia is the Country with the highest number of cruise calls. As Montenegro's performance depends on a limited number of ports, its traffic in 2020 and 2021 was greatly impacted by the pandemic, though it should see an increase in 2022 thanks to Kotor. Finally, Adriatic Greece displays more limited 2022/2019 variation: -27% passengers and -3% calls.

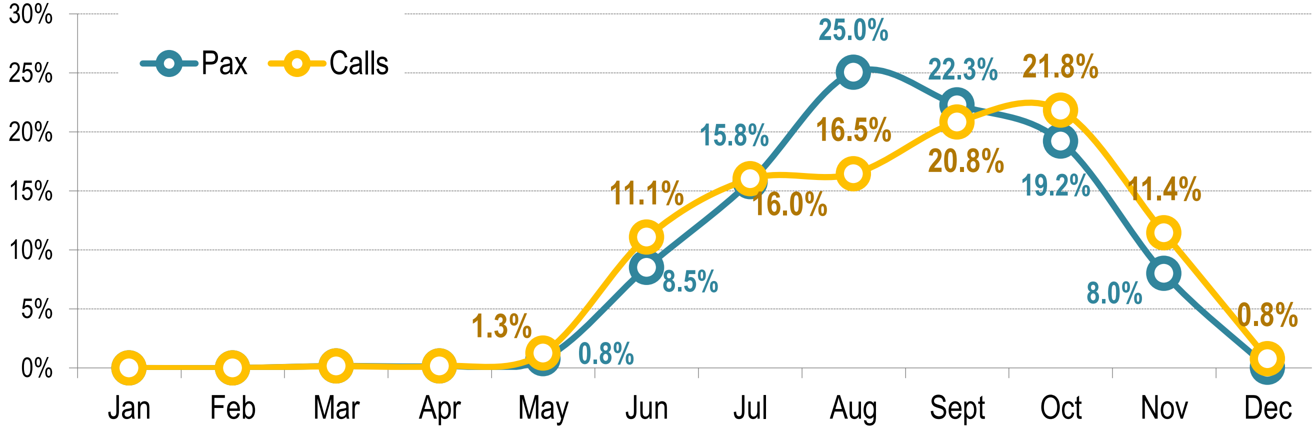
Map 4] *Percentage distribution of cruise traffic between embarks-disembarks and transits, 2021*

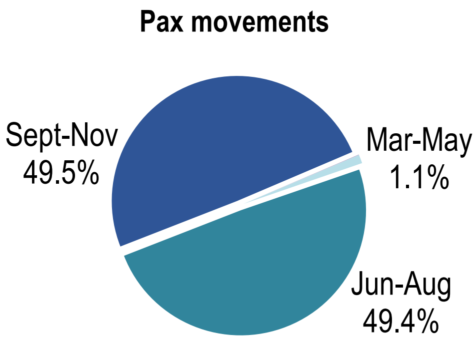


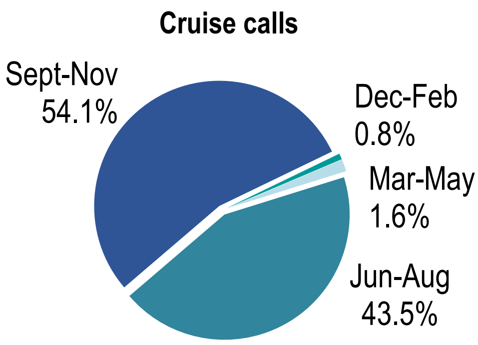
Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

In the Adriatic, transit traffic accounts for more than 74% of total passenger movements. In 2021, there were 7 ports with less than 80% of transit movements (6 out of the 7 in Italy: Ravenna alone was an exception to the rule, as well as Corfu (24% of embarks-disembarks in 2021). Venice, despite the sharp decrease in traffic, was again the leading homeport of the Adriatic and Italy, followed by Monfalcone and Trieste. In absolute-value terms, there were more than 750.000 transit passenger movements and around 260.000 home in/out operations.

Graphs 5, 6 & 7] *Monthly and trimester share of cruise passenger movements (left pie) and cruise calls (right pie) of Adriatic cruise ports, 2021*



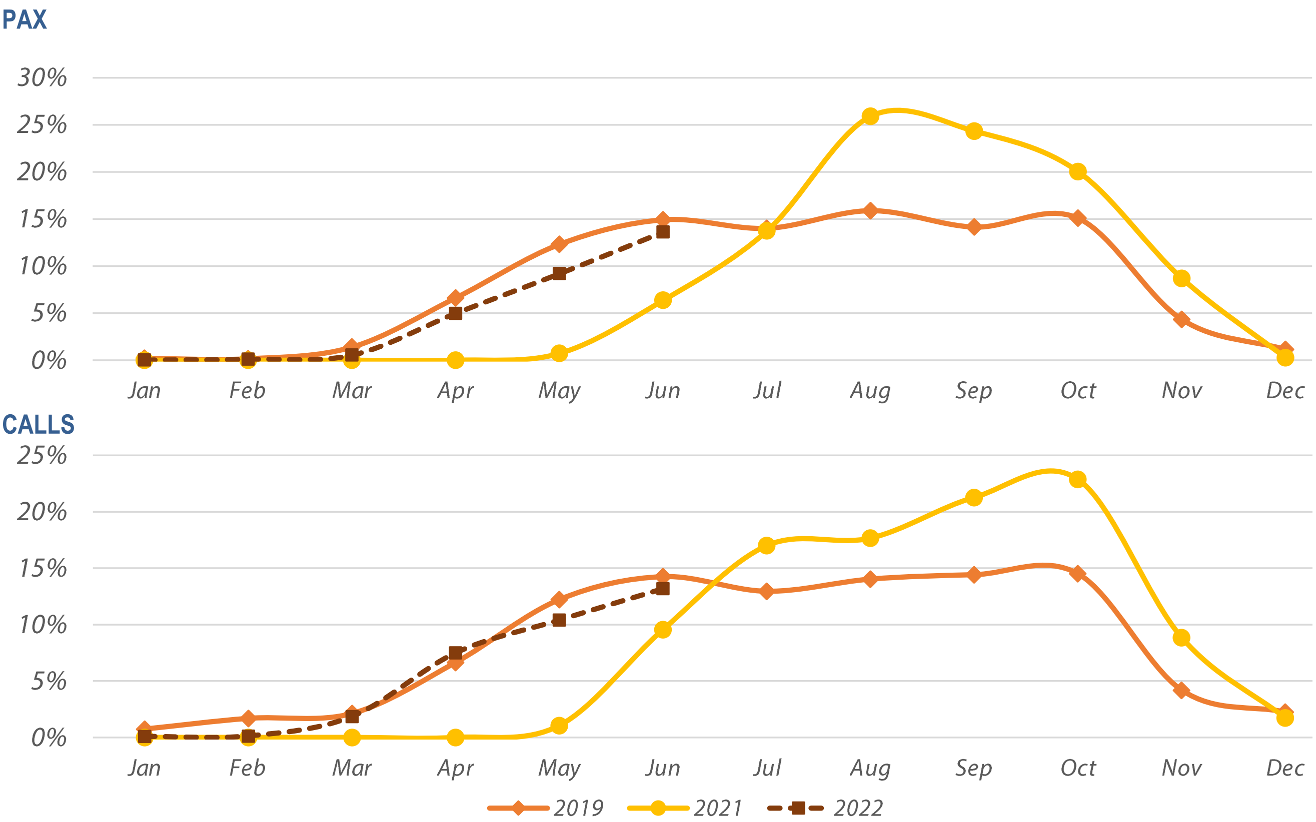




Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Although cruising seasonality usually takes off during the spring months, with peaks in May, July and October plus moderate volumes in winter, 2021 emphasizes this trend (with a cruise season compressed into 8 months and almost zero traffic from January to April). While the share of passengers divides up equally between summer (49.4%) and autumn (49.5%), with the peak in July, the trimester with the highest number of cruise calls goes from September to November, with the peak in October (21.8%).

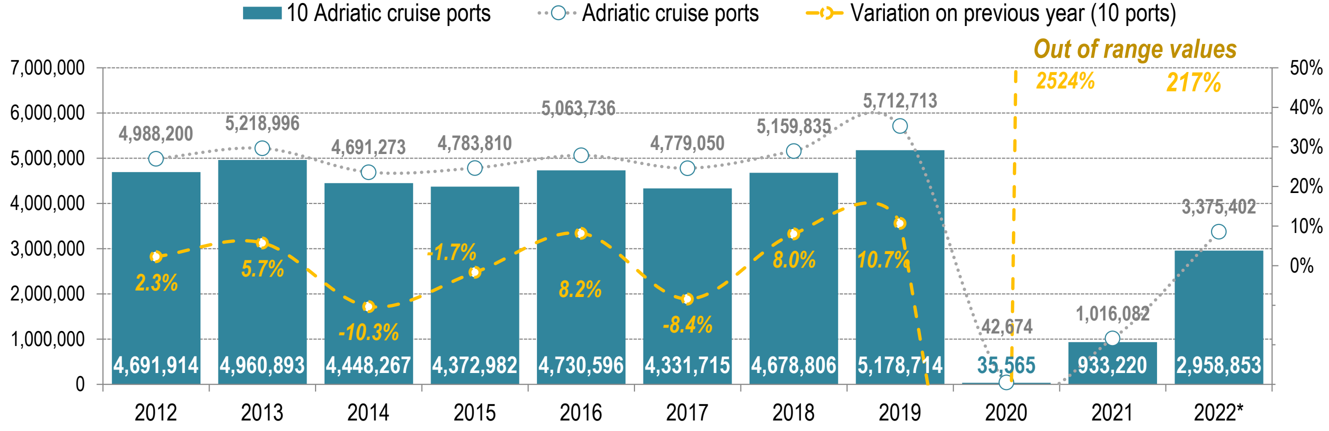
Graphs 8 & 9] *Monthly share of cruise passenger movements and cruise calls of Adriatic cruise ports, 2019-2020-2022*



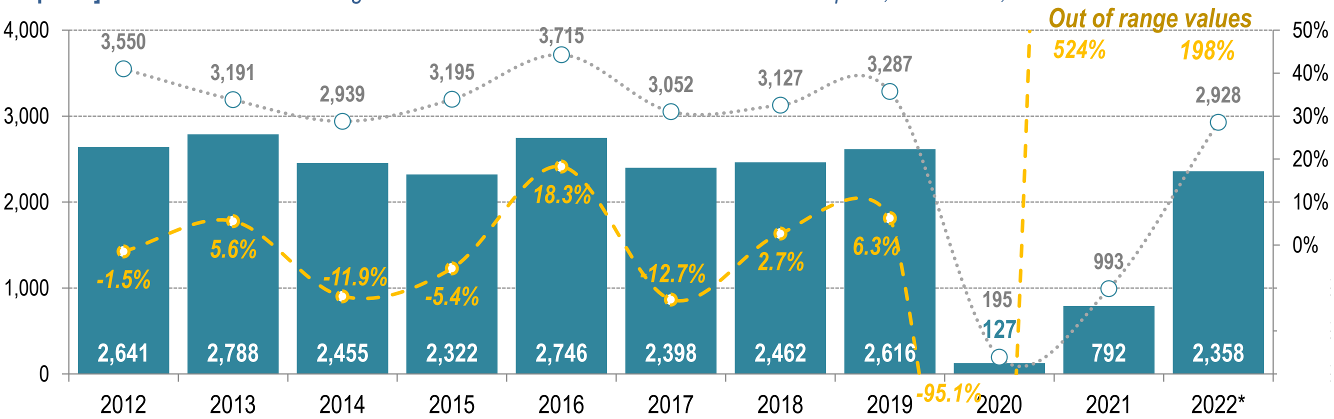
Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note: seasonality is calculated on the data data provided by 25 ports representing 75% of cruise traffic in Adriatic.

When we compare the seasonal distributions of recent years, delayed departure of traffic in the Adriatic in 2021 appears evident, which therefore shifted mostly toward the July-October months, while the initial final figures for 2022 denote the early stage of the curve's aligning with that of 2019.

Graph 10] *Trend of cruise passenger movements and growth rates in the main 10 and all Adriatic cruise ports, 2012-2021, 2022 forecast*



Graph 11] *Trend of cruise calls and growth rates in the main 10 and all Adriatic cruise ports, 2012-2021, 2022 forecast*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note: (*) 2022 data is a forecast by Risposte Turismo.

Graphs 10 and 11 illustrate cruise traffic changes (passengers and cruise calls) from 2012 to 2021 in Adriatic ports, highlighting the performance of 10 cruise ports of the area. The bars underscore a fluctuating trend in terms of volumes, but they also allow us to see the share in concentrations of passengers and cruise calls for the top 10 ports in 2022 (88% and 80%, respectively). However, the share is lower than the 2013 concentration of passenger movements (95.1%).

Table 7] *Cruise traffic in Adriatic, forecasts for 2022 and variations on 2019*

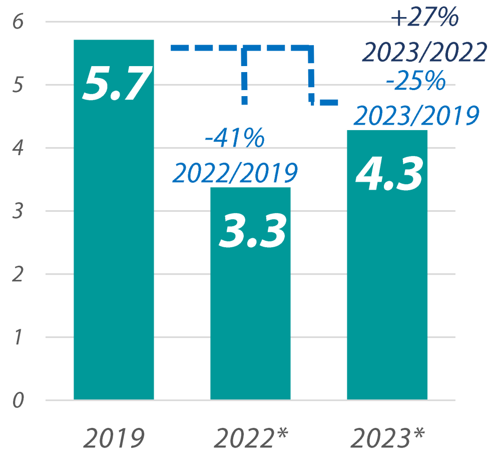
	Pax. mov.	Calls	Variation 2022 on 2019			
	2022	2022	% Pax. mov.	% Calls	Abs. Pax	Abs. Calls
Corfu	558,903	411	-27.2%	-2.1%	-208,770	-9
Kotor	400,000	444	-35.7%	-4.3%	-222,558	-20
Trieste	380,000	230	114.4%	233.3%	202,788	161
Dubrovnik	365,950	312	-52.4%	-35.8%	-402,974	-174
Bari	325,000	184	-52.2%	-21.4%	-355,021	-50
Split	320,000	288	-11.1%	-42.7%	-39,955	-215
Venice	245,000	196	-84.7%	-60.6%	-1,358,516	-301
Ravenna	150,000	100	848.1%	203.0%	134,179	67
Zadar	134,000	154	-26.8%	17.6%	-49,034	23
Brindisi	122,000	61	41.7%	45.2%	35,904	19
Monfalcone	80,000	27	-	-	80,000	27
Koper	75,000	65	-35.1%	-9.7%	-40,581	-7
Ancona	60,000	38	-40.1%	-29.6%	-40,109	-16
Sarande*	51,708	27	-40.9%	-13.3%	-37,275	-4
Rijeka	24,215	14	-41.1%	-41.7%	-16,922	-10
Sibenik	22,177	67	15.9%	294.1%	3,043	50
Korcula	20,000	72	-44.4%	-47.1%	-15,957	-64
Bar	15,000	9	-25.0%	-43.8%	-5,000	-7
Rovinj	11,776	76	101.2%	n.a.	5,923	n.a.
Monopoli	2,700	23	27.1%	-8.0%	576	-2
Other ports	9,882	129	-43%	-29%	-7,575	-53
20 Adriatic ports forecast: -40.9% passengers and -14 % cruise calls on 2019						
TOTAL FORECASTS 2022 3.37 MILLION PASSENGER MOVEMENTS AND 2,928 CRUISE CALLS						

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report on data provided by single ports or terminals. Note: (*) Sarande data is an estimate by Risposte Turismo. Forecasts on passenger movements are based on 31 ports data (representing the 98% of the total passengers and 97% of cruise calls registered in 2022).

Cruise traffic in 2022 in the Adriatic will display positive variation vs the pandemic biennium 2020-2021: the cruise ports in the area should see more than 3.3 million passenger movements. Ten ports will meet the 100,000 pax movements threshold. Comparing the forecasted 2022 data with the final 2019 data, the variations are negative both in terms of passenger movements and calls: -40.9% and -14.8%. In 2022, only in Corfu will more than 500,000 passenger movements occur (16.6% of total passenger movements in the Adriatic and 14% of total cruise calls). Ravenna will display the greatest 2022/2019 variation for passenger movements, while the greatest variation for cruise call should be displayed by Sibenik. Positive variations are expected for other ports in addition to Ravenna, i.e. Sibenik, Trieste, Brindisi, Rovinj and Monopoli. Monfalcone has just entered this ranking.

