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Activity 1.1: Analysis of existing eco-tourism local offers and cruise tourists' needs

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Abbreviations

ABBREVIATION	FULL TERM
AIDA	AIDA Cruises (Carnival Corporation brand)
AI	Artificial Intelligence
CCI DU VAR	Chambre de Commerce et d'Industrie du Var
CERTH	Centre for Research and Technology Hellas
CO ₂	Carbon Dioxide
DMO	Destination Management Organisation
D1.1.1	Deliverable 1.1.1 – Eco-tourism offer and demand analysis
EMT	Empresa Municipal de Transportes (Valencia public bus operator)
EU	European Union
EUR	Euro (currency)
FIT	Fondazione per l'Innovazione e la Tecnologia (or as used in context)
FK	ForwardKeys (Amadeus company) – travel data analytics provider
GSTC	Global Sustainable Tourism Council
GDP	Gross Domestic Product
GenX	Generation X (born approximately 1965–1980)
GHG	Greenhouse Gas
HCMR	Hellenic Centre for Marine Research
ICT	Information and Communication Technology
ISO	International Organization for Standardization
ITL	Istituto Tecnico Logistica (or as used in project context)
KPI	Key Performance Indicator
LEED	Leadership in Energy and Environmental Design
LIS	Lingua dei Segni Italiana (Italian Sign Language)
MED	Mediterranean
MICE	Meetings, Incentives, Conferences and Exhibitions
MoU	Memorandum of Understanding
OPS	Onshore Power Supply
PAX	Passengers
PoC	Proof of Concept



POI	Point of Interest
PORTCREW	Port-City Regions To Wave Med Cruise Destinations As Smart, Sustainable And Striking Eco-Tourism Systems
QR	Quick Response (code)
RCCP	Ravenna Civitas Cruise Port
RSO	Regional Specific Objective
SME	Small and Medium-sized Enterprise
SPA	Special Protected Area
SWOT	Strengths, Weaknesses, Opportunities, Threats
THESSBIKE	Thessaloniki Bike Sharing Service
ThPA	Thessaloniki Port Authority
TTO	Thessaloniki Tourism Organization
TUI	TUI Cruises (travel and tourism company)
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNEP	United Nations Environment Programme
UNWTO	United Nations World Tourism Organisation
WP	Work Package
ZMKT/MOK	Municipality of Koper / Mestna občina Koper



Executive summary

This document constitutes Deliverable D1.1.1 — Eco-tourism offer and demand analysis — of the PortCREW project (Port-City Regions To Wave Med Cruise Destinations As Smart, Sustainable And Striking Eco-Tourism Systems), co-funded by the Interreg Euro-MED programme under Priority “Greener MED” (Specific Objective RSO2.7). It is the primary output of Activity 1.1 under Work Package 1, and provides the empirical and analytical foundation for the development of the PortCREW digital platform and the five pilot actions to be deployed under Work Package 2. The five pilot areas covered — Valencia (Spain), Toulon – La Seyne-sur-Mer (France), Ravenna (Italy), Koper (Slovenia), and Thessaloniki (Greece) — together represent a deliberately diverse cross-section of Mediterranean cruise destinations, spanning established western Mediterranean hubs, rapidly growing eastern Mediterranean ports, dedicated home-porting terminals, and boutique calls characterized by physical proximity between ship and historic city. This deliverable is released at a pivotal moment for the sector. According to the Cruise Lines International Association (CLIA), global ocean-going cruise volumes reached 34.6 million passengers in 2024 and are projected to approach 40 million by 2027, with European source markets contributing 8.44 million passengers and the Mediterranean alone hosting around 5.8 million — nearly one in every six cruise passengers worldwide. Mediterranean cruise capacity is approaching six million berths in 2026, even as flagship destinations such as Barcelona introduce daily passenger caps and Venice maintains its ban on large vessels. In this context, the strategic question for Mediterranean port-city regions is no longer whether cruise tourism will grow, but whether that growth can be reconciled with the European Green Deal’s decarbonisation targets, with the carrying capacity of UNESCO sites and protected ecosystems, and with the social acceptability of cruise activity for resident communities. PortCREW directly addresses this question by combining destination-level governance, sustainable mobility, and digital innovation to redirect cruise visitor flows from saturated hotspots toward less-known inland natural and cultural assets.

The analysis rests on three integrated methodological pillars: a **desk research and benchmarking review of international eco-tourism standards**, including the GSTC Destination Criteria, UNWTO indicators, and ISO standards for adventure and accessible tourism; a **field analysis via stakeholder interviews** covering more than 25 organisations across the five pilots, representing port authorities, cruise companies, tour operators, DMOs, and public authorities; and a **quantitative demand analysis via geolocation data** provided by Amadeus, tracking the actual surface mobility patterns of non-domestic cruise passengers during January–November 2025. The triangulation of these three pillars — international standards, expert stakeholder testimony, and behavioural geolocation evidence — allows the deliverable to cross-reference what destinations should do, what local actors believe is needed, and what cruise passengers are actually doing on the ground, providing a substantially more robust evidence base than any single-



method approach.

The benchmarking review confirms that, despite four decades of progressive consolidation of eco-tourism principles — from the 1990 founding of The International Ecotourism Society to the GSTC Destination Criteria v2.0 (2019), the Glasgow Declaration on Climate Action in Tourism (2021) and the EU Corporate Sustainability Reporting Directive — the main challenge today is no longer the absence of standards, but their uneven applicability in real territorial contexts. Cruise destinations face a distinctive combination of constraints — short visitor stays, peak-day pressure, and strong spatial concentration of flows — for which property-level certification alone provides only partial answers. **PortCREW therefore adopts a pragmatic, context-sensitive reinterpretation of eco-tourism** that goes beyond formal accreditation: rather than applying a uniform definition tied exclusively to external labels, **the project evaluates eco-tourism activities in relation to their measurable contribution to destination-specific sustainability objectives** — reducing pressure on overcrowded city centres and fragile hotspots, retaining cruise visitors within the port city or nearby hinterland instead of redirecting them to high-impact distant excursions, valorising less-known natural and cultural assets aligned with local carrying capacity, and supporting local economic circuits and SMEs.

“An eco-tourism activity within **PortCREW** is defined not by compliance with an external scheme, but by **its demonstrable added value in terms of territorial balance, environmental footprint reduction, social acceptability, and alignment with each port-city's own sustainable tourism strategy.**”

The geolocation analysis reveals a clear gradient in visitor dispersal across the five pilots. **Valencia shows the greatest urban concentration**, with 73% of passengers remaining in the extended metropolitan area and the ecologically rich Albufera Natural Park attracting only 6% of visitors. **Toulon faces a structural leakage challenge**, with approximately 30% of passengers leaving to visit Marseille, Nice, or Monaco — a carbon-intensive outflow driven by the pull of higher-profile Riviera competitors. **Ravenna shows a more balanced split** (55% metropolitan, 45% wider regional zone), with meaningful outflows to Bologna (17%) and Venice (8%), confirming a visitor base already predisposed to regional exploration. **Koper presents the most asymmetric pattern**: 40% of passengers engage with the Dekani–Tinjan–Škofije rural corridor — the highest eco-tourism zone engagement rate across all five pilots — while the adjacent Marezige–Boršt wine area attracts only 1%, despite equivalent quality. **Thessaloniki displays the most favourable baseline**, with a near-equal 51%/49% metropolitan-to-prefecture split and the highest independent traveller rate (55–65%) of all pilot sites.

Stakeholder interviews across the five pilots reveal a set of convergent findings. Eco-tourism



demand is real, growing, and commercially proven — particularly among **luxury, premium, and expedition cruise passengers** — but remains limited on **large contemporary mass-market ships**, making profile-based personalization a platform design imperative. The share of passengers booking organised excursions through cruise lines has **declined to 20–30% across most pilots**, creating a growing independent traveller segment that is the primary accessible audience for a destination-level digital tool. Despite this potential, all stakeholder groups independently identify the same fundamental barrier: **the near-total absence of comprehensive, centralised, pre-arrival digital information tailored to passenger profiles**. Accessibility information — for passengers with reduced mobility, elderly visitors, and families with young children — is flagged as a critical priority at every pilot and as universally underserved in current provision. Stakeholders also consistently caution **against standalone mobile apps**, which cruise passengers are reluctant to download, favouring instead **terminal smart benches, QR-code access from physical signage, and pre-departure engagement** via cruise lines as the effective delivery channels.

The findings of this deliverable give a clear idea of the functional requirements and design priorities for the PortCREW platform to be developed in Activity 1.2. The most broadly supported platform features across all pilots are: **eco-attraction information** in the destination area; sustainable last-mile **mobility information**; **accessibility** data; pre-defined **self-guided itineraries** by sustainable mode; **eco-label and certification badges**; real-time demand forecasting and **crowd management**; **tourist feedback** and ratings systems; and **interoperability** with existing local **digital tourism platforms** and cruise line **excursion booking systems**. Taken together, the findings of D1.1.1 confirm that the PortCREW platform addresses a real, empirically documented and commercially significant gap in the Mediterranean cruise tourism ecosystem — one that is highly relevant for the European Green Deal's sustainable tourism objectives, for the EU Strategy for Sustainable and Smart Mobility, and for the Interreg Euro-MED programme's ambition to position the Mediterranean as a model region for green, balanced and resilient tourism development.



1. Introduction

1.1. Context of the PortCREW project and activity

The project "Port-City Regions To Wave Med Cruise Destinations As Smart, Sustainable And Striking Eco-Tourism Systems" (PortCREW) is an Interreg Euro-MED initiative focused on enhancing sustainable tourism across the Mediterranean basin. While the Mediterranean remains a primary magnet for global travelers, the rise of mass tourism—particularly driven by the cruise industry—has introduced significant challenges, including over-tourism, seasonal peaks, and environmental degradation in port cities.

However, a strategic opportunity has emerged as a growing quota of cruise tourists, led by GenX and Millennials, is increasingly demanding responsible and sustainable experiences. To address this, PortCREW aims to align Mediterranean tourism offerings with the EU Green Deal by promoting port-city regions as striking green destinations. The project's central strategy involves valorizing less-known inland natural and cultural assets to serve as a decongestion tool for crowded port areas.

The key output of the project is the advanced PortCREW platform, an innovative transnational tool designed to:

- Improve eco-information exchange among stakeholders.
- Provide dynamic and interoperable touristic information at cruise terminals.
- Facilitate the creation of sustainable eco-touristic packages targeted at independent cruisers.

This platform will be validated through five Mediterranean pilot areas: Valencia (Spain), Toulon (France), Koper (Slovenia), Ravenna (Italy), and Thessaloniki (Greece).

Activity 1.1, titled "Analysis of existing eco-tourism local offers and cruise tourists' needs," is the diagnostic phase of Work Package 1 (WP1). The primary objective of this activity is to perform a comprehensive assessment that informs the technical development of the PortCREW platform and the design of subsequent pilot actions in WP2.

This activity is structured around three main pillars:

1. Eco-tourism Offer Analysis: Mapping current regional and EU-level offerings using a shared methodology, including an inventory of nature reserves, organic farms, and agrotourism sites.



2. Cruise Tourists' Demand Assessment: Identifying the specific needs and motivations of various segments, such as elderly travelers, youth, and persons with disabilities.
3. Benchmarking and Standards Review: Reviewing international eco-tourism standards (such as GSTC and ISO) and capitalizing on lessons learned from previous EU projects like Sumport, Sustourismo, and Tourismed.

To ensure a data-driven approach, Activity 1.1 complements stakeholder interviews with a study based on geolocated data provided by ForwardKeys. This analysis allows the project to track surface mobility patterns of cruise passengers, identifying current "hotspots" and opportunities for diverting flows toward sustainable inland attractions. The common findings of these activities directly define the functional requirements of the PortCREW platform, ensuring it meets the real-world needs of both destinations and travelers.

1.2.Objectives: Aligning MED cruise destinations with the EU Green Deal

The primary ambition of the PortCREW project is to transform Mediterranean cruise destinations into smart, sustainable, and striking eco-tourism systems. This transformation is fundamentally designed to support the European Green Deal, which aims to make Europe the first climate-neutral continent by ensuring no net emissions of greenhouse gases by 2050 and a reduction of at least 55% by 2030.

Core Strategy for Sustainability Alignment

To meet these rigorous standards, the project seeks to align Mediterranean tourism offerings with sustainability by managing tourist pressure while raising environmental awareness. Key alignment goals include:

- Decarbonization and Pollution Reduction: Reducing emissions from propulsion and "last-mile" transport while managing waste and resource consumption efficiently.
- Protection of Biodiversity: Enhancing the preservation of nature and green infrastructure in both urban and rural port-city regions.
- Circular Economy Integration: Investing in circularity to reduce waste, water use, and energy consumption throughout the cruise tourism value chain.
- Socio-economic Balance: Ensuring a just transition by distributing the economic benefits of tourism to local communities and SMEs in less-known inland areas.

Strategic Project Objectives

The project identifies five specific strategic objectives to drive this alignment at the destination level:



1. Tackle over-tourism and seasonal peaks in small and middle-sized Mediterranean cities to improve the quality of life for residents.
2. Valorize inland natural and cultural assets as a primary decongestion strategy for crowded port areas.
3. Increase social acceptability of the cruise sector through more balanced and transparent touristic flow management.
4. Incorporate sustainable measures into local and regional urban, touristic, and transport planning tools.
5. Develop a transnational platform to provide dynamic eco-information, allowing destinations to adapt to contingent situations like overcrowding or weather conditions.

Technical Criteria for Eco-Destination Alignment

To ensure comparability across the five pilot sites (Thessaloniki, Ravenna, Toulon, Valencia, and Koper), PortCREW utilizes seven technical criteria to evaluate and align local offers with international standards such as the GSTC and the UNWTO:

1. Environmental Impact Data: Monitoring energy resources (renewable vs. non-renewable), waste management, and the carbon footprint of activities.
2. Sustainability Certifications: Encouraging the adoption of recognized labels like Green Key and EU Ecolabel.
3. Community & Cultural Integration: Ensuring tourism supports local products and respects indigenous traditions.
4. Educational Components: Interpreting natural and cultural heritage to visitors to foster environmental stewardship.
5. Accessibility & Inclusiveness: Guaranteeing physical and social access for all, including the elderly and persons with disabilities.
6. Transportation Footprint: Prioritizing sustainable modes of transport (walking, cycling, public transit) for excursions.
7. Visitor Capacity Management: Implementing measures to avoid over-tourism, such as controlled group sizes and timed entry slots.

By promoting less-known inland areas as new "striking" attractors, PortCREW creates a model for responsible and environmentally conscious tourism that directly contributes to the EU's sustainability strategy for the Mediterranean area.

1.3.Scope: The 5 MED pilot areas

The PortCREW project encompasses five strategic pilot areas across the Mediterranean sea:



Valencia (Spain), Toulon (France), Koper (Slovenia), Ravenna (Italy), and Thessaloniki (Greece). These sites represent a diverse range of destination types, from fast-growing hubs to established ports, all sharing the common goal of testing the PortCREW platform to better manage cruise peaks and valorize inland natural and cultural assets.



Figure 1: Summary of 5 MED pilot and overtourism strategy

Valencia (Spain)

Managed by the Valenciaport Foundation with the support of the Port Authority of Valencia, this pilot focuses on diversifying the tourist offer to alleviate congestion in the city center.

- Challenge: Currently, 84.5% of excursions are concentrated in the metropolitan area.
- Strategy: Promoting "Hidden Gems" in the wider province—such as the San José Caves, the hilltop fortress of Xàtiva, and the vineyards of Requena—to attract new profiles, including families and persons with disabilities.
- Infrastructure: The pilot utilizes the TRASMED terminal, located at the northern entrance of the port.

Toulon (France)

Led by the Var Chamber of Commerce and Industry (CCI DU VAR), the Toulon pilot aims to boost cruise activity while respecting environmental limits.

- Challenge: Approximately 20% of cruise passengers currently leave the local area to visit Marseille, Nice, or Monaco.



- Strategy: Retaining these tourists by promoting nature-based tourism and zero-carbon shore excursions to surrounding natural parks.
- Innovation: Implementing an "Eco-tour" label and installing a multimedia totem in the port to indicate 100% local excursions.

Koper (Slovenia)

The pilot in Koper is managed by Luka Koper in coordination with the Municipality of Koper.

- Challenge: Managing high mass-tourist arrivals in a city where the passenger terminal is just a short walk from the historic center.
- Strategy: Encouraging the use of soft mobility (specifically electric bicycles) to distribute tourists toward hinterland destinations.
- Infrastructure: Installing smart benches at the terminal to provide both targeted eco-touristic information and recharging points for e-bikes.

Ravenna (Italy)

Acting on behalf of the Porto Corsini cruise terminal (Ravenna Civitas Cruise), the Institute for Transport and Logistics (ITL), in collaboration with the associated partners Emilia-romagna Region, the Port of Ravenna Authority and the Ravenna municipality, coordinates this pilot alongside the Emilia-Romagna Region.

- Challenge: Managing one of the fastest-growing cruise terminals in Italy while protecting regional natural assets.
- Strategy: Using the PortCREW platform to provide personalized and eco-certified information to independent cruisers.
- Focus: Enhancing the visibility of lesser-known regional eco-destinations and tailoring offers to younger generations (GenX and Millennials).

Thessaloniki (Greece)

Managed by the Centre for Research and Technology Hellas (CERTH) with the Thessaloniki Tourism Organization, this pilot seeks to revolutionize how visitors engage with the city.

- Objective: Extending the functionalities of the Thessaloniki Smart City Pass card to include dedicated cruise passenger features.
- Strategy: Distributing tourist activity more evenly across the city by providing real-time information on sustainable practices and digital navigation tools.
- Integration: Linking digital and physical tourism aspects to improve the social acceptability of the cruise sector locally.

2. Methodology for data collection and analysis

2.1. Integrated methodological framework

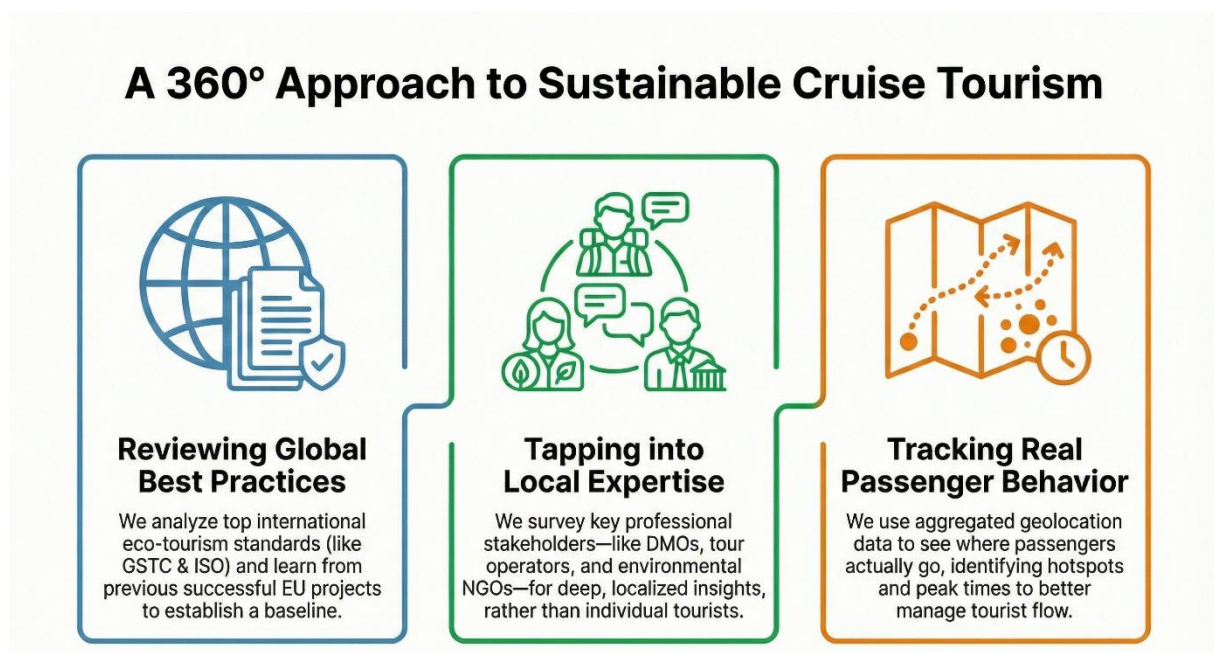


Figure 2: Integrated methodological framework in PortCREW

The methodological framework for deliverable D1.1.1 is designed as a comprehensive diagnostic system to bridge the gap between existing eco-tourism offers and the evolving needs of cruise passengers. This approach ensures comparability, consistency, and a high-quality professional output across the five Mediterranean pilot sites: Valencia, Toulon, Thessaloniki, Ravenna, and Koper. The methodology integrates three distinct pillars of data collection and analysis to inform the development of the PortCREW platform and subsequent pilot actions.

Pillar 1: Desk research and benchmarking

The foundational phase involves a systematic state-of-the-art review of international eco-tourism standards and metrics, focusing on frameworks such as the Global Sustainable Tourism Council (GSTC), UNWTO indicators, and ISO standards for adventure and accessible tourism (ISO 20611, ISO 21902). Simultaneously, the project capitalizes on results from previous EU initiatives—including Sustourismo, Tourismed, and Green Bay—to identify proven methodologies and



successful sustainable tourism models. This allows the consortium to establish a baseline of best practices aligned with the EU Green Deal.

The desk research phase establishes a foundational knowledge base by conducting a systematic review of the state-of-the-art international eco-tourism standards and existing literature. This includes mapping the evolution of principles from organizations such as the Global Sustainable Tourism Council (GSTC), UNEP, and UNWTO to align the project with the EU Green Deal,. A core component of this section is the capitalization of results from previous EU-funded initiatives, such as Sustourismo, Tourismed, Green Bay, and Sumport, to identify proven methodologies and avoid duplicating research. The activity also involves creating a comprehensive inventory of current eco-tourism offers at the global, EU, and regional levels for each involved pilot area. Finally, bibliographic statistics and port data are evaluated to provide a cruise outlook that identifies key trends, such as the growing demand for sustainable experiences among GenX and Millennial travellers.

Pillar 2: Field analysis via stakeholder questionnaires

To capture deep, localized insights, each pilot area conducts targeted questionnaires with key professional stakeholders. Rather than surveying individual cruise tourists, this methodology focuses on expert perspectives from:

- Destination Management Organizations (DMOs) and local/regional administrations for policy alignment and capacity insights.
- Cruise line operators and terminal managers to understand onboard/offboard integration.
- Tour operators and local suppliers to map the existing value chain and excursion design trends.
- Environmental NGOs and academia to identify environmental pressures and carrying capacity limits.

The questionnaires prioritize mapping cruisers' needs (by segment), existing sustainable initiatives, and technical requirements for the upcoming PortCREW platform.

The qualitative analysis focuses on capturing the expertise of key local stakeholders through targeted surveys and interviews rather than surveying individual cruise tourists. This approach ensures a professional overview of destination capacity, policy alignment, and cruise-related needs.

- Target Groups: In each of the five pilot areas, 5–6 key stakeholders are selected, including Destination Management Organizations (DMOs), port and terminal managers, tour operators, and environmental NGOs or academic institutions.
- Questionnaire Design: The surveys are designed to map cruisers' needs across segments (such as the elderly, youth, and persons with disabilities) and evaluate existing sustainable



tourism initiatives,,.

- Platform Functional Requirements: A critical goal of these interviews is to identify missing information and services to be integrated into the PortCREW platform, such as accessibility filters, dynamic dispersion tools, and booking APIs. The results of these interviews are aggregated to define a baseline for pilot actions and to ensure the social acceptability of cruise tourism management at the territorial level.

Pillar 3: Complementary study based on geolocated data

A quantitative analysis of surface mobility is conducted using aggregated geolocation data provided by ForwardKeys. This study provides objective evidence of how cruise passengers actually behave at the destination, which is critical for refining the PortCREW platform's functionalities. The analysis logic includes:

- Passenger Detection: Identifying non-domestic users detected first in maritime routes and subsequently on land for a duration of no more than 12 hours, reflecting a typical cruise call.
- Spatial Analysis: Defining specific sub-areas and Points of Interest (POIs) to track the percentage of passengers who remain in metropolitan hotspots versus those who visit inland "hidden gems".
- Temporal Patterns: Analyzing hourly distribution to detect peak saturation periods, supporting dynamic flow management strategies.

The integration of these pillars allows the project to cross-reference qualitative expert perceptions with quantitative real-world behavior. The findings directly define the functional requirements of the PortCREW platform. This data-driven foundation is essential for designing the pilot actions in WP2 and ensuring the long-term sustainability of the Mediterranean cruise ecosystem.



3. Review of international eco-tourism standards and metrics

3.1. Evolution of eco-tourism principles

The concept of eco-tourism has evolved over more than four decades, progressively shifting from a value-based notion of “responsible travel” to a structured, measurable and policy-embedded framework aligned with international sustainability and climate objectives. This evolution reflects broader changes in global development paradigms, tourism governance and environmental accountability.

Early foundations: from sustainable development to ecotourism (1980s–1990s)

The origins of eco-tourism are closely linked to the emergence of the sustainable development paradigm in the late 1980s. The Brundtland Report *Our Common Future* (1987) formally introduced sustainable development as development that meets present needs without compromising the ability of future generations to meet their own needs, based on three interdependent pillars: environmental protection, social equity and economic viability.

Within this context, eco-tourism emerged as a distinct tourism model focused on nature-based travel with a strong ethical dimension. The establishment of The International Ecotourism Society (TIES) in 1990 played a pivotal role in consolidating the concept. TIES defined eco-tourism as responsible travel to natural areas that conserves the environment and improves the well-being of local people. This definition introduced core principles that remain central today: conservation of natural resources, benefits for host communities and visitor responsibility.

During the same period, the Global Ecotourism Network (GEN) and other international actors further refined eco-tourism principles by emphasising education and interpretation as key components, positioning eco-tourism not only as a low-impact activity but also as a tool for environmental awareness and cultural understanding.

Consolidation and certification: establishing common principles (2000–2005)

The early 2000s marked a critical phase in the formalisation of eco-tourism through the development of shared principles and certification frameworks. A milestone was the Mohonk Agreement (2000), which established a common baseline for eco-tourism and sustainable tourism certification programmes. The agreement defined essential elements for credible



certification systems, including transparency, stakeholder involvement, environmental integrity and socio-economic benefits. Its influence is evident in many subsequent standards and eco-labels.

In 2002, the Québec Declaration on Ecotourism, adopted during the United Nations International Year of Ecotourism under UNEP and WTO auspices, further embedded eco-tourism within public policy. The declaration explicitly recognised eco-tourism as a subset of sustainable tourism while identifying distinguishing features such as active contribution to natural and cultural heritage conservation, meaningful involvement of local and Indigenous communities, interpretative experiences for visitors, and suitability for small-scale and low-impact tourism models.

This period also saw the transition from aspirational principles to performance measurement. The UNWTO's Indicators of Sustainable Development for Tourism Destinations (2004) provided destinations with a structured system of environmental, socio-cultural and economic indicators, enabling monitoring, benchmarking and adaptive management. Complementing this, the UNEP/UNWTO guide Making Tourism More Sustainable (2005) articulated the "12 aims for sustainable tourism", offering a comprehensive policy framework applicable to eco-tourism planning and destination management.

Global harmonisation and standardisation (2010s)

During the 2010s, the rapid proliferation of eco-labels and sustainability schemes created a need for global harmonisation. The Global Sustainable Tourism Council (GSTC) emerged from joint UN, NGO and industry initiatives to address this fragmentation. GSTC established globally recognised baseline criteria for sustainable tourism, covering destinations, tourism businesses, attractions and events.

The GSTC Criteria marked a significant evolution in eco-tourism principles by translating sustainability concepts into auditable requirements across four pillars: effective sustainability management, socio-economic benefits for local communities, cultural heritage protection, and environmental conservation. The updated GSTC Destination Criteria v2.0 (2019) further strengthened requirements related to climate action, biodiversity protection and community wellbeing, reinforcing the shift toward outcome-oriented and measurable sustainability.

Parallel to this, the International Organization for Standardization (ISO) introduced sector-specific sustainability standards. ISO 20611 (adventure tourism) and ISO 21401 (accommodation sustainability management systems) provided detailed operational guidance and third-party certifiability, moving eco-tourism from voluntary good practice toward systematic management and continuous improvement.

Recent developments: climate action, accountability and place-based outcomes (2020s)



In the most recent phase, eco-tourism principles have increasingly converged with global climate and ESG frameworks. The Glasgow Declaration on Climate Action in Tourism (2021) represents a turning point, committing signatories to halve emissions by 2030 and reach net-zero by 2050, supported by transparent action plans and public reporting.

At the same time, regulatory and market-driven mechanisms—such as the EU Corporate Sustainability Reporting Directive (CSRD) and associated European Sustainability Reporting Standards—are reinforcing accountability and data-driven sustainability across the tourism sector. Eco-tourism is no longer assessed solely on intentions or individual practices, but on verified impacts, including greenhouse-gas emissions, biodiversity outcomes and community benefits.

Current trends also indicate a shift from property-level certification toward destination-level and place-based approaches. Programmes aligned with GSTC destination standards increasingly integrate circular economy principles, carrying-capacity management, climate resilience and social acceptability—elements particularly relevant in cruise-impacted port cities and hinterlands.

3.2. Global Sustainable Tourism Council (GSTC): Baseline framework for destinations and industry

The Global Sustainable Tourism Council (GSTC) currently represents the most widely recognised international reference framework for sustainability in tourism and, by extension, eco-tourism. Established between 2007 and 2010 through a joint initiative involving United Nations agencies, non-governmental organisations and private-sector actors, GSTC was created to address the growing fragmentation of sustainability standards, eco-labels and certification schemes in the tourism sector. Its primary objective is not to replace existing initiatives, but to define a **common global baseline** against which sustainability in tourism can be assessed in a credible, transparent and comparable manner.

GSTC operates through the development and maintenance of a set of internationally agreed criteria that articulate what “sustainable tourism” means in operational terms. These criteria are designed as **minimum requirements**, applicable across different geographic, cultural and economic contexts, and adaptable to diverse tourism models. Importantly, GSTC does not itself certify destinations or tourism businesses; instead, it accredits certification bodies and provides a reference framework that underpins many national and regional schemes.

The GSTC framework is structured around four main sets of criteria, addressing different



components of the tourism system. These include criteria for destinations (aimed primarily at public authorities and destination management organisations), criteria for tourism industry operators such as hotels and tour operators, criteria for attractions, and criteria for meetings, incentives, conferences and exhibitions (MICE). This differentiation reflects a key evolution in sustainability governance: recognising that responsibilities, impacts and levers for action vary significantly across tourism actors and spatial scales.

Of particular relevance for PortCREW is the **GSTC Destination Criteria**, which provide a comprehensive framework for managing tourism sustainability at place level. These criteria are organised around four interrelated pillars: effective sustainability management, socio-economic benefits to local communities, cultural heritage protection, and environmental conservation. Together, they address governance arrangements, stakeholder engagement, monitoring and reporting mechanisms, as well as concrete impacts on residents, ecosystems and cultural assets.

A distinctive strength of the GSTC Destination Criteria lies in their emphasis on **management systems and continuous improvement**, rather than isolated actions. Destinations are expected to demonstrate the existence of policies, plans and governance structures that integrate tourism into broader territorial development strategies, including land use, transport, environmental protection and social cohesion. This systemic perspective is particularly relevant in cruise destinations, where tourism pressures are episodic but intense, and where coordination between ports, municipalities and regional authorities is essential.

The most recent update of the GSTC Destination Criteria (version 2.0, released in 2019) further strengthened this approach by introducing more explicit requirements related to climate change mitigation and adaptation, biodiversity conservation, community wellbeing and visitor management. Climate action is no longer treated as a cross-cutting aspiration, but as a measurable responsibility, requiring destinations to assess risks, set objectives and monitor progress. Similarly, issues such as overcrowding, carrying capacity and visitor dispersion are increasingly embedded within the destination governance logic promoted by GSTC.

At industry level, the GSTC Criteria for tourism businesses focus on planning and sustainability management, local socio-economic benefits, cultural heritage and environmental stewardship. These criteria are widely used as the reference point for certification schemes in accommodation, tour operations and, increasingly, experience-based tourism products such as excursions and guided activities. Their relevance for eco-tourism lies in their ability to translate high-level principles into operational practices, including resource efficiency, waste reduction, fair employment and respect for local culture.



However, while GSTC provides a robust and internationally legitimate baseline, its application in practice remains **highly heterogeneous**. Adoption levels vary significantly across regions and tourism segments, often depending on institutional capacity, market pressure and access to certification infrastructures. In many destinations, particularly those with strong cruise activity, GSTC-aligned approaches coexist with less formal or partially implemented sustainability practices, reflecting differing levels of maturity and prioritisation.

For this reason, within PortCREW, the GSTC framework is considered a **reference architecture rather than a rigid compliance checklist**. It offers a shared language and structure for defining what “sustainable” and “eco” tourism should encompass, while allowing flexibility in how these principles are operationalised locally. This is particularly important in port-city regions where sustainability challenges are not limited to environmental impacts, but include spatial concentration, resident acceptance, mobility constraints and short visitor dwell times.

In this sense, GSTC serves as the conceptual backbone for PortCREW’s approach to eco-tourism destinations and services, providing consistency with international best practice while leaving room for **context-specific adaptation**, progressive improvement pathways and alignment with port-city strategies. This balanced use of GSTC as a baseline framework supports both the credibility and the practical effectiveness of the project’s actions and tools.

3.3. Sector-specific ISO standards

While frameworks such as GSTC establish a global baseline for sustainability in tourism at destination and industry level, the International Organization for Standardization (ISO) has played a complementary role by translating sustainability principles into **detailed, auditable and operational management standards** for specific tourism sectors. ISO standards are not tourism-specific by nature, but over the last decade they have increasingly incorporated sector-focused guidance addressing the concrete operational realities of tourism activities, services and infrastructure.

Unlike GSTC, which is primarily outcome- and governance-oriented, ISO standards are designed to support organisations in structuring internal processes, defining responsibilities, documenting procedures and demonstrating compliance through third-party audits. As such, they are particularly relevant for tourism operators seeking to move from general sustainability commitments to **systematic implementation and continuous improvement**. Two ISO standards are especially relevant in the context of eco-tourism and cruise-related tourism services.



ISO 20611:2018 addresses **sustainability in adventure tourism**, covering guided activities often associated with nature-based and eco-tourism experiences. The standard focuses on environmental protection, respect for local communities and cultures, visitor safety and economic responsibility, providing a structured framework for operators delivering outdoor and experience-based tourism products. Its relevance lies in the fact that many eco-tourism activities promoted in cruise destinations—such as nature excursions, cultural routes or soft-adventure experiences—fall within this operational category.

ISO 21401:2018, on the other hand, defines a **sustainability management system for accommodation** establishments. It requires tourism businesses to integrate environmental, social and economic considerations into their daily operations, including energy and water management, waste reduction, labour conditions, community relations and customer communication. An important update, Amendment 1:2024, has reinforced climate-related requirements by strengthening obligations on greenhouse-gas monitoring, target-setting and alignment with international climate frameworks. This reflects a broader shift within ISO standards toward measurable climate action and transparency.

Beyond these two standards, ISO's broader management system logic—including standards on **environmental management (ISO 14001)**, **energy management (ISO 50001)** and **occupational health and safety**—has increasingly influenced sustainability practices in the tourism sector, even when not explicitly labelled as “eco-tourism” standards. In practice, many tourism operators combine ISO-based management systems with GSTC-aligned criteria, using ISO standards as the operational backbone that enables compliance with higher-level sustainability objectives.

However, despite their technical robustness, **ISO standards face significant barriers to widespread adoption in tourism, particularly among small and medium-sized enterprises**. Certification processes can be resource-intensive, requiring time, expertise and financial investment that are often beyond the reach of local operators, especially in less mature eco-tourism regions. As a result, ISO certification remains more prevalent among larger tourism businesses or those operating in highly regulated or internationally exposed markets.

From a destination perspective, ISO standards also tend to operate at the level of individual organisations rather than territorial systems. They do not directly address challenges such as visitor dispersion, carrying capacity management or cruise-day peak governance, which are central issues in port-city contexts. Consequently, while ISO standards are highly valuable for improving the sustainability performance of specific services and facilities, they cannot on their own ensure destination-level sustainability outcomes.

Within the PortCREW framework, ISO standards are therefore considered enabling tools



rather than prerequisites. They represent best practice references for structuring eco-tourism services and improving operational performance, particularly where local providers already have the capacity or ambition to engage in formal management systems. At the same time, PortCREW acknowledges that requiring ISO certification as a condition for participation would risk excluding precisely those local actors—SMEs, community-based providers and emerging eco-tourism initiatives—that are essential for achieving territorial balance and social acceptance in cruise destinations.

3.4. Labels and certifications

In the framework of the PortCREW project, a wide array of international, European and sector-specific labels and certifications has been identified as relevant instruments for validating the sustainability of destinations, cruise operations and shore excursions. These schemes play an important intermediary role between global reference frameworks, most notably the Global Sustainable Tourism Council (GSTC) and the operational realities of Mediterranean port cities, where sustainability challenges are shaped by short visitor stays, peak-day congestion and strong spatial concentration.

Rather than representing alternative standards, labels and certifications generally translate international sustainability principles into **verifiable practices**, providing visibility, comparability and a degree of assurance that environmental and social performance goes beyond regulatory minimum requirements. At the same time, their relevance and applicability vary considerably depending on destination maturity, governance capacity and tourism structure, which calls for a selective and context-aware use within PortCREW.

Destination-level certifications

Destination-level certifications assess tourism sustainability at territorial scale, focusing on governance, strategic planning, community involvement and environmental preservation. These schemes are particularly relevant for cruise destinations, where sustainability outcomes depend less on individual services and more on coordinated management across port authorities, municipalities and tourism stakeholders.

Among the most visible labels in the Mediterranean context is **Blue Flag**, which applies to beaches, marinas and tourism boat operators. Blue Flag certification requires strict compliance with water quality standards, safety provisions, environmental education and accessibility criteria. Its strong recognition among tourists and residents makes it especially relevant for cruise excursions involving coastal or marine activities, although its scope remains limited to specific sites rather than overall destination management.

Biosphere Responsible Tourism, developed by the Responsible Tourism Institute and aligned



with the United Nations Sustainable Development Goals, offers a broader destination-oriented framework. It evaluates governance structures, community engagement, cultural heritage protection, visitor management and climate action. Several Mediterranean destinations have adopted this certification to structure sustainability strategies and demonstrate commitment to internationally recognised objectives.

The **IUCN Green List of Protected and Conserved Areas** represents a global benchmark for effective and equitable management of natural areas. While not a tourism label per se, it is highly relevant for eco-tourism destinations offering excursions to protected areas, national parks or sensitive ecosystems. Participation in the Green List process enables destinations to benchmark conservation performance and strengthen the credibility of nature-based tourism offers.

3.4.2 Excursion and activity standards

At the level of tourism services and shore excursions, several certification schemes target accommodation providers, tour operators and activity organisers involved in the cruise tourism value chain. These labels translate sustainability principles into operational requirements for daily service delivery.

The **EU Ecolabel**, the official environmental certification of the European Union, applies primarily to hotels, campsites and similar services. It mandates strong commitments to energy and water efficiency, waste reduction, reduced chemical use and overall environmental management. While not specific to cruise tourism, it is relevant for accommodation and service providers linked to cruise destinations.

Green Key and **Travelife** are among the most widely adopted international certification schemes in Europe. Green Key places particular emphasis on staff training, guest awareness and sustainable operations, while Travelife focuses on corporate social responsibility, supply-chain management and environmental performance for hotels and tour operators. Both schemes are well established among operators working with Mediterranean cruise destinations and contribute to improving service-level sustainability.

TourCert complements these schemes by providing certification, training and consultancy services focused on sustainability management and corporate social responsibility for tourism businesses and destinations. Its emphasis on continuous improvement and transparent reporting aligns well with PortCREW's objective of supporting progressive sustainability pathways rather than one-off compliance.

Industry-specific and niche certifications

Beyond general tourism labels, the cruise sector and eco-tourism activities are also influenced by specialised maritime, ethical and inclusion-oriented standards. These schemes address specific impact areas that are particularly relevant for cruise tourism.



In the maritime domain, certifications such as **Blue Angel (DE-UZ 141)** for eco-friendly ship design and **Green Marine**, a voluntary environmental certification programme for the maritime industry, address issues including greenhouse-gas emissions, underwater noise and environmental management of vessels and port operations. While their direct application varies across regions, they reflect rising expectations for environmental performance within the cruise ecosystem.

Ethical considerations are addressed through instruments such as the **ABTA Animal Welfare Guidelines**, which define minimum standards for wildlife-related excursions, including the prohibition of direct contact with wild animals and requirements for the welfare of captive animals. These guidelines are increasingly referenced by tour operators and certification schemes and are directly relevant for shore excursions involving aquariums, dolphinariums or horseback riding.

Accessibility is another critical dimension for PortCREW, given the high share of elderly cruise passengers and persons with reduced mobility. **ISO 21902:2021**, the international standard on accessible tourism for all, provides requirements and recommendations covering policy, infrastructure, services and information. While not an eco-tourism label, it is a key reference for ensuring that sustainability and inclusiveness progress together in cruise destinations.

Barriers and integration into the PortCREW platform

Despite the robustness of these labels and certifications, their adoption remains uneven across regions and pilot areas. Certification processes can be resource-intensive, and many small or community-based providers—often central to eco-tourism and local value creation—remain uncertified despite applying responsible practices. **Moreover, certification alone does not guarantee alignment with port-city strategies, particularly with regard to visitor dispersion, congestion reduction or proximity-based excursions.**

For this reason, PortCREW does not adopt a purely label-driven approach. Instead, the project aims to **integrate certification information into a broader, impact-oriented framework** within the PortCREW platform. This includes screening destinations and service providers for alignment with GSTC principles and relevant standards (such as ISO 20611 for adventure tourism), clearly displaying existing certifications and recognitions through logos and descriptive information, and complementing labels with comparable sustainability metrics.

In addition, the platform can differentiate eco-tourism options using intuitive categories such as “Low Impact”, “Nature-Positive” or “Community-Based”, helping cruise passengers make informed and responsible choices even where formal certification is absent. This approach allows PortCREW to harmonise diverse labels and standards while remaining flexible, baseline-sensitive and aligned with destination-specific sustainability strategies.



3.5. PortCREW identification of eco-tourism activity in the Pilot Sites

Persistent gaps between principles and practice

Despite the progressive consolidation of eco-tourism principles, standards and metrics over the past decades, their real-world adoption remains uneven and far from universal. While international frameworks such as GSTC, ISO standards and UNWTO guidelines provide robust reference points, they are not systematically applied across destinations, operators or tourism segments, particularly in complex ecosystems such as cruise tourism. Several structural limitations can be observed:

- Voluntary nature of most standards

The majority of eco-tourism frameworks remain voluntary. Certification uptake is often driven by market positioning, branding or access to specific funding schemes rather than by mandatory regulatory requirements. As a result, adoption is concentrated among more advanced destinations and larger operators, while small and medium-sized tourism providers—especially in peripheral or rural areas—frequently lack the resources, skills or incentives to comply.

- Fragmentation and inconsistent interpretation

The coexistence of multiple labels, schemes and “eco” claims continues to generate confusion among destinations, operators and tourists. In practice, similar terminology (e.g. “eco”, “green”, “sustainable”) is applied to initiatives with very different levels of ambition and impact, creating risks of greenwashing and weakening trust in certification systems.

- Limited operationalisation at destination level

Although destination-level standards have significantly advanced in recent years, many destinations still struggle to translate high-level principles into day-to-day management tools, such as carrying-capacity rules, visitor dispersion mechanisms, real-time monitoring or integrated governance across tourism, transport and environmental authorities. This gap is particularly visible in cruise destinations facing strong peak-day pressures.

- Weak linkage with tourist decision-making

From the demand side, eco-tourism principles are not always clearly visible or understandable to tourists, including cruise passengers. Sustainability information is often fragmented, not comparable, or not integrated into booking and on-site decision-making processes, limiting its influence on actual behaviour.

- Data, monitoring and reporting challenges



While standards increasingly require indicators and measurable targets, many destinations and operators lack reliable data collection systems, especially for emissions, biodiversity impacts and social outcomes. This constrains evidence-based management and weakens accountability.

Implications for PortCREW

The persistent gap between internationally recognised eco-tourism principles and their uneven implementation confirms that the main challenge today is not the lack of standards, but their practical applicability in real territorial and operational contexts—particularly in cruise destinations characterised by short stays, peak-day pressure and strong spatial concentration of visitor flows. In this framework, PortCREW deliberately adopts a pragmatic and adaptive interpretation of eco-tourism, moving beyond a purely certification- or label-based approach. While international standards (e.g. GSTC-aligned frameworks) provide an essential reference and baseline, the project recognises that eco-tourism relevance and effectiveness depend strongly on the starting conditions of each port-city region, including:

- the maturity level of eco-tourism practices at national and regional level,
- the governance capacity of destination management organisations,
- the spatial structure of the port city and its hinterland,
- and the strategic priorities defined by local authorities and port-city stakeholders.

Rather than applying a uniform definition of “eco-tourism activity” tied exclusively to formal accreditation, PortCREW promotes a context-sensitive approach, where eco-tourism options are evaluated in relation to their contribution to destination-specific sustainability objectives. These may include, depending on the destination:

- reducing pressure on overcrowded city centres and fragile hotspots;
- retaining cruise tourists within the port city or nearby hinterland instead of promoting long-distance, high-impact excursions (e.g. multi-hour bus trips to “iconic” but congested destinations);
- valorising less-known natural, cultural and peri-urban assets that align with local carrying capacity;
- supporting local economic circuits and SMEs rather than extractive tourism models.

In this sense, an eco-tourism activity within PortCREW is not defined solely by compliance with an external label, but by its measurable added value in terms of territorial balance, environmental footprint reduction, social acceptability and alignment with the port-city’s sustainable tourism strategy.



This adaptive approach is considered more effective for achieving PortCREW's objectives, avoiding one-size-fits-all solutions that may be unrealistic or counterproductive in certain contexts; enabling progressive improvement paths for destinations starting from different baselines; supporting policy coherence between cruise management, urban planning and tourism strategies; and facilitating the integration of eco-tourism principles into operational tools, such as the PortCREW platform, pilot actions and decision-support mechanisms.

By prioritising functionality, territorial relevance and impact over formal compliance, PortCREW aims to operationalise eco-tourism as a practical instrument for cruise-flow management and destination sustainability, rather than as an abstract or purely reputational concept.



4. Regional analysis: Valencia Pilot Area

4.1. Local cruise outlook and infrastructure

4.1.1. Cruise outlook

Cruise is currently 2.7% of the international travel and tourism sector, representing 34.6 million cruise passengers at worldwide level, where cruise ships comprise <1% of the world commercial fleet.

In 2024, the cruise passengers in Europe represented 8.44 million. In the Mediterranean area, the cruise passenger volume was 5.77 million, where 1 out of every 6 cruise passengers sailed the Mediterranean, representing a 5.8% share in 2024¹.

Projections estimate that the cruise sector will reach 40 million passengers annually by 2027 at worldwide level.

The Cruise Line International Association (CLIA) 2024 report highlights the following worldwide trends:

- There is an increasing number of first-time cruisers, from 24% in 2019 to 31% in 2024. Friends and family have the highest influence on a decision to cruise.
- 46.5 is the average age of a cruise traveller (36% are under the age of 40)
- Gen-X and Millennials are the most enthusiastic about taking a cruise holiday (84% of Gen-X and 83% of Millennials are planning to cruise again)
- The ability to visit multiple destinations and the value for the money are the top reasons cruisers love to cruise.
- In 2024, 12% of cruise travellers were solo travellers. Therefore, cruise lines are offering more single-occupancy cabins.
- 28% of cruise travellers are multi-generational travellers.
- Younger travellers are attracted to expedition/exploration cruises. This segment has reached a rise of 22% from 2023 to 2024.
- The luxury segment cruises have increased their presence. The luxury cruise travel market has tripled since 2010 based on number of ships offering luxury experiences. By 2028, 1.5

¹ 2018-2024 CLIA One reSource Passenger Data



million cruise travellers are forecast to choose a luxury cruise experience. Globally, the luxury sector is projected to grow from 4% in 2019 to 6% by 2028, driven by the construction of 45 new luxury vessels by 2028.

- Spain: low seasonality. Peaks in October and April.
- The average age of the Spanish cruise tourist was 44.4 years in 2024.

4.1.2. Cruise sector analysis in Valencia

Valencia, the third largest city in Spain, enjoys a large number of tourists. In 2024² there were 2,419,998 visitors. Of those 59% were foreign visitors and 41% were national visitors.

In 2024, 5,406,189 passengers arrived at Valencia Airport compared to 776,668 passengers who arrived by cruise ship. Cruise passengers accounted for 13.8% of the total visitors who arrived in Valencia. The evolution of cruise traffic in Valencia has been sustainable and comparable to the figures of other ports in the Western Mediterranean region.

In cruise traffic in Spain, Valencia³ ranked fifth in 2024, with the Spanish ports it usually shares itineraries with being Barcelona, the Balearic Islands, Málaga, and Cartagena. Internationally, Valencia shares itineraries with ports such as Marseille, Livorno (Florence, Pisa), Civitavecchia (Rome), Palermo, and Malta.

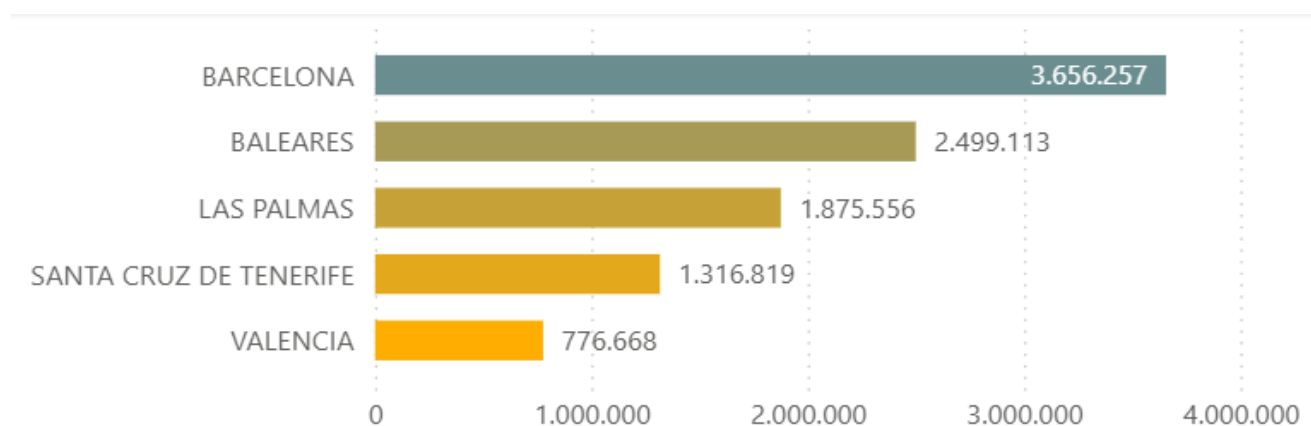


Figure 3: Spanish Port Authorities ranked with more cruise passengers in 2024 (Source: Dataestur³)

The evolution of cruise traffic in Valencia has been sustainable and comparable with the figures

²https://fundacion.visitvalencia.com/sites/default/files/media/downloadable-file/files/Folleto_Estadisticas_2024_Web_Pliegos.pdf

³ <https://www.dataestur.es/transporte/puertos/>

of other ports in the Western Mediterranean region.

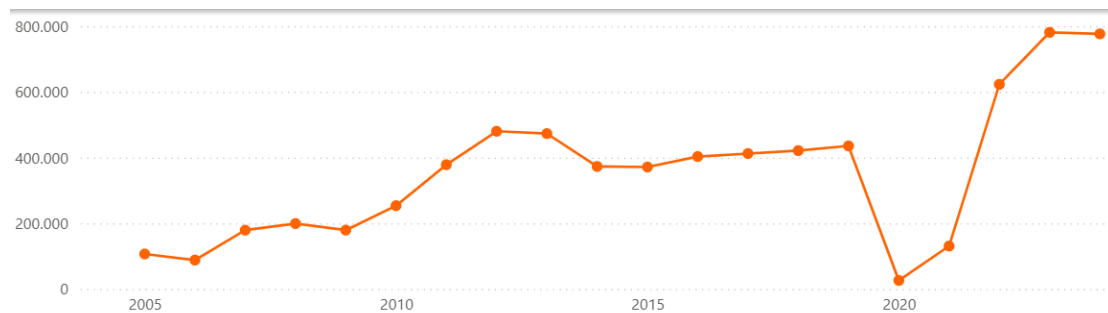


Figure 4: Valenciaport cruise passengers' evolution (2005-2024) (Source: Dataestur³)

Valencia, a medium-sized cruise port, serves around 25 to 30 shipping companies loyal to our destination and that operate all types of ships, and welcomes all kinds of cruisers, from families to elderly people. In addition, it accommodates many people with reduced mobility, as it is a holiday destination suitable for people with disabilities and the elderly.

In 2024, Valenciaport had 270 calls, and October is the month in which more call cruises take place.

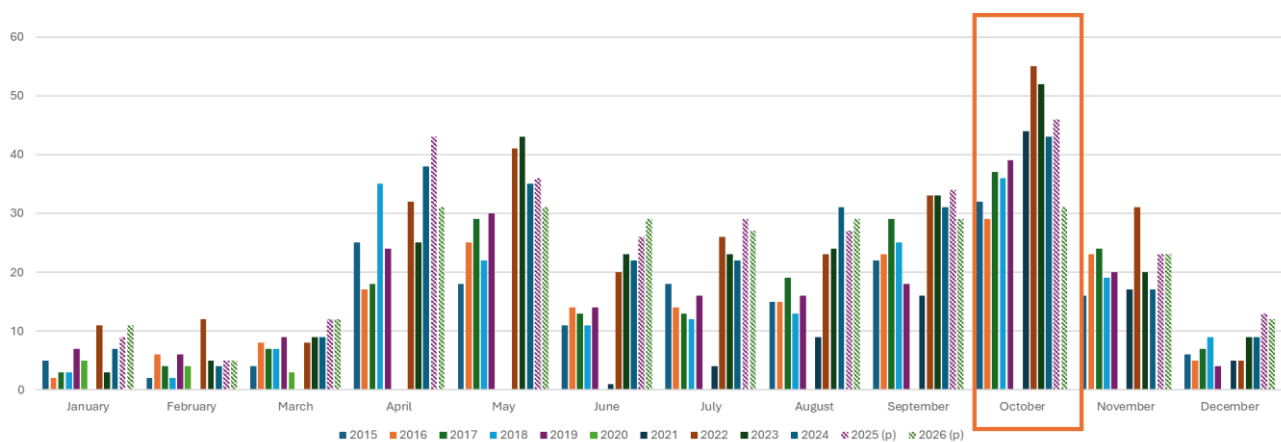


Figure 5: Seasonality of cruise stops in Valenciaport (Source: Own Elaboration)

40% of the dockings recorded at the port of Valencia correspond to companies in the EPL – Expedition, Premium, and Luxury segment, whose ships transport between 80 and 1,800 passengers. These vessels, generally small in size, offer more exclusive experiences, with personalized services, included excursions, and special attention to quality and sustainability.

In addition, cruises in the contemporary segment, aimed at a more family-oriented and general audience, transport over 2,000 -4,000 passengers. These cruise passengers present a more diverse approach organized excursions and independent visits.