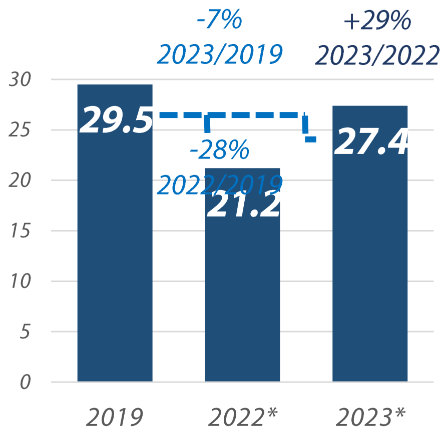
Overall, movements of passengers on board cruise ships calling at Adriatic ports should total around 3.3 million in 2022 (41% less than the figure noted in 2019). For 2023, the expectations, and forecast, point to a new and significant leap forward that could bring the figure up to around 4.3 million passenger movements (27% more vs 2022 traffic, but still 25% less vs the 2019 figure).

Graph 12] 2022 and 2023 *cruise passengers forecast in Adriatic,2022/2019, 2023/2022 and 2023/2019 variation*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) the values of passengers are expressed in thousands; (**) 2022 and 2023 data are a forecast by Risposte Turismo.

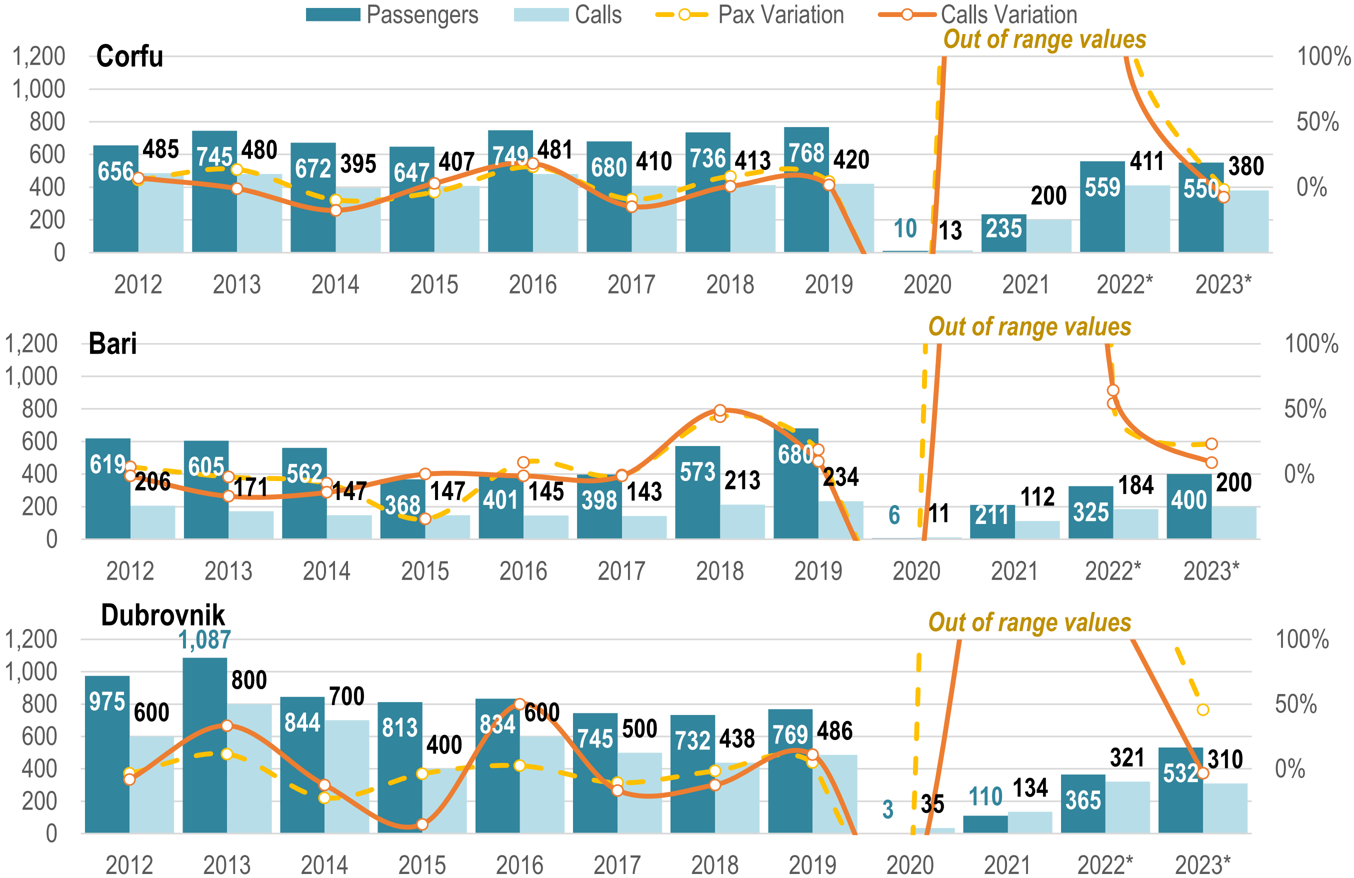
Graph 13] 2022 and 2023 *cruise traffic forecast in the Med, 2022/2019, 2023/2022 and 2023/2019 variation*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) the values of passengers are expressed in thousands; (**) 2022 and 2023 data are a forecast by Risposte Turismo

To better understand traffic performance in the Adriatic, one should consider the levels for the Mediterranean as a whole. Beyond the absolute numbers, in the three years (always considered between 20 and 30 million) it can be noted that the negative variation of 2022 on 2019 and the expected variation (still negative) for 2023 vs 2019, are less marked than for the Adriatic. This, despite the fact that between 2023 and 2022 the Adriatic is apparently able to grow, in percentage terms, more than forecasts indicate for the Mediterranean as a whole.

Graph 14] *Trend of cruise traffic* and growth rates in Corfu, Bari and Dubrovnik, 2012-2021 and 2022-2023 forecasts***



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) the values of passengers are expressed in thousands; (**) 2022 and 2023 data are a forecast by Risposte Turismo.

This page illustrates cruise traffic trends at three key ports in the Adriatic from 2012 to 2021 with forecasts for 2022 and 2023. While the traffic of Corfu has been stable during these ten years, Dubrovnik has witnessed a fall in volumes in the same period, while Bari displays a more distinctly fluctuating trend and an increase in traffic from 2017 to 2019. In general, the Adriatic cruise ports expect to host more passengers in 2023, thanks more to an increase in occupancy rates than an increase in cruise calls.

DESTINATION MANAGEMENT
HOTELLERIE & TOUR OPERATING
SHOPPING TOURISM
FERRY SECTOR
TOURISM & ICT

CRUISE INDUSTRY & TOURISM
EVENTS MANAGEMENT
FILM-INDUCED TOURISM
CULTURAL TOURISM
MEDICAL TOURISM

RISPOSTE TURISMO

FEASIBILITY STUDIES
Quantitative projections to understand how profitable it would be to enter new markets

MARKET RESEARCHES & ANALYSIS
The best way to approach a new business or a new market is to know it!

IMPACTS ANALYSIS
Consequences for local communities of a company's activities or a specific event

COMMUNICATION PLANS
Both for private companies and for public entities

SPECIAL PROJECTS
Le Pagine di Risposte Turismo: since 2001 a tourism specialised on-line magazine (all volumes on-line) and the yearly *Speciale Crociere*

EUROPEAN PROJECTS
From conceiving project proposals to the creation and support of consortia

GOVERNANCE CONSIDERATIONS & STRATEGIC MANAGEMENT
Useful to understand how to efficiently and effectively carry out your own tourism-related activities

DESTINATION MANAGEMENT & STRATEGIC DEVELOPMENT PLANS
Tools for national governments and for regional and other local government authorities for investments, decision-making and guidance

3 FERRY, HYDROFOIL AND FAST CATAMARAN TRAFFIC

Ferry, hydrofoil and fast catamaran traffic is not as well monitored as other components of maritime tourism.

Ferry traffic curbed volumes in 2020, but never totally stopped. According to Shippax Market 2022, in 2021 the global ro-pax fleet continued to expand, but with an increase of only 2% in freight vessel inaugurations and with lower investment in passenger capacity.

According to Shippax, the 2021 results reflect two expected trends for the coming years: an urge to renew the fleets and a forecasted gradual lowering of bed capacity. Despite all, as for the cruise industry, the ro-pax sector is starting to invest in sustainability by renewing the fleet with electric vessels: examples may be seen in Fast Ferry Beluga24 for Stockholm, powered by batteries or hydrogen, and investments made by Jadrolinija to purchase 3 electric vessels to connect Dubrovnik, Sibenik and Losinj.

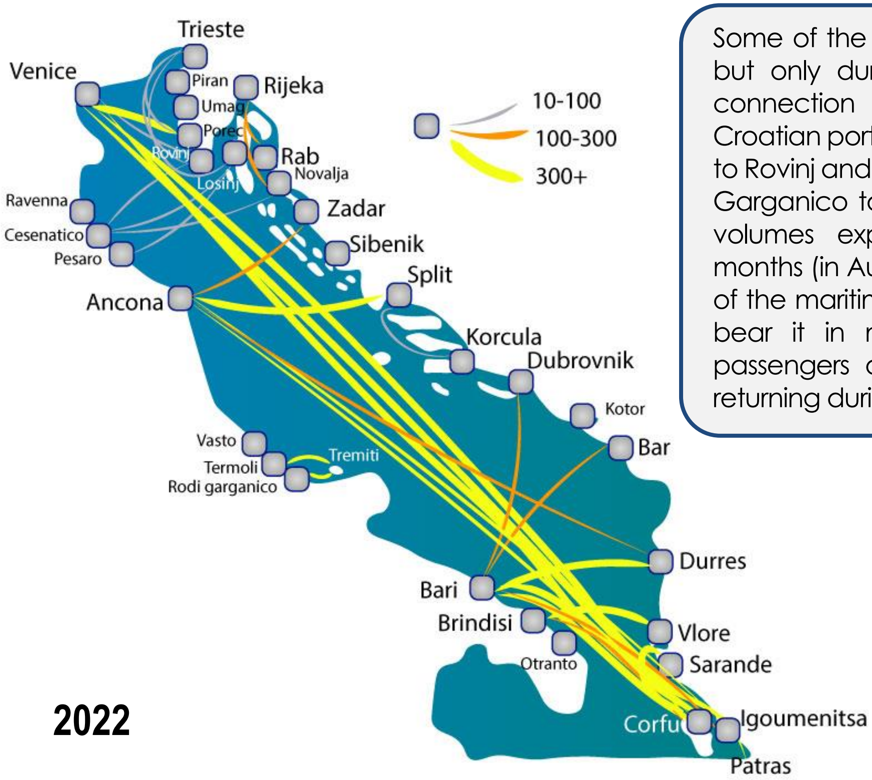
Many ferry, hydrofoil and fast catamaran routes connect the Adriatic ports on both the horizontal and vertical axes: the major connections are highlighted in the next map. It is important to remember that the Adriatic Sea is favoured for the presence of commercial routes, used all year long and available for tourists too. These routes benefit from the presence of many production facilities located in Central Europe.

It is interesting to note that most of the main routes have been operating even during the pandemic, though with some exceptions: for example, the Zadar-Ancona route has been reactivated this year after an almost two-year halt.

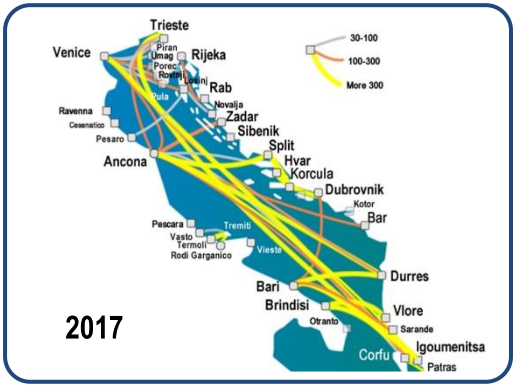
Finally, we stress the importance of domestic routes in Croatia, which in 2021 saw more than 9 million passengers (slightly below pre-covid performance).

Map 5] *Main Adriatic ferry, hydrofoil and fast catamaran routes, 2022*

The Adriatic Sea hosts multiple ferry, hydrofoil and fast catamaran routes, with various frequencies and volumes of passengers. Venice, Ancona, Bari and Brindisi are the Italian ports with most connections to the other side of the Adriatic. Trieste has only minor connections with Istrian destinations. Ravenna has only ro-ro traffic to Albania. The major connections from Italy are toward Croatia (Venice-Porec, Ancona-Split), Albania (Bari-Durres, Brindisi-Vlore) and Greece (Venice, Bari and Brindisi for Corfu, Iaoumenitsa and Patras).



Some of the routes are active not all the year round but only during the summer months, such as the connection between Cesenatico and Pesaro with Croatian ports, as well as the connections from Venice to Rovinj and Porec. Other routes, such as Termoli/Rodi Garganico to the Tremiti Islands, see their passenger volumes exponentially grow during the summer months (in August 2021 the port of Termoli hosted 36% of the maritime traffic for the whole year). We should bear it in mind that a major segment of ferry passengers on the main routes consists in workers returning during the Winter Holidays.



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Table 8] *Ferry, hydrofoil and fast catamaran overall traffic in Adriatic ports, absolute values and percentages, 2021 and variations on 2020 and 2019*

			Traffic 2021		Share % on total		Variation % on 2019	Variation % on 2020
	Port	Country	passenger movements	calls**	passenger movements	calls	passenger movements	passenger movements
1	Split	HR	3,898,835	12,633	27.5%	23.4%	-22.1%	49.6%
2	Zadar	HR	2,195,864	15,621	15.5%	29.0%	-9.6%	27.3%
3	Igoumenitsa	GRE	1,768,525	1,580	12.5%	2.9%	-36.2%	41.6%
4	Corfu	GRE	1,354,764	8,742	9.6%	16.2%	-27.3%	86.8%
5	Korcula	HR	904,518	700	6.4%	1.3%	-22.4%	52.9%
6	Bari	ITA	796,657	1,318	5.6%	2.4%	-33.2%	97.7%
7	Durres	ALB	688,586	1,699	4.9%	3.2%	-21.6%	121.2%
8	Ancona	ITA	687,727	1,364	4.9%	2.5%	-42.2%	83.1%
9	Patras	GRE	419,313	978	3.0%	1.8%	-33.1%	34.1%
10	Dubrovnik	HR	360,728	3,460	2.5%	6.4%	-46.5%	95.2%
11	Brindisi	ITA	312,215	870	2.2%	1.6%	-40.0%	40.8%
12	Termoli	ITA	187,165	708	1.3%	1.3%	-6.8%	4.8%
13	Sibenik	HR	121,661	701	0.9%	1.3%	-60.6%	-37.2%
14	Vlore	ALB	109,969	202	0.8%	0.4%	-36.6%	76.8%
15	Rijeka	HR	102,427	713	0.7%	1.3%	-23.4%	25.7%
16	Venezia	ITA	74,481	197	0.5%	0.4%	-62.1%	58.4%
17	Sarande	ALB	64,202	266	0.5%	0.5%	-87.6%	1048.7%
18	Vieste	ITA	62,198	1,555	0.4%	2.9%	159.4%	11.5%
19	Porec	HR	19,107	114	0.1%	0.2%	-73.2%	-
20	Pola	HR	17,136	203	0.1%	0.4%	-66.4%	198.8%
	OTHER FERRY PORTS		19,223	275	0.1%	0.5%	-88.1%	58.2%
	TOTAL		**14,166,001**	**53,900**	**100%**	**100%**	**-29.7%**	**51.5%**

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Data provided to Risposte Turismo directly by ports. Table does not include ports that are active only for internal national connections (mainly in Croatia). Notes: (*) where not available, some values (pax. movements or calls) were estimated according to multi-year dataset or quarter trend.; (**) data does not include tourist and small boats.

The table above shows, for ferry, hydrofoils and catamaran traffic, the top 20 ports in the Adriatic per number of passengers carried in 2021. While in 2019 the Adriatic area broke the record of 20 million passengers, the year 2021 witnessed recovery of the nautical sector with more than 14 million passengers (+51% 2021/2020). The ranking changed slightly during these two years, with almost full recovery for Zadar (-9.6% 2021/2019), which surpassed Igoumenitsa (-36% 2021/2019), gaining second place as Adriatic ferry port, following Split and its almost 4 million passengers. The top 10 ports alone hosted 13 million passengers, while the top 20 hosted over 99% of ferry, hydrofoil and catamaran passengers and calls.

Map 6] *Map of the main domestic passenger transport routes in Croatia*

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Map 6 and table 9 show the internal routes that connect Croatian ports. As highlighted by the 6-year trend, the Split-Supetar route remains the busiest, with an average of 1.6-1.9 million passengers transported. The Valbiska-Merag route also hosted more than 1 million passengers until 2019, with a decrease noted in 2020 and 2021 (however, recovery is noted). In 2021, the Ploče – Trpanj itinerary is included among the 10 main routes, with downgrade for the nearby Drvenik-Sućuraj route, which links the mainland and Hvar island.

Table 9] *Main passenger transport routes in Croatia, 2016-2021; variation 2021/16 and 2021/20*

	FERRIES ROUTES	pax 2016	pax 2017	pax 2018	pax 2019	pax 2020	pax 2021	var % 21/16	var % 21/20
A	SPLIT - SUPETAR	1,881,052	1,965,422	1,962,408	1,955,703	1,179,721	1,667,571	-11.3%	41.4%
B	VALBISKA - MERAG	1,068,453	1,125,988	1,178,572	1,194,207	747,255	974,081	-8.8%	30.4%
C	ZADAR - OŠLJAK - PREKO	992,985	1,072,938	1,097,792	1,141,235	946,097	1,159,218	16.7%	22.5%
D	PRIZNA - ŽIGLJEN	799,955	870,465	907,558	917,942	511,916	777,360	-2.8%	51.9%
E	MIŠNJAK - STINICA	804,012	850,574	898,570	907,347	567,295	796,294	-1.0%	40.4%
F	SPLIT - STARI GRAD	724,017	801,252	758,290	736,269	419,476	612,601	-15.4%	46.0%
G	OREBIĆ - DOMINČE	667,215	699,822	723,401	737,619	457,028	602,838	-9.6%	31.9%
H	BRESTOVA - POROZINA	575,893	589,350	602,591	594,542	265,218	467,932	-18.7%	76.4%
I	BIOGRAD - TKON	454,347	472,993	471,495	483,249	332,150	417,713	-8.1%	25.8%
J	PLOČE - TRPANJ	335,081	370,499	377,691	388,022	291,792	390,170	16.4%	33.7%
	MAIN 10 ROUTES	**8,303,010**	**8,819,303**	**8,978,368**	**9,056,135**	**5,717,948**	**7,865,778**	**-5.3%**	**37.6%**
	OTHER ROUTES	1,905,334	2,060,153	2,114,078	2,160,967	1,527,986	1,968,198	3.3%	28.8%
	TOTAL PAX	**10,208,344**	**10,879,456**	**11,092,446**	**11,217,102**	**7,245,934**	**9,833,976**	**-3.7%**	**35.7%**

Source: elaboration on data provided by Agencija za obalni linijski pomorski promet (Tablice Statistika 2016- 2017-2018-2019-2020-2021).

Table 10] *Concentration of ferry, hydrofoil and fast catamaran passenger movements in Adriatic ports, 2019-2021*

Passenger movements	first 3	first 5	first 10
2019	50.6%	65.8%	88.3%
2020	59.7%	73.8%	91.2%
2021	55.5%	71.5%	92.3%

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

The top 3 Adriatic ports for ferry passenger movements accounted for 51% of the total traffic in 2019, a value that increased to more than 55% in 2020-2021. An average of 70% of the traffic was hosted by the 5 top ports in the three-year period considered (the share increases to 90% when considering the 10 top ports).

Table 11] *Ferry, hydrofoil and fast catamaran passenger movements by country, absolute values and percentage shares, 2021 and variation on 2020*

PORTS	2022		Share % on total		2021		2019		Variation % 2022/2019	
Country	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls	Pax. mov.	Calls
CROATIA	9,086,500	44,208	50.8%	54.5%	7,630,429	34,318	9,951,474	49,988	-8.7%	-11.6%
GREECE **	4,700,000	26,333	26.3%	32.4%	3,542,602	11,300	5,264,004	32,078	-10.7%	-17.9%
ITALY **	2,716,100	6,983	15.2%	8.6%	2,125,728	6,064	3,350,035	8,575	-18.9%	-18.6%
ALBANIA	1,365,000	3,378	7.6%	4.2%	862,757	2,168	1,568,371	3,513	-13.0%	-3.9%
SLOVENIA	25,000	278	0.1%	0.3%	4,485	50	28,310	315	-11.7%	-11.7%
MONTENEGRO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
BOSNIA-HERZEGOVINA	-	-	-	-	-	-	-	-	-	-
TOTAL	**17,892,600**	**81,180**	**100%**	**100%**	**14,166,001**	**53,900**	**20,162,194**	**94,469**	**-11.26%**	**-14.07%**

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) where not available, some values (pax. movements or calls) were estimated with multi-year dataset trend; (**): for Italy only the Adriatic ports were considered, for Greece only Corfu, Igoumenitsa and Patras.

For both 2020 and 2021, Croatia confirms itself as the top Adriatic country for passenger movements by ferry, hydrofoils and catamarans, with more than a 50% share, in all. The three Greek ports considered (Corfu, Igoumenitsa and Patras) still rank second, followed by the Adriatic ports of Italy. Among the 7 Countries flanking the Adriatic, Slovenia displays the greatest variation when comparing 2022 and 2021 (+457%), but all countries have seen an upturn in traffic in 2022. The comparison between 2022 and 2019 still shows slightly negative values.

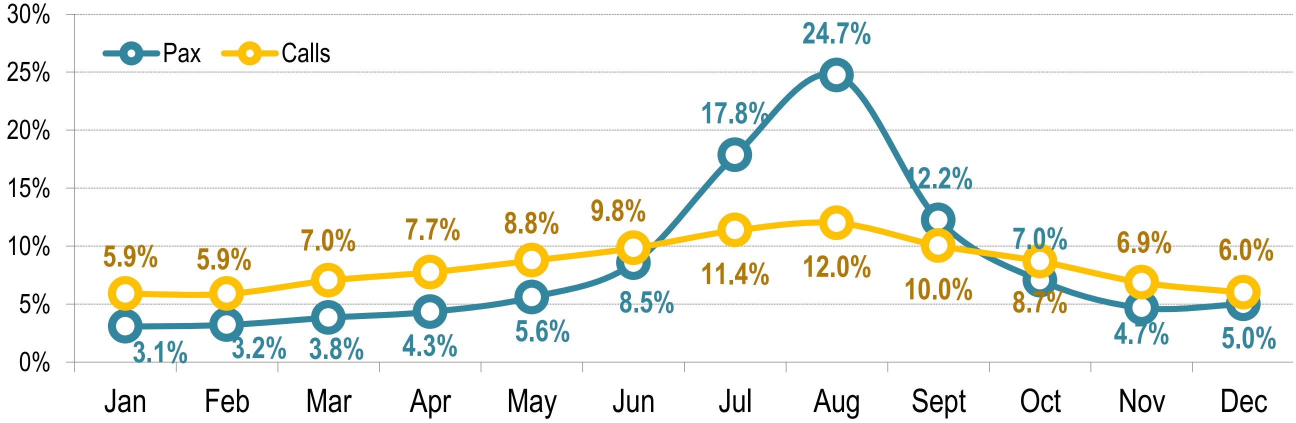
Table 12] *Main ferry, hydrofoil and fast catamaran ports for international traffic, 2021*

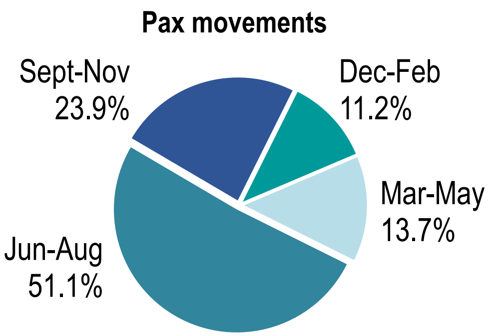
	Port	Country	Passenger movements			
			International	Domestic	Total	International % share on total
1	Bari	ITA	796,657	0	796,657	100%
2	Durres	ALB	688,586	0	688,586	100%
3	Ancona	ITA	687,727	0	687,727	100%
4	Igoumenitsa	GRE	623,980	1,144,545	1,768,525	35%
5	Brindisi	ITA	312,215	0	312,215	100%
6	Patras	GRE	300,616	118,697	419,313	72%
7	Corfu	GRE	243,858	1,110,906	1,354,764	18%
8	Vlore	ALB	109,429	0	109,429	100%
9	Venice	ITA	74,481	0	74,481	100%
10	Split**	HR	70,962	3,827,873	3,898,835	2%
	TOTAL 10 PORTS		**3,908,511**	**6,202,021**	**10,110,532**	**39%**

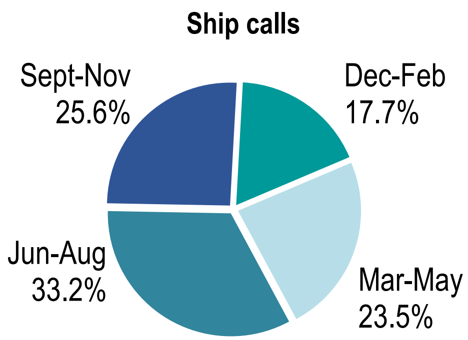
Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (**) data does not include tourist and small boats.

The Adriatic ports that host ferries, hydrofoils and catamarans may see both international and domestic traffic, They may be connected only to foreign destinations or to nearby cities alone. Table 12 highlights a ranking based on 2021 international traffic, not including ports that only saw domestic traffic. Bari is the port that hosted the highest number of international passengers in 2021: around 800,000. The second and third places see Durres and Ancona with very similar results, both with almost 700,000 passengers on international routes. As seen in previous years, according to this classification Split closes the ranking with the lowest rate of international share, as its traffic is 98% domestic. The 10 ports taken in consideration hosted more than 10 million passengers in 2021, of which almost 4 million via international routes (39% of total movements). It is interesting to note that, during the last two years, the link between Zadar and Ancona and Pesaro was suspended. The Zadar-Ancona route has been reactivated in 2022.

Graphs 15, 16 & 17] *Monthly and trimester shares of ferry, hydrofoil and fast catamaran passenger movements (left pie) and calls (right pie) in the Adriatic ports, 2021*



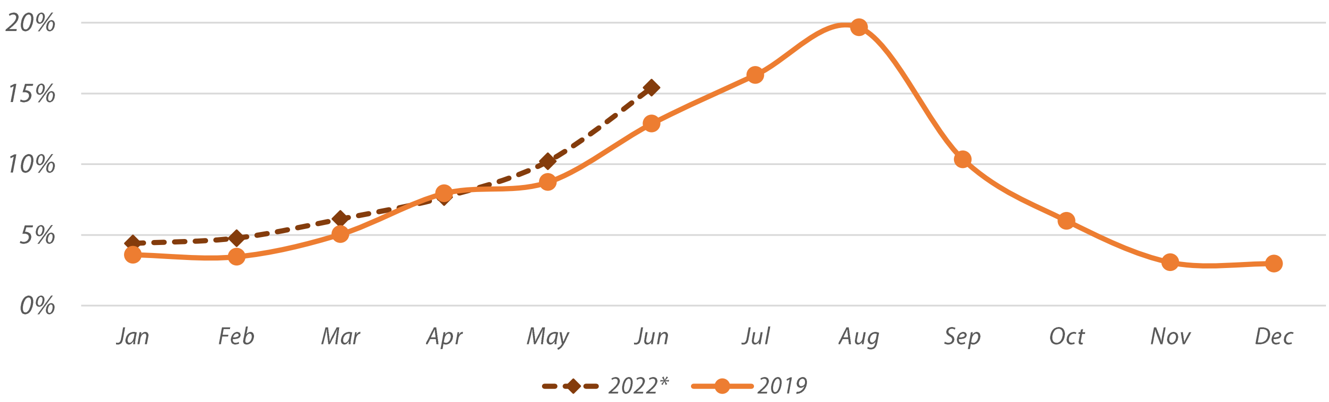




Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note: ports provided seasonality details: Ancona, Bari, Brindisi, Corfu, Dubrovnik, Durres, Igoumenitsa, Koper, Opatija, Pola, Porec, Rijeka, Rovinj, Sibenik, Split, Venice, Zadar, Piran, Korcula, Vlore, Pesaro, Termoli.

Graphs 15, 16 and 17 show the distribution of ferry traffic during the year 2021. As usual, August is the month with the highest number of passenger movements and calls, though there's a difference between the two factors: while the higher share of summer calls depends on the routes that were activated only in this period, passenger seasonality was greatly influenced by the lockdowns and the impossibility to navigate across the Adriatic area (a restriction that was lifted in the summer).

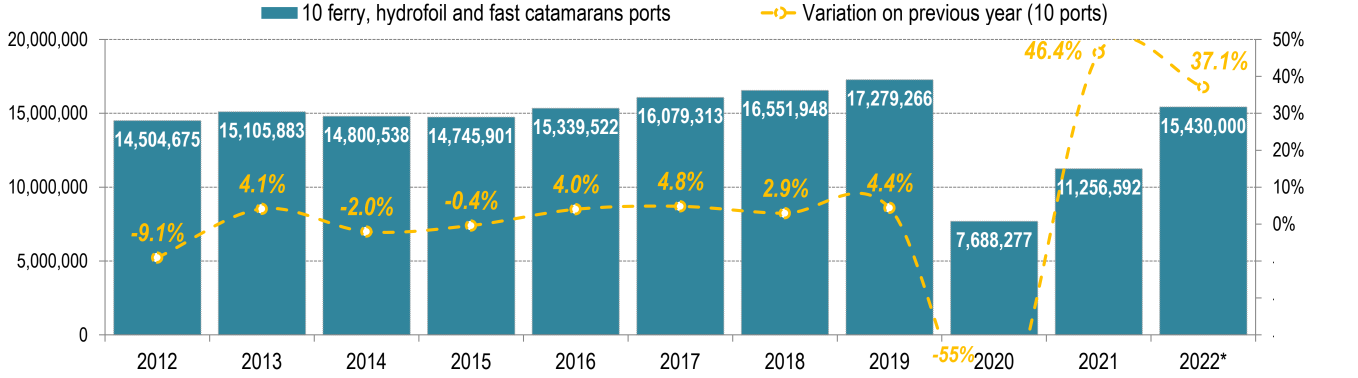
Graph 18] *Monthly share of ferry, hydrofoil and fast catamaran passenger movements in the Adriatic ports, first semester of 2022 vs 2019*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note: 2022 seasonality is an estimate by Risposte Turismo based on data provided by 15 ports: Ancona, Bari, Brindisi, Corfu, Dubrovnik, Pola, Rijeka, Rovinj, Sibenik, Split, Zadar, Korcula, Vlore, Termoli, Umag

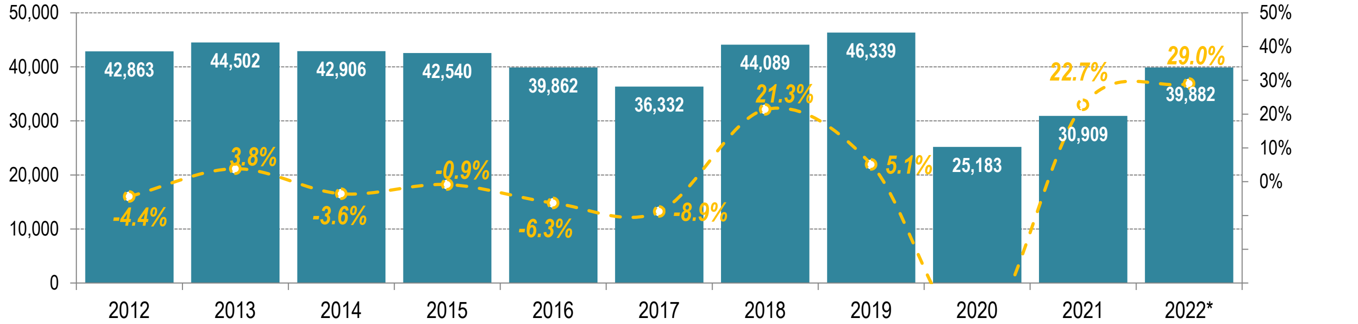
The graph above shows the seasonality of 2019 ferry passenger movements, compared to the share of traffic noted during the first six months of 2022 for a selected 15 Adriatic ferry ports. Performance for the early months of 2022 appears to be very similar to that of 2019. However, with the start of the summer season, the projections start to rise, which could result in a greater concentration in the summer season or current lower projections for the end of the year. This would mean that if trends continue it is possible that the 2022 ferry traffic will be reckoned greater.

Graph 19] *Trend of ferry, hydrofoil and fast catamaran passenger movements and growth rate in 10 Adriatic ports, 2012-2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note: trend referred to 10 ports with a complete 10-year dataset (Split, Igoumenitsa, Zadar, Corfu, Bari, Ancona, Durres, Dubrovnik, Brindisi and Patras).