The Port Authority of Valencia together with all its stakeholders, has been working for years on a sustainable cruise strategy based on the following lines of work:

- A. Off-season scheduling of cruise calls
- B. Distribution of cruise passenger flow at the destination
- C. Measurement and predictions of cruise passenger flow

The evolution of the relationship between transit cruise passengers versus the number of passengers who started and finished their journey in Valencia (Interporting) from 2015 to 2024 is presented in the figure 4. Interporting is understood as a stop in which only part of the passengers embark and disembark at the start or end of the journey, respectively, allowing passengers to board and disembark at different points along the itinerary. In Valencia, Interporting has been carried out for years. In 2024 the cruise passengers that disembark at Valencia were 105.538, whereas the passengers that embark were 102.910 and the ones in transit were 565.619.

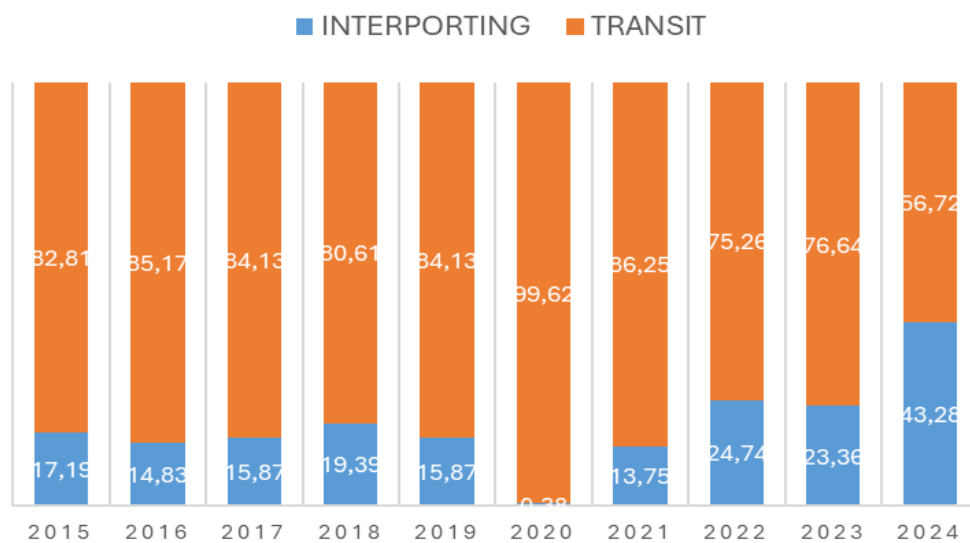


Figure 6: Evolution in % of calls that carried out interporting vs transit from 2015 to 2024 (Source: own elaboration)

Beyond passengers and crew members the sector also includes several other key stakeholders, such as:

- Cruise lines: The cruise sector comprises more than 50 cruise lines and 250 ships. Carnival Corporation, Royal Caribbean Cruises LTD and Norwegian Cruise Line Holdings account for 75% of the global market share.
- Tourism organisations including the tour operators promote cruise destinations and manage tourism strategies to attract cruise lines.
- Industry associations such as CLIA primary acts as political advocate for the industry, focusing on



advocacy, training, and industry standards.

- Port destinations are vital hubs for the economic, environmental, and social dynamics of the cruise and shipping industry. To accommodate the growing size and volume of cruise ships, port destinations continually invest in infrastructures and transportation services that support the influx of cruise tourists⁴.
- Shipbuilders construct cruise ships, with major shipyards.

⁴ Santos, M., Radicchi, E., & Zagnoli, P., (2019): "Port's role as a determinant of cruise destination socio-economic sustainability." *Sustainability*, 11(17), 4542

The survey has been designed to understand the cruise-related tourism needs from the persp

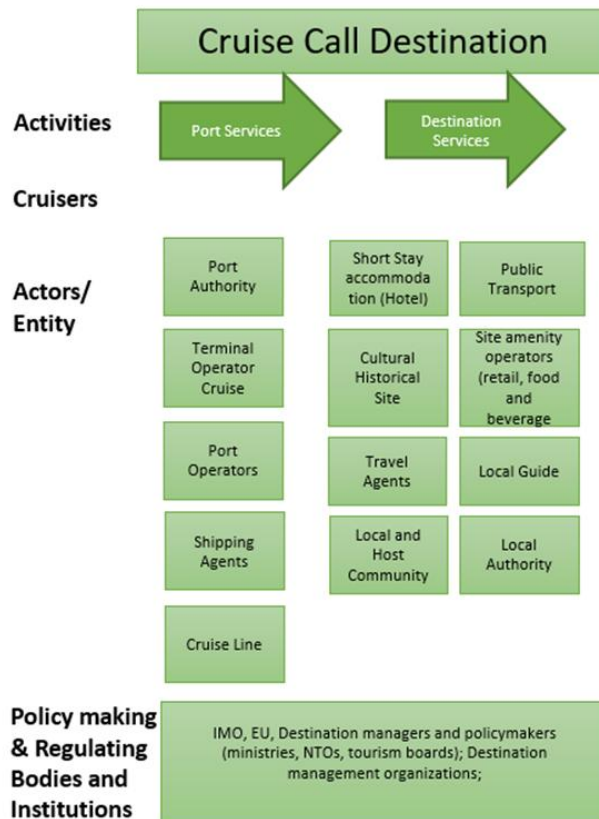


Figure 7: Value Chain of the Call Cruise Port (Source: FV for SIROCCO Interreg Med project Own elaboration)

ective of key local stakeholders.

4.1.3. Valenciaport Infrastructures

The cruises that arrive at Valenciaport are operated by TRASMED terminal. The TRASMED terminal is located at the northern entrance of the port, the closest to the city and in a freely accessible area.

The PONIENTE and TRANSVERSAL PONIENTE quays, adjacent to the TRASMED passenger terminal (Grimaldi Group), cater for ships of less than 300m in length. The terminal has two fingers and comfortable and efficient services to serve ships, crew and passengers.

The TRASMED terminal is located at the northern entrance of the port, the closest to the city and in a freely accessible area.

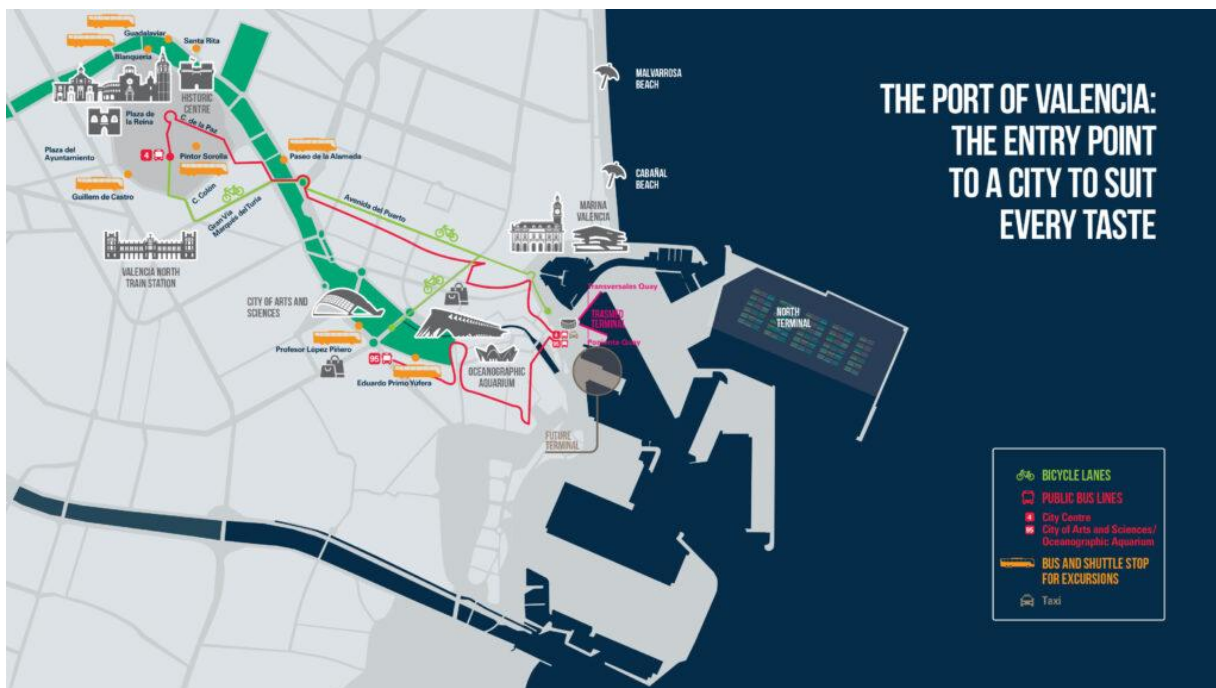


Figure 8: Valenciaport scheme as a city entry point (Source: Port Authority of Valencia)

Valenciaport cruise passengers' profile

The Valenciaport cruise passengers (52% women and 48% men) are mostly middle to older-aged individuals with a medium-high socioeconomic profile, who are conscious and respectful of the environment they visit.

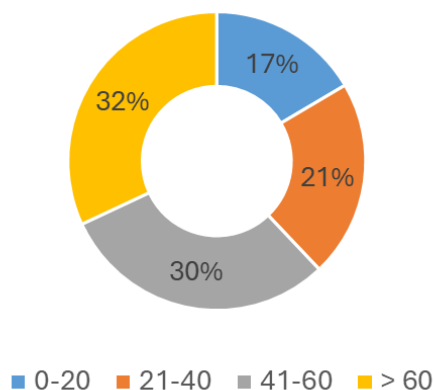


Figure 9: % of the cruise passengers' age (Source: Own Elaboration)

Regarding the nationalities that visit Valencia, it is notable that the largest segment consists of Spanish cruise passengers (15%), mainly from the provinces of Madrid, Castilla La Mancha, Murcia,



and the Valencian Community itself, followed by French, Italians and Germans that represent 36% that start and end their vacation itinerary in Valencia.

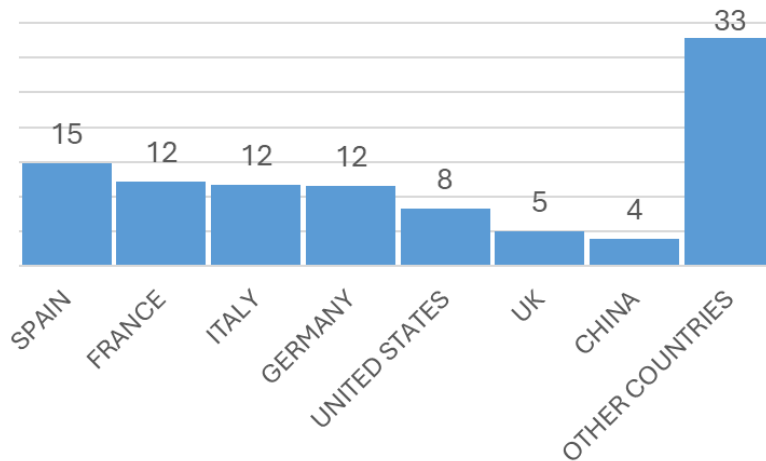


Figure 10: % Nationalities of the cruise passengers in Valencia (Source: Own Elaboration)

The cruise calls have an average duration of 11 hours. In particular, the booked excursions have an average duration of 4,1 hours whilst the non-organised excursions have an average duration of 4.7 hours.

In Valenciaport as it is presented in figure 8, the 60% of the days in a year, Valencia receives 1 cruise. Only 11% of the days receive more than 3 cruises. Valenciaport has a transparent and clear docking policy announced as early as possible (at least a year in advance, but preferably two years), as well as continuous and fluid dialogue with shipping companies, their agents, and the cruise community both at the port and at the destination, that avoids problems of over- or undercapacity and to the sustainable management of cruise calls.

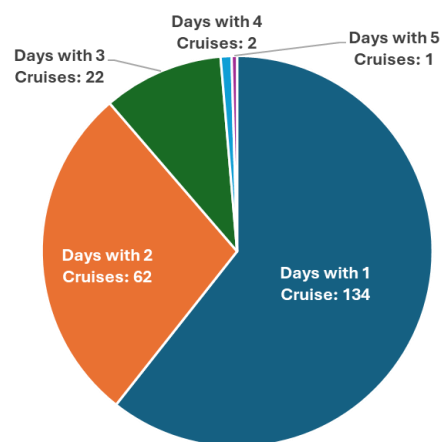


Figure 11: Days with cruises overlap in Valencia in 2025 (Source: Own Elaboration)

Once the cruise passengers arrive at Valencia, there are various mobility options for getting



around and visiting Valencia and the province of Valencia, both through organized services and completely independently ones.

On one hand, passengers who have booked an excursion from the cruise company are accompanied by dedicated buses, managed directly by the ship. On the other hand, Cruise passengers who do not participate in excursions can get around on their own using the following options: shuttle bus, public buses, trams, undergrounds, taxis, bikes, scooters, rented cars, by foot.

- Organized excursions booked through the cruise line: Passengers who have reserved an official excursion with the cruise company are accompanied by dedicated buses managed directly by the cruise line. All logistics—from disembarkation to return—are coordinated internally, and passengers do not need to arrange transportation on their own. Buses depart directly from the disembarkation areas or nearby the terminal or ZAP, depending on the docking pier.
- Independent visits to the destination: Cruise passengers who do not participate in excursions can get around on their own using the following options:
 - Shuttle to the city center: buses with departure and return schedules that leave from a specific point at the terminal and arrive at a specific stop in the city center. This is a paid service that can be booked directly with the cruise line.
 - Public buses (EMT): public bus connections from the port to the most touristic places include Line 4 which connects the port with the historic center, and Line 95 which connects the port with the City of Arts and Sciences and the Oceanographic.
 - Taxis are available outside the terminal.
 - Walking: The city center is 5 km from the Port of Valencia, and some cruise passengers may choose this option to visit the center or other nearby neighbourhoods such as the beach or the Marina area.
 - Other options: there are some other choices in the areas surrounding the port that cruise passengers can reach within a few minutes walking, such as the Valenbisi (public bicycles) option, as there are stations available a few minutes' walk from the terminal, or the Tourist Bus, which also has a stop a short distance from the terminal.

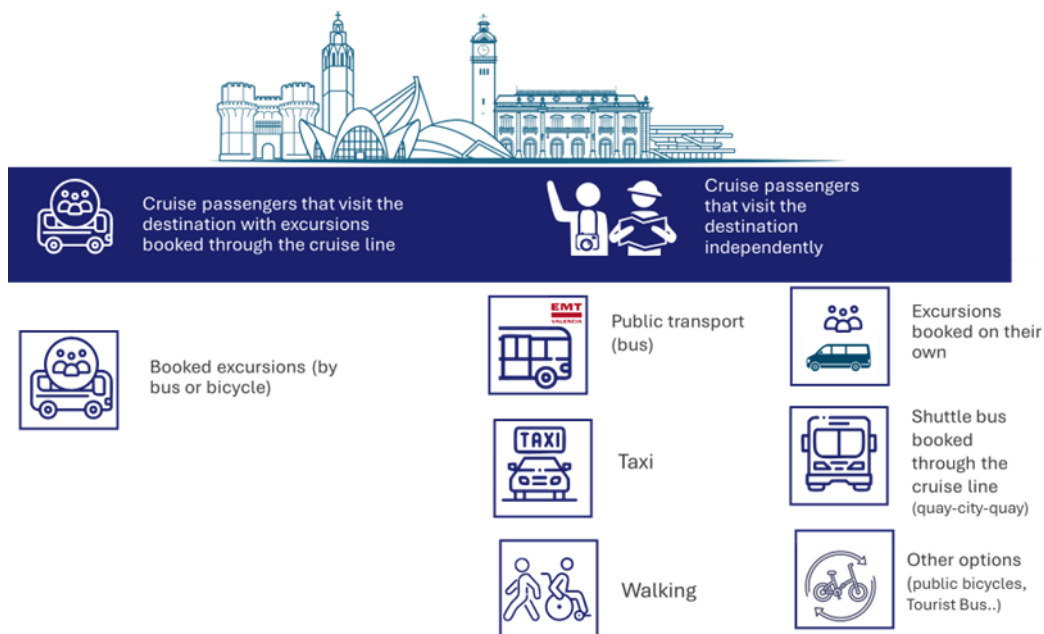


Figure 12: Mobility options for cruise passengers (Source: Own Elaboration)

Excursions for cruise passengers who booked them directly from the cruise

Passengers who book an official excursion or tour with the cruise company are accompanied by dedicated buses, managed directly by the ship. All logistics—from disembarkation to return—are coordinated internally, and passengers do not need to arrange transportation on their own. The buses depart directly from the disembarkation areas or nearby the terminal, depending on the docking pier.

In 2019, the existing information on the mobility of cruise passengers who book an excursion on board, identified that 85% of the cruise passengers remain in the urban area whilst the 15% visit the Province of Valencia. This rate has increased since 2019 to 2025 from 15% to 15.5% helping to ease congestion in the center of the city of Valencia. This aligns with Valenciaport's sustainability strategy. On the other hand, when segmented, a slight increase is observed in the percentage of visits to the province of Valencia on EPL cruises (16%).

Although congestion is limited, the Port Authority's sustainability cruise strategy prioritizes reducing pressure on main tourist attractions.

Within PortCrew project, one of the main objectives is to promote the creation of new and diverse tourist packages that attract a wider range of visitors adapted to the needs of new profiles of travellers, including families, younger generations, and people with disabilities, in order to increase the current 15.5% rate of excursions to the Valencia Province.

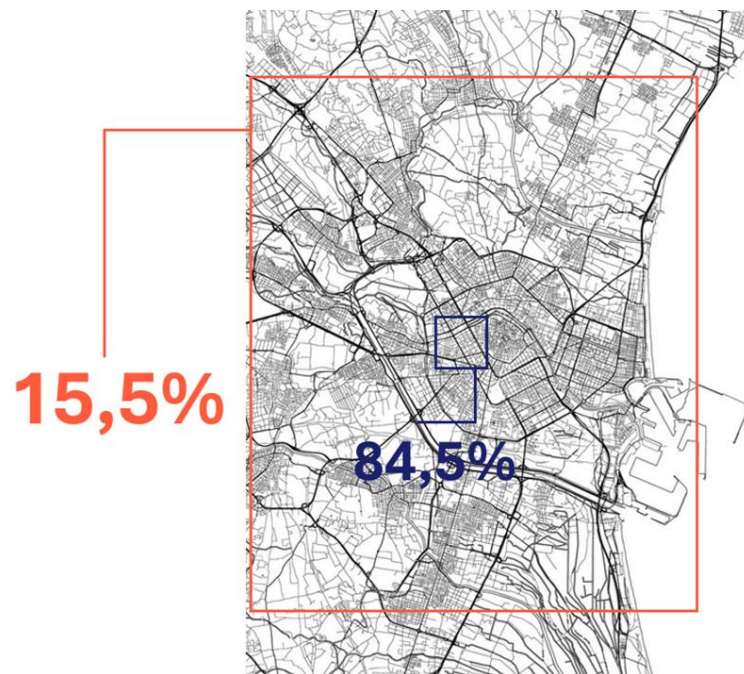


Figure 13: Distribution of cruise passengers in Valencia city and Valencia Province (Source: Own Elaboration)

The visits in the province of Valencia that the cruise passengers' book are mainly the following:



- San José Caves and sail on Europe's longest underground river.
- Sagunto's archaeological sites
- Xàtiva's hilltop fortress
- Historic Berber village of Bocairent.
- Vineyards in the Requena region
- Village of Chulilla and the stunning Turia canyon
- -Carcaixent: exploring Valencia's orange grove

Figure 14: Main destinations of the excursions outside of the urban area of Valencia (Source: Own Elaboration)

Visits to the destination by independent cruise passengers

Cruise passengers who do not participate in excursions can use different mobility options such as a shuttle to the city center, public buses, trams or undergrounds, taxis, bikes, scooters, rented cars. They could also walk to their chosen activities.

The following information has been extracted from the cruise passenger interviews that took place



in Valenciaport as described in the previous sections. In particular, the interviewed independent cruise passengers have chosen the following options:

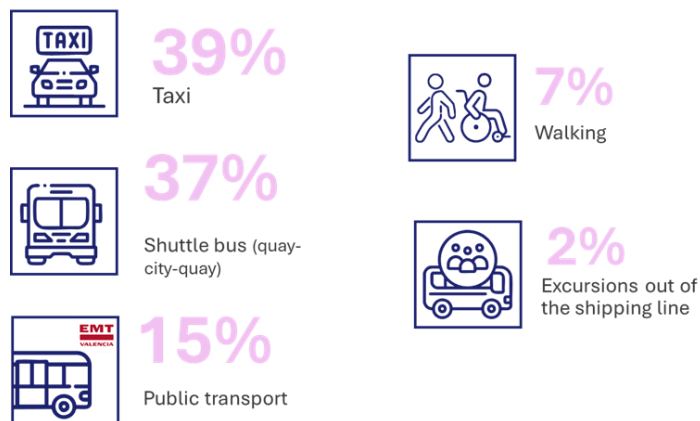


Figure 15: Transport options of the independent cruise passengers (Source: Own Elaboration)

Once they have reached Valencia, the cruise travellers are ready to discover the city in all its facets, from iconic landmarks to charming streets and futuristic masterpieces.

100% of independent passengers stay in the city of Valencia. The most visited places and chosen activities are:

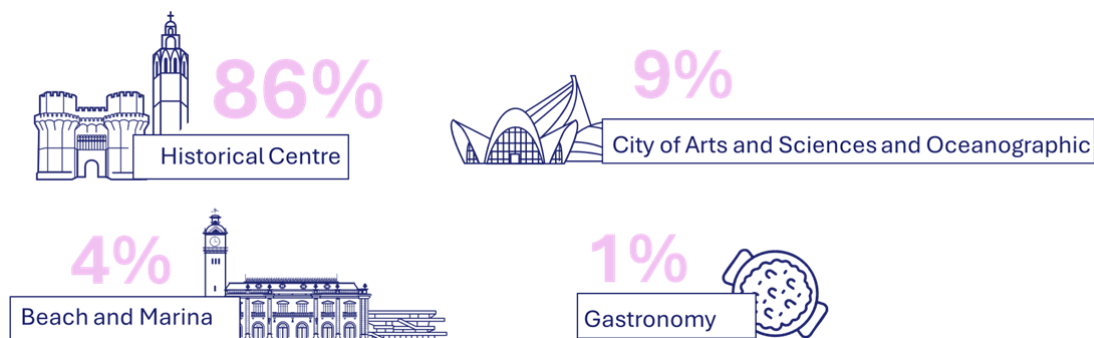


Figure 16: Chosen options for independent cruise passengers (Source: Own Elaboration)

Most of the cruise passengers wanted to explore Valencia on their own, on foot, dedicating themselves to visually and photographically discovering the urban surroundings (39%).

A relevant number of passengers enjoyed the cultural visits following their interest in educational, scientific, and museum content.

Another significant group chose to stroll, go shopping and take photographs in a relaxed manner (15%) whereas other cruise tourists enjoyed the cultural visits combined with strolling and taking pictures (9%).

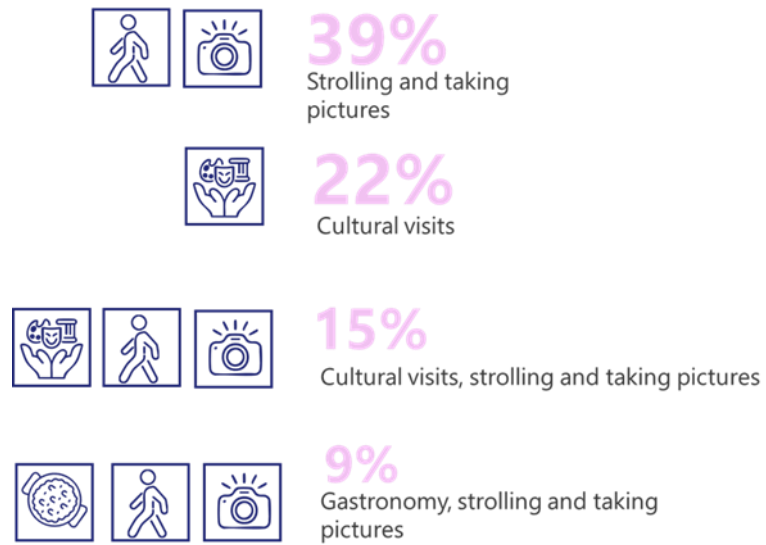


Figure 17: Chosen activities for independent cruise passengers (Source: Own Elaboration)

Figure 18: Cruise tourism value chain main stakeholders' definition in Valencia (Source: FV for SIROCCO Interreg Med project Own elaboration)

4.2. Ecotourism strategy of Valencia

In 2024, around 750,000 cruise passengers arrived in Valencia across 270 cruise calls. About 48% booked excursions through their cruise lines, and 84.5% of these excursions are focused on the metropolitan area.

The Port Authority has defined a medium- and long-term cruise strategy based on controlled and sustainable growth. This strategy has been conceived as an element integrated into port planning and the destination's tourism model to reduce pressure on main tourist attractions and promote the diversification of this type of traffic.

The insights from sector stakeholders, including administrations, tour operators, shipping companies, and local agents, have been considered in shaping this strategy to ensure that cruise activity delivers balanced economic, social, and environmental benefits while remaining compatible with the quality of life in the city and its surroundings.

The strategy is divided in the following points:

A. Balance seasonality: relieve summer and spread activity

The Port Authority of Valencia works actively on balancing the cruise traffic to reduce the concentration of calls during peak periods of the year. Extending vessel calls beyond the July–August peak period facilitates improved coexistence within the operational environment and months such as April–May and September–October offer milder conditions and reduced crowding, improving operational flow at ports and enhancing visitor experience. Thus, favourable weather conditions further enhance the effective execution of these measures. Moreover, an effective collaboration with the cruise lines is a critical component for achieving the desired outcomes. This approach contributes to a more efficient use of port infrastructure, stability in employment associated with the sector, and reduced pressure on urban and tourist services during peak periods

B. Decentralise flows: avoid concentrations in time and space

Decentralising visitor flows is essential to avoiding excessive concentrations in both time and space. In this context, Valencia has adopted a proactive scheduling strategy that distributes cruise arrivals more evenly throughout the year and across different days. As a result, the city receives only one or two cruise ships on 87% of operating days, ensuring that capacity pressures remain manageable and that visitor movements can be better absorbed by local infrastructure and services. Higher-volume days are deliberately limited to a few peak occasions, reducing the risk of overcrowding and allowing the city to safeguard the quality of life for residents while maintaining a positive experience for

visitors. This balanced approach supports more sustainable tourism management and helps ensure that cruise activity remains compatible with urban dynamics.

C. Measure & publish: evidence before opinion

Measuring and transparently publishing data is essential to ensuring that decisions and communications are grounded in verifiable evidence rather than perception. Providing easily understandable information—supported by translated data where necessary—enables tourists, and stakeholders to clearly interpret key facts and trends. This approach not only reduces misinformation but also strengthens credibility, as people are more likely to trust institutions that openly share how and why decisions are made. By presenting data in accessible formats, such as infographics, dashboards, or multilingual summaries, destinations can empower visitors to make informed choices, enhance their overall experience, and foster a stronger sense of trust in local management practices. In doing so, evidence becomes a shared tool that supports transparency, accountability, and constructive dialogue.

D. Diversify & train: products, providers, territory

Co-designing tourism initiatives with local stakeholders, de-localising activities across the wider province, and investing in targeted training are essential steps to ensuring that the benefits of cruise tourism are shared more equitably. By involving municipalities, businesses, and community organisations in the joint creation of products and experiences, destinations can diversify their offer and reduce pressure on urban centres. Extending these opportunities into the province helps distribute visitor flows, stimulate local economies, and highlight lesser-known areas.

Periodic training workshops are conducted under the guidance of leading industry professionals, supporting destinations and companies in designing and developing new tourism products capable of attracting cruise passengers through innovative locations, unique experiences, and high value-added offerings to showcase authentic Valencian culture.

E. Communication shift: from volume to local impact

Communication strategies must be adapted to reflect the differing needs and expectations of cruise passengers, ensuring that messaging is appropriately targeted for each audience. Beyond general promotional content, messaging must increasingly highlight the mobility flow choices, the identity and heritage of local communities and the opportunities for eco-tourism and the focused activities for each targeted audience. Valencia encourages a diversification of itineraries and experiences to ease pressure on heavily visited areas while highlighting additional attractions throughout the city and wider metropolitan area. This approach

enhances the quality of the visitor experience, mitigates impacts in sensitive locations, and fosters a smoother integration of cruise passengers into the urban and cultural context of the destination.