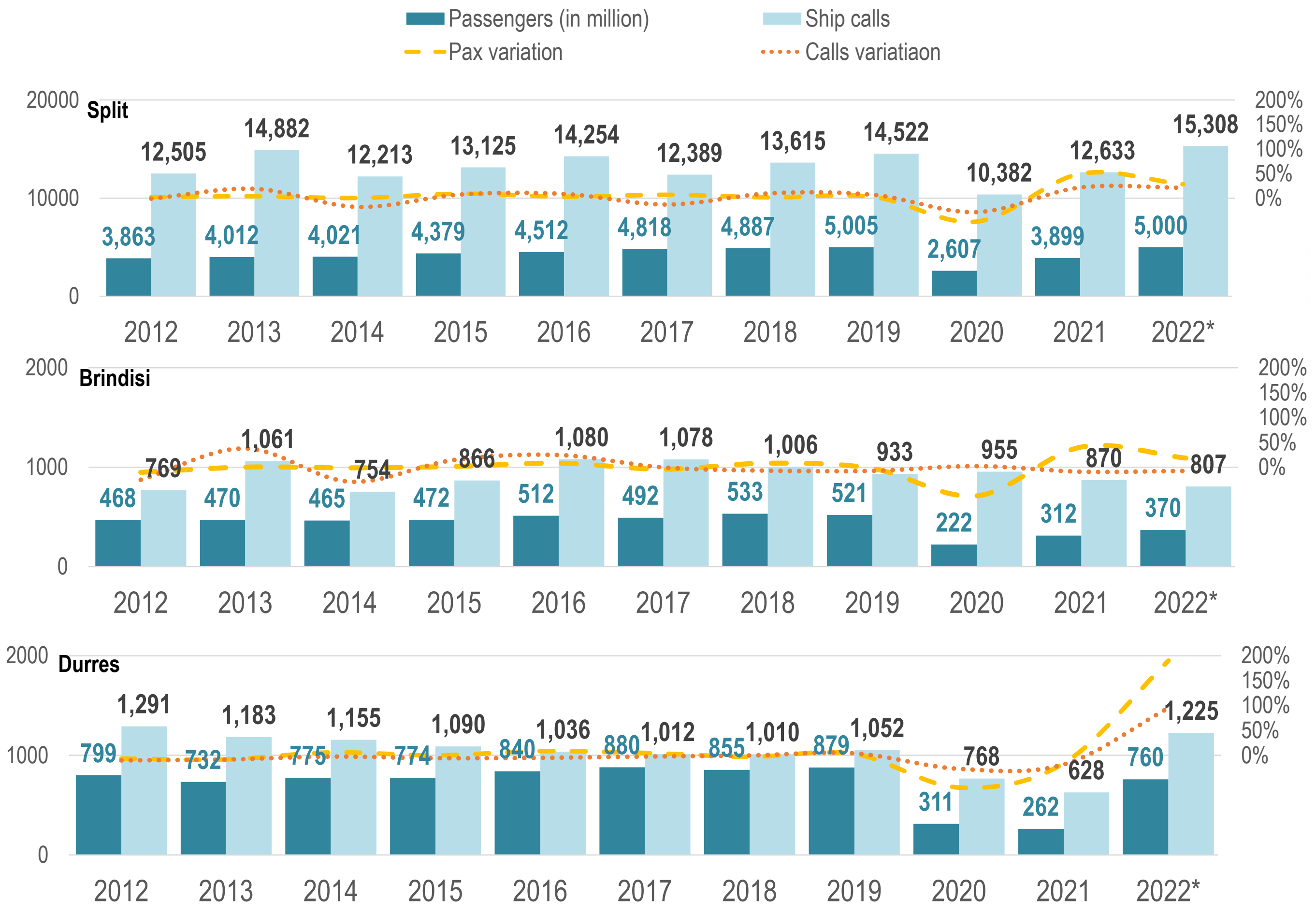
Graph 20] *Trend of ferry, hydrofoil and fast catamaran calls and growth rate in 10 Adriatic ports, 2012-2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note: trend referred to 10 ports with a complete 10-year dataset (Split, Corfu, Dubrovnik, Ancona, Bari, Brindisi, Durres, Rijeka, Patras and Pula).

From 2012 to 2022, the number of passenger movements in the 10 ports taken into consideration in the graph displayed a fluctuating trend, with the highest peak in 2019 and the lowest in 2020, when traffic was more than halved. When considering ship calls, the trend appears to vary even more, with the best performance recorded in 2019 (similar results to 2018) From 2013 to 2017, a gradual drop in calls is noted, with recovery of traffic in the two-year period 2018-2019. For 2022, the ports are expected to host 15.4 million passengers with almost 4000 ship calls, attaining performance similar to 2016 values.

Graph 21] *Trend of ferry, hydrofoil and fast catamaran traffic* and growth rates in Split, Brindisi, Durres, 2012-2021-2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) the values of passengers are expressed in million.

A 10-year trend for three selected ports shows the differing volumes of passengers carried. Split appears to be the port that recovered best, expecting to host in 2022 almost the same traffic as in 2019. Durres is also expected to reach levels similar to the pre-covid period: Risposte Turismo estimates that this Albanian port will host 760,000 passengers (+190% 2022/2021, -14% 2022/2019).

Map 7] *Adriatic ferry, hydrofoil and fast catamaran ports, forecasted variation in some ports*

Producing a forecast for ferry, hydrofoil and catamaran traffic entails difficulties of estimation, given several factors, not least the lack of interest in estimating the traffic for the next year.
When considering 2022, Risposte Turismo estimates that the Adriatic area will reach almost 18 million passengers carried with 81,000 ship calls. As for the previous years, Split is expected to be the top port of the Adriatic, with 5 million passengers and more than 15,000 calls, followed by Igoumenitsa (which will regain its second place in the ranking) with around 2.45 million passengers, and by Zadar (2.4 million).
Furthermore, Corfu, Bari and Korcula (the fourth, fifth and sixth ports for 2022, respectively) should handle more than 1 million passengers.
Compared to 2021, almost all the ports taken into consideration will end 2022 with a positive variation, exceptions being Rijeka (-19%) and Vieste (-43%). Other ports will again reach performance levels similar to those of 2019, putting behind them the reduction of the two-years 2020-2021: e.g. Porec (+266%), Pola (+191%) and Rovinj (+336%).

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

14 Adriatic ports provided forecasts for 2023, including the main ports of the top 20 ranking for 2022. An increase in the overall Adriatic traffic is expected next year when compared to the current year, though in most of the cases presented the increase is only slight (e.g. Zadar +4%, Bari/Brindisi +10%), while many pointed to stability, and no ferry ports fear a reduction of ferry traffic. Interestingly, the expectations for the eastern Adriatic coast are more encouraging, due to a further strengthening of the short sea connections from the mainland to the Croatian islands.

4 SAIL AND YACHT BOAT TRAFFIC

Map 8] Marinas and small ports in the Adriatic Sea, 2022

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

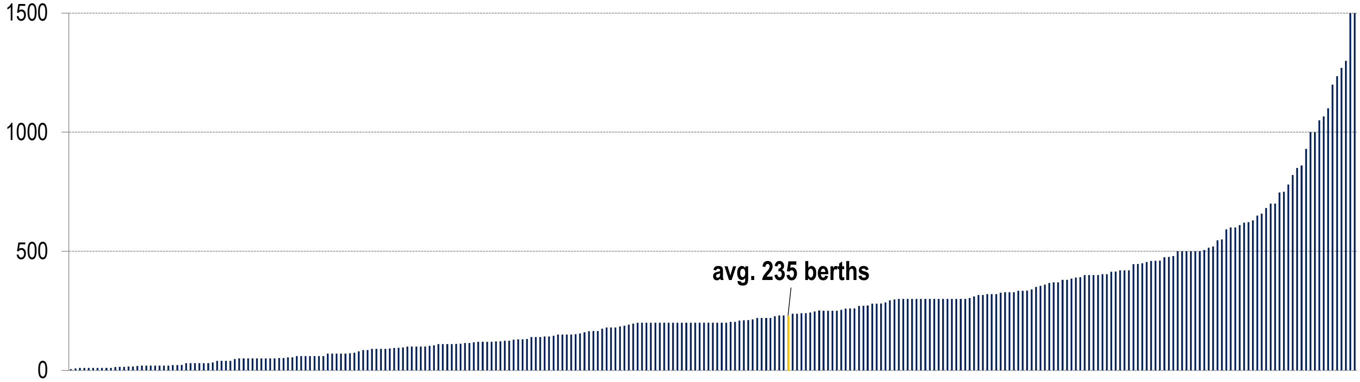
Based on 2022 data, the map of marinas and small ports located in the Adriatic Sea indicates a marked concentration in Italy and Croatia (respectively 189 and 126) with 94% of such facilities, making up 89% of berths available in the area. With 472 berths per marina, the Adriatic coast of Greece leads in this ranking, followed by Montenegro and Slovenia. In comparison to the numbers provided in the 2019 edition of this report, as of September 2022 there has been an overall increase of 8 structures and almost 4,000 berths, denoting sector with growth, despite the recent difficulties. In terms of market share for each country, with the opening of two new marinas over the last few years the Montenegrin supply-side has surpassed Slovenia's in terms of berths.

Table 13] *Values and shares of berths and structures on the Adriatic by country, 2022*

	Berths		Structures		Avg. berths per structure**
	value	% share	value	% share	
ITALY*	48,677	61.5%	189	56.1%	258
CROATIA	20,921	26.4%	126	37.4%	166
MONTENEGRO	3,545	4.5%	8	2.4%	443
SLOVENIA	3,470	4.4%	8	2.4%	434
GREECE*	2,358	3.0%	5	1.5%	472
ALBANIA	200	0.3%	1	0.3%	200
BOSNIA-H.	0	0.0%	0	0.0%	n.a.
TOTAL	**79,171**	**100%**	**337**	**100%**	**235**

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) both for Italy and Greece, only their Adriatic ports have been considered. (**) The values are rounded either up or down to whole numbers.

Graph 22] *Distribution of the boat structures based on the number of mapped berths (vertical axis), 2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Taken together, the marinas in the Adriatic present with an average size, in terms of available berths, of 235, with only the final section on the right of the graph indicating marinas over 500 berths in size. Precisely by limiting the analysis to the structures with the largest reception capacity (beyond the threshold of 400 berths) – which, on the Adriatic, come to 17% of the total but with 50% of the total number of berths available –, the most evident difference is linked to Croatia, which has acquired weight compared to the past, detaching positively from other nations and gaining 8% vs 2019, although Italy remains in a position of absolute leadership (about 60% of this specific supply-side).

Table 14] *Berths and shares of medium–large structures (> 400 berths), by country, 2022*

	Berths		Structure		Share on total*	
	value	% share	value	% share	berths	structure
ITALY**	23,243	58.8%	38	65.5%	29%	11%
CROATIA	8,794	22.3%	12	20.7%	11%	4%
MONTENEGRO	2,809	7.1%	3	5.2%	4%	1%
SLOVENIA**	2,800	7.1%	3	5.2%	4%	1%
GREECE	1,855	4.7%	2	3.4%	2%	1%
ALBANIA	0	0%	0	0%	0%	0%
BOSNIA-H.	0	0%	0	0%	0%	0%
TOTAL	**39,501**	**100%**	**58**	**100%**	**50%**	**17%**

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) share of medium and large structures on total. (**) Both for Italy and Greece, only their Adriatic ports are considered.

Table 15] *Density of boat structures and berths by Adriatic region, 2022*

COUNTRY	REGION	COASTLINE (KM)	BERTH/KM*	KM PER STRUCTURE*
ITALY	Puglia (Adriatic coast)	560	20	10
ITALY	Molise	35	21	18
ITALY	Abruzzo	133	17	19
ITALY	Marche	180	34	13
ITALY	Emilia Romagna	130	50	5
ITALY	Veneto	170	63	4
ITALY	Friuli Venezia Giulia	130	84	3
SLOVENIA	Karst	47	74	6
CROATIA	Istarska	539	10	32
CROATIA	Primorsko-goranska	1,065	2	97
CROATIA	Zadarska	1,082	4	22
CROATIA	Šibensko-kninska	806	5	38
CROATIA	Splitsko-dalmatinska	1,064	3	44
CROATIA	Dubrovačko-neretvanska	1,025	1	342
MONTENEGRO	Montenegro**	294	12	37
ALBANIA	Vlorë	244	1	244
GREECE	Corfu	200	7	100
GREECE	Lefkada	117	5	117
GREECE	Epirus	200	2	100

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Notes: (*) The values have been rounded either up or down to whole numbers. (**) Overall Montenegro coastline. Table does not include some regions without structures as in Croatia Ličko-senjska county (200km of coastline), in Federation of Bosnia and Herzegovina (23.5km), in Albania Lezhë (38km) and Durrës (62km).

Adriatic areas present with varying densities of marinas and berths on the coastline, with some regions with less than 200 km and others with more of 1,000 km. Friuli Venezia Giulia presents with the most marked density, with 84 berths per km, followed by Karst (74) and Veneto (63). Due to a particular geographical configuration, the Balkan Adriatic coast continues to present with higher *kilometre-per-structure* values. Specifically, the Dubrovačko-Neretvanska region presenting many kilometres of coastline and only three structures, a nautical tourist can find one marina every 342 kilometres. As shown in table 16, more than half both of the berths (55.7%) and of the structures (57. 9%) are located on the northern Adriatic Sea.

Table 16] *Berths, structures and the average of berths by structure in the Adriatic areas, 2022*

	Berths		Structures		Avg. berths* by structure
	value	% share	value	% share	
North	44,115	55.7%	195	57.9%	226
Centre	16,215	20.5%	66	19.6%	246
South	18,841	23.8%	76	22.6%	248
TOTAL	**79,171**	**100%**	**337**	**100%**	**235**

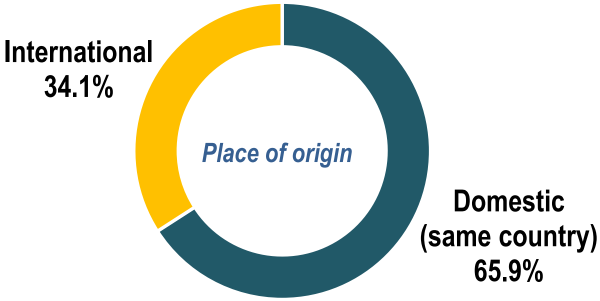
Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

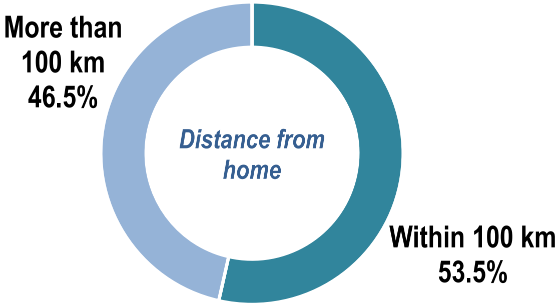
Map 9] *The sample of marinas collaborating at the 2022 edition of ASTR*

A sample of 58 nautical structures located in Italy, Slovenia, Croatia, Montenegro and Greece took part in the 2022 edition of the survey. They can count on almost 20,000 moorings with 532 permanent employees and 163 seasonal employees during the tourist season. As regards the origin of customers, around two thirds come from the same country in which the marina is located, and in terms of distance between place of residence and the structure used for their boat, 53.5% are within a radius of less than 100 km.

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

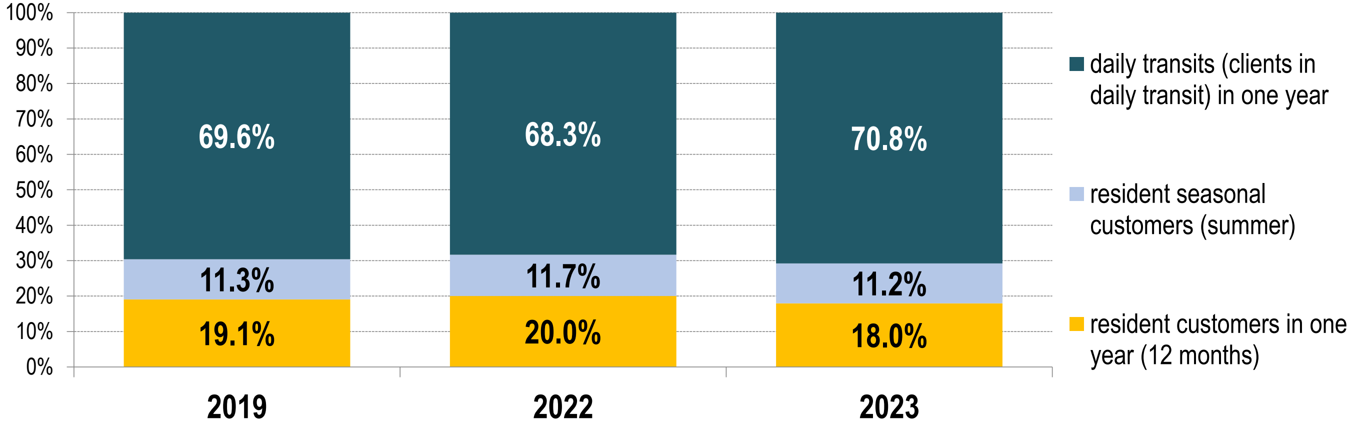
Graphs 23] *Comparison by place of origin of clients of the sample of marinas, 2022*





Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

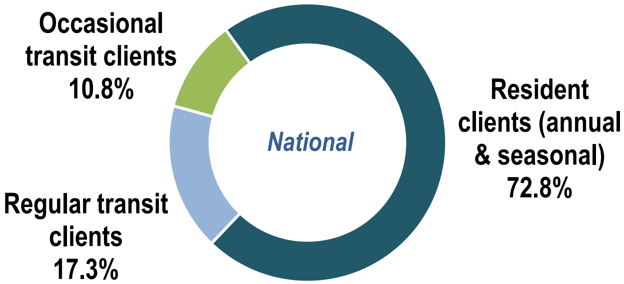
Graph 24] *Distribution of the type of clients of the sample of marinas, 2019, 2022 and 2023 forecasts*

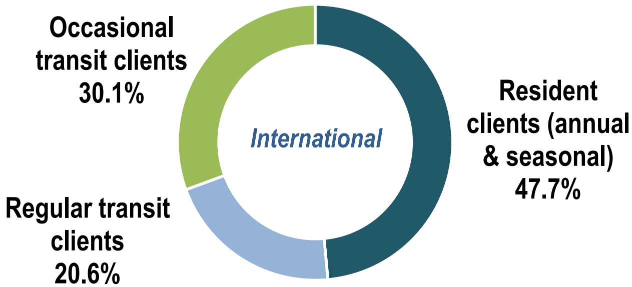


Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

According to the information provided by the representatives of the marinas participating in the survey, between 2019 and 2022 the situation has been fairly stable, with a slight decrease in occasional clientele (who usually use the marina for just one day) and a slight increase in residential annual customers. While, for the next year, an increase in daily transit clients is expected (+1.2% on 2019 and +2.5 on 2022) at the expense of residential annual clients (-1.1% on 2019, -2% on 2022), residential seasonal clientele remain fairly stable throughout the period (about 11% of the customers in the sample surveyed).

Graphs 25] *Distribution of occupied berths during the year by type of clients (for both national and international clientele), 2022*

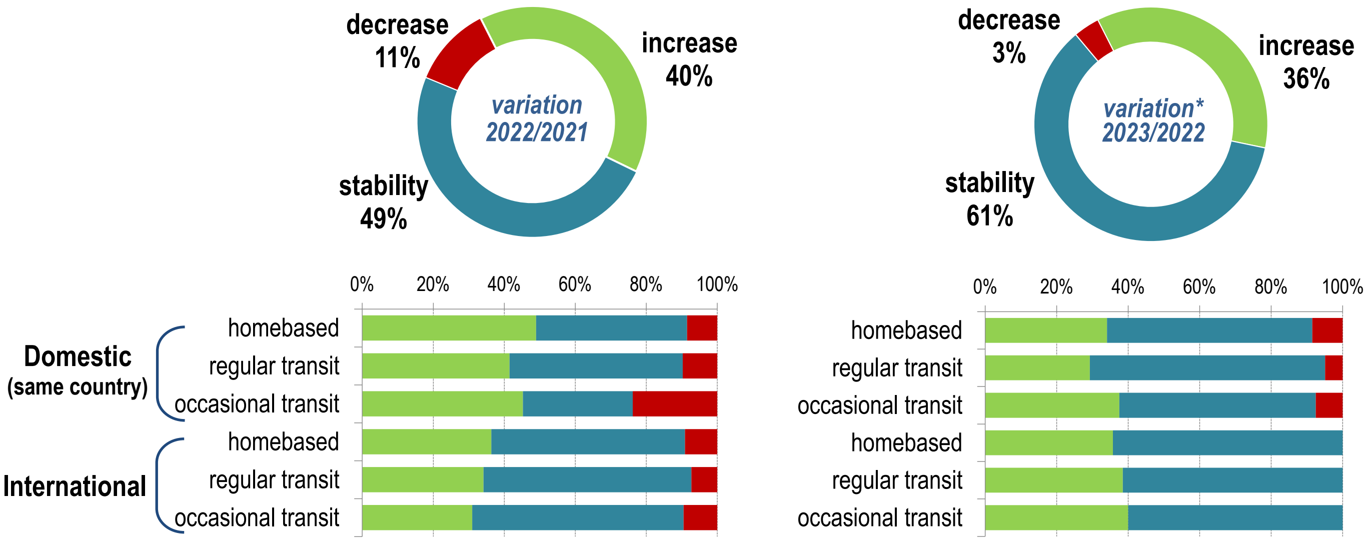




Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

When dealing with occupied berths during the year, the graphs 25 show distribution for both national/domestic and international clients. In the former case, almost three out of four berths are occupied by residential clients, leaving the rest of the available spaces to clients in transit, in part occasional and in part habitual. In the latter case of users of international origin, the share of permanent customers decreases, as was to be expected. In any case, it comes to almost 50% of the total.

Graphs 26] *Variations in domestic and international clientele of interviewed marinas, 2022/2021 and 2023/2022 forecasts*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report. Note (*): forecast for 2023.

When asked about the variations in customers served, the survey participants mostly state that a certain stability was noted between 2022 and 2021, but two-fifths reported an increase in demand. Only 11% said they noted a decrease, and it would seem that this decrease is mostly in occasional domestic customers in transit. As for the variations expected between 2023 and 2022, two out of three respondents see the demand align with the values of 2022, with only 3% predicting a decline and with the others (36%) betting on an increase.

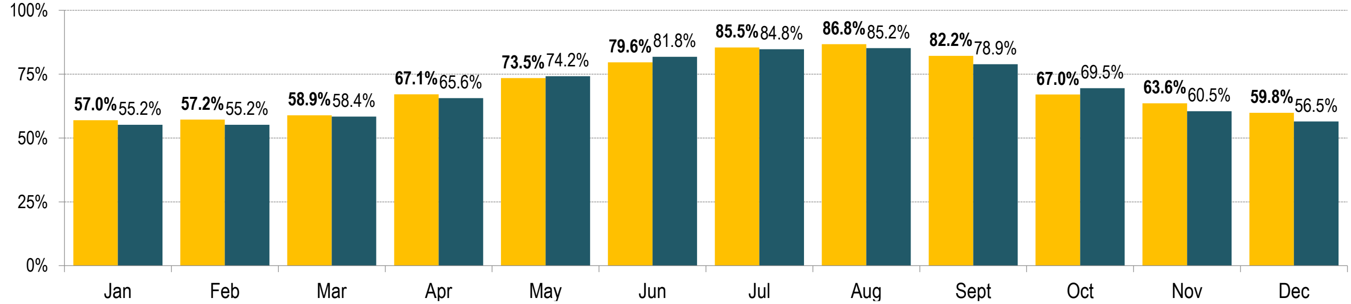
Table 17] *Annual and seasonal clients and daily calls of the sample, mean values and variations 2019, 2022 and forecast 2023*

	mean values			variations	
	2019	2022	2023	2022 on 2019	2023 on 2022
Annual clients	327	341	365	+4.31%	+7.01%
Seasonal clients	219	225	256	+2.72%	+13.58%
Calls	1,241	1,213	1,408	-2.31%	+16.15%

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

In regard to the size of the market, nautical tourism movements in the Adriatic Sea are analysed in the table above, and the mean values of clients in the sample – both annual and seasonal (as well as daily transit boats) – are shown. From 2019 on to the 2023 forecasts, the absolute number of resident clients seems to grow year after year. In terms of variations, decidedly positive growth of seasonal clients is expected (+13.6%) between this year and next year. As for the daily transits, despite a slight decrease between 2019 and 2022 (-2.3%), it is expected that they will see a significant surge (+16.2%) next year vs 2022, bringing the absolute number to a higher value even compared to 2019. Overall, an overall positive trend is displayed for each type of client in this market.

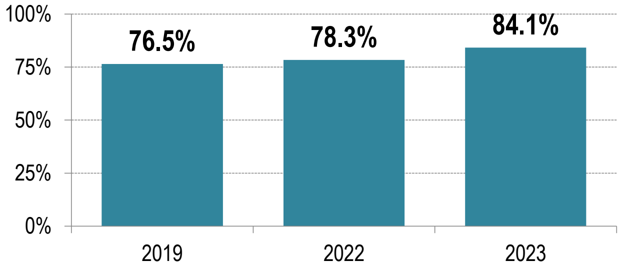
Graph 27] *Monthly occupancy rates forecasts in interviewed marinas, 2022 vs. 2018*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report and 2019 edition (for 2018 data).

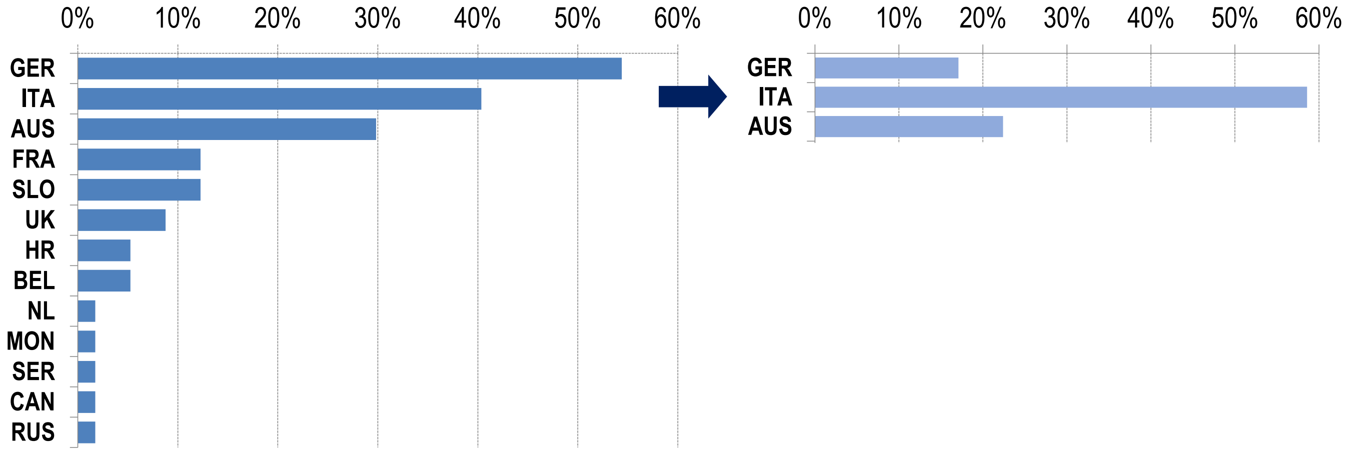
The seasonal presence of demand within the marinas investigated, through the occupancy rates, indicates the trend typical for an accommodation facility of the Adriatic, with lower values in the first months of the year, growing in the summer and then falling once more. In any case, thanks to residential customers, rates never fall below 50%. Compared with a few years earlier, rates appear to be in line, with a slight increase in 2022 over a few months. As an annual average, it is encouraging to observe that the 2022 figure is higher than that of 2019 and is expected to grow once more in 2023, exceeding 84%.

Graph 28] *Trend of occupancy rates in interviewed marinas 2019, 2022 and forecasts 2023*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

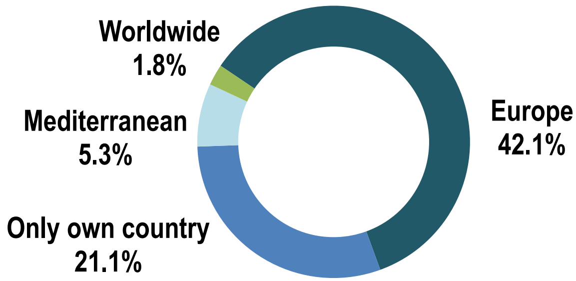
Graph 29] *Most frequently cited countries as markets of origin for the sample of marinas, 2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Almost 55% of the surveyed marinas cited Germany among the countries of origin of their clients (regardless of how many clients actually arrive from Germany); around 40% indicated Italy and Austria, with France which trailed far behind. Conversely, in terms of average incidence of clients vs the total, Italy is by far the prevailing demand catchment basin for the surveyed marinas (56.1% of which, it is worth noting, are located in Italy), with Austria and Germany trailing behind. Only two of the marinas interviewed mentioned – among the most frequent markets of origin – extra-European markets: the Russian and the Canadian markets.

Graph 30] *Areas of promotion for surveyed marinas activity, 2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Excluding broader promotion (most likely not very useful for attracting clients), one-fifth of the marinas interviewed focus on the potential users of their own country; few (5.3%) look to potential Mediterranean markets, and almost all the rest (42.1%) turn their attention – and budget – to Europe as a whole. Only 1.8% of the sample stated that they promote their activity also to extra-European markets.

Graph 31] *Variation of marina tariffs in 2022*

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

55.6% of the marinas surveyed stated that they have raised tariffs. In 2022 the average tariffs for three days are 267€ for a 15 mt. boat with 6 passengers on board in May, and 122€ for a 7 mt. boat with 4 passengers on board in August. To confirm the trend identified by the marinas, the prices declared this year have grown on average by 34€ and 16€ respectively, compared to those stated in the survey conducted in the previous edition of this report (2019). However, it has to be noted that the rates of marinas located on the Adriatic East coast are on average higher than the rates of marinas located on the Adriatic West coast. More specifically, rates for mooring the former type of boat (15 mt. x 6 pax in May) amount on average to 233€ for marinas in Italy and 328€ on the Balkan coastline (+95€ difference). While rates for mooring the latter type of boat (7 mt. x 4 pax in August) amount on average to 95€ for marinas in Italy and 172€ for Balkan marinas (+77€ difference).

INVESTMENTS IN MARINAS

Analysis of the nautical sector of the Adriatic area points to overall growth in the number of marinas and tourist ports, driven by Croatia, which inaugurated three new marinas over the last three years, and which plans to open two more (and expand as many) by 2024 – followed by Italy and Montenegro (with two). Furthermore, no structures have closed; in some cases, however, projects slated to be completed in the last few years have encountered difficulties and, therefore, opening has been postponed for some years to come. Taking into account both enlargements of marinas and brand-new structures, it is estimated that at least 40 million euros have been invested in the last two years (without considering the 2 billion euros invested in Montenegro for the opening of two new world-class resorts including luxury marinas), with an increase of 8 marinas and around 4,000 berths. This means the Adriatic can provide 79,171 berths in the 337 marinas currently available. In the next two years – from the second half of 2022 until 2024 – the Adriatic coast should count on 9 new marinas (including the expansion projects) and more than 3,000 new berths, with investments of more than 100 million euros, as will be described below.

On the Croatian front, in the last two-year period, three new marinas have been inaugurated, which have added 500 or more berths to the Croatian supply side, accounting for around 40 million euros in investments. Between 2022 and the following two years, two more marinas should be inaugurated and the expansion projects of two existing marinas should be completed, for a total of an additional 1,700 berths available thanks to investments totalling approximately 70 million euros. The new Puntica Marina in Medulin was launched in mid-2019 by Croatia's Adriatic Yacht Charter, with a berthing capacity of some 85 craft, under a project worth some HRK 15 million (around 2 million euros). The municipality of Medulin has accompanied this private investment by arranging green spaces and by paving the access road to the marina, worth HRK 1.5 million (around 200,000 euros). Marina Korkyra in Vela Luka on Korčula also opened in late May 2020, with an investment of about 5.6 million euros on the part of the Ovalis Nova company. With modern equipment and a capacity of 132 berths (and expansion planned to 177), the marina can host superyachts measuring up to 100 mt. In late 2021, D-Marin Group welcomed Marina Tribunj as the fourth destination in the Group's Croatia cluster. It has 220 sea and 50 dry berths (6 berths for superyachts up to a maximum length of 35 mt), as well as a full-service boatyard. In 2021, the EMMA Capital investment group also signed acquisition contracts for its first three marinas in the Adriatic Sea – Marina Nautica in Novigrad, Marina Trogir in Trogir and Marina Polesana in Pula – deciding to name the newly emerging group Marina21. The latter was inaugurated in early April 2022 with an investment of 30 million euros. It provides 304 berths (262 in the water and 42 dry berths). The marina is part of the first stage of a larger tourism development project called Katarina Monumenti. Around 1,150 additional berths (900 on land and 150 at sea) and a 5-star hotel, respectively worth about 20 and 30 million euros, are planned for stage two, and they are expected to open by the end of 2023.

Among the projects as yet uncompleted, in 2018, ACI Marinas signed an agreement with the municipal authorities of Novalja thanks to which it was possible to start construction works on new ACI Marina units in Novalja, which should offer about 300 berths. Completion of the work may be expected by the end of this year. Looking to the future, the Croatian company ACI-Gitone, a joint venture between the local operator ACI Marinas and the German shipbuilder Lürssen, will build the new Porto Baroš marina in Rijeka, which will accommodate 230 berths. The beginning of construction work is planned for the middle of next year, while the sea part of the marina may be opened in 2024. The project is expected to come to about HRK 363 million (around 50 million euros): it will figure as the largest investment in nautical tourism in the history of Croatia. Moreover, the joint venture will receive a 30-year concession for operations. A new marina is planned to be built on the island of Hvar. However, difficulties are being encountered. Last year a concession was requested to build a new marina with 250 berths in Sucuraj, worth around HRK 390,000 (50,000 euros). Only one company, Marina Scuraj, which was founded in September 2020 by the Slovak company, Sitno Holding Real Estate, applied for the tender, but, at the end of 2021, the Croatian Government rejected the offer of the Slovak investor because the conceptual design submitted in the offer is not in accordance with the spatial planning documents.