4.3. Field results: stakeholder insights

The objective of the survey was to analyze the current eco-tourism offer and understand cruise-related tourism needs from the perspective of key local stakeholders.

The collected insights allowed to: (1) Better know the tourist needs (WP1.1), (2) Support the design of the PortCREW and (3) Contribute to the definition of the PortCREW pilot actions and related pilot eco-tourism packages (WP2)

4.3.1. Interviewed profiles

The interviews have been conducted to the following organizations:



Intercruises is an experienced global business offering turnaround, shore excursion, port operations and hotel-program services to the ocean and river cruise industry. (<https://www.intercruises.com/>)



BC Cruises is a provider of shoreside services for the cruise industry. With more than 35 years of expertise in the maritime and tourism sectors, BC Cruise Services delivers ground services to leading shipping lines across Spain and Portugal. (<https://www.bccruiseservices.com/>)



CLIA represents a diverse and influential cruise industry, including ocean, river, and specialty cruise lines, maritime leaders, ports, destinations, shipyards, and travel professionals. As the leading trade association, CLIA advocates for safe, sustainable cruise operations, supports tourism strategies that benefit communities, and promotes innovation toward net-zero emissions by 2050.

(<https://cruising.org/>)



The Valencia Provincial Council is the institution that works hand in hand with the 266 municipalities, the 26 associations of municipalities, and the 3 minor local entities of the province, 88 percent of which have fewer than 20,000 inhabitants.

- Promotion of the destination to diversify the offerings in the province
- Participation in trade fairs
- Collaborate with other entities to develop new products
- Reducing seasonality of cruise traffic
- Training

(<https://www.dival.es/es>)



MSC Cruises is the world's third-largest cruise brand as well as the leader in Europe, South America, the Gulf region and Southern Africa,

MSC Cruises is a global cruise brand with 24 modern ships offering cruises across five continents, guests can visit more than 100 countries worldwide with more than 300 destinations, making unforgettable memories and enjoying the finest hospitality.

(www.msccruises.com)



Port Authority of Valencia is the Public Authority managing the Port of Valencia, its main role related to cruise traffic is following summarized:

Management of public domain (terminal concession and service authorization)

Infrastructure planning and development

Operations (management of berths and vehicle entry permits)

Promotion and marketing of the cruise port and destination

Coordination with local authorities and private entities

(<https://www.valenciaport.com/en/>)



Noatum Cruise Services is the service line specialized in the Cruise Industry within Noatum Maritime, part of AD Ports Group, they have qualified professional teams and offering tailor-made solutions for each segment of the Cruise Industry: Port Agency Service, cruise logistics, ground services, shore excursions.

(<https://www.noatummaritime.com/>)



Carnival Corporation & plc comprises distinct cruise lines, which serve travelers from all walks of life. Whether you're looking to travel in absolute luxury or simply let your hair down and have fun, Carnival Corporation is ready to welcome you with unique experiences, exciting itineraries and unforgettable happiness.

AIDA Cruises belongs to Carnival Corporation & plc comprises and is one of the leading tourism companies in Germany. Home of the smile, AIDA Cruises is the epitome of a premium-quality, relaxing cruise and operates one of the world's most state-of-the-art fleets.

(<https://www.aida.de/>)



Princess is part of Carnival Corporation and headquartered in Fort Lauderdale, Florida. Princess Cruises operates a fleet of 17 ships with a presence in every region of the globe, all 7 continents. But the best part about Princess Cruises is that scale has never replaced heart. What defines us isn't how many places we visit, but the care that goes into every guest's experience aboard.

(<https://www.princess.com/en-int>)

Key messages from the stakeholders' interviews:

From the Shipping companies

- The booking of excursions by passengers through the cruise line has been decreasing in recent years
- Some cruise lines do not offer excursions outside the city and are unaware of the tourist offerings available in the province.
- Some cruise lines are open to exploring new collaboration models with the destination to sell new options on board (for instance nature-based and low-emission tours).
- Stronger presence in pre-cruise communication, partnerships with travel agencies, and digital storytelling about Valencia's unique offerings could improve the promotion of the destination.

From the tour operators

- It is increasingly common for the cruise line to work with several tour operators in the same call, since the choice is based on price.
- The inclusion of online platforms for selling excursions is growing (e.g., Civitatis and forums for organization among passengers).
- Although shipping companies claim to seek authenticity and local experience, they usually end up booking classic packages.
- It is suggested to regulate the schedules of the excursions according to the local availability of buses to contribute to sustainability (starting after 9:30).
- To attract new generations, the tourist offer must be 'Instagrammable'.

From the Port Authority

- Way finding is a key aspect that needs to include advanced signage (Braille, pictograms) and be accessible and gender-friendly.
- The compliance with accessibility laws (quays, terminal, and destination) will meet the needs of people with disabilities.
- It is commented that to attract new cruiser generations, more emphasis has to be put on excursions outside the city that can be posted on social media. Connecting and transforming the story of historical heritage into a language that is more accessible and connected with current culture.
- It is suggested to offer excursions where the sustainability and social factor are integrated.

From the Administration

- It is highlighted that the cruise passengers that they do not visit Valencia for the first time, they need a new excursion offer.
- The tourism offers in the province destination are being updated, considering the particularities of the cruise passengers.
- It is commented the importance of training the tourist agents so they will know all the necessary requirements for designing the touristic experiences and they will learn how to adapt her offer for cruise passengers.

PortCREW platform

A digital platform is being developed to promote more balanced and sustainable cruise tourism across Mediterranean port cities. The platform will combine personalized, up-to-date tourist information with smart tools to help manage visitor flows, especially during peak periods.

The stakeholders have provided their input to help us shape this tool in line with their needs.

The key types of information and services that are currently missing and could effectively enhance the promotion of eco-tourism to cruise tourists through the PortCREW Platform are the following. Their importance has been rated on a scale from

1 to 5.

Most of the stakeholders highlight that the back-end functionalities that would help them is **the feedback/ratings system from tourists to assess service quality**.

4.4. Field results: interview analysis

Context and interviewed profiles

A total of eight stakeholders were interviewed for the Valencia pilot area, representing a broad cross-section of the local cruise tourism value chain: three cruise companies operating at Valenciaport (including representatives of large contemporary and luxury/expedition segments), three tour operators active in the port (with portfolios ranging from 25 to more than 85 port calls per year and serving companies such as MSC, Royal Caribbean, Princess, TUI, Viking, Azamara, and Hapag-Lloyd, among others), and two public authorities (the Port Authority of Valencia/Valenciaport and the Provincial Council of Valencia/Diputació de València). The interviews were conducted as semi-structured sessions lasting approximately 45 minutes.

Cruise tourist profiles and segmentation

Stakeholders converge on a consistent picture of Valencia's cruise visitor base. The dominant profile is a couple or solo traveller aged between 40 and 70, with nationalities skewing toward German-speaking countries (Germany, Austria, Switzerland), the United Kingdom, and other northern European markets, alongside a notable share of Spanish domestic passengers (approximately 15%). The age distribution is shifting: while the classical profile of organised excursion-takers remains centred on the 60–70 age bracket, younger adults in their 30s and 40s are increasingly present, particularly on contemporary and expedition-class vessels. Families are reported as a growing niche, representing roughly 30% of passengers on some ships during peak season, while solo travellers account for approximately 15%. Multigenerational travel — with three generations travelling together — is noted as particularly frequent during the Christmas period.

Across profiles, stakeholders identify clear differentiation in needs and behaviours. Elderly passengers strongly prefer panoramic bus tours, minimal walking, slower-paced itineraries, and clear accessibility guarantees (ramps, adapted transport, accessible monuments and restrooms). Young adults — particularly those on contemporary mass-market ships — are price-sensitive, tend not to book organised excursions, and prefer to explore independently, visiting the city centre, the Ciudad de las Artes y las Ciencias, and the seafront on foot, by metro, or by tuk-tuk. Families require child-friendly, schedule-flexible activities, stroller accessibility, and short transfers. Repeat visitors — estimated at 25–30% of the total — actively seek novelty, and are the segment most receptive to off-city itineraries, premium experiences, and eco-tourism products. Several stakeholders highlight the emerging importance of "Instagrammable" experiences for younger generations, with social media visibility playing a growing role in excursion selection.

Excursion booking patterns and market dynamics

Across interviewees, the share of passengers booking organised excursions through the cruise line is consistently reported at between 20% and 30%, down from higher levels in previous years. This decline is attributed to several converging factors: the growing availability of information online enabling independent exploration; price sensitivity on large contemporary ships; and, on some itineraries, the inclusion of free or reduced-cost tours as an onboard incentive. One cruise company representative noted that on some home-porting calls the excursion uptake can fall as low as 5%, as passengers embarking or disembarking have different planning horizons. Tour operators confirm that the non-fidelity of cruise lines to individual operators has intensified as procurement becomes more price-driven, with multiple operators competing for the same call — a dynamic that one respondent noted risks undermining sustainability by concentrating buses at the same time.

Within excursion portfolios, the vast majority of sold product remains city-focused: city panoramic tours, walking tours through the Mercado Central and historic centre, gastronomy experiences, and the Ciudad de las Artes y las Ciencias account for approximately 80% of bookings. Out-of-city tours — Requena and its wineries, the Coves de San Josep, Albufera visits by boat, and the Huerta experience — account for around 20%, with Requena having declined in recent years while the Albufera and gastronomy-based alternatives are maintaining or growing interest. Tuk-tuk tours were flagged as an unexpected success story, with waiting lists extending up to a year in advance, suggesting significant unmet demand for small-group, flexible urban exploration products.

Eco-tourism: interest, gaps, and barriers

All stakeholders confirmed a growing interest in eco-tourism services among cruise passengers, though with important nuances by ship segment. On luxury and expedition vessels, eco-tourism demand is most explicit and commercially actionable: these lines already offer National Geographic Day Tours, green-and-fair certified excursions, and small-group nature experiences, and their passengers actively seek cycling tours, Albufera visits, and wine country experiences. On large contemporary ships, however, eco-tourism remains marginal: price competition drives procurement decisions, and eco-products that do not meet minimum passenger thresholds are cancelled, with passengers redirected to standard itineraries. One respondent was explicit that for large cruise lines "eco-tourism is not relevant" as a product category.

Key barriers to eco-tourism development identified by stakeholders include: the fragmented and underpromoted nature of the province's eco-tourism offer; the absence of reliable ground transport outside the metropolitan area accessible to cruise passengers with limited time (bus availability is constrained by school scheduling, and the journey to Requena or Montanejos exceeds the 30-minute tolerance threshold identified by most operators); the lack of trained guides able to deliver eco-experiences in multiple languages; and the limited awareness among passengers of what the Valencia province has to offer beyond the city. One public authority respondent highlighted a specific success story — the reconversion of the Huerto Ribera agricultural estate into a cruise-accessible tourism experience for Costa Cruises — as a model of what targeted training and product development can achieve.

Platform needs and functional requirements

Stakeholder feedback on the PortCREW platform converges around several clear functional priorities. The feedback system for tourist ratings was cited by multiple respondents as the most important back-end functionality, providing operators with actionable data to refine their offer. Integration with cruise line excursion booking APIs was consistently rated as highly important, enabling the platform to function as a genuine sales and distribution channel rather than a passive information tool. On the information side, transport connectivity from the port to eco-destinations emerged as the most critical gap: passengers consistently need to know how to get from the terminal to the Albufera, the Huerta, or provincial attractions by sustainable means, with practical detail on schedules, journey times, and costs. Accessibility information — wheelchair access, senior-friendly routes, child-safe facilities — was rated as high priority by both public authority respondents.

Several stakeholders expressed caution about the format of platform delivery: apps are generally not downloaded by cruise passengers (one tour operator noted "apps with maps and information of all cruise calls are available but currently cruise passengers are reluctant to download them"), suggesting that physical totems at the terminal, QR-code-based access, and pre-boarding digital communication through the cruise line remain more effective channels. The offer of themed, pre-defined routes — including cultural, gastronomic, active, and Instagrammable variants — was strongly recommended as a way of reaching passenger segments who do not organise independently but would act on clear, low-friction recommendations. Finally, one respondent raised a structural issue that points directly to a potential platform governance model: the destination (provincial or municipal authority) that benefits from dispersed tourist flows should consider subsidising the minimum passenger guarantee for eco-tours that are commercially unviable at current uptake levels, aligning incentives across the value chain.

4.5. Demand analysis via geolocation

Overview and analytical framework

This section presents the findings of a quantitative demand analysis conducted by ForwardKeys, an Amadeus company, using aggregated geolocation data to characterise the surface mobility patterns of non-domestic cruise passengers arriving at the Port of Valencia. The analysis was commissioned as part of Activity 1.1 of the PortCREW project and constitutes the third pillar of the integrated methodological framework (see Section 2.1), complementing the desk research and stakeholder interview pillars with objective, behaviour-based evidence.

The passenger detection methodology applied is consistent across all five pilot areas and follows a multi-step logic: non-domestic users first detected in a defined maritime area containing the main cruise shipping lanes approaching Valencia are cross-referenced with

geolocation activity on land, and those detected in the main analysis area for no more than one day are classified as cruise passengers — reflecting the standard dwell time of cruise calls (up to 12 hours from arrival to departure). Spanish residents were excluded from the analysis to ensure that only non-domestic visitors were considered. The dataset covers the period from January to November 2025, and the resulting sample size yields a maximum margin of error of $\pm 7\%$ at a 95% confidence level — a statistically robust basis for the proportional estimates presented below.

The core strategic question driving this analysis is Valencia's stated sustainability objective: to reduce the concentration of cruise visitor flows in the urban core and to promote lesser-known inland and coastal-natural destinations within the province as viable alternatives for eco-conscious tourism. This objective is directly reflected in the design of the Points of Interest (POIs) and the sub-area structure developed in collaboration with Valenciaport stakeholders.

Detailed methodology process

First, the area in the sea is defined to obtain candidates to cruise passengers. As we are focusing the analysis on non-domestic cruise passengers, we excluded users with residence in Spain.

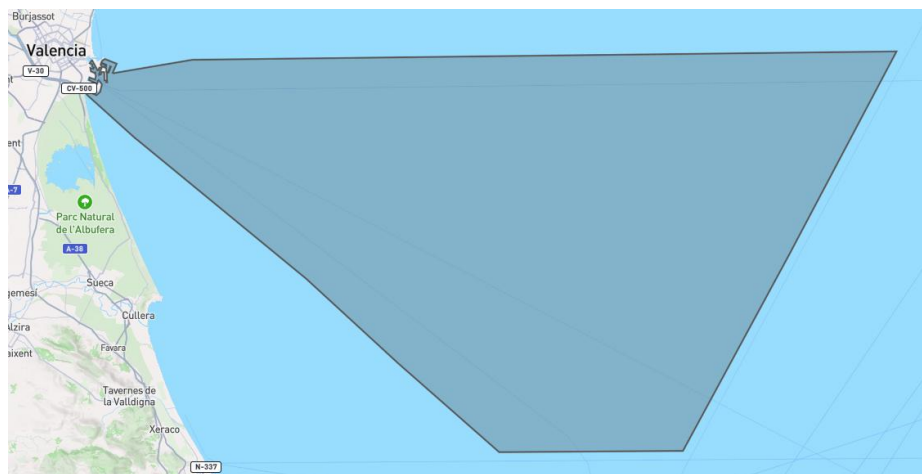


Figure 19: Area in the sea to get cruise passengers candidates arriving in Valencia

Second, we define the main analysis area with the support of the stakeholders and according to their business questions.

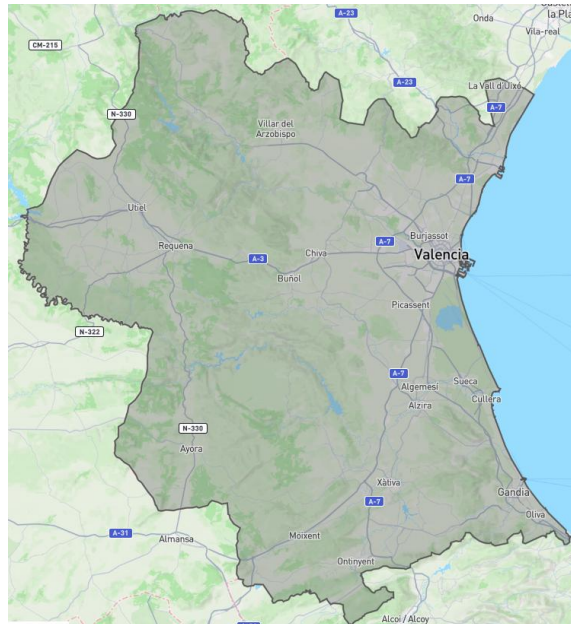


Figure 20: Main analysis area for destination Valencia

Once we do have the user candidates to cruise passengers, we obtain their geolocations across the main analysis area. At this point, we remove the users detected in the main area more than one day. Note that the cruise passengers stay at the destination no more than 12 hours from the arrival of the cruise ship until the departure. Finally, we do have a sample of the non-domestic cruise passengers arriving in Valencia. According to the sample size the estimated sample proportions may have a maximum margin of error of 7% with a confidence level of 95%. For this case, we have used data from January to November 2025.

Business question: Valencia as destinations aims to promote points of interest outside the metropolitan area to foster more sustainable tourism and avoid overcrowding in key areas of the city. Therefore, the aim is to know the percentage of cruise passengers that remains in the metropolitan area and the percentage of cruise passengers that visit other municipalities in Valencia province (including 'Coves de San Josep' in Castellon province)

To answer this business question, we define the sub-areas within the main analysis area, and we calculate the percentages. In the Figure below we see in red the area defined as metropolitan area and the rest in blue.

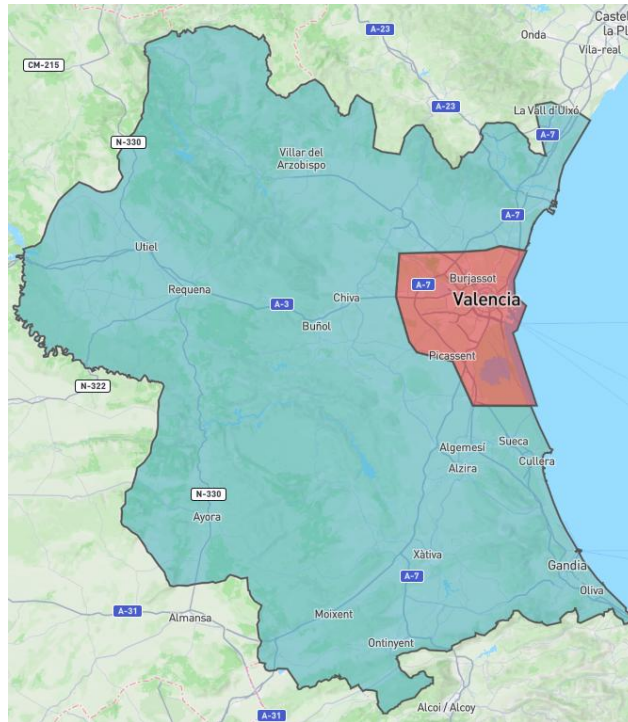


Figure 21: Sub-areas (points of interest) defined for Valencia first business question

According to the defined areas and the sample obtained, 73% of the non-domestic cruise passengers were detected only in the metropolitan area and 27% of them were detected in other locations of Valencia province.

Business question: Within the metropolitan area, we want to know the percentage of users visiting key touristic points of interest defined in the figure below: The city center in blue, the maritime neighborhoods in yellow, the 'Ciudad de las Artes y las Ciencias' in red and 'Poblats del Sud' in Green as a natural area close to Valencia city.

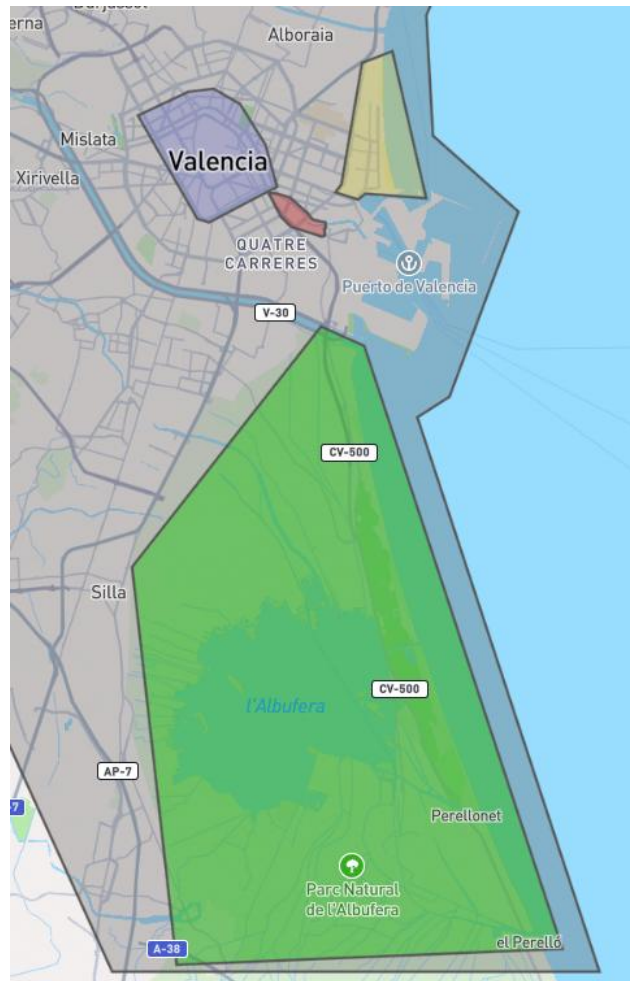


Figure 22: Touristic points of interest defined in Valencia metropolitan area

Spatial distribution: metropolitan area vs. the wider province

The primary analytical question addressed is the share of non-domestic cruise passengers who remain within the extended metropolitan area of Valencia versus those who venture into other municipalities of Valencia province — including destinations such as the 'Coves de San Josep' in the neighbouring province of Castellón.

The analysis shows that **73% of non-domestic cruise passengers are detected exclusively within the metropolitan area**, while **27% extend their visit to other locations within Valencia province or beyond**. This distribution confirms the predominance of an urban-centric visit pattern among cruise visitors and quantifies, for the first time with empirical behavioural data, the degree of spatial concentration that Valencia faces during cruise calls. While the 27% who do visit the wider province already represent a meaningful proportion, the finding underlines the significant untapped potential for redistributing visitor flows toward less crowded, nature-rich destinations — precisely the opportunity that the Port CREW platform is designed to unlock. The data provides a clear baseline against which the effectiveness of future platform-driven

interventions in WP2 can be measured.

Distribution within the metropolitan area: which areas do cruise visitors actually go to?

Within the metropolitan area, the analysis examines the distribution of visitors across four key Points of Interest defined jointly by ForwardKeys and Valenciaport stakeholders, each representing a different typology of urban or peri-urban attraction:

- **City centre (downtown Valencia):** the historic and commercial heart of the city, including the Cathedral, the Mercado Central, and the main pedestrian streets.
- **Poblats Marítims:** the maritime neighbourhood adjacent to the port, encompassing the Malvarrosa beach and the Cabanyal district.
- **Ciudad de las Artes y las Ciencias:** an internationally recognised cultural and architectural landmark located on the former Turia riverbed, situated on the natural route between the port and the city centre.
- **Poblats del Sud and Albufera Natural Park:** a peri-urban natural area to the south of the city, encompassing rice paddies, wetlands, and the Albufera lagoon — one of Spain's most important freshwater ecosystems and a site of significant eco-tourism potential.

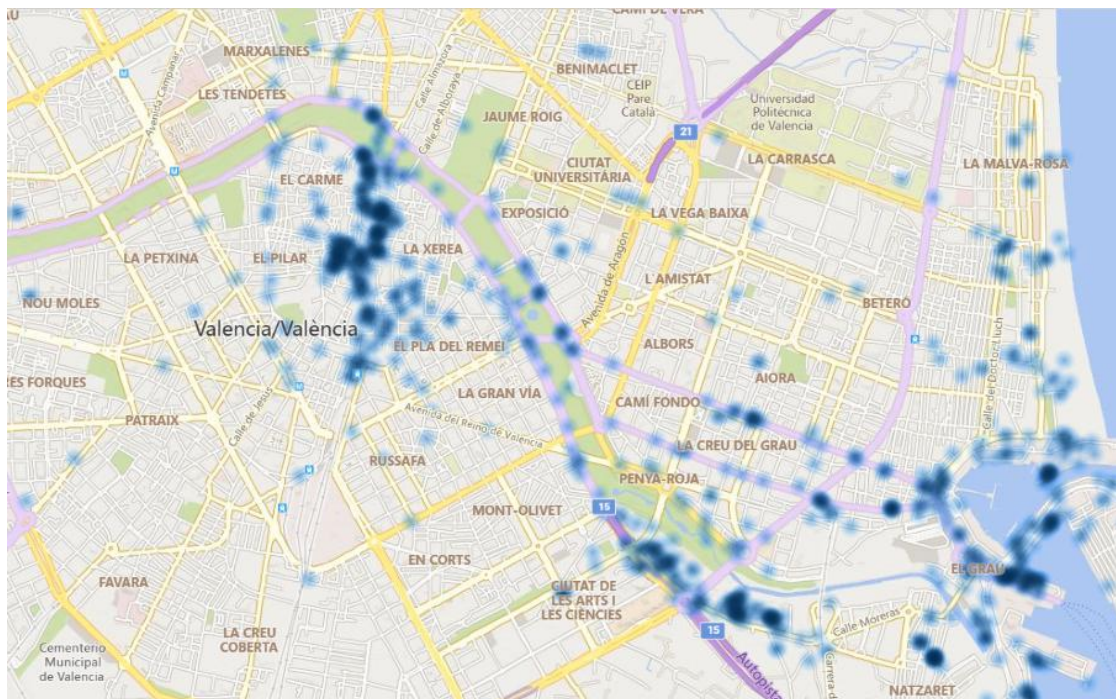


Figure 23: Heat map of cruise passengers in Valencia city

Geolocation signals from cruise passenger devices reveal a strongly hierarchical pattern of visitation. The **city centre captures approximately 35% of visits**, confirming its role

as the dominant attraction for cruise tourists and the primary driver of urban concentration. **Poblats Marítims follows with 23%**, reflecting the natural gravitational pull of the beach and seafront for visitors arriving at the port. The **Ciudad de las Artes y las Ciencias accounts for 18% of visits** — a significant figure that reflects both its global recognition and its favourable location on the pathway from the port to the city.

In sharp contrast, **Poblats del Sud and the Albufera Natural Park attracted only approximately 6% of detected passengers**. This finding is of particular strategic significance for the PortCREW project. Despite being one of the most ecologically valuable and authentically Valencian destinations in the province — offering birdwatching, traditional boat tours, and local gastronomy centred on the birthplace of paella — the Albufera area currently captures a negligible share of cruise visitor flows. The gap between the ecological and cultural richness of this destination and its actual visitation rate represents the core challenge and opportunity that the PortCREW platform should address: equipping passengers with the information, itinerary suggestions, and transport connections necessary to make a visit to the Albufera a viable and attractive alternative to the already-saturated city centre.

Heat map analysis of device signal density across Valencia city provides additional granularity, confirming the concentration hotspots in the historic centre and the seafront while showing comparatively sparse activity in the southern natural areas. This visual evidence reinforces the quantitative proportions and can be used directly to inform the spatial logic of the platform's recommendation engine.

Temporal patterns: the hourly rhythm of cruise visitor flows

The analysis of the hourly distribution of geolocation signals across the four key POIs provides a detailed picture of how cruise passengers move through the city over the course of a typical port call, offering crucial insights for the design of time-sensitive platform features such as dynamic itinerary recommendations and crowd management alerts.