In Italy, two new marinas have been inaugurated in the last three years, for a total of more than 400 new berths, while expansions of three marinas are expected to be completed in the next few years, adding approximately 700 berths. Specifically, in July 2019 the new structures of Marina di Porto Reno (Ravenna) were inaugurated, which provide 334 berths and various services available to customers on an area of 500 sqm. Furthermore, the tourist port of Francavilla Al Mare – awaited over a period of more than 30 years – was inaugurated at the end of September 2021. It currently accommodates 95 berths, although it is planned to add another 45 floating piers in the future, that can be used as a landing place for medium-small boats shorter in length (≤ 11 mt). Works by Marinucci Yachting are currently ongoing at the tourist port of San Pietro in Termoli, which plans to expand the structures by adding about 100 berths, as well as to redevelop the entrance and to add a belvedere square with various facilities. At the tourist port of San Foca (Lecce), expansion – initially planned between 2019 and 2021 – is still at a planning stage, and the Ministry and the Region are expected to open funding channels. The goal is to triple the 183 berths currently available, with an investment of several million euros, to prepare the port to accommodate larger boats. Among the planned interventions, also creation of 450 parking lots and improvement of the roads to/from the port. No new marinas have opened this year on the Italian Adriatic coastline, but, in the coming years, in addition to completion of the above-mentioned projects, construction is also planned of a new marina for superyachts (up to 100 mt) in Bari, with an investment of 36 million euros, as part of the redevelopment project of the Molo San Cataldo. Lastly, the reconversion project of the Idroscalo Sant'Andrea in the Venice lagoon – worth several tens of millions of euros – is still impeded, apparently due to unknown factors relating to reclamation and dredging. The project plans to recover the military complex and convert it into a marina capable of hosting yachts up to 50 mt.

Montenegro has recently been investing in construction of luxury resort complexes. In the last three years, two resorts worth around 2 billion euros have been inaugurated. Both host luxury marinas that have added around 350 new berths to the Montenegrin supply side. Luštica Bay Marina in Luštica Bay luxury complex – developed and built by Luštica Development AD (a joint venture between Orascom Development Ltd and the Montenegrin government) with an investment of around 1.1 billion euros – was inaugurated in 2018 (providing 50 berths). In 2021 an expansion stage was completed, which enabled the marina to be equipped with 115 berths accommodating yachts of up to 45 mt, with 176 slips to be made available once the project is definitively completed. Furthermore, in August 2019 Azmont Investments opened the D-Marin Portonovi Marina, providing 238 berths that can accommodate superyachts of up to 120 mt. The marina is part of the new luxury complex in Boka Bay that includes, besides the marina, over 1.8 km of beachfront access, 275 properties and Europe's first Only&Only Resort, opening in 2021. For this world-class resort, Azmont invested around 828 million euros.

Also in Kotor Bay, Porto Montenegro is going to develop the former Bijela Shipyard as a joint venture with Drydocks World Dubai, which has been renamed Adriatic 42. The aim is to transform Bijela into a world-leading superyacht refit and maintenance facility. The project, which is still at the assessment stage, involves design and construction of new infrastructures and the upgrading of existing facilities. Under the terms of the concession, Adriatic Marinas will invest approximately 20 million euros over the first three years.

Albania appears to be heading in the same direction as Montenegro. A few years ago, it was claimed that the new luxury complex Porto Albania in Kalaja and Turrës peninsula would be completed in 2021. It should also have hosted a marina with more than 700 berths, worth 35.8 million euros and extending over an area of 17 ha. However, the whole project – announced in 2013 by the Swiss company Finsec AG with a 112 million euros budget – remains actually still unfinished due to delays and concurrent problems. Furthermore, in August 2022, the two companies, Eagle Hills Real Estate Development and Albanian Seaports Development Company, signed a cooperation agreement for the construction of the yacht port of Durres (an investment of 2 billion dollars). The "Durres, Yachts and Marina" project includes, besides a yacht port, also hotels, bars, restaurants, cinemas and residences, and it will extend over 44 ha.

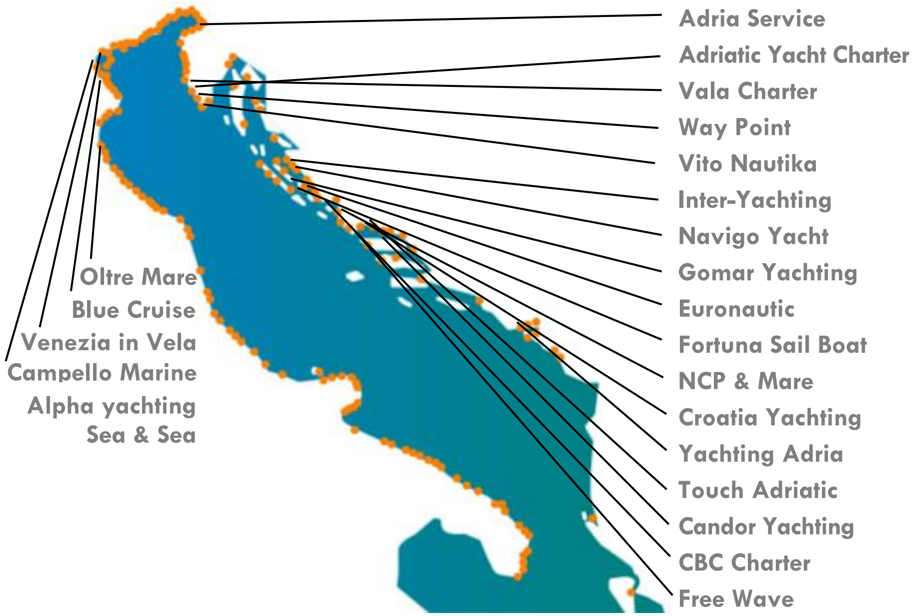
Regarding Greece, it should be noted that the Greek Ministry of Tourism stated last year that it wanted to prioritise the country's marinas and development of maritime tourism, and also that a national strategy for the development of marinas in Greece is at its final stage. In this regard, analysing the Greek Adriatic coast, a new 103-berth marina at Alypa in Paliokastritsa (Corfu island) was inaugurated this August.

Analysing the situation as a whole, it can be affirmed that after having conceived the supply side as permanently serving local demand, the projects announced in recent and future years appear to be aimed at nautical tourism to a much greater extent. Considering the marinas and berths mapped in the first half of 2019, the quantitative increase of eight structures and approximately 4,000 berths is equal to +1.5% and +5.5% respectively. However, this increase is much more significant from a tourism point of view, as it shows how increasingly large – and ambitious – are the projects and investments that specifically target tourists. If all the projects announced for the next two-year period are actually brought into being, it will be possible to surpass the threshold of 80,000 berths on the Adriatic (+9.6% vs the first half of 2019).

Map 10] *Nautical tourism: new structures opened in 2019-2022 and to be opened in 2023-2024 in the Adriatic, and share of moorings and structures on the total, 2022*

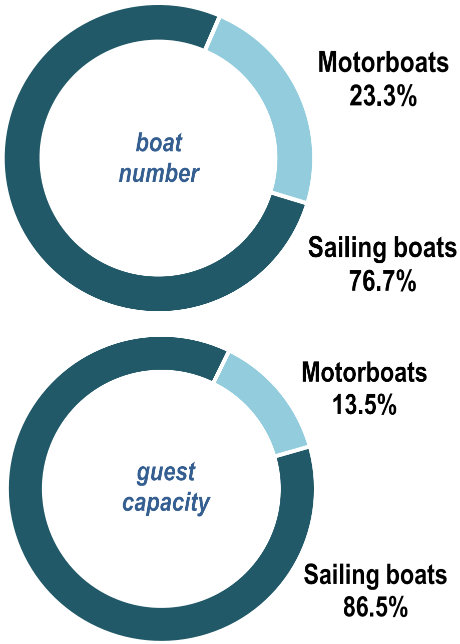
Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Map 11] *The sample of charter companies collaborating with 2022 edition of ASTR*



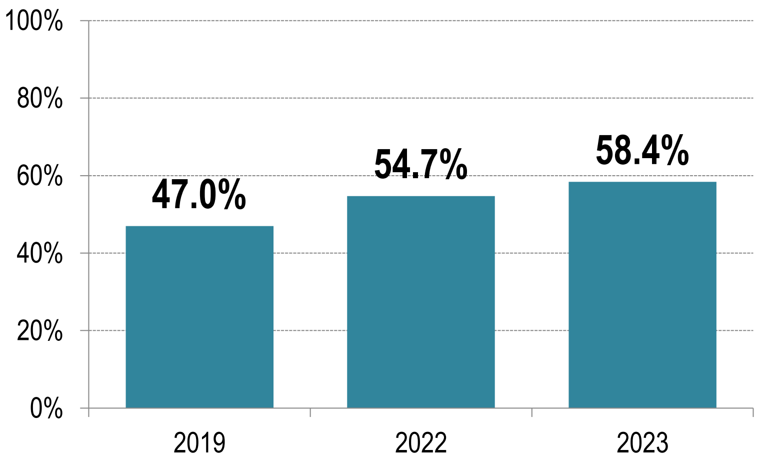
Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

Graphs 32] *Typology of boats in the sample fleet*



Adriatic Sea Tourism Report 2022 has surveyed 23 different charter companies located in Italy, Slovenia, Croatia, Montenegro and Greece. Graphs 32 shows that sailing boats make up about 77% of the fleet, and the guest capacity has grown to about 87% of the total. On the other hand, motorboats make up a little bit more than one-fifth of the fleet with around 13% of the total guest capacity.
The eastern coastline of the Adriatic Sea has been indicated as nautical base by most of the companies surveyed. The most frequently cited destinations are located in Croatia, but also in the Venetian lagoon. In regard to staffing, on average 7 fixed-term employees work permanently at the surveyed charter companies; 5 additional seasonal workers are employed during the tourist season. More than half of the surveyed charter companies are open between spring and autumn. Almost two-fifths of them are active all the year round. Europe is the market in which charter companies promote their activity most (63.6%). However, 22.7% of the respondents stated that they engage in worldwide promotion. In general, no new markets have been introduced into the promotional activity of the charter companies.

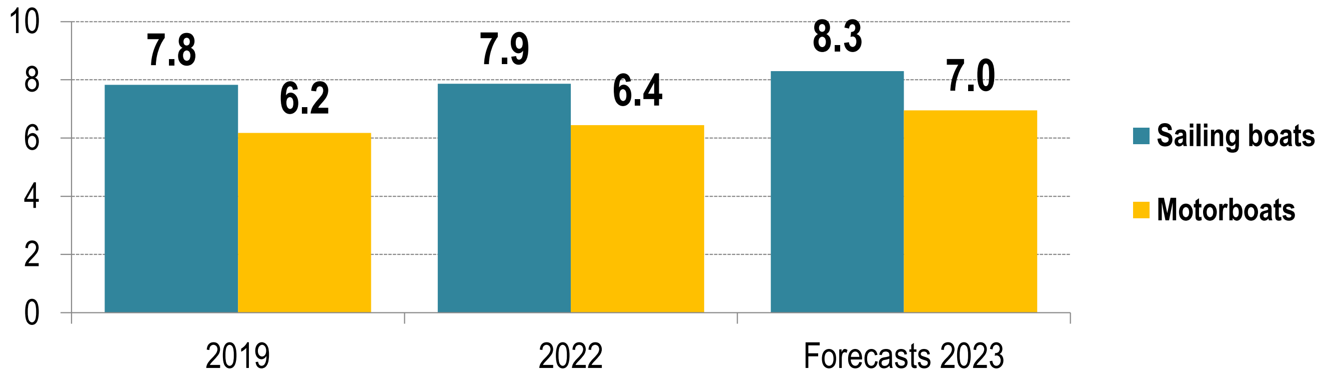
Graph 33] *Booking rates for boats of the sample charter companies' fleets in 2019, 2022 and 2023 forecasts*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

As to booking rates, the figure estimated for between now and the end of the year indicates a result that is already higher than that recorded in 2019 (55% vs 47%). According to the sample of charter companies participating in the survey, figures should also further increase in 2023, approaching the 60% threshold.

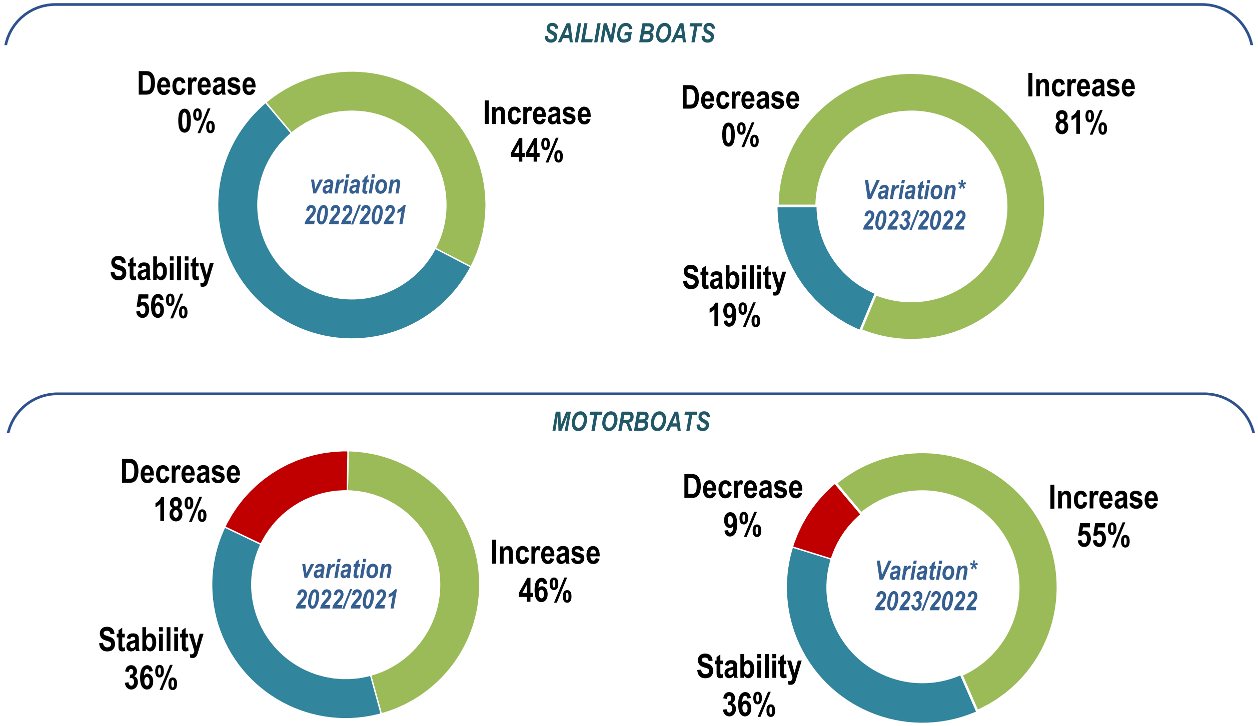
Graph 34] *Average duration of bookings for sailing and motorboats clients of the sample charter companies in 2019, 2022 and 2023 forecasts*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

The numbers increase for duration of average rental of motorboats. They had already risen in 2022 vs 2019 and a further increase is expected (moving from 6 to 7 days). However, duration of sailing boat rentals is more stable (around 8 days, in line with the more traditional duration of charter sailing holidays).

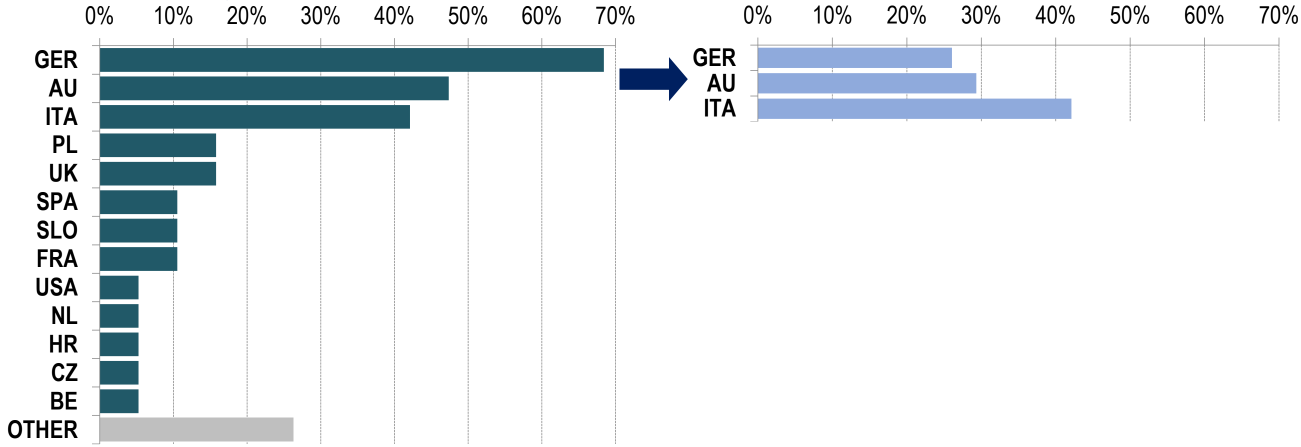
Graphs 35] *Variations in clientele of interviewed charter companies per type of boat, 2022/2021 and 2023/2022 forecasts*



Risposte Turismo (2022), Adriatic Sea Tourism Report. Note (*): forecast for 2023.

The information evidently most useful for understanding commercial and tourist dynamics for boating includes data on variation of number of customers, and therefore of rentals, for charter companies. Regarding sailboats, no charter companies interviewed say they have experienced a decline in their clientele between this and last year, nor do they expect to suffer a decline next year. The trend appears decidedly positive: this year, 44% of respondents noted an increase in customers. For the next year, more than 4 out of 5 expect growth. The remaining charter companies foresee a situation of stability. A slightly different scenario is seen with regard to motor boats: almost 1 in 5 respondents say they have seen a decrease in their clientele between this and last year, although almost half (46%) declare that they have seen growth. Looking to the next year, the number of respondents who expect a decline in their clientele falls to one tenth, while the number of those who expect growth rises by almost 10 percentage points (+ 55%). In this case, too, the scenario therefore appears to be improving, although it is slightly less propitious for motor boats than for sailing boats.

Graphs 36] *Most frequently cited countries as markets of origin for the sample of charter companies, 2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

The distribution of demand at charter companies, which has manifested itself this year up to now or which will manifest itself from now on to the end of 2022, by country of origin, sees German users prevailing by far per number of customers (68%), followed by Austrians (47%) and Italians (42%). Instead, in terms of average customer incidence on the total, these three countries account for 26%, 29% and 42%, respectively of the entire clientele. As noted for the marinas survey, in this case too, Italy prevails in the demand for surveyed charter companies (and few of these companies seem able to attract other nationalities).

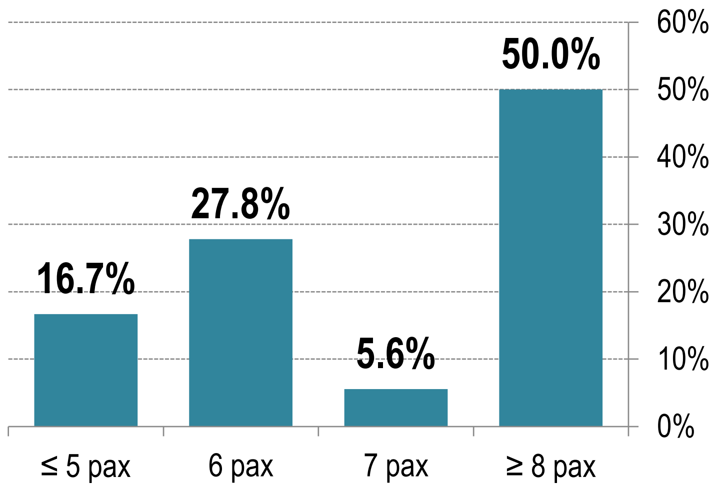
Map 12] *The distribution of the itineraries chosen by the charter companies' customers among the 4 areas of the Adriatic Sea, 2022*

Northern Adriatic	41.7
Central Adriatic	39.2
Southern Adriatic	17.4
Outside the Adriatic	1.7
	100%

The central-northern area of the Adriatic is by far the most favoured navigation area for the customers of charter companies (almost 80% of the total). The rest lies between the southern area and a residual demand that opts for elsewhere than the Adriatic Sea.

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

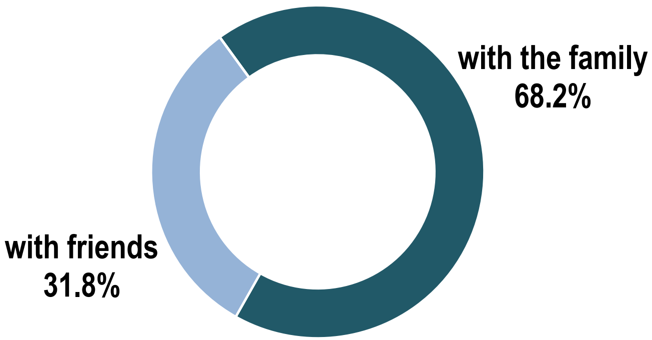
Graph 37] *Most frequent occupancy of the boats of the sample charter companies, 2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

On board the chartered units, there are more frequently 8 or more passengers. It is therefore reasonable to think that medium-large size boat rentals are more common, and groups of friends or two or more families often board these boats. Combinations of 6 guests seems to account for about 28% of the rentals, while just 17% go to groups of 5 or fewer passengers.

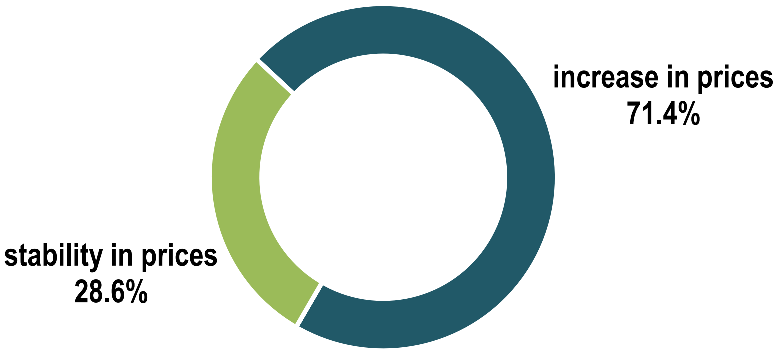
Graph 38] *General composition of the travel client groups of the sample charter companies, 2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

As already written in the comment to the previous graph, families or friends are the types of occupants of boats, with the former prevailing (68.2%) for charter companies.

Graph 39] *Change in tariffs in 2022*



Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

More than seven out of ten of the charter companies participating in the survey increased their rental rates in 2022 vs 2021. The rates for the others remained unchanged, hence none offered prices lower than for the previous year.

Table 18] *Average cost of some particular offer combinations, 2022*

	Sailing boats	Motorboats
6 people, 15 mt boat for 3 days in May, skipper included	2,245 €	3,066 €
4 people, 7 mt boat for 3 days in August, skipper included	2,696 €	3,212 €

Source: Risposte Turismo (2022), Adriatic Sea Tourism Report.

The table presented above indicates the average cost of a 3-day booking for two sampled boat sizes (both for sailing boats and motorboats), taking into consideration two different periods of the year (May and August). The results show that the difference in prices between sailing and motorboats is remarkable: in fact, with the same conditions, motorboats cost between 600 and 800 euros more than sailing boats. As for the same type of boat, but with differences in size and month of booking, tariffs for motorboats vary only slightly (a 146€ difference), whilst the changes for sailing boats are greater (a 451€ difference). However, it is interesting to note, for both types of boats, that a smaller boat rented in August costs more than a larger one rented in May. Comparing the trend of rental prices applied by the charter companies with the mooring prices of marinas, we see that marina tariffs are influenced more by size of boat while charter rates depend above all on seasonality.

5 EUROPEAN PROGRAMMES AND PROJECTS SUPPORTED BY ADRIATIC SEA FORUM

The EU Strategy for the Adriatic and Ionian Region (EUSAIR) is a macro-regional strategy adopted by the European Commission and endorsed by the European Council in 2014. EUSAIR is one of the four EU macro-regional strategies, besides the EU Strategy for the Baltic Sea Region (2009), the EU Strategy for the Danube Region (2011) and the EU Strategy for the Alpine Region (2016).

The participating countries are currently 10, with San Marino joining the strategy in February 2022, a territory now home to more than 70 million people. The strategy of EUSAIR focuses on four (4) Pillars: Blue growth, Connecting the Region, Environmental quality, Sustainable tourism.

In 2014 the Communication on the "Challenges and Opportunities for Maritime and Coastal Tourism in the EU" affirmed the importance of promoting dedicated sea-basin approaches and synergies between regions and across borders, thus creating possible initiatives and actions dedicated to the Adriatic Sea and remarked that "*with perspectives for growth in the coming years, coastal and maritime tourism full potential is yet to be unveiled*". All European projects activated in the Adriatic area tried and will keep on trying to harness this potential bearing in mind all pillars and aims of the EUSAIR strategy.

During the 2014-2020 programming period it has been widely understood that the future of the Adriatic as an area of interest for economic, occupational and social development of the countries that border this Sea necessarily depends on the attention and commitment that subjects such as European Union devotes to it. Many strategic interventions had an effect on various issues and measures also thanks to the approval and related commitment of almost 500 projects only for the countries facing the Adriatic basin.

For the next programming period 2021-2027 to enhance some simplification processes, the new Interreg Regulation has become more comprehensive, and it includes many aspects previously covered in other regulations or delegated acts. Moreover, EUSAIR has identified some new flagships. For each pillar of its strategy, specific topics and actions has been identified, taking into account the needs, urgency of the issue and the added value of joint actions taken in order to solve the existing challenges or build upon the future opportunities. Among these pillars, particular attention has been paid to: the level of transport connection in the region, with the aim of finding new Adriatic-Ionian multimodal corridors; sustainable tourism, promoting the creation of new networks of sustainable tourism business and clusters; deseasonalization initiatives; the importance of research and training in the field of tourism business.

One of the better-known European Programmes is the INTERREG, which includes sub-programmes that involve the Adriatic Sea basin and include projects dedicated to maritime transport and tourism:

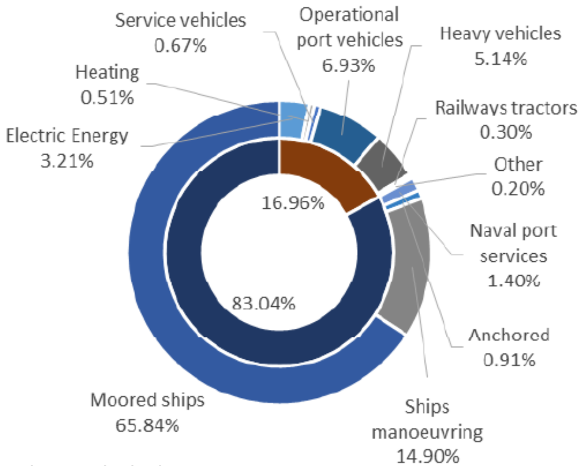
- **Interreg ADRION** → supporting 82 projects under its funding scheme, it includes projects such as *Adrilink*, dedicated to find new potentials for developing all year tourism destinations; *ECO-NautiNET*, for the creation of a network's support for SMEs in the nautical sector.
- **Interreg Italy-Croatia CBC Programme** → it spreads over 85.562 km2, funding almost 100 projects. Some of the most relevant are: *PROMARES*, promoting maritime and multimodal freight transport; *SUSPORT*, for a common model of environmental planning and energy efficiency; *DIGSEA*, to enhance the digitalisation of multimodal transport in the Adriatic; *FRAMESPORT*, a framework initiative fostering the sustainable development of Adriatic small ports; *TECHERA*, for big data sharing and analytics for a circular sea economy.
- **Interreg IPA CBC Italy-Albania-Montenegro Programme** → with a total budget of more than 92 million euro, this programme supports among its projects *ALMONIT-MTC*, whose aim is to increase cross-border accessibility, promote sustainable transport services and facilities and improve public infrastructures.
- **Interreg V-A Greece-Italy** → supporting 50 projects with more than 123-million-euro funding, its projects include: *PORTOLANES*, with the aim of combining nautical tourism with other tourism activities, while preserving marine and coastal environment; *THEMIS*, which supports the development of minor ports through the luxury cruise tourism.
- **Interreg V-A Italy-Slovenia** → with more than 92-million-euro budget, this programme is more focused on the relevance of SMESs, it includes projects such as *CLEAN BERTH*, whose aim is to strengthen the institutional capacity of the included ports towards a coordinated and permanent governance in the field of environmental sustainability and port energy efficiency.
- **Interreg MED Programme** → its main goal is to contribute to the transition towards a climate-neutral and resilient society. It aims at fighting the impact of the global changes on the Mediterranean resources while ensuring a sustainable growth and the well-being of its citizens. *ALTER ECO PLUS* is included in this programme with the aim of finding alternative tourist strategies to enhance the local sustainable development of tourism by promoting Mediterranean identity.

SUSPORT

The main objective of SUSPORT - SUStainable PORTs is to enhance the environmental sustainability and energy efficiency of the ports in the Programme Area through increased institutional cooperation to create the basis for coordinated and permanent governance in the context of port environmental sustainability and energy efficiency at cross-border level, jointly developing action plans and a long-term strategy, increasing coordination and cooperation between ports to strengthen sustainability and competitiveness.

Through SUSPORT, ports of the Programme Area, will be able to share best practices and develop common methodologies for environmental sustainability and energy efficiency, to be tested in concrete pilot actions significantly improving the environmental performance of maritime transport in the whole Programme Area.

Graph 40] *Total overall emissions*



Source: SUSPORT Project

Pilot action. Best practice and TNA analyses of each port, grouped in the graph 40, have shown that most emissions in the project area come from ships at berth, so significant sustainability benefits are expected to be achieved through the application of technologies that reduce these types of emissions; while for land-based emissions, different actions could have a greater impact depending on the type of port. For predominantly passenger ports, actions that reduce electricity consumption are expected to be the most important; for predominantly cargo ports, the reduction of emissions from vehicles and operating equipment is expected to have the greatest impact on greenhouse gas emissions. based on these considerations, the planned pilot actions will concern:

- replacement of the existing lightning system with LED light bulbs
- installation of photovoltaic and solar thermal systems
- implementation of e-mobility measures
- improvement of the environmental performance of port buildings
- installations of sensors and stations to monitor noise, air and water quality
- pre-investment studies for onshore power supply

Based on the lessons learnt, the ports of Italy and Croatia will sign a Protocol for the application of a joint cross-border strategy in this area, thus harmonizing the policies in the medium and long term, with a benefit for the citizens who live in the vicinity and in the municipalities where commercial calls are made. Also, specific recommendations in this sense will be provided to EUSALP, EUSAIR and EUSDR.

Project partners. Eastern Adriatic Sea Port Authority – Ports of Trieste and Monfalcone (lead partner); COSEF – Porto Nogaro; Northern Adriatic Sea Port Authority - Ports of Venice and Chioggia; VIU - Venice International University; ITL - Institute for Transport and Logistics; Port of Ravenna Authority; Central Adriatic Sea Ports Authority – Ports of Ancona, Pesaro, S. Benedetto del Tronto, Pescara and Ortona; Special Agency of the Chamber of Commerce of Chieti-Pescara; Southern Adriatic Sea Port Authority - Ports of Bari, Brindisi, Manfredonia, Barletta and Monopoli; Port of Rijeka Authority; KIP – Klaster Intermodalnog Prijevoza; Port of Zadar Authority; Port of Split Authority; Port of Ploče Authority; Port of Dubrovnik Authority; Dubrovnik Neretva County.

Fig 1] *16 partners from Italy and Croatia*

Source: SUSPORT Project

Programme: Interreg Italy-Croatia CBC Programme 2014-2020

Budget: 7.142.000,00 €

Financing from ERDF: 6.070.700,00 €

Project duration: 01.07.2020. - 31.12.2022.

FRAMESPORT

Overall picture and aims. FRAMESPORT[1] is a strategic INTERREG Italy-Croatia project that aims to define a new and competitive strategy for a sustainable development of the Adriatic small ports. The project, coordinated by CORILA[2], involves 15 partners plus 12 associates, both Italian and Croatian, for a complete territorial coverage of the Programme area.

FRAMESPORT arises from the need to relaunch the small port sector and find a solution to a series of criticalities that characterize it, such as the lack of homogeneity of the structures and services offered between the two shores of the Adriatic, a surplus of supply compared to demand levels and the increased mean age of users.

The aim is therefore to make the small ports of the Programme area more attractive and interesting for users, through the development of innovative business models, the increased connectivity with the territory and the enhancement of the activities here performed, also for a touristic promotion of these places. These and other important topics such as the blue growth, the environmental quality and sustainable tourism, which are the key points of the EUSAIR strategy for the Adriatic and Ionian Region, will be addressed by the FRAMESPORT strategic framework. Using a "bottom-up" approach with the involvement of relevant stakeholder of the sector, the strategy, which is now under definition, will lead to the development and optimization of the Adriatic small ports.

Among the most important project activities is the collection and categorization of data on the structural characteristics of the small ports of the Programme area and on the services offered by them. These data, currently fragmented, uneven, and not accessible, will be updated and made usable within an information platform, developed as part of the project and currently under finalization. Furthermore, this virtual space will contain the results of the implementation of pilot initiatives performed by the partners and the methods for developing them, to guarantee their replicability in other situations and territorial contexts. Pilot actions focus on different topics of interest: from the creation of ICT applications and related services to spatial planning, to the protection of environment, up to the development of specific business models. Importantly, the platform will also act as a sounding board for best practices and operational proposals that stakeholders may internalize in the perspective to make services and infrastructures more attractive and sustainable.