The data reveals a clear sequential pattern: activity at the **Ciudad de las Artes y las Ciencias peaks earlier in the morning**, consistent with its position on the route from the port to the city centre. Passengers appear to visit this landmark first, before continuing northward into the city. **Peak activity at the city centre and Poblats Marítims is concentrated between 08:00 and 15:00**, after which signal density declines sharply — likely reflecting the need for passengers to return to the port ahead of departure. Very limited activity is recorded after 16:00 across all POIs, confirming the compressed dwell time that defines the cruise passenger visit pattern.

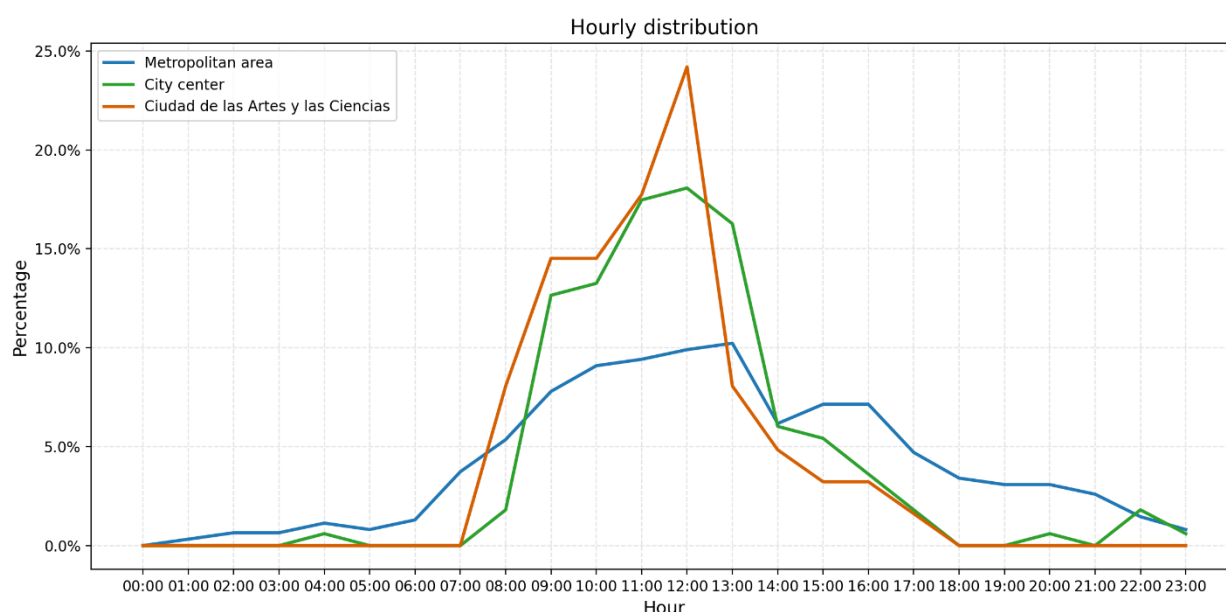


Figure 24: Hourly distribution of cruise passengers in key points of interest in Valencia city.

This temporal compression has two critical implications for the PortCREW platform. First, any recommendation toward more distant eco-tourism destinations such as the Albufera must account for travel time and present passengers with realistic, time-efficient itineraries that can be completed within the available window. Second, the peak hours of urban concentration (09:00–14:00) represent the window during which overcrowding in the historic centre is most acute — making this the priority period for real-time flow management interventions.

Implications for the PortCREW platform

The geolocation findings for Valencia establish a compelling evidence base for the platform's design priorities at this pilot site. The data confirms three structural challenges: the dominance of a small number of urban hotspots, the near-absence of eco-tourism destinations from current visitor itineraries, and the time constraints that limit spontaneous exploration. In response, the platform should prioritise: (i) pre-arrival personalised recommendations that highlight the Albufera, the surrounding province, and lesser-visited urban areas such as the Poblats del Sud as attractive and accessible alternatives; (ii) real-time information on transport connections from the port to eco-destinations, including sustainable mobility options such as electric bicycles and public transport; and (iii) temporal nudges that help passengers plan efficient itineraries that make best use of the 08:00–15:00 activity window.

5. Regional analysis: Ports of Toulon Bay-La Seyne pilot site

5.1. Local cruise outlook and infrastructure

5.1.1. Cruise outlook



Figure 25: Image of Ports of Toulon Bay-La Seyne

Toulon Bay is a dynamic and strongly committed cruise destination that still remains relatively under-recognised in the Mediterranean market. Its value proposition is built on a protected bay ensuring all-weather reliability, a prime location in the French Mediterranean, and direct access to two internationally recognised destination brands—Provence and the French Riviera. This makes Toulon Bay easy to market while supporting a broad and attractive shore excursion offer, ranging from iconic highlights to more exclusive, off-the-beaten-track experiences.



Figure 26: Overview of Ports of Toulon Bay-La Seyne and main touristic destinations around

The local social and political environment is also highly supportive of cruise development. For nearly 20 years, Ports of Toulon-La Seyne has been actively working to foster cruise growth, sharing expertise with local stakeholders and political decision-makers while raising awareness of the sector's benefits and challenges. Through continuous dialogue, environmental awareness initiatives and close cooperation with the local economic community, the port has helped build a favourable ecosystem for long-term cruise development.

Today, local authorities in Toulon, La Seyne-sur-Mer and the wider metropolitan area openly support the growth of cruise activity. This support reflects a growing recognition of the industry's efforts towards decarbonisation and more sustainable development, as well as the positive contribution cruise can make to the destination's visibility and local economy.

This shared commitment has already translated into concrete progress in recent years, with successful operations demonstrating the destination's ability to deliver both commercially and operationally. These results confirm the relevance of Toulon Bay's positioning and its capacity to support further cruise growth.

Looking ahead, Toulon Bay offers strong development potential. There are clear opportunities to attract additional calls, expand cooperation with more cruise lines, and further develop partial turnaround activity. The destination also has the potential to build Fly & Cruise products targeting new European source markets, particularly the UK and Germany, with the support of Toulon Hyères Airport. At the same time, Toulon Bay can position itself as a reliable alternative for neighbouring destinations facing increasing constraints on call volumes and vessel size. Overall, the cruise outlook for Toulon Bay is highly positive, supported by strong local engagement, an attractive destination mix and

clear room for growth.

5.1.2. Cruise sector analysis in Ports of Toulon Bay-La Seyne

KEY FIGURES

Number of cruise passengers

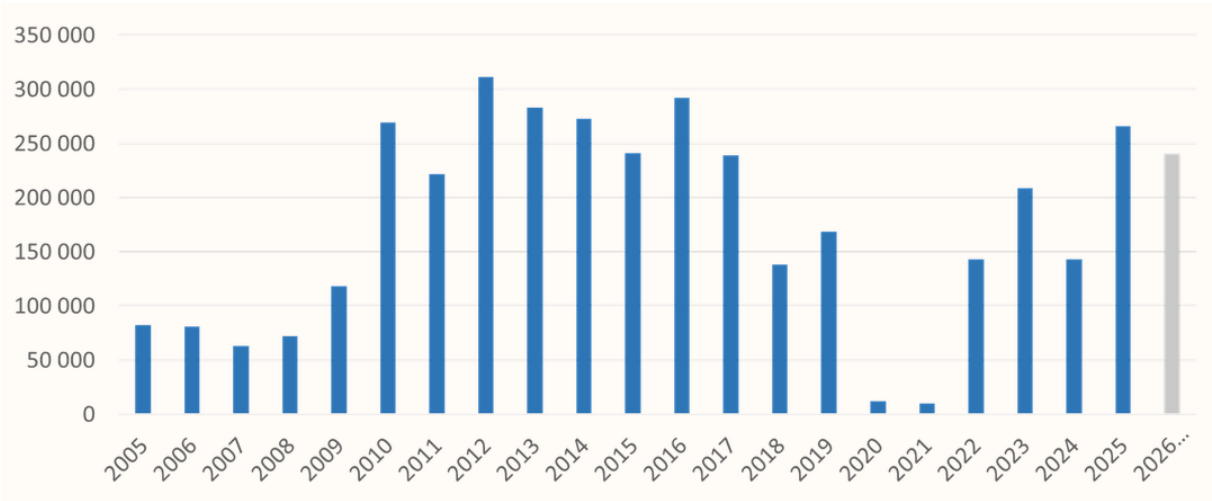


Figure 27: Key statistics of cruise activity at Ports of Toulon Bay-La Seyne — number of passengers per year

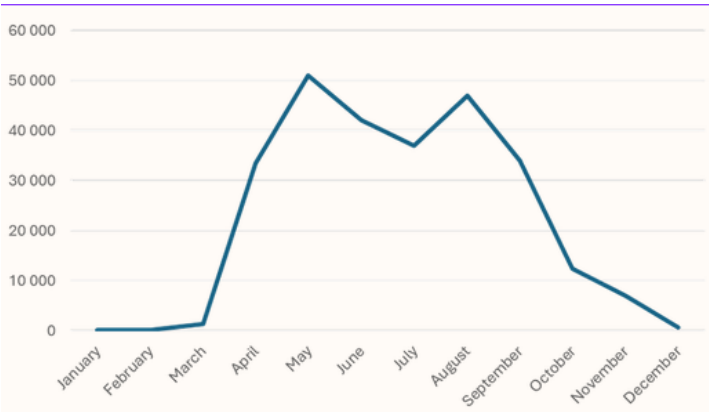


Figure 28: Key statistics of cruise activity at Ports of Toulon Bay-La Seyne — evolution of passengers within a year

Numbers of calls in 2025

	Cies	Escales
Toulon	14	37
LSSM	13	71
		108



Figure 29: Ports of Toulon Bay-La Seyne infrastructures

Toulon Bay offers a strong and reliable cruise infrastructure built around a protected, all-weather harbour that ensures high nautical and operational dependability. This infrastructure is supported by two complementary cruise terminals serving different market segments. The Toulon terminal, located in the city centre, is well suited to luxury, exploration and premium vessels, while La Seyne-sur-Mer is designed for contemporary ships and partial turnaround operations, with capacity for vessels of up to 350 metres.

Recent investments have significantly strengthened this infrastructure base. At La Seyne-sur-Mer, quay extension works have increased capacity for larger vessels, while dedicated facilities have been developed to support partial turnaround operations. In Toulon, shore power is now operational for both ferries and cruise ships, enhancing the port's environmental performance. This progress has been backed by regulatory measures making shore power connection mandatory for equipped vessels and giving berthing priority to ships able to connect.

There is still substantial room for further development. La Seyne-sur-Mer cruise terminal remains underused for much of the year, offering additional capacity for future growth, while shore power is planned there by 2028. At the same time, Toulon is looking ahead through the Green Bay European project, which focuses on the deployment of sustainable certification for passenger terminals.

5.1.3. Toulon Bay-La Seyne Ports infrastructure

Toulon Downtown

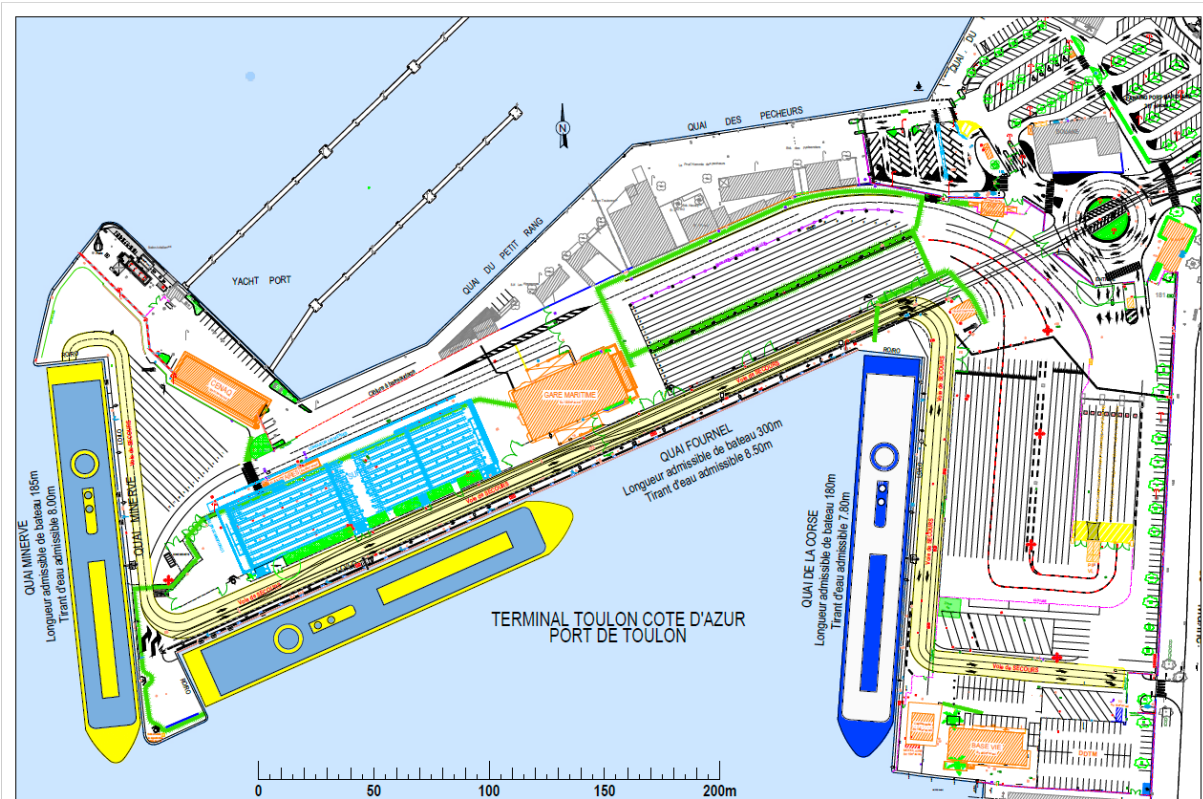


Figure 30 Terminal Toulon Cote d'Azur - Port de Toulon

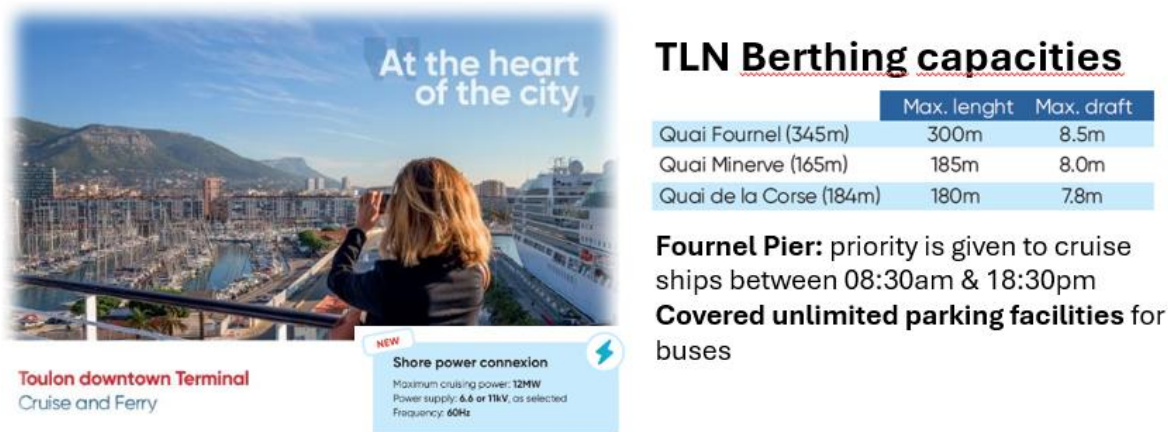


Figure 31: Toulon downtown Terminal - capacities

La Seyne Sur Mer Cruise Terminal

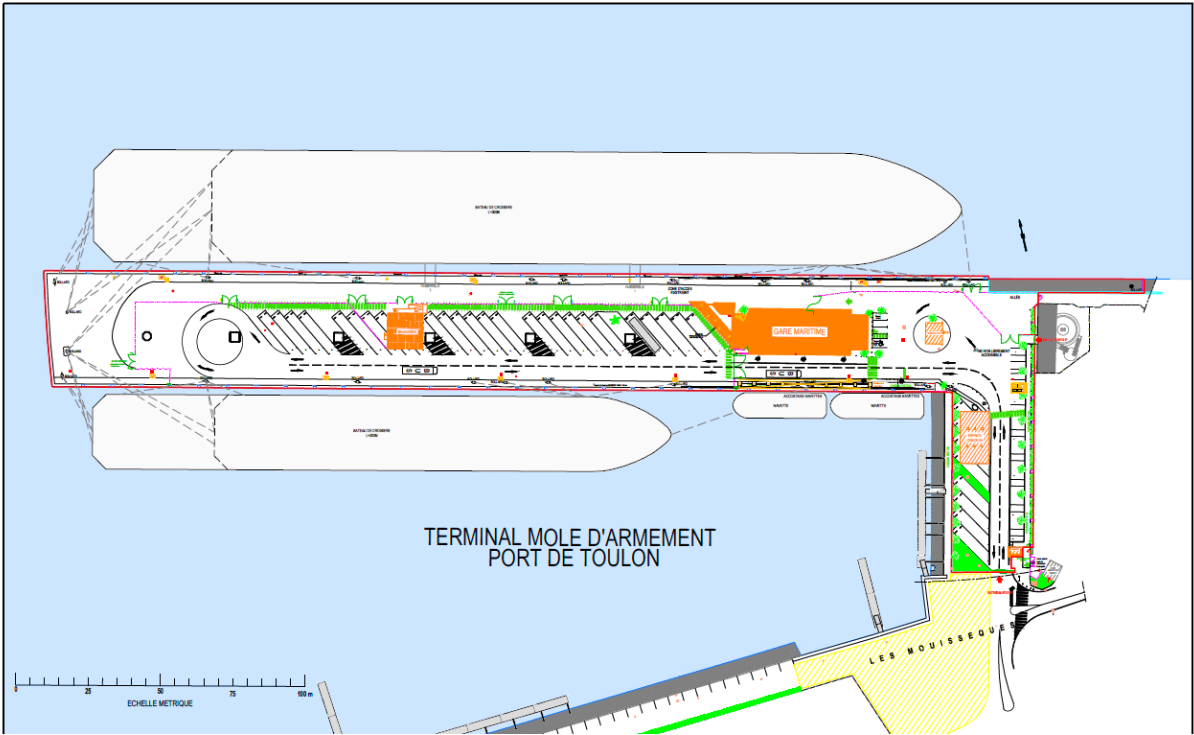


Figure 32: La Seyne Sur Mer Cruise Terminal



LSSM Berthing capacities

	Max. lenght	Max. draft
Mole Nord (335m)	340m	9m
Mole sud (318m)	200m	6.8m

Parking facilities for 40 buses

How to get around?

	Kms	Walk	Shuttle	Bus/taxi
La Seyne city center	1.5	15min	-	-
Toulon	6	-	10min	25-45min
Les Sablettes Beach & Village	4	45min	-	10min

Figure 33: La Seyne Sur Mer Cruise Terminal - capacities

To further develop its attractiveness and competitiveness in the cruise market, Toulon Bay offers new services and facilities in 2025:

- Check-in facilities: 180m2 of extra dedicated space that can be used for other kinds of operation
- 100% full security control at LSSM Cruise Terminal
- Guest Services desk / Local conciergerie on board
- Parking nearby with private shuttle (for cruise guest only)
- OPS system in Toulon

Focus on OPS system in Toulon

The Ports of Toulon Bay-La Seyne are the first French ports to provide shore power connection to cruise ships. The system has been led by Métropole TPM, with 80% of funding subsidised by European, national and regional sources (€20M in infrastructure investments + €1.2M per ferry ship for retrofit). It offers:

- 80% reduction in ship emissions when berthed
- An energetic mix, monitored throughout a smartgrid solution
- + 70 calls connected to OPS since beginning of 2025

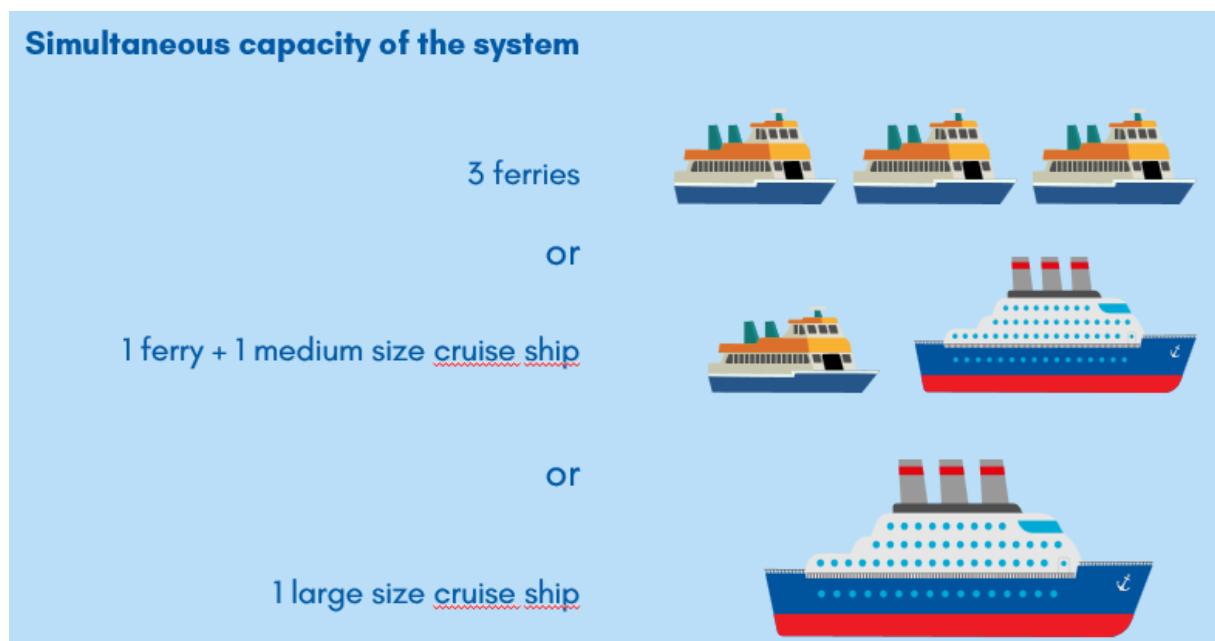


Figure 34: Ports of Toulon Bay-La Seyne - Simultaneous capacity

5.2. Ecotourism strategy of Ports of Toulon Bay-La Seyne

Port, cruise-destination and CCI materials point to a clear strategy for cruise guests: combining cleaner port operations with a boutique, slow-tourism destination model. In other words, the aim is not simply to grow cruise volumes, but to position Toulon Bay as

a lower-impact port of call where passengers enjoy authentic, uncrowded, nature-rich and locally rooted experiences. This reading is consistent with the port's stated environmental ambition to make Toulon the cleanest port in the Mediterranean and to move its commercial terminals toward a zero environmental impact approach.

The first pillar is decarbonising the call itself. Official port sources highlight shore-power infrastructure for the three quays of the Toulon Côte d'Azur passenger terminal, based on an electricity-plus-photovoltaic mix, with the stated objective of cutting quay emissions by 80%; an equivalent system is planned for La Seyne-sur-Mer by 2028. The ports also refer to electric vehicles and bicycles for internal terminal movements, environmental studies, and air-quality analysis. For cruise tourism, this means the environmental strategy begins at the berth, not only in the excursion offer.

The second pillar is a slow, immersive and nature-based visitor experience. Official cruise-destination content describes Toulon Bay as a boutique port, "out of the crowds, close to the people," built around a slow tourism and chill-out positioning. Cruise Var Provence also states that it works with tourism authorities on more than 100 immersive and sustainable excursions, and explicitly promotes zero-emission excursion ideas and "Go Green & Healthy" experiences linked to protected natural spaces, coastlines, hills, vineyards and local producers. The ecotourism logic is therefore to direct cruise demand toward softer, more experiential formats rather than purely high-density sightseeing.

The third pillar is soft mobility and local value creation. Toulon benefits from a largely pedestrian historic centre, while La Seyne is connected by sea shuttle and short-transfer solutions; the port has also issued a concession for a soft mobility service at the cruise terminal. At both terminals, passengers are exposed to local handicrafts, artists and producers, and the Cruise Friendly label connects cruise visitors with vetted local shops, restaurants, leisure providers and tourism partners. This shows that ecotourism is understood not only as environmental performance, but also as a way of keeping cruise spending anchored in the local economy.

Lastly, the strategy is framed by shared commitments and continuous improvement. The official port site states that 24 cruise lines have signed the sustainable cruise charter for the Mediterranean, aimed at protecting the marine environment, improving air quality and mitigating climate change. The 2025 passenger listening results also confirm that the model is appreciated: visitors praised the old town, the atmosphere, the easy organisation and the walkable experience, although accessibility remains a clear improvement priority, especially for La Seyne-sur-Mer. In short, the ecotourism strategy of Ports of Toulon Bay-La Seyne can be summarised as: cleaner port calls, slower and greener shore experiences, softer mobility, and stronger local anchoring for cruise passengers.

5.3. Field results: stakeholder insights

5.3.1. Interviewed profiles

To gain a complete and qualitative understanding of cruise port performance, Ports Rade de Toulon–La Seyne carried out a dedicated B2B survey programme throughout the 2025 season across its two terminals. The study covered two complementary profiles: direct clients — shipping agents and tour operators — and onboard top management, including Captains, Staff Captains, Security Officers, Hotel Directors, Chief Purser and other key decision-makers. A total of 37 B2B stakeholders were interviewed, comprising 25 ship management representatives and 12 direct clients. This dual methodology was intended to combine strategic and operational perspectives and to evaluate the full-service chain, from infrastructure and safety to coordination, passenger flows, excursion logistics, overall satisfaction and recommendation potential. The findings provide a solid basis for continuous improvement and for adapting operations to cruise line expectations.

Our customer listening strategy

Our customer listening strategy is built around two complementary streams of feedback: passenger listening and B2B listening, across both cruise terminals, Toulon Côte d’Azur and La Seyne-sur-Mer. Throughout the season, we collect both quantitative and qualitative feedback to assess the full customer experience, including destination awareness, accessibility, terminal facilities, spending patterns, satisfaction, return intention, operational coordination, safety and recommendation potential. This dual approach allows us to combine the end-customer perspective with the operational and strategic views of maritime agents, tour operators and shipboard decision-makers. Fully aligned with our continuous improvement policy, this strategy helps us consolidate our strengths while identifying clear priorities for action, particularly in mobility, signage and passenger-flow management.

5.3.2. Key messages from the stakeholders’ interviews

Passenger listening results

In 2025, Ports Rade de Toulon–La Seyne welcomed 265,658 cruise passengers across 108 calls, including 240,489 transit passengers, 12,755 embarking passengers and 12,414 disembarking passengers. The season was marked by the launch of Costa Cruises homeport calls, which required the creation of dedicated check-in and baggage areas, as well as by the arrival of P&O’s **Arvia**, the largest cruise ship ever received locally, with 6,000 passengers on board. This context confirms both the growing attractiveness of the destination and the port’s ability to adapt its infrastructure and organization to large-scale cruise operations.

Passenger listening highlights two distinct dynamics. At La Seyne-sur-Mer, based on 823 surveyed passengers, overall satisfaction reached 97% and destination satisfaction 81%, up 20 points versus the previous year. However, destination awareness remains extremely low, as 96% of respondents had never heard of La Seyne-sur-Mer before the call; spending is limited, with most passengers spending less than €20, and return intention stands at 55%. Accessibility is identified as a major issue, although facilities are rated excellent. At Toulon Côte d'Azur, based on 53 surveyed passengers, destination satisfaction reached 93%, overall satisfaction 100% and return intention 97%. Spending levels are significantly higher, with the largest group spending more than €90, and accessibility is rated excellent. The main challenge there is upstream destination awareness. Overall, the passenger analysis confirms a very strong terminal experience on both sites, while pointing to different improvement priorities: visibility, mobility and destination offer for La Seyne-sur-Mer, and stronger pre-call awareness for Toulon.

Partial Turns Insights

Embarking guests' behaviors & satisfaction, in a nutshell

- 27 Partial Turn Around calls = 25,000 pax in 2025 | ~460 IN + OUT / call, Max. 800 pax IN & 615 pax OUT
- 90% satisfaction about the Cruise Terminal | 55% of neo cruisers (1st cruise)
- Main choice's drivers to cruise from Toulon Bay: #1 Schedules | #2 Itinerary | #3: Accessibility

Quel est votre lieu de résidence ?

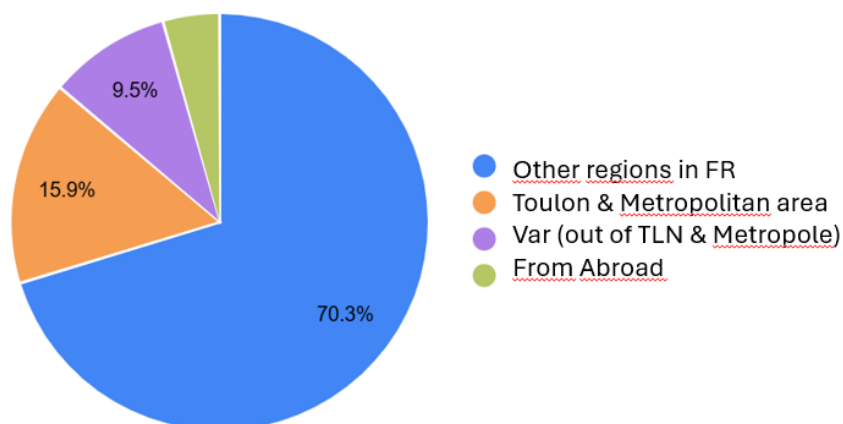


Figure 35: Ports of Toulon - La Seyne - embarking guests origin

Customers Feedback

We track B2B & B2C Customers Satisfaction, to keep on understanding & growing...

(Data issued from a survey conducted from May to October 2025: **600+ guests surveyed in both TLN & LSSM**)

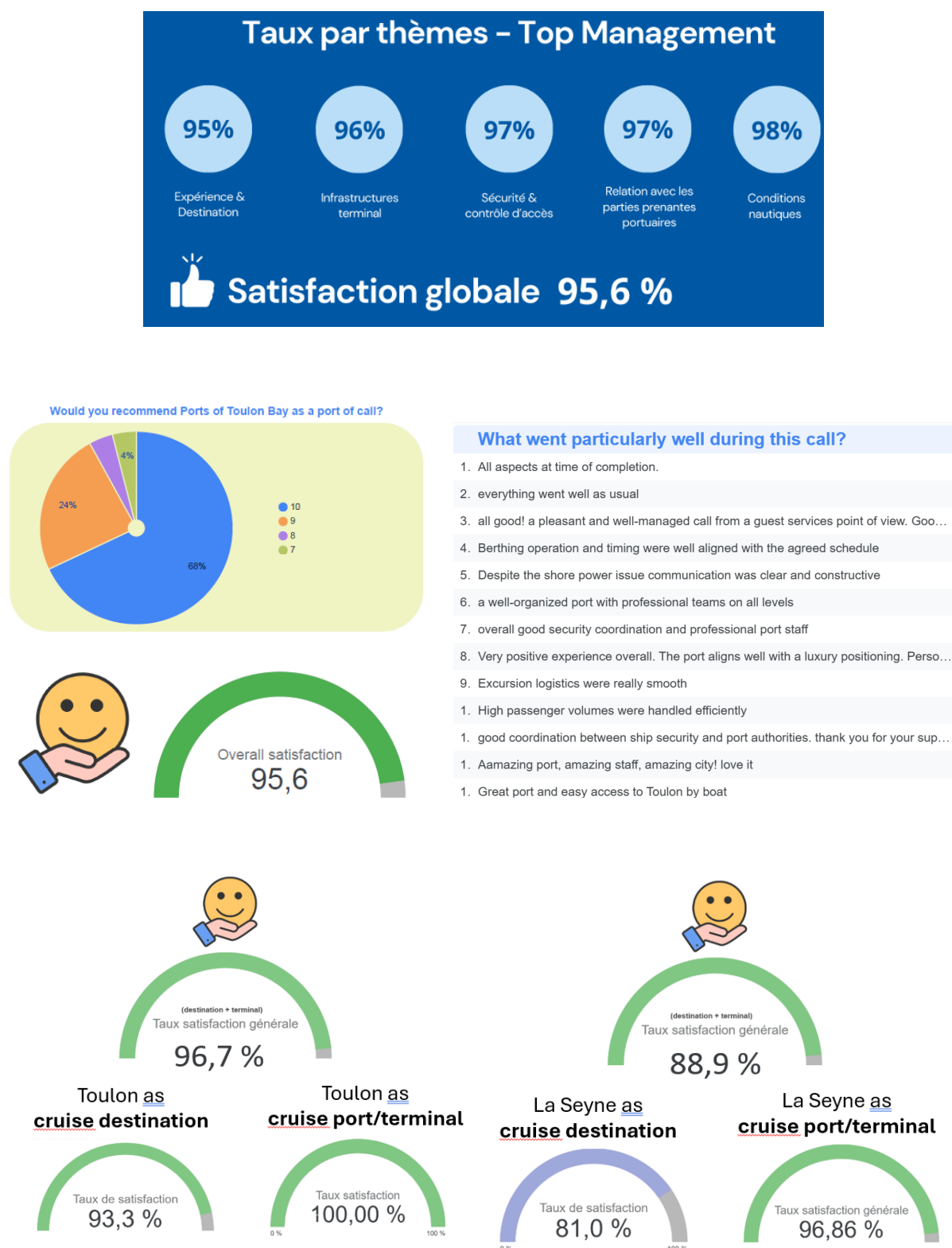


Figure 36: Ports of Toulon - La Seyne - Customer feedback

Results of the B2B listening analysis

Throughout the season, we conducted a dedicated B2B survey campaign to gain a comprehensive and qualitative view of our cruise performance. The survey covered 37 B2B respondents: 25 members of ship top management, including captains, staff captains, security officers, hotel directors, chief pursers and other onboard decision-makers, as well as 12 direct clients split equally between maritime agents and tour operators. This methodology enabled us to cross-check a strategic onboard perspective with an operational, on-the-ground perspective. The questionnaires focused on terminal and nautical infrastructure, safety and access control, operational coordination, relations with port stakeholders, passenger-flow management, excursion logistics, overall satisfaction and recommendation intent.

The results are highly positive. Among ship top management, scores reached 95% for experience and destination, 96% for terminal infrastructure, 97% for safety and access control, 97% for relations with port stakeholders and 98% for nautical conditions, leading to an overall satisfaction rate of 95.6%. Respondents particularly value the quality of human relationships, team professionalism, nautical performance and the alignment with a premium positioning. The main weak points mentioned are shore power availability, identified as outside the port's direct control, and some signage details. Among maritime agents and tour operators, overall satisfaction reached 90%, while 93% highlighted the professionalism and courtesy of the teams. Terminal satisfaction stands at 82% for Toulon Côte d'Azur and 89% for La Seyne-sur-Mer, with La Seyne rated more positively than Toulon. Their main operational pain points are bus-flow complexity in Toulon, undersized parking capacity and insufficient signage. In summary, B2B listening shows that the ports are perceived as reliable, premium and reassuring, with excellent nautical conditions and no critical dysfunctions, while also identifying concrete areas for operational optimization.

5.4. Field results: interview analysis

Context and interviewed profiles

Four stakeholders were interviewed for the Toulon pilot area, covering the key actors in the Var Provence cruise tourism ecosystem: Ports Rade de Toulon / CCI du Var, acting as port authority, port operator, and cruise destination coordinator for the terminals in Toulon and La Seyne-sur-Mer; Inter cruises Shoreside & Port Services, an international ground handler operating across South of France ports and specialising in shore excursion programmes and turnaround operations; Agence Voyages C. Mathez, a Travelife-certified tour operator serving exclusively American cruise companies and their clients at French ports; and Cruise Services, a tour operator based in Monaco operating exclusively at French ports and Monaco, offering excursions to multiple cruise lines with a focus on local and sustainable suppliers.

The interviews were conducted as part of Activity A1.1 of WP1 and complement the geolocation analysis presented in Section 5.5 with qualitative, expert-driven insights into passenger needs, eco-tourism offer gaps, and platform requirements specific to the Toulon Bay destination.

Cruise tourism profile and operational context

The CCI du Var / Ports Rade de Toulon provided the most complete quantitative baseline for the pilot area. The port recorded 96 cruise ship arrivals and 219,953 passengers in 2023, followed by 87 calls and 151,325 passengers in 2024 — a notable decline likely reflecting itinerary reconfigurations among major cruise lines. The 2025 forecast projects a significant rebound to 108 calls and 290,728 passengers, the highest forecast in the three-year series. Activity peaks between May and July, with a secondary peak in October–November. Average passenger dwell time is consistently around 10.5 hours. Approximately 80% of passengers disembark. The destination operates two cruise terminals — in Toulon and La Seyne-sur-Mer — with five berths of varying capacity, accommodating vessels up to 340 metres in length.

Main passenger profiles identified through satisfaction surveys are predominantly UK and USA travellers, travelling as couples and families, averaging around 53–57 years of age. European passengers are noted by Cruise Services as somewhat more predisposed to sustainable travel choices — including soft mobility options and nature-based excursions — than non-European visitors.

Cruise tourist profiles and segmentation

Stakeholder descriptions of visitor segments are highly consistent across all four interviews, reflecting the coherence of the destination's passenger base.

Younger adults seek active, self-guided, and spontaneous experiences — kayaking, e-bikes, hiking, and independent walking — along with social-media-friendly spots and affordable mobility options. They value digital information, flexibility, and late-departure tour options. Elderly passengers prioritise comfort, clear organisation, minimal walking distances, shaded rest areas, and reliable transport, with cultural heritage, guided visits with limited free time, local food tastings, and safety being key expectations. Families look for easy logistics, child-friendly attractions with both cultural and recreational components, beaches, parks, and short excursions suitable for different ages, with a preference for tours of no more than four hours when young children are involved. People with disabilities require short tours conducted largely by vehicle for panoramic cultural views, adapted transport, and always with a guide — a segment consistently flagged by operators as systematically underserved by current information provision. Emerging traveller profiles, including LGBTQIA+ individuals, solo travellers, and digital

nomads, value inclusive environments, authentic local experiences, flexible schedules, and independent discovery options, though no strong product differentiation is currently offered for this group.

Mathez Voyages adds an important dimension from its work with the American market: its clients place particular value on interaction with local guides and producers, authentic and non-standardised experiences, and gastronomy-oriented itineraries. The agency reports that some clients maintain contact with local guides after the cruise and return to the region independently — a powerful signal of the lasting destination value that high-quality, authentic eco-tourism experiences can generate beyond the immediate port call.

Eco-tourism offer: current status and key products

All four stakeholders confirmed a growing interest in eco-tourism services among cruise passengers. The degree of uptake and the specific products driving it vary by operator type, but the directional trend is consistent and commercially grounded.

Intercruises identifies wine-tasting tours at Var vineyards as the best-selling eco-aligned product, with small-group formats and direct interaction with winery owners rated highly by passengers. The turtle sanctuary (a wildlife protection site) is also performing well commercially and generates particularly positive visitor feedback, combining education, conservation awareness, and tourism in a format that resonates strongly with environmentally minded passengers. Electric train transfers to beaches are appreciated as a concrete and visible low-emission mobility solution. Cruise Services highlights walking and cycling tours, and small-boat excursions with guides trained in marine ecosystem protection, as its main sustainable offer, alongside wine estate visits to producers committed to responsible viticulture.

Mathez Voyages has proactively built its entire supply chain around local, authentic, and sustainable principles — working with local drivers, local guides, and regional food and wine producers — well before cruise lines began formally requesting eco-tours. The agency's experience is a particularly valuable signal: demand for authentic, locally rooted experiences is commercially durable, and the sector is undergoing a genuine structural shift, with multiple cruise lines now explicitly requesting eco-tour development as part of their excursion portfolios.

The mapped current eco-tourism offer at Toulon includes: downtown walking tours (low carbon, supporting the local economy); local markets and shops (short supply chains); vineyard and hinterland tours; coastal and nature excursions (biodiversity awareness); and public transport access via the metropolitan transport organisation TPM (low-carbon mobility). Two existing programmes are directly relevant to PortCREW as institutional building blocks: the Cruise Friendly programme, which connects cruise visitors with local

shops, services, and cultural experiences; and the R-ItinERA European project, which has developed eco-tourism routes across the Var territory that could form the content backbone of a PortCREW eco-excursion catalogue.

Key gaps and improvement areas

Several critical gaps emerge consistently across interviews. The most fundamental is the **absence of a centralised, trusted digital platform** providing comprehensive eco-tourism information in a format accessible to cruise passengers before and during their visit. Current information is dispersed across tourist office brochures and websites, the Cruise Friendly programme, on-site information desks, and excursion catalogues from cruise lines and tour operators. Digital content exists but is fragmented across multiple sources and not consistently updated or tailored to passenger profiles.

Accessibility information is identified as systematically insufficient. While elderly passengers and those with reduced mobility represent a major share of Toulon's cruise visitors, reliable, detailed accessibility data for attractions, routes, and transport is not available in one centralised place. The gap encompasses both physical accessibility (wheelchair access, slopes, adapted vehicles) and informational accessibility (clear advance communication of what to expect at each site).

Multilingual provision is also flagged as inadequate. Given that the main nationalities are British and American, but also German and other northern European, all materials and digital tools need to be available in at least English and German as a minimum. Mathez Voyages adds that eco-label visibility is insufficient: passengers and operators cannot easily identify which products and providers hold verified sustainability certifications, limiting the commercial potential of the destination's genuinely sustainable offer. The CCI du Var notes that current tools (social networks, port communications, and product logos) have improved awareness in recent years, but that fragmentation remains the key obstacle.

Platform needs and functional requirements

Platform ratings from Toulon stakeholders are among the most ambitious across the five pilot sites, reflecting a clear and mature vision of what a digital tool should deliver.

Intercruises assigns maximum scores (5/5) to: eco-attraction information in the metropolitan/regional area; pre-defined bike and walking tours; micromobility and public transport access information; dynamic tour availability and capacity management; accessibility information; sustainable mobility services information; and attraction accessibility, peak hours, and costs. These ratings signal a demand for a platform that goes beyond static content to provide real-time, actionable operational data. Back-end

priorities include analytics and reporting tools to monitor visitor flows and demand trends, and capacity management tools to prevent overcrowding — reflecting InterCruises' operational role managing large passenger volumes across multiple simultaneous calls.

CCI du Var similarly rates eco-attraction information, self-guided sustainable tours, pre-defined bike/walking tours, micromobility access, accessibility information, and sustainable mobility services all at 5/5, while also assigning maximum score to virtual guided tours — reflecting the port's interest in pre-visit digital engagement tools. The port authority highlights four strategic priorities for the platform: centralising fragmented information into one trusted source; offering cruise lines a credible and verified portfolio of sustainable alternatives to high-carbon outflow excursions; supporting local SME visibility; and enabling data-driven visitor flow management that strengthens the social acceptability of cruise tourism within the local community.

Mathez Voyages prioritises eco-label certification information (5/5), real-time demand forecasting (5/5), eco-attraction information (5/5), and platform integration with existing touristic platforms (5/5), emphasising the need for standardised and verifiable sustainability credentials and interoperability with regional digital ecosystems. **Cruise Services** rates real-time demand forecasting (5/5) and sustainable mobility information (5/5) as highest, adding that guiding passengers toward responsible visitor behaviours — staying on marked paths, not disturbing wildlife, using reusable bottles — should be embedded in the platform's communication layer.

All four stakeholders support dashboard upload functionality, feedback/ratings systems from tourists, and integration with other platforms. The collective vision articulated by Toulon stakeholders is of the PortCREW platform as a **strategic interface** that centralises fragmented destination information, provides cruise lines with a credible sustainable alternative portfolio to excursions that currently generate carbon-intensive outflows to Nice, Monaco, and Marseille, supports local SMEs' visibility, enables data-driven visitor flow management, and strengthens the destination's long-term social and environmental sustainability.

5.5. Demand analysis via geolocation

Overview and analytical framework

The geolocation analysis for the Toulon pilot area follows the same methodology as described for Valencia (Section 4.5) and applies the same passenger detection logic: non-domestic users first detected in a defined maritime zone covering the main cruise approaches to the Port of Toulon are cross-referenced with their subsequent land-based geolocation activity, with those present in the main analysis area for no more than one

day classified as cruise passengers. French residents were excluded from the analysis to focus exclusively on non-domestic visitors. The study covers the same period — January to November 2025 — and achieves a maximum margin of error of $\pm 7\%$ at a 95% confidence level.

The main analysis area for Toulon extends significantly beyond the municipality itself, encompassing the full French region of Provence-Alpes-Côte d'Azur (PACA) — a deliberate choice that reflects the central analytical challenge specific to this destination: a well-documented tendency among cruise passengers arriving in Toulon to leave the city and travel to higher-profile riviera destinations such as Marseille, Nice, Cannes, and Monaco. Understanding and quantifying this outflow is the primary business question driving the analysis, as it directly informs both the economic case for strengthening Toulon's tourism offer and the functional requirements of the PortCREW platform at this pilot site.

Spatial distribution: retention in Toulon vs. outflows to competing destinations

The definition of Points of Interest for Toulon reflects the asymmetric nature of the destination's challenge. Three zones were established within the PACA region: the Toulon municipality (arrondissement), a zone encompassing Nice and Monaco, and a zone covering Marseille. Importantly, the Nice/Marseille zones were deliberately drawn to exclude major highways and transit corridors, ensuring that only users genuinely visiting the city centres were counted — a methodological refinement that increases the precision of the estimates.

Detailed methodology process

In the case of Toulon, we proceed with the same methodology. First, we define an area in the sea to get the candidates to cruise passengers.

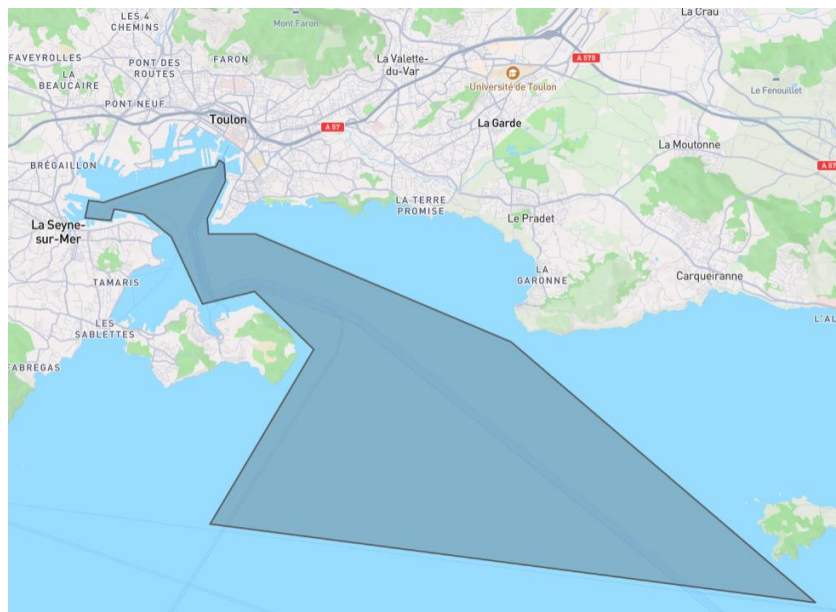


Figure 37: Area in the sea to get cruise passengers candidates arriving in Toulon

Second, we define the main analysis area. In this case, it is the French region of Provence-Alpes-Côte d'Azur.

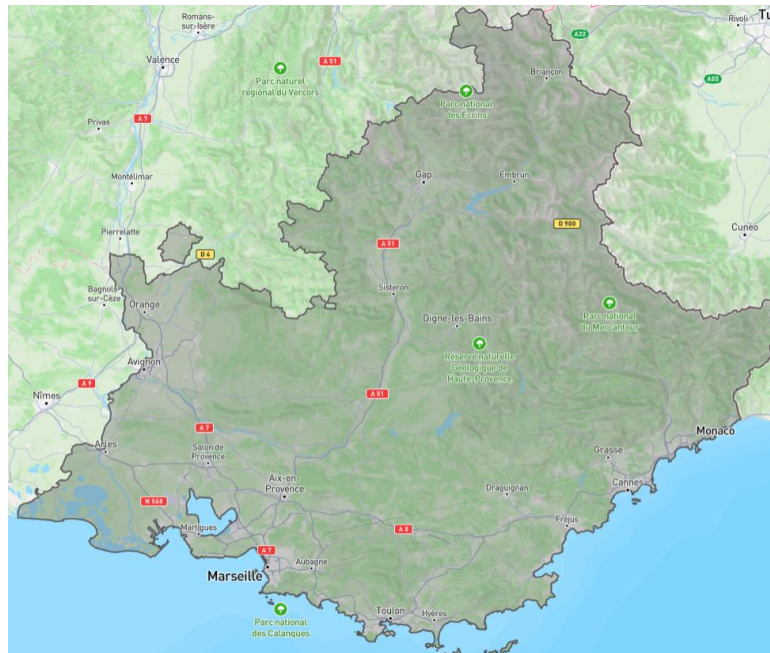


Figure 38: Main analysis area for destination Toulon

For this case, the analyzed time is the same as the previous case: from January to November 2025. Additionally, the sample size obtained ensures a maximum margin of error of 7% with a confidence level of 95%. That means that the actual proportion is the estimated proportion based on the sample plus-minus the margin of error.

Once we have the sample of non-domestic cruise passengers arriving in Toulon, we may proceed with the specific business questions for this destination. In the case of Toulon, where cruise ships arrive, those in charge of the destination know that these cruise passengers leave the city to visit other nearby destinations such as Marseille, Nice, Cannes, or Monaco, thus losing the value these tourists could bring to the destination. Their goal is to retain these tourists and promote tourist attractions related to sustainable or more nature-based tourism, such as natural parks in the surrounding area.

Business question: According to the idea exposed previously, we want to know the proportion of cruise passengers arriving in Toulon and then visiting touristic destinations such as Marseille, Nice or Monaco. Additionally, we are interested in the proportion of cruise passengers that stays only in Toulon region.

To address these business questions, we define the sub-areas or points of interest within the main analysis area as follows in the figure below. We can see in blue the municipality - what in France is called 'arrondissement' – of Toulon. In red, the area around Nice and Monaco cities, and Marseille in green.

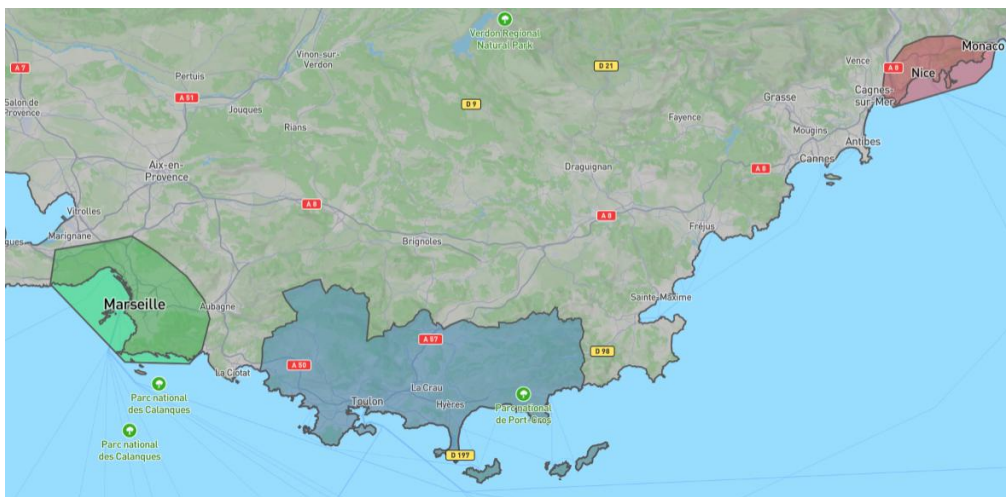


Figure 39: Sub-areas (points of interest) defined for Toulon business question

Note that we did not use municipality borders for Nice and Marseille in order to avoid including main highways and roads with the aim of getting only those users visiting these cities.

Results

The results reveal a significant pattern of visitor leakage. Approximately 30% of non-domestic cruise passengers detected in Toulon were subsequently observed in other locations within the PACA analysis area, confirming that nearly one in three cruise visitors uses Toulon primarily as an arrival and departure point rather than as a destination in itself. Of this outflow, Nice and Monaco together attract approximately 14% of all passengers — making the French Riviera city-pair the dominant competing draw — while Marseille captures around 6%. Conversely, 70% of passengers remain within the Toulon area throughout their port call, demonstrating that a substantial majority does engage with the local destination, but that the leakage rate is structurally significant and economically consequential.

These figures have important implications beyond tourism economics. From a sustainability perspective, the travel by cruise passengers from Toulon to Nice or Monaco — a distance of approximately 80–120 km each way — implies a meaningful carbon footprint associated with private car or coach transfers, undermining the sustainability objectives of the port call. Redirecting even a fraction of this outflow toward nature-based alternatives within or near Toulon — such as the Parc National de Port-Cros, the Massif des Maures, or the wine routes of the Var — would both reduce transport emissions and enhance the economic and experiential value of the local destination.

Temporal patterns: evidence of a hub-and-spoke visit structure

The hourly distribution analysis provides a particularly revealing picture of visitor behaviour in Toulon, confirming and enriching the spatial findings. Geolocation signals

are first detected at approximately 06:00–07:00, consistent with early-morning ship arrivals, and continue until 19:00–20:00, when passengers return to the vessel ahead of departure — a window of approximately 12–13 hours that is somewhat longer than the Valencia case.

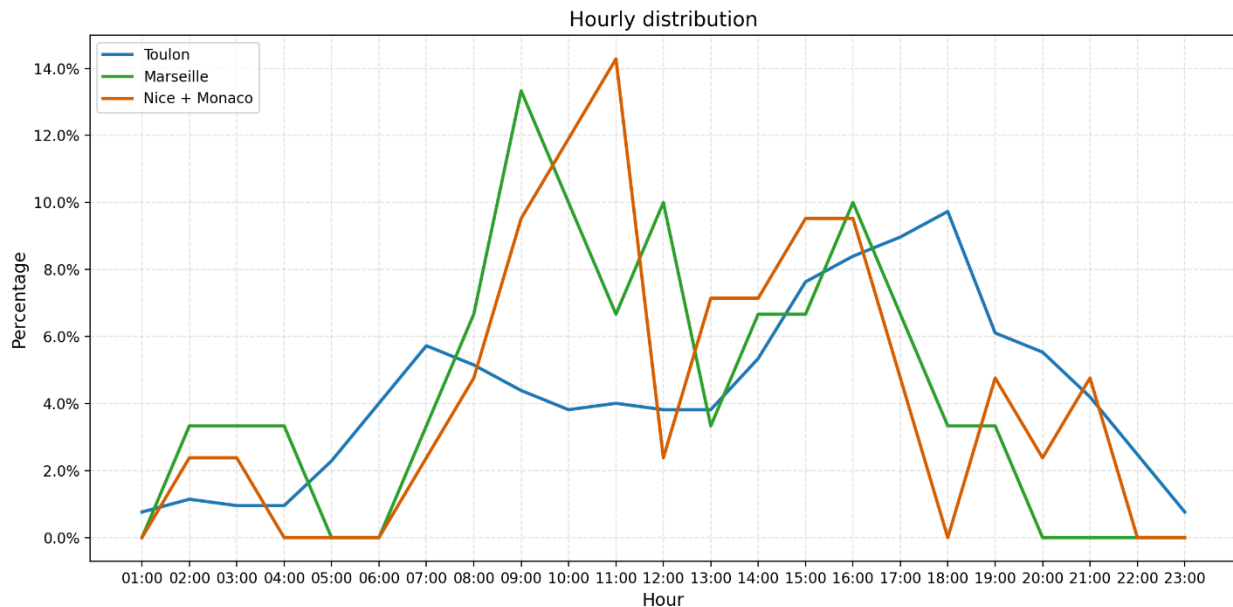


Figure 40: Hourly distribution of cruise passengers in key points of interest such as: Toulon, Marseille and Nice and Monaco.

The comparison of temporal signatures across the three zones is especially instructive. Marseille and Nice+Monaco both display sharply concentrated activity peaks in the morning and early afternoon, suggesting that passengers who travel to these cities do so for a time-limited excursion before returning to Toulon. The brevity and intensity of their presence in these cities is consistent with a day-trip pattern driven by coach transfers. Toulon itself, by contrast, shows a much flatter and more temporally extended distribution, with activity dispersed across the full 13-hour window. This contrasting pattern strongly supports the interpretation that Toulon functions as the hub from which a subset of passengers depart and to which they return, while the competing cities serve as the "spoke" destinations for a concentrated mid-day excursion.

This temporal structure also suggests a clear intervention window for the PortCREW platform. The early-morning hours — before passengers commit to coach excursions to the Riviera — represent the optimal moment to present compelling information about local sustainable alternatives. Pre-boarding digital nudges via the platform, supplemented by on-terminal information points, could shift the decision calculus for a meaningful proportion of passengers toward local eco-tourism options.

Implications for the PortCREW platform

The Toulon analysis establishes a distinct platform design logic compared to Valencia. Here, the primary challenge is not urban concentration within a single city but the outflow

of visitors to external competing destinations. The platform's value proposition at Toulon must therefore centre on the attractiveness and accessibility of the local eco-tourism offer as a genuine alternative to the Riviera experience. Key priorities include: (i) compelling content showcasing the natural and cultural assets of the Toulon hinterland, including the coastal national parks, the Massif des Maures, and local wine and gastronomy routes, positioned explicitly as "the Provence that cruise passengers miss"; (ii) seamless last-mile mobility information for accessing these natural areas without a private vehicle; and (iii) early-morning engagement strategies — both digital and physical at the terminal — timed to reach passengers before organised coach excursions depart.

6. Regional analysis: Ravenna Pilot Area

6.1. Local cruise outlook and infrastructure

6.1.1. Cruise outlook

City of Emilia-Romagna region, Ravenna is a place rich in history and art. In its past, it was the capital three times: of the Western Roman Empire, of the Ostrogoths Kingdom and of the Byzantine Exarchate. Thanks to these important vestiges, the complex of the first Christian monuments of Ravenna has been included, since 1996, in the list of Italian heritage sites of humanity by UNESCO.

Ravenna is a city rich also of sea and nature. Its emblematic landscapes are characterized by the greatest artistic heritage of the world immersed in natural resources of great charm. It's possible to enjoy its beauties by bike, through a long system of cycle paths that soon will connect the cruise terminal to the city, and practicing outdoor sports.

The city is also well known for its food tradition, with some delicious specialties such as piadina and cappelletti, as well as for its beaches and night life.

Since 2011 a Cruise terminal was established at the Port of Ravenna entrance, in Porto Corsini. The terminal is able to accommodate two cruise vessels at the same time at berth. Here below in the map it's visible the location of the Cruise Terminal, in the red circle. More above there is a picture of the terminal area.



Figure 41: Map of the Ravenna Cruise Terminal and Port area and Figure 42: Picture of the Ravenna Cruise Terminal

6.1.2. Cruise sector analysis in Ravenna

The new Cruise Terminal will receive about **300.000 passengers** per year, the majority of them as «*Home Port*», meaning that their point of departure and arrival is the Cruise Terminal of Ravenna, and that they will be staying in the city before and after the cruise.

This will lead to a better integration with the airports of the region, namely Bologna, Forlì and Rimini.

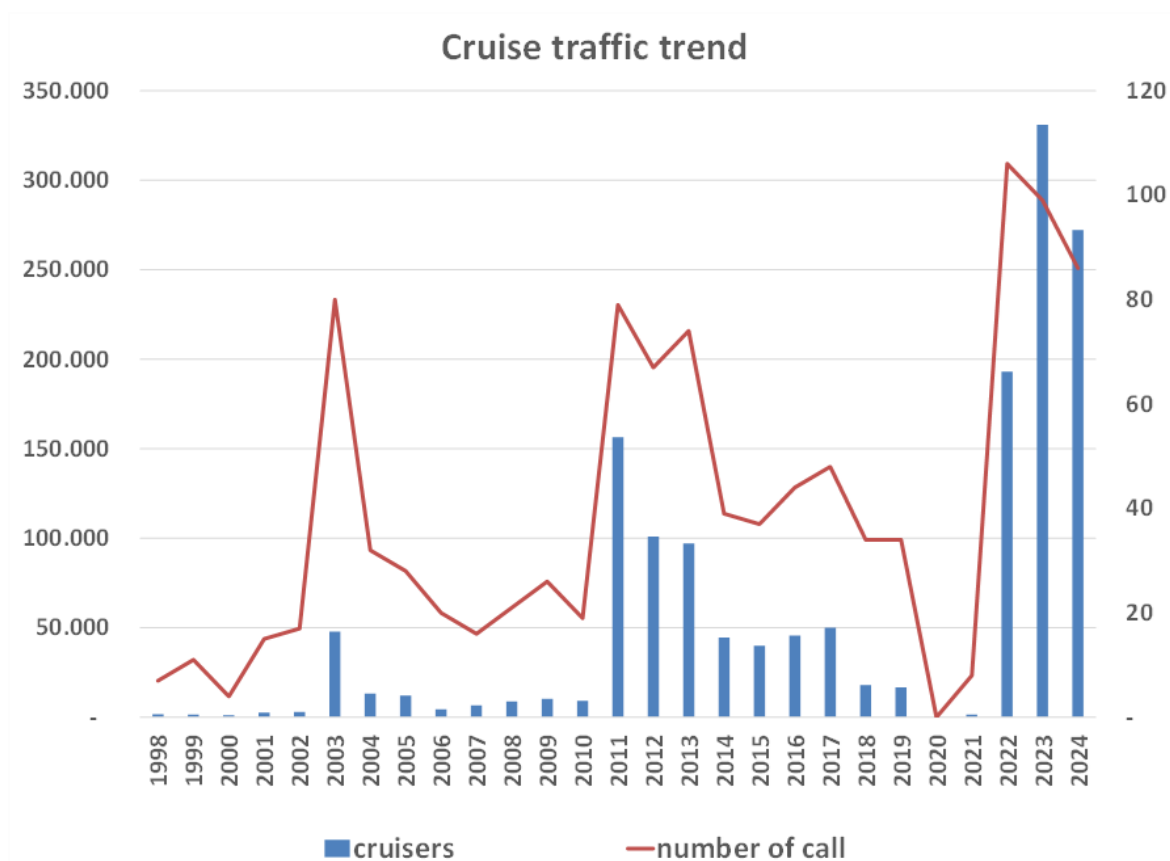


Figure 43: Cruise travel evolution per year in Ravenna

6.1.3. Ravenna port infrastructures

In Ravenna, the new Cruise Terminal, a green and sustainable building that is under construction and will be completed by the end of 2026, will receive about **300.000 passengers** per year, the majority of them as «*Home Port*», meaning that their point of departure and arrival is the Cruise Terminal of Ravenna, and that they will be staying in the city before and after the cruise. The investment will be implemented in **Project Financing (Public-private partnership)** and implies a concession agreement of **33 years** with the scope of managing boarding and disembarking services and passenger transit at the Port of Ravenna, in addition to the construction of the new Cruise Terminal.

The new Maritime Station is designed to create a harmonious ensemble with the project

of “Dune park” in the beach town of Porto Corsini. The project will breathe new life into the area that surrounds the terminal, resulting in a symbiosis between the cruise port, the urban context and the coastal ecosystem that is typical of the area. The Terminal will also be equipped with a Cold Ironing Facility for cruise ships at berth, allowing them to turn off their engines, with positive benefits in terms of pollution and noise.

On these 12 hectares the facilities of the cruise terminal will be surrounded by green spaces, creating a point of convergence with nature and placing environmental sustainability at the very heart of the project.



Figure 44: Rendering of the new Cruise Terminal under construction

6.2. Ecotourism strategy of Ravenna

Ravenna is a land deeply immersed in nature, where biodiversity continues to flourish despite tourism and industrial development. Within the protected Po Delta Park, visitors can encounter rare species of flora and fauna in a unique environment that's not just observed, but experienced. This balance between ecological preservation and human

activity is one of Ravenna's most remarkable features. And let's not forget its 35 kilometres of coastline, home to nine seaside resorts—from the wild charm of Marina Romea, embraced by pinewood forest, to the lively Lido Adriano, where tourists and locals animate a vibrant nightlife. Inclusivity is another hallmark of Ravenna's seaside identity. All beach establishments provide accessible walkways, with Punta Marina Terme standing out as a model of excellence in Europe: a fully equipped, assisted beach facility designed to welcome people with severe disabilities and their families.

Following the Ravenna municipality statements, the city takes on the challenge of becoming an increasingly sustainable and inclusive city and tourist destination. This is done also with the supports of EU finds. More in detail, thanks to the FOOTPRINTS PROJECT, funded under the European Urban Initiative – Innovative Actions, the city aims to raise awareness among citizens and tourists about increasingly conscious choices to respect the environment, people and the characteristics that make Ravenna unique in the world.

The project, thanks to the collaboration between institutional partners, the local community, entrepreneurs and managers of tourist sites, aims to build an integrated tourism system capable of combining sustainability and authenticity. Various actions and investments will contribute to encouraging eco-friendly behaviour and offering an engaging and responsible tourist experience.

A central role is played by local tourism businesses, which are engaged in a path toward environmental sustainability aimed at obtaining green certifications. In this way, visitors will take advantage of eco-friendly options for accommodation and dining.

Among the planned initiatives within the project, a key feature is the creation of 3 welcome hubs designed as intermodal points, where visitors will be able to rent and receive assistance for eco-friendly vehicles such as bicycles and electric vehicles, also accessible to people with disabilities. Urban routes and furnishings will also be implemented to ensure full accessibility of the historical centre.

With Footprints, Ravenna faces this challenge by putting its tourist offer at test and aims at involving sector experts and especially travel enthusiasts to try out its offer, provide suggestions and expand the number of “green” tourists.

6.3. Field results: stakeholder insights

6.3.1. Interviewed profiles

Interviews in Ravenna have been made to the relevant local stakeholders concerning the cruise sector. More in details these are the stakeholders interviewed:



Port of Ravenna Authority; The Port of Ravenna Authority is the local authority managing the port of Ravenna and coordinates the overall port activities and manages the concession of public areas that are given in concession to operators to carry on port activities, such as cruise operations. The Port of Ravenna Authority is involved in supporting a sustainable growth of tourism flows in Ravenna coming from cruises.



Municipality of Ravenna; The Servizio Turismo Comune di Ravenna – Ravenna Tourism hence forward RT) is the municipal department in charge of managing local tourist policies and services. RT is involved in the management of information Offices (one major office plus nine more, locally and seasonally open at the seaside), of web sites, local promotion and event organizing. In the last years, the theme of sustainability has become central in the management of tourist policies. Evolving lifestyles and consumers' models highlight the need of constantly adapt the tourist experience to new patterns. This adaptation must remain a strategic priority for RT, in order to ensure the attractiveness, the quality and sustainability of the area's tourism offers. In this regard, the European Urban Initiative – Innovative Actions program awarded approximately € 5 million in funding for a project entirely dedicated to sustainable tourism: Footprints (EUI02 - 132), to be developed in the period 2025-2027. Ravenna's proposal, together with the involvement of many operators and stakeholders in the sector, was recognized for its full compliance with the European objectives of sustainable urban development of innovative, transferable and scalable solutions. The involvement of many economic, social and spatial aspects, as well as the involvement of local partnership was also appreciated.



RCCP (Ravenna Civitas Cruise Port) is the Ravenna Cruise Terminal operator. RCCP is the concessionaire providing a general interest service for the assistance of embarking, disembarking, and transit cruise passengers.

The new cruise terminal under construction is LEED certified (Leadership in Energy and Environmental Design), a certification that covers the entire lifecycle—from the feasibility study and executive design to the construction site and building management—enabling the effective management and optimization of passenger flows.



Emilia – Romagna Region. The Emilia-Romagna Region plays a strategic role in governing tourism by integrating economic growth with environmental preservation. Through its Regional Tourism Board, it promotes the diverse "Destinations" (Visit Romagna, Bologna-Modena, and Visit Emilia), focusing on high-quality standards and international branding. A core priority is sustainable tourism, implemented through several initiatives and projects, ranging from the enhancement of cycle paths to the

promotion of slow-travel routes like the historic trails. In terms of cruise tourism, the Region supported the development of the Ravenna Port hub, as it is the only cruise access point at the regional level. By balancing large-scale arrivals with "green" mobility and local cultural itineraries, the aim is to reduce the environmental footprint of tourism.

6.3.2.Key messages from the stakeholders' interviews

The analysis of the questionnaires filled in by the above mentioned stakeholders showed several interesting points. The most important aspect is that the consensus among the Region, the Municipality, and the Port of Ravenna Authority reflects a shift from traditional tourism management to a **high-tech, eco-conscious governance model**. The following pillars represent their unified vision:

1. Strategic Decongestion & "Flow Redirecting"

There is a unanimous mandate to protect the "UNESCO core" of Ravenna by actively redirecting cruise passengers.

- **Tactical Focus:** The platform is seen as a tool for "spatial distribution." Instead of just suggesting alternatives, the goal is to promote **lesser-known natural landmarks** (such as the San Vitale Pine Forest and the Punte Alberete wetlands) and peripheral cultural sites that can be reached within two hours.
- **Real-Time Management:** Both the Municipality and the Port Authority emphasize the need for **real-time demand forecasting** to prevent "over-tourism" spikes before they happen.

2. Data-Driven Resilience & Scientific Baselines

Sustainability here isn't just a buzzword; it's backed by scientific data from previous cooperation.

- **Climate Integration:** The Emilia-Romagna Region highlights the **LIBECCIO project**, which provides advanced climatic datasets. They intend to use this scientific baseline to evaluate the environmental sustainability of cruise operations within PortCREW.
- **Smart Governance:** The Municipality draws on the **DARE and Footprints projects**, aiming to use the platform to turn "raw data" into actionable mobility strategies for the city.

3. The "Last Mile" Sustainable Connectivity

A major common point is the obsession with the "last mile"—the transition from the ship to the destination.

- **Intermodal Synergy:** Stakeholders agree that the platform must perfectly map

soft mobility (e-bikes, walking trails, and public transport) to ensure that "eco-attractions" remain accessible without the need for private cars or traditional heavy buses.

- **The Terminal as a Gateway:** The Ravenna Cruise Terminal is viewed as more than a transit point; it is a **LEED-certified "Green Lab"** that must physically and digitally introduce passengers to the region's environmental values from the moment they disembark.

4. Capitalizing on Institutional Legacy

The surveys reveal a strong desire to avoid "reinventing the wheel" by capitalizing on the **ADRIJO Network**.

- **Heritage Valorization:** The Port of Ravenna Authority points to the **ADRIJOROUTES and REMEMBER projects** as successful blueprints for maritime cultural tourism. They want PortCREW to act as a digital "bridge" that revives the maritime memory of the Adriatic while promoting contemporary sustainable offers.

5. Universal Design & Inclusivity

Every stakeholder rated **Accessibility Information** with the highest priority.

- **Unified Standard:** There is a shared understanding that an "eco-tour" is only sustainable if it is **inclusive**. The platform must provide granular data on wheelchair access, senior-friendly paths, and child-safe environments to ensure that the natural heritage is available to all demographics without barriers.

Moreover, here are reported some graphical results from the choice questions in the questionnaire:

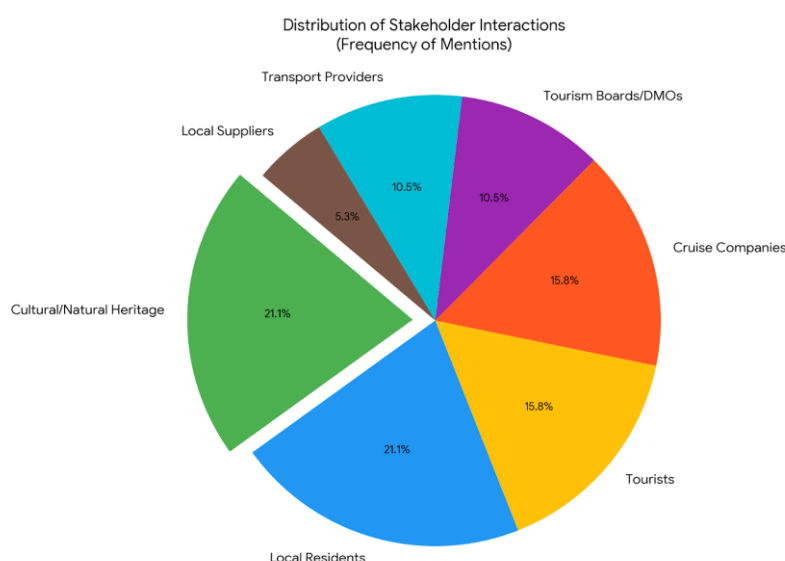


Figure 45: Resume of Answers received- Distribution of stakeholder interactions

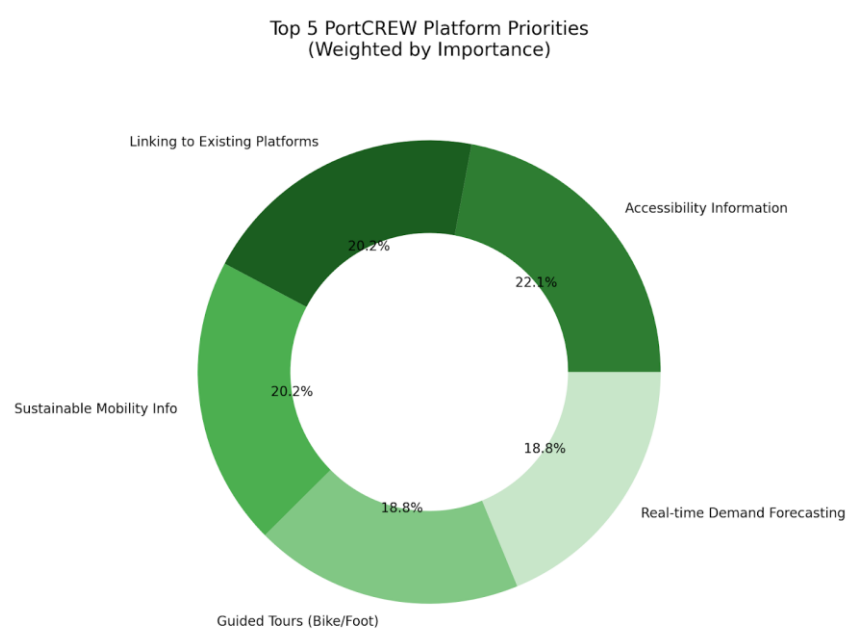


Figure 46: Resume of Answers received- PortCREW Platform priorities

6.4. Field results: interview analysis

Context and interviewed profiles

Three stakeholder interviews were conducted for the Ravenna pilot area, covering the key institutional actors directly involved in shaping the cruise tourism experience at Porto Corsini: Ravenna Civitas Cruise Terminal (RCCP), the concessionaire managing passenger flows at the terminal; the Municipality of Ravenna (Servizio Turismo), responsible for tourist policy, information services, and the city's evolving sustainability strategy; and the Emilia-Romagna Region's Tourism Department, representing the broader regional governance framework. The interviews were conducted between January and March 2026.

Cruise tourism profile and operational context

Ravenna Civitas Cruise Terminal provided the most detailed quantitative picture of the destination's cruise activity. The terminal handled 99 ship calls in 2023 (272,219 passengers) and 86 calls in 2024 (330,952 passengers) — a counter-intuitive combination of fewer calls but significantly more passengers, reflecting the deployment of larger vessels. The 2025 forecast projects 82 calls and approximately 249,000 passengers, suggesting a slight consolidation. Activity is strongly seasonal, concentrated between May and October, with July and August together accounting for approximately 40% of annual traffic. A particularly important operational characteristic is that only approximately 41–43% of passengers disembark at Porto Corsini — a figure significantly lower than at other pilot ports — reflecting the port's dominant role as an embarkation/disembarkation hub rather than a standard port of call. This means that for nearly 60% of passengers, Ravenna is the start or end point of their cruise rather than a brief stop, implying a very different opportunity window for eco-tourism engagement: homeporting passengers have more planning time and potentially greater flexibility than transit visitors.

The new cruise terminal under construction at Porto Corsini is being designed to LEED certification standards, covering its full lifecycle, which the terminal manager cited as a concrete signal of the destination's commitment to sustainability. Electric coaches connecting the terminal with Ravenna city centre are planned for the medium term, which would represent a significant improvement in sustainable last-mile connectivity.

Visitor needs and segmentation

Stakeholder responses on visitor segmentation were relatively limited for Ravenna compared to other pilot sites, reflecting the terminal operator's and municipality's more indirect relationship with end passengers. The cruise terminal acknowledged not having detailed profiling data, but noted a universal horizontal need across all passenger types: Ravenna's hotel supply is insufficient for the volume of turnaround passengers, and the absence of international-chain hotels at the higher end limits the destination's ability to attract and retain high-spending overnight visitors. The municipality confirmed that

cruise-specific visitor research is not currently conducted by the tourism office, with cruise passenger data primarily held by the Port Authority (RCCP and the North Central Adriatic Sea Port Authority).

Eco-tourism offer: current state and strategic vision

The Ravenna municipality's most substantive contribution relates to the Footprints project, a €5 million European Urban Initiative – Innovative Actions programme being developed in parallel with PortCREW in the 2025–2027 period. Footprints is constructing a catalogue of tourism experiences designed around sustainability and inclusiveness standards, delivered through the Consortium "Ravenna Incoming". This initiative creates a direct and important synergy opportunity for the PortCREW platform: the experiences and operators recruited under Footprints represent a ready-made, quality-certified eco-tourism offer that the PortCREW platform could profile and distribute to cruise passengers arriving at Porto Corsini.

Currently, tourist information for cruise passengers is provided at the terminal through a temporary information lodge operated by the municipality, offering maps, timetables, transport information, and general destination content. When the new LEED-certified terminal is completed, a permanent information point will be established. The municipality is also developing an enhanced accessibility programme, including a new urban signage system with QR-code-accessible audio clips and tactile maps, a dedicated accessibility section of the tourism website, and Italian Sign Language (LIS) training for tourist guides — all of which align directly with the PortCREW platform's inclusive design requirements.

The Emilia-Romagna Region confirmed a growing general interest in eco-tourism across the region's destinations, noting the expansion of Ecolabel certifications (though still limited in absolute number), Destinazione Romagna's sustainable tourism offer development, and strong regional interest in improving public transport connectivity for tourists. The Region also flagged a relevant parallel project, the Interreg MED LIBECCIO project on climate resilience for Mediterranean port infrastructure, whose outputs on environmental risk indicators could enrich PortCREW's green mobility strategy for the Ravenna pilot.

Platform needs and functional requirements

Platform feedback was less detailed from Ravenna interviewees compared to other pilots, partly because the terminal and municipality are less directly involved in digital tourism promotion. The cruise terminal director confirmed growing interest in sustainable transport and mentioned electric coaches as an incoming sustainable mobility option. Integration with other touristic platforms was rated highly by the regional authority, reflecting the multi-destination character of the Emilia-Romagna offer and the need for the PortCREW platform to connect with existing regional tourism ecosystems (such as the Visit Romagna and Emiliaromagnaturismo portals) rather than operating as a standalone

tool. The municipality's most specific platform request relates to governance rather than features: respondents emphasised that the most important unresolved issue for any tourism web platform is defining the data update process and ownership structure after the project's conclusion. This governance dimension — who updates the content, who owns the platform, and how it is sustained financially beyond the grant period — was identified as a prerequisite for the platform's long-term viability at this pilot site.

6.5. Demand analysis via geolocation

Overview and analytical framework

The geolocation study for the Ravenna pilot area applies the same methodology used across all PortCREW destinations, with non-domestic cruise passengers identified through the detection of device signals in the maritime approaches to the Porto Corsini cruise terminal followed by land-based activity within the main analysis area for a period not exceeding one day. Italian residents were excluded. The dataset covers January to October 2025 — a slightly shorter window than Valencia and Toulon due to data availability at the time of execution — and yields a maximum margin of error of $\pm 7\%$ at a 95% confidence level.

Ravenna's pilot context is shaped by a distinctive set of strategic priorities within the PortCREW project. The destination aims to test the platform as a practical tool for directing passengers toward eco-certified attractions in the vicinity of the Porto Corsini terminal and within the natural areas of the Emilia-Romagna region accessible by sustainable transport. A particular focus is placed on reducing pressure on Ravenna's UNESCO-listed historic centre and the city's most intensively visited sites, while simultaneously raising the profile of lesser-known natural and cultural destinations in the regional hinterland. The geolocation analysis provides the empirical baseline against which the success of this pilot strategy will be assessed.

Detailed methodology process

First, the area in the sea is defined to obtain candidates to cruise passengers. As we are focusing the analysis on non-domestic cruise passengers, we excluded users with residence in Italy.

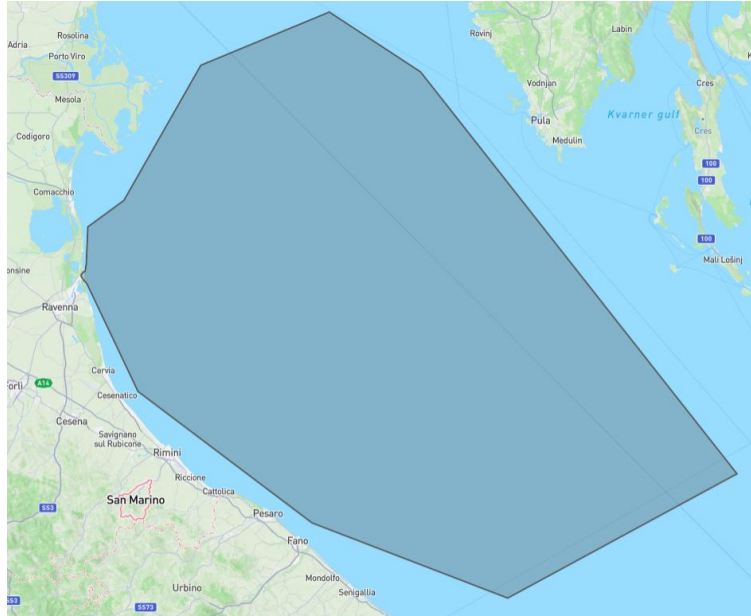


Figure 47: Area in the sea to get cruise passengers candidates arriving in Ravenna

Second, we define the main analysis area with the support of the stakeholders and according to their business questions.

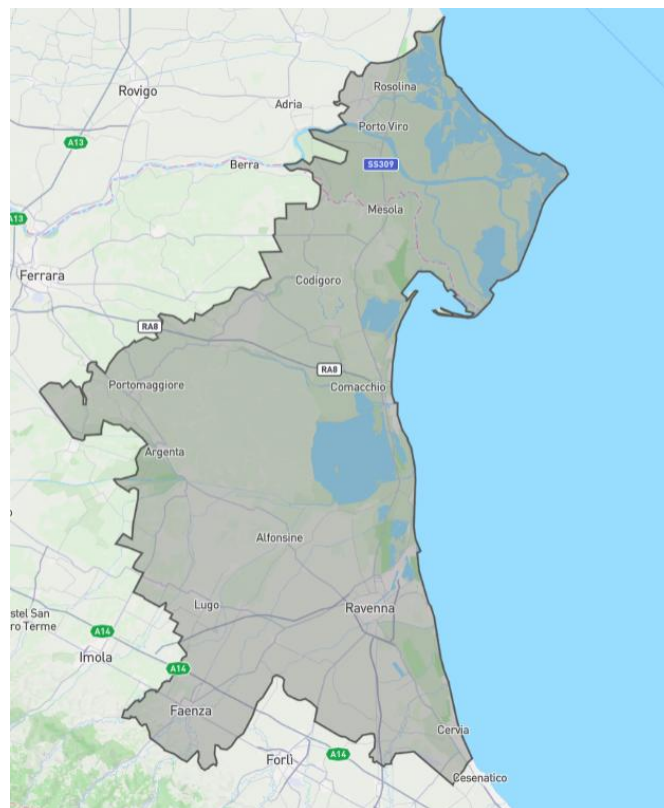


Figure 48: Main analysis area for destination Ravenna

Once we do have the user candidates to cruise passengers, we obtain their geolocations across the main analysis area. At this point, we remove the users detected in the main area more than one day. Note that the cruise passengers stay at the destination no more

than 12 hours from the arrival of the cruise ship until the departure.

Finally, we do have a sample of the non-domestic cruise passengers arriving in Ravenna. According to the sample size the estimated sample proportions may have a maximum margin of error of 7% with a confidence level of 95%. For this case, we have used data from January to October 2025.

Business question: The main goal of the Ravenna pilot action is to test the PortCREW platform as an innovative tool for providing visitors with information about eco-attractions located near the Porto Corsini cruise terminal and within the surrounding regional natural areas reachable in a sustainable way. The initiative aims to encourage cruise passengers to explore sustainable and lesser-known destinations, helping to reduce pressure on Ravenna's main tourist sites during peak periods.

To address this business question, we define the sub-areas within the main analysis area, and we calculate the percentages. In the Figure below we see in red the area defined as metropolitan area and the rest in blue.

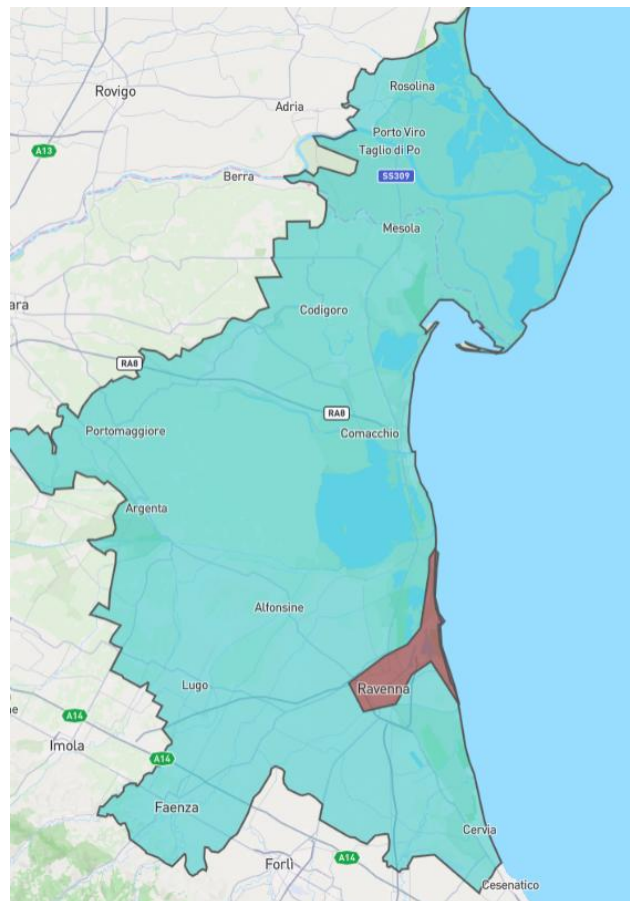


Figure 49: Sub-areas (points of interest) defined for Ravenna first business question

Business question: Additionally, Ravenna wants to understand the proportion of cruise passengers arriving in Ravenna and visiting popular close destinations like Venice and Bologna.

In this case, we define the areas of interest of Venice and Bologna, and we analyze the geolocated signals emitted by cruise-passenger who arrived in Ravenna.

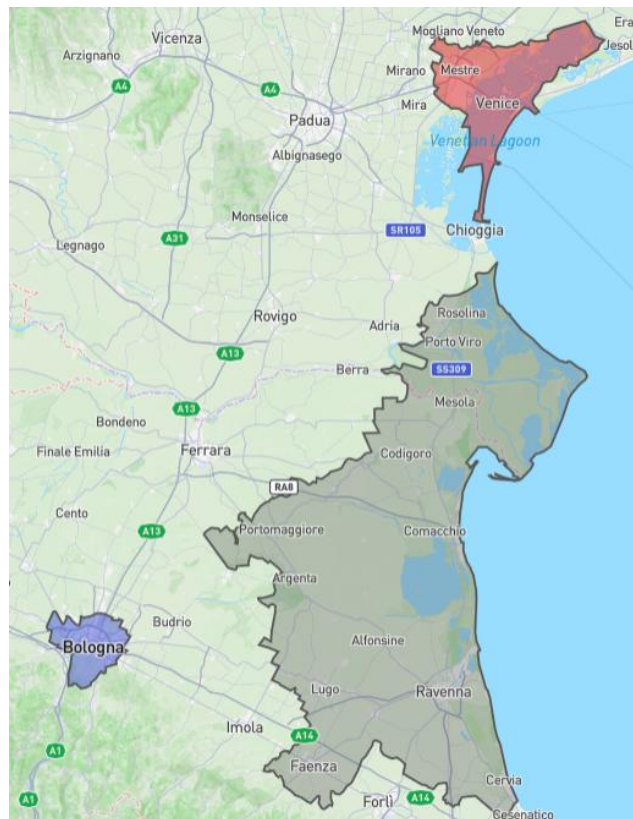


Figure 50: Areas defined for Venice and Bologna

Spatial distribution: metropolitan area vs. the wider regional zone

The analysis area was divided into the Ravenna metropolitan zone and the broader regional analysis area, mirroring the two-tier spatial framework applied in Valencia and other pilot sites. The results for Ravenna are notably different from those observed in Valencia: 55% of non-domestic cruise passengers were detected within the metropolitan area, while 45% were identified in other locations within the wider analysis area. This is the most balanced metropolitan/non-metropolitan split observed across the five pilot sites at this stage of the analysis, and it suggests that Ravenna's cruise visitors are already characterised by a relatively high degree of spatial mobility compared to destinations such as Valencia.

Several factors may explain this pattern. Porto Corsini is located approximately 10 kilometres from Ravenna's historic centre, meaning that passengers must already commit to a meaningful journey to reach the city itself — a journey that may incidentally facilitate exploration of the surrounding area. The regional landscape around Ravenna — including the Po Delta Natural Park, the Adriatic coast, and the flat hinterland of Emilia-Romagna — may also attract independent travellers with outdoor interests. Whatever the underlying drivers, the 45% non-metropolitan engagement rate represents a particularly strong

baseline for the PortCREW platform and suggests that a significant segment of Ravenna's cruise visitors is already predisposed to exploration beyond the urban core.

Outflows to major nearby cities: Bologna and Venice

A complementary analysis examined the proportion of passengers who extended their visit to the two most prominent nearby urban destinations: Bologna (approximately 75 km to the west) and Venice (approximately 90 km to the north). The results reveal an asymmetric pattern: 17% of non-domestic cruise passengers arriving in Ravenna were also detected in the Bologna area, while only 8% visited Venice.

The relatively high share of passengers visiting Bologna is noteworthy given that Venice is the more internationally prominent destination and might be expected to exert a stronger gravitational pull on cruise visitors. Several explanations are plausible: some passengers may have already included Venice in their cruise itinerary (which commonly calls at Venice separately), reducing the incentive for an additional overland visit; Bologna's growing reputation as a gastronomic and cultural destination may be attracting a specific profile of independent traveller; or coach excursions from Ravenna may be more frequently routed toward Bologna given road and time considerations. Regardless of the cause, these findings suggest that Ravenna serves as a node in a wider regional tourism circuit for a meaningful proportion of its cruise visitors — a pattern that the PortCREW platform can engage with by presenting the destination's own eco-tourism assets as a compelling local alternative to these outward journeys.

Implications for the PortCREW platform

The Ravenna data presents a particularly fertile environment for the platform. The high non-metropolitan engagement rate confirms that visitors here are mobile and curious — an audience well-suited to personalised eco-tourism recommendations. The platform should prioritise: (i) positioning the Po Delta Natural Park and the Adriatic coastal nature areas as the destination's flagship sustainable experiences, with practical information on sustainable transport links from Porto Corsini; (ii) differentiated content that helps visitors understand Ravenna's unique combination of UNESCO cultural heritage and natural assets as a proposition distinct from — and complementary to — Bologna or Venice; and (iii) tools that support independent, self-guided itineraries for the 45% of passengers who are already venturing beyond the metropolitan core..

7. Regional analysis: Koper Pilot Area

7.1. Local cruise outlook and infrastructure

7.1.1. Cruise outlook

The cruise sector in Koper, Slovenia, represents a relatively young but steadily growing segment of the local tourism and maritime economy. Although the port itself has a long history dating back to Roman times, modern cruise tourism only began in the early 21st century, with the first cruise ship arrival recorded in 2005. Over the past two decades, Koper has transformed from a marginal cruise stop into an established destination within Adriatic and Mediterranean itineraries.



Figure 51: Picture of Port of Koper

Since 2004, Koper has systematically positioned itself as an attractive and still relatively undiscovered cruise destination, benefiting from its strategic location at the northern end of the Adriatic Sea. Its proximity to Central Europe and integration into regional transport networks make it a convenient gateway for inland excursions, particularly to Ljubljana, Lake Bled, and karst attractions such as Postojna Cave. This “gateway function” is one of the defining characteristics of Koper’s cruise offer.

In terms of development trends, the port has experienced consistent growth in both ship calls and passenger numbers. For example, the number of cruise calls increased from 65 in 2016 to over 80 in the late 2010s, with passenger numbers exceeding 100,000 annually. By 2023, Koper welcomed its one-millionth cruise passenger, confirming its long-term upward trajectory. This growth reflects broader changes in the Adriatic cruise market, particularly the redistribution of cruise traffic following restrictions in larger ports such as Venice.

A key milestone in the sector's evolution was the opening of a new, modern passenger terminal in 2025. The investment was driven by the need to address capacity constraints after surpassing one million cumulative passengers. The new terminal enhances operational efficiency, sustainability, and passenger experience, positioning Koper as a more competitive and resilient cruise port in the region.



Figure 52: Entrance of the new terminal of the Port of Koper

From a strategic perspective, Koper occupies a niche position as a **small-to-medium-sized port of call** rather than a homeport. It is typically included in itineraries as an alternative or complementary destination to major Adriatic ports such as Venice, Trieste, or Dubrovnik. Its main competitive advantages include the immediate proximity of the cruise terminal to the historic city center (within walking distance), manageable visitor flows, and an authentic cultural environment. At the same time, the port's limited capacity—accommodating only one large cruise ship at a time—reinforces its position as a boutique destination rather than a mass tourism hub.

7.1.2. Cruise sector analysis in Koper

To better understand the development of cruise tourism in Koper, it is important to examine the key internal and external factors that influence this sector. These include both positive aspects, such as advantages and growth potential, as well as limitations and external challenges. Such an approach provides a clearer picture of Koper's current position in the Adriatic cruise market and helps to identify factors that may shape its future development.

Strengths of Koper's cruise sector include its strategic geographic location, strong connectivity to inland attractions, and compact urban layout, which allows easy access for passengers. The modern terminal infrastructure and relatively low congestion compared to larger ports also enhance visitor experience.

Weaknesses relate primarily to limited capacity and scale. The port can handle only one vessel at a time, which restricts growth potential and limits economies of scale. Additionally, Koper is largely dependent on being a port of call rather than a departure port, reducing its control over cruise itineraries.

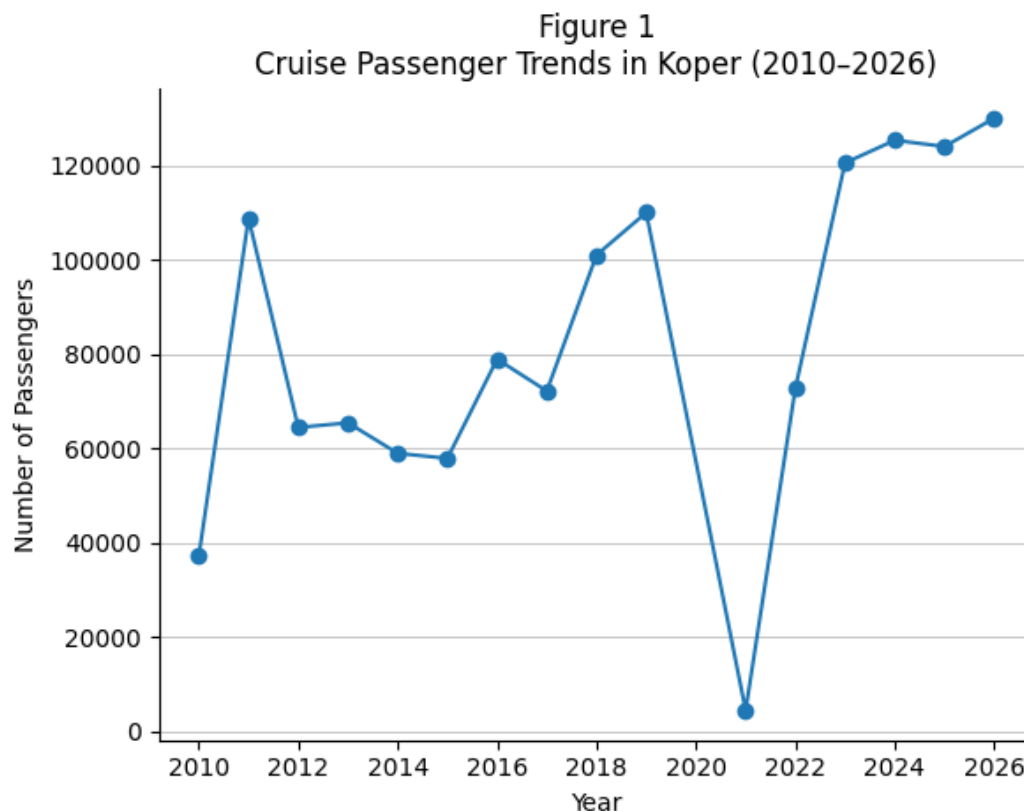


Figure 53: Cruise passengers trends in Koper

Opportunities arise from shifting cruise patterns in the Adriatic, especially due to environmental restrictions in Venice and the search for alternative destinations. Koper

can further develop sustainable tourism models, diversify excursion offerings, and strengthen its branding as a green and culturally authentic destination.

Threats include strong competition from nearby ports such as Trieste, Rijeka, and Dubrovnik, as well as external factors like environmental regulations, overtourism concerns, and fluctuations in global cruise demand. Weather conditions and itinerary changes may also impact port calls.

Overall, the cruise sector in Koper demonstrates stable and controlled growth, characterized by a balance between tourism development and sustainability. While it cannot compete with major Mediterranean cruise hubs in terms of scale, its strategic positioning as a smaller, high-quality destination ensures its continued relevance within Adriatic cruise itineraries.

7.1.3. Koper port infrastructures

The cruise terminal infrastructure in Koper has developed significantly over the past two decades, evolving from a basic facility into a modern and efficient passenger hub. Located within the Port of Koper and only a few hundred meters from the historic city center, the terminal benefits from a highly favorable spatial position, allowing passengers direct and easy access to the old town on foot.



Figure 54: View of the Port of Koper and its infrastructures from the city

Technically, the cruise terminal is designed to accommodate medium to large cruise vessels. The main quay is approximately 420 meters long, with a depth of around 10–11

meters, enabling the berthing of ships up to about 350–420 meters in length. However, the port is limited to handling one cruise ship at a time, which reflects its positioning as a smaller, boutique cruise destination rather than a mass tourism hub. The terminal is supported by essential maritime and logistical services, including pilotage, tug assistance, bunkering, waste management, and dedicated parking areas for buses and taxis, ensuring efficient passenger transfers and ship operations.

A major step in the development of infrastructure was the opening of a new passenger terminal building in 2025. This investment was necessary due to increasing passenger numbers, which had exceeded one million cumulative arrivals and placed pressure on the previous temporary facilities. The new terminal covers approximately 1,000 square meters and includes modern facilities such as a main passenger hall, border control and customs areas, and spaces for port authorities. In addition, it offers amenities such as a panoramic terrace and public areas, improving both passenger experience and integration with the local community.



Figure 55: Image of the new terminal of the Port of Koper

A key feature of the new infrastructure is its focus on sustainability and environmental responsibility. The terminal has been designed using energy-efficient systems and recyclable materials, aligning with broader European and national policies promoting sustainable tourism development. Furthermore, its architectural integration with the urban environment strengthens the connection between the port and the city, transforming the terminal into both a transport facility and a public space.

Overall, the cruise terminal infrastructure in Koper reflects a balance between functionality, sustainability, and spatial integration. While its capacity remains limited compared to larger Adriatic ports, recent investments have significantly improved operational efficiency and visitor experience, supporting the continued growth of cruise tourism in the region.

7.2. Ecotourism strategy of Koper

Sustainable tourism development is a key strategic priority in Koper, where ecotourism principles are increasingly integrated into broader tourism planning. This approach is particularly important in relation to cruise tourism, which represents one of the most visible and fast-growing segments of the destination. As cruise passenger numbers have increased over the past decade, the need to manage environmental impacts, spatial pressure, and visitor flows has become more significant.

Koper's tourism strategy is based on the concept of "green, boutique and responsible tourism," which aims to balance economic benefits with environmental protection and quality of life for residents. Slovenia as a whole strongly promotes sustainable tourism development, encouraging destinations to reduce their environmental footprint and avoid mass tourism models. In this context, Koper is positioned as a controlled-growth destination, where quality and sustainability are prioritized over volume expansion.

Cruise tourism plays a central role in this framework. Although Koper receives a relatively moderate number of cruise calls compared to larger Mediterranean ports, the sector still generates concentrated daily visitor flows, particularly during peak summer months. Considering that cruise passengers typically arrive and depart within a short time frame, managing their impact in the historic city center is a key challenge. The fact that the cruise terminal is located directly next to the old town increases accessibility but also requires careful spatial and visitor management to avoid overcrowding and pressure on infrastructure.

To address these challenges, local authorities and tourism stakeholders focus on dispersing visitors beyond the immediate city center. Cruise excursions are designed to distribute tourists to wider regional attractions such as Ljubljana, Lake Bled, Postojna Cave, and the Istrian countryside. This helps reduce pressure on Koper itself while also supporting regional development. In addition, efforts are made to encourage longer stays, more sustainable transport options, and environmentally responsible excursion providers. The goal with Port CREW is to redirect tourists out of the city centre, but keeping them within Municipality's borders.

The Port of Koper also plays an important role in supporting sustainability within cruise operations. Investments in modern infrastructure, improved logistics, and environmental management systems aim to reduce the ecological impact of maritime activities. The development of the new passenger terminal further supports this direction by improving operational efficiency and integrating sustainability principles into its design and functioning.

At the same time, Koper's cruise strategy reflects a balance between competitiveness and sustainability. The port seeks to remain an attractive stop within Adriatic itineraries while avoiding the negative effects associated with overtourism. This is achieved through a focus on mid-sized cruise ships, controlled port capacity, and collaboration with cruise operators to ensure more responsible scheduling and excursion planning.

In conclusion, cruise tourism and ecotourism strategy in Koper are closely interconnected. While cruise tourism brings important economic benefits and international visibility, it also requires careful management to remain sustainable. By integrating green tourism principles into cruise development, Koper aims to maintain its position as a competitive yet responsible destination in the Adriatic region, ensuring long-term environmental, social, and economic balance.

7.3. Field results: stakeholder insights

7.3.1. Interviewed profiles

Interviews made in Koper, asking different stakeholders about the perspectives related to the development of ecotourism in the whole Municipality area, provided some interesting outcomes. The development of ecotourism in Koper is increasingly shaped by the perspectives of key stakeholders, including the Municipality of Koper, cruise line representatives, tourism agencies, and the Port of Koper (Luka Koper) as terminal operator. Across these groups, there is a shared understanding that cruise tourism must evolve toward more sustainable and balanced development, while still maintaining its economic importance for the destination.

The **Municipality of Koper** emphasizes sustainable and responsible tourism growth as a core development priority. Local authorities highlight the need to balance the economic benefits of cruise tourism with the protection of the historic city center and the coastal environment. The municipality supports the idea of "controlled growth," where visitor flows are managed to prevent overcrowding and preserve the quality of life for residents. A key expectation is that cruise tourism should contribute to wider regional development rather than concentrating impacts only in the city core. This includes encouraging the dispersion of visitors to nearby attractions such as the Istrian countryside and protected

natural areas.

From the perspective of the **Port of Koper and terminal operator (Luka Koper)**, sustainability is increasingly embedded in infrastructure development and operational planning. The recent investment in a modern cruise terminal reflects a broader shift toward energy efficiency, environmentally friendly construction materials, and improved passenger flow management. The port authority acknowledges that future competitiveness depends not only on capacity and efficiency but also on environmental responsibility and alignment with European sustainability standards. At the same time, they recognize the need to maintain operational flexibility to accommodate growing cruise demand while minimizing environmental pressure.

Cruise line representatives are also adapting to changing market expectations. Industry trends show a growing interest in “responsible cruising,” where destinations are evaluated not only by attractiveness but also by sustainability credentials and capacity management. Cruise operators increasingly prefer ports that offer efficient logistics, short walking distances to city centres, and well-organized excursion programs that reduce congestion. In Koper’s case, cruise lines value its compact layout and accessibility but also expect clearer coordination regarding shore excursions and visitor distribution to reduce peak-time pressure on the city.

Meanwhile, **tourism agencies and local service providers** recognize both the opportunities and challenges of cruise tourism. On one hand, cruise arrivals generate significant economic benefits through excursions, retail, gastronomy, and transport services. On the other hand, stakeholders acknowledge that the short duration of cruise visits limits direct spending in the city centre and can create seasonal congestion. As a result, there is growing interest in developing more sustainable tourism products, such as small-group excursions, eco-tours, cycling routes, visits to nature reserves, and authentic local experiences that align with ecotourism principles.

Across all stakeholder groups, a clear trend is the increasing importance of environmental awareness, visitor management, and quality over quantity. Instead of focusing solely on increasing cruise numbers, stakeholders increasingly support a model that emphasizes controlled growth, reduced environmental impact, and higher-value tourist experiences. There is also a shared expectation that digitalization and better coordination between port authorities, municipalities, and tourism providers will improve flow management and reduce environmental pressure in peak periods.

In conclusion, stakeholder perspectives in Koper indicate a gradual but clear shift toward integrating ecotourism principles into cruise tourism development. While economic benefits remain essential, future expectations increasingly focus on sustainability, balanced spatial development, and improved cooperation among all actors involved in the cruise tourism system.

7.3.2.Key messages from the stakeholders' interviews

The results from the stakeholder interviews can be summarised as follows:

1. Strong support for sustainable growth: all stakeholders agree that cruise tourism should continue developing, but in a controlled and sustainable way. The focus is not on increasing numbers at any cost, but on maintaining a balance between economic benefits, environmental protection, and residents' quality of life.
2. Koper is a "manageable" cruise destination: stakeholders consistently highlight that Koper is not a mass tourism port, which is seen as an advantage. Its smaller scale allows better control of visitor flows, easier logistics, and less environmental pressure compared to larger Mediterranean ports.
3. Need for better visitor distribution: a recurring message is the importance of spreading cruise passengers beyond the city centre. Excursions to inland Slovenia and nearby coastal areas, within Koper's Municipality, are seen as essential to reduce congestion and distribute economic benefits more evenly.
4. Infrastructure is no longer the main limitation: the new cruise terminal and improved port infrastructure are viewed positively. Stakeholders indicate that the main challenges are now operational coordination and visitor management, rather than physical capacity.
5. Growing importance of sustainability standards: cruise lines increasingly consider environmental performance and destination responsibility when selecting ports. There is rising pressure to reduce emissions, improve waste handling, and support greener shore operations.
6. Cruise tourism benefits but remains limited in local spending: tourist agencies and local providers note that cruise passengers generate income mainly through short excursions and organized tours, while direct spending in the city is relatively limited due to short stays.
7. Need for stronger cooperation between stakeholders: a key message across interviews is the need for better coordination between the municipality, port authority, tourism agencies, and cruise operators. Improved communication is seen as essential for managing peak arrivals and developing sustainable tourism products.
8. Shift toward quality over quantity: stakeholders increasingly support a strategy focused on higher-value experiences rather than increasing cruise volume. This includes small-group tours, authentic local experiences, and environmentally responsible tourism products.

In sum, the interviews revealed a shared vision: Koper should remain an attractive cruise destination, but future development must prioritise sustainability, coordination, and controlled growth over expansion of numbers.

7.4. Field results: interview analysis

Context and interviewed profiles

Eight stakeholders were interviewed for the Koper pilot area, making it the most intensively surveyed pilot alongside Valencia. The stakeholder set encompasses the full cruise tourism ecosystem at the Port of Koper: four cruise companies calling at the port (TUI Cruises, AIDA Cruises, AZAMARA Cruises, and VIKING Cruises), the Koper Cruise Terminal (Luka Koper), the local tour operator and ground handler Istranka Tours (interviewed in its capacity both as a tour operator and as the e-bike rental provider at the terminal), and the Municipality of Koper / Zavod za mladino, kulturo in turizem Koper (Institute for Youth, Culture and Tourism Koper) as the destination management organisation.

Cruise tourism profile and operational context

The most complete quantitative data is provided by the Koper Cruise Terminal and the Municipality of Koper. In 2024, the port received 74–79 cruise ship arrivals (sources vary slightly) and approximately 125,000 passengers, with a 97% disembarkation rate — one of the highest across all five PortCREW pilot ports. Average passenger dwell time is 11–12 hours. Seasonal activity is concentrated between May and October, with a forecast of 77–80 calls in 2025. The main passenger nationalities are American, British, and German, with an average age of 45–50 years and a family-oriented profile. The rate of passengers booking organised tours through the cruise line stands at approximately 23–25%, while independent travellers (those who do not use any arranged service) represent only 3–4%.

The terminal itself is undergoing a significant infrastructure upgrade, with a new purpose-built passenger terminal under construction as of 2024, designed with sustainability principles including energy-efficient systems and community-integrated public spaces. The terminal's unique geographical characteristic — its docking point is literally steps from the historic city centre — is simultaneously its principal asset and its primary challenge: it generates immediate pedestrian congestion in the old town when multiple ships call simultaneously.

Cruise tourist profiles and segmentation

Stakeholder responses across all eight interviews display a remarkably consistent and detailed picture of Koper's visitor segments. The dominant profile — confirmed by all cruise company respondents — is an older, relatively affluent traveller aged 45–65, predominantly from the USA, UK, and Germany, with a strong interest in cultural immersion, gastronomy, and authentic local experiences. On AZAMARA and VIKING, this profile is more pronounced: both lines serve experienced repeat cruisers (AZAMARA reports around 40% repeat customers) who are explicitly seeking unique itineraries, cultural depth, and small-group premium experiences, and who prioritise destination exploration over onboard entertainment.

AIDA presents a somewhat younger profile, with a stated preference for enogastronomic experiences and a noted uptake of the e-bikes carried onboard. TUI Cruises guests vary more widely, with families planning their Slovenia visits well in advance. Across all lines, there is consensus that emerging traveller profiles — active seniors, young professionals, and eco-conscious travellers — are growing in importance. Several respondents noted that even crew members are increasingly seeking sustainable hinterland experiences during Koper calls, creating an additional demand stream for eco-mobility products.

For all profiles, the tour operator Istranka Tours provides specific evidence of evolving needs: their American-dominated passenger base (aged 50+ in 2023–2024, shifting to 40+ in 2025) is shifting from outdoor/panoramic tours toward local and gastronomy-focused experiences. Independent travellers using the Istranka e-bike service have grown steadily (from 12 in 2023 to an estimated 23 in 2025), though still from a small base, suggesting that the product is gaining traction.

Eco-tourism offer and current gaps

All eight stakeholders confirmed a growing interest in eco-tourism services, with no dissenting views — a level of unanimity not observed at other pilot sites. The evidence is grounded in concrete operational trends: increasing uptake of AIDA's and TUI's onboard e-bikes for hinterland exploration; growing bookings for winery visits, organic farm experiences, and guided walks organised by Istranka Tours; the Municipality of Koper's free electric shuttle bus connecting