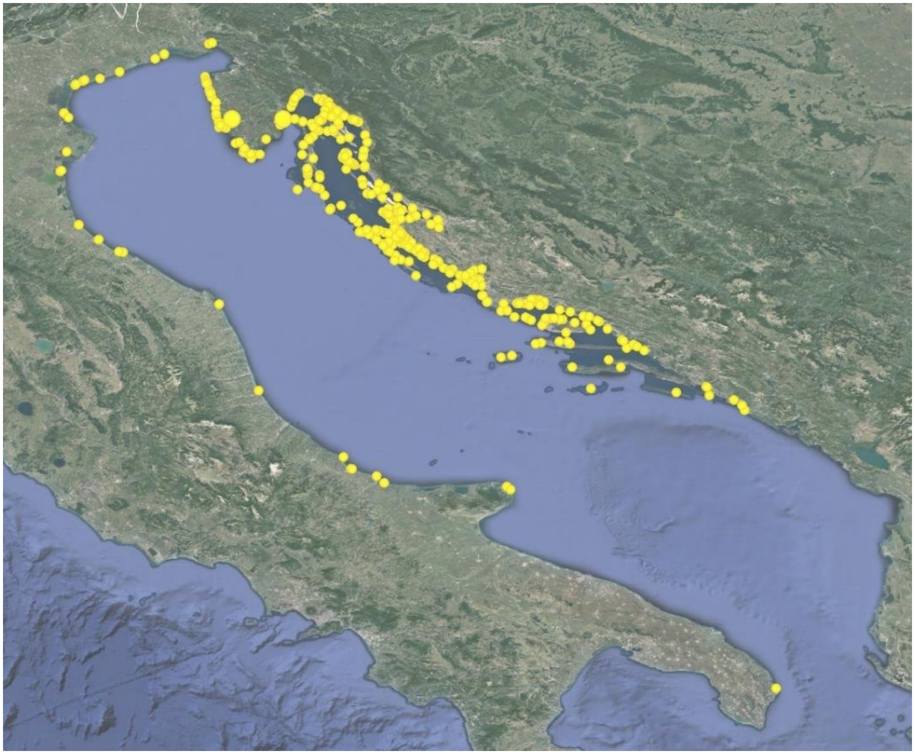
The project, which started in 2020 and will end in June 2023, is now facing the final rush: a particular effort will be dedicated to the discussion with the stakeholders of both coasts of the Adriatic to conclude the

[1] FRAMESPORT "Framework initiative fostering the sustainable development of Adriatic small ports", funded by the Interreg Italy-Croatia 2014-2020 Program (https://www.italy-croatia.eu/web/framesport)
[2] CORILA - Consorzio per il coordinamento delle ricerche inerenti al sistema lagunare di Venezia (www.corila.it)

identification of criticalities/merits and above all to understand the aspirations and opportunities of development of the small port sector. This will allow to outline a concrete and feasible strategy, aimed at making small ports drivers of sustainable development in the Adriatic coastal area.

Highlighted results. Data collection has led to the development of a structured database of 501 records, of which 465 were Croatians and 36 Italians (Figure 1).

Fig 2] *Study area showing the small ports for which data relating to services and infrastructures have been collected during the project lifetime*



Source: FRAMESPORT Project

Data were first categorized, according to the dimension, in moorings (i.e., those realities with less than ten berths and absence of basic services for example the toilet), and small ports (i.e., those with more than ten berths and presence of services) (Figure 2). Preliminary results showed that in Croatia many moorings are present, maybe because of its intrinsic insular nature and because moorings are probably considered as ancillary services of hotels and resorts or used for touristic purposes, for example to dock on the islands to be visited. Only small ports and marinas (i.e., privately operated ports) have been then considered in the following analysis.

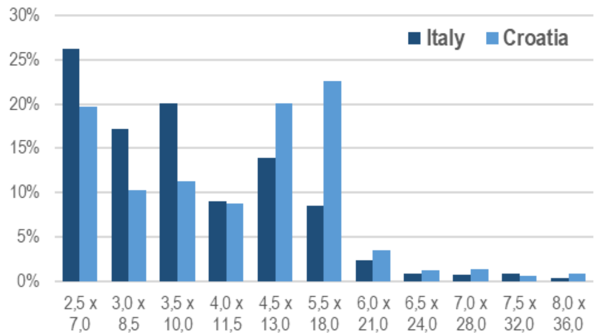
Fig 3] *The study area with the categorization in 420 moorings and 81 small ports*

Source: FRAMESPORT Project

Data collected allowed to investigate the different types of berths according to their dimension category, from a minimum dimension of 2,5x7,0 m to a maximum of 8,0x36,0 m, with results showing a general prevalence of smaller berths in Italy than in Croatia (Figure 3). Indeed, over 72% of Italian berths range between 2,5x7,0 m and 4,0x11,5 m, while in Croatia the same dimensional categories represent about the 50% of the berths.

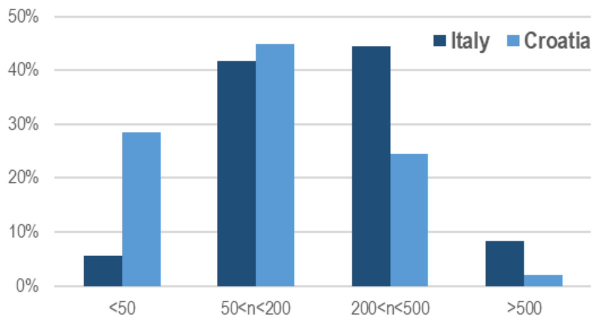
This is an interesting result especially if related to the fact that the total area of the Italian berths analyzed amount approximatively to 80.000 m2, while the total area of Croatian berths amounts to 33.000 m2, thus highlighting that small ports in Italy are generally bigger than those in Croatia (Figure 4).

Graph 41] *Italian and Croatian berths divided according to their dimension.*



Source: FRAMESPORT Project. Note: in Italy berths are generally smaller than the Croatian ones.

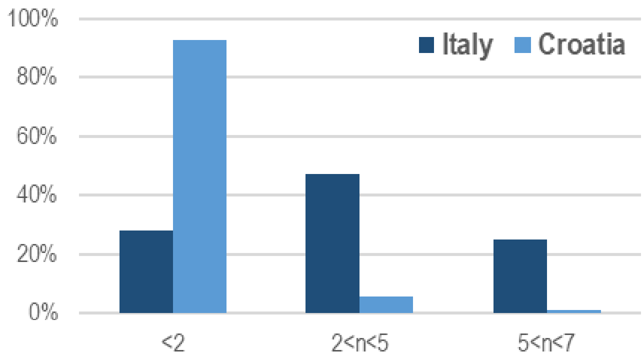
Graph 42] *Small Italian and Croatian ports divided according to the number of berths present.*



Source: FRAMESPORT Project. Note: in Italy small ports are generally bigger (i.e., with a greater number of berths) than Croatian ones.

The same analysis has been done for personal care services, like wellness centers, beauty centers, hairdresser, barber shop or SPA, present within or in proximity of the port. Results show that in Italy small ports are generally more equipped than those in Croatia (Figure 5).

Graph 43] *Small Italian and Croatian ports divided according to the number of personal care services present within or in the proximity of small ports*



Source: FRAMESPORT Project. Note: in Italy small ports are generally better served than Croatian ones.

Results highlight a clear difference between Italy and Croatia due to the conformation of the territory and the different use of small ports and marinas between the two Countries. Data analysis allowed to investigate the current situation about the dimensional category of the berths, the total area and the personal care services offered by small ports of the two sides of the Adriatic, providing information on the possible tourism satisfaction for a sustainable socio-cultural development. This situation underlines the need to operate at a cross-border level by leading a common strategy of optimization and innovation of the structures and services offered on the Italian and Croatian side, that is the final aim of the FRAMESPORT project.

MIMOSA

MIMOSA project main objective consists in the application of a new cross-border approach to passenger mobility. MIMOSA is focused on changing a low level of connectivity between Italy and Croatia, by developing visible outputs, ranging from multimodal solutions to innovative and smart tools and technologies. It is tackling the common challenge of increasing multimodality and reducing the impact of transport on the environment.

The 18 partners of MIMOSA project are involved in the realization of analysis aimed at increasing the knowledge of passenger transport and passenger behaviour, and in the testing of pilot actions on new sustainable mobility solutions to enhance sustainable transport modes, combining various modes of transport within the same transport experience, testing innovative pilot action and promoting sustainable mobility.

Some of the analysis realized and available at www.italy-croatia.eu/mimosa are the following:

- *the Segmentation analysis*, that identifies the needs that can be satisfied through the improvement of the quality and sustainability of services to travellers. It divides a population of individuals into categories that present a relative homogeneity of behaviour, choice processes and preferences. The goal was to build a "preference map" aiming at aligning the characteristics of the offer as much as possible with a variety of needs expressed by the demand. It contains a synthesis of the qualitative segmentation analysis carried out among actual and potential travellers, as well as operators and experts.
- the *Quantitative analysis of the existing demand*, that provides the knowledge based on the quantitative aspects of cross-border travel demand the Programme area.
- the *Development scenarios*. This document provides predictive scenarios on the travel demand development between Italy and Croatia, as well as the related impacts in terms of GHG (Greenhouse gas) emissions per passenger. It aims at providing support for governing travel demand and supply. It also takes the impact of the Covid-19 pandemic into consideration, as a discontinuity in historical data series.
- the *Cost effectiveness analysis* of the present intermodal maritime transport solutions within the MIMOSA project. The project partners wanted to determine – through the Analysis – the effectiveness of existing maritime multimodal solutions and to contribute to better and more efficient connection of Croatian islands with the mainland and with other islands and islands with each other.

Some examples of pilot actions already concluded are:

Fig 4] *Aqua lifters in Dubrovnik Neretva County*

Source: MIMOSA Project

- *Aqua lifters in Dubrovnik Neretva County*. Dubrovnik Neretva County provided 5 beach aqua lifters for the City of Korčula and Župa dubrovačka, Konavle, Dubrovačko primorje and Orebić municipalities. The investment has a value of about € 65.000 and aims to enable people with disabilities to have improved and easier access to the beach.
- *Lignano-Grado multimodal service*. The second season of multimodal service in the Sea of Friuli Venezia Giulia (FVG) took place from the beginning of June 2022 to mid September. The experimental motorboat service was connecting Lignano to Grado, guaranteeing an interlink with the already existing Grado – Trieste maritime service. It ran two times a day – from Tuesday to Sunday. It was implemented in cooperation with the local public transport companies of Friuli Venezia Giulia – TPL FVG and APT Gorizia.

- *Sustainable and smart services in the Port of Rovinj.* A device was installed to measure emissions from ships during their stay in the port. The data is collected for 2021 and 2022 and it's available on Rovinj Port Authority website. It will be a basis for the study on passengers' ecological footprint. To improve services for passengers during their stay in the port and promoting sustainable and environmentally friendly transport, a charging station for electric bicycles and 4 e-bikes were installed as well.

Fig 5] *Sustainable and smart services in the Port of Rovinj*

Source: MIMOSA project

- *"Via Istra" smart cards in Istria.* The Istrian Development Agency developed a "Via Istra" smart card concept – a new digital tourist product for both visitors to the Istrian County and local population. The service encourages the use of public transport, as well as passenger mobility and the combination of more types of transport, i.e. multimodality. There is also added value, considering that users – in packages of 1, 3 or 7 days – can visit important cultural and historical locations at discounted prices. A web platform (www.via-istra.com) was created with an accompanying online store, where users can purchase "Via Istra" cards online, starting from July 2022.

Project partners. Central Europe Initiative – Executive Secretariat (lead partner); Autonomous Region of Friuli Venezia Giulia; Ca' Foscari University of Venice; Institute for Transport and logistics Foundation; Central Adriatic Ports Authority; Abruzzo Region; Apulia Region; Ministry of Regional Development and EU Funds - Department for Islands; Regional Development Agency of Primorje Gorski Kotar County; Istrian Development Agency; University of Rijeka, Faculty of Maritime Studies; Dubrovnik Neretva Region; HZ Passenger Transport; Split Port Authority, Rovinj Port Authority; Public Institution Development Agency of Lika Senj County; County Port Authority Zadar; Sibenik Port Authority; Emilia Romagna Region (associated partner); Fisheries Local Action Group Consortium (associated partner).

Programme: Interreg Italy-Croatia CBC Programme 2014-2020

Budget: 7.140.000,00 €

Financing from ERDF: 6.069.000,00 €

Project duration: 01.01.2020. - 30.06.2023

TECHERA

The TECHERA project is co-funded by the Interreg Italy-Croatia Cooperation Program 2014-2020 under Cluster 1 "Connectivity from the sea: data driven solution in the sea economy" and stems from the capitalization of 6 previous projects ADRIREEF, FAIRSEA, ITACA, SUSHIDROP, PRIZEFISH and BLUE KEP that have experimented with innovative data-driven practices and approaches in the context of the blue economy. The novel interfaces, data analysis procedures and acquisition methods developed in these projects will be pooled to showcase how they can converge in a unique "Infosphere" to compensate for the lack of marine data and improve the blue economy by ensuring cost-savings and sustainability.
The project promotes the adoption of emerging technologies such as big-data sharing and analytics to increase the smart specialization of companies operating in the blue economy and to attract the interest of young people in smart and blue careers. The products of previous projects will be interconnected and integrated, and key innovations identified to improve blue-economy competitiveness and sustainability.

Project overall objective. TECHERA main goal is to pave the ground to the reduction of the carbon footprint of fishing fleets and seafood markets by data-driven optimization of fishing pressures and development of sustainable productions. This goal will be pursued:

- divulging the experiences gained in the ITA-HR programme for encouraging the creation of new intersectoral clusters based on data sharing;
- promoting data science and analytical tools to increase the smart specialization of SMEs in Macroregion Adriatic-Ionian;
- highlight the potential for data-based scientific approaches to contribute to increase efficient use and valorization of marine products;
- organizing workshops to highlight training opportunities in ICT for blue careers.

Therefore, TECHERA will

- contribute to the EUSAIR strategy Pillar 1-Blue Growth;
- be aligned to the SO 1.1 and 1.4 of the Interreg Italy-Croatia CBC Programme 21-27;
- be connected with the Interreg ADRION Programme's Thematic Cluster on Blue Growth and Related Smart Growth.

Project's specific Objectives:

1) *Intersectoral Cluster for data sharing*. Capitalization of projects outputs that developed databases and repositories which can help the data-driven management of sea resources and support national and international institutions in maritime spatial planning and in the sustainable management of sea resources:

- The FAIRSEA integrated platform, a webGIS database integrating biological/ecological processes and fisheries bio-economic dynamics. This high technological and innovative platform was used as a planning tool to test applicable fisheries policies;
- The SUSHI DROP webGIS for seabed and biodiversity mapping set up using data collected by the underwater drone "Blucy" developed within the project;
- The 3D seabed models and the virtual reality tools developed in ADRIREEF (innovative exploitation of Adriatic reefs).

2) *Smart Specialization and Advanced Technology.* Capitalization of projects outputs that develop new technologies which may boost the competitiveness and sustainability of the blue economy:
   - The advanced fishery technologies, the new seafood products (e.g. innovative fishing gears, products with improved shelf-life using HPP, MAP) and the APP for the B2C market investigated in PRIZEFISH;
   - The innovative webAPP for the small pelagic fisheries developed by ITACA able to predict the most probable selling price for anchovies and sardines, based on market data and bio-econometric models;
   - The Ecological indicator for fisheries impacts to support management and certification of fisheries product eco-certification scheme) developed in PRIZEFISH.

3) *Attractive and Innovative careers in Blue Economy.* Capitalization of project outputs that introduce students to the advancements in sustainable fishing, food chains and blue technologies to promote careers and sustainable entrepreneurship in the blue economy and address skills gaps in the sector:
   - Exchange/mobility Programme and shared Education System promoted by BLUE KEP (cross-border guidelines for exchange programme, common scheme for the skills recognition and knowledge acquired by the students, common curricula to be adopted by the schools);
   - The gaming approaches proposed and developed by FAIRSEA (e.g., Fish N' Ships, the card game developed within the project https://fishnships.it/).

Project partners. Alma Mater Studiorum – University of Bologna - Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" (lead Partner); ASSAM – Agency for agrofood sector services of Marche; AIE - Adriatic Ionian Euroregion; Municipality of Ravenna; OGS - National Institute of Oceanography and Applied Geophysics; Veneto Region's Agency for the innovation in the primary sector - Veneto Agricoltura; Zadar County; Ministry of Agriculture.

Programme: Interreg Italy-Croatia CBC Programme 2014-2020

Budget: € 600.000,00

Financing from ERDF: € 510.000,00

Project duration: 01.04.2022- 30.06.2023

RISPOSTE TURISMO

Risposte Turismo s.r.l.
www.rispostaturismo.it

Giudecca 624
30133 Venice
Italy

ph. +39 0413093260
info@risposteturismo.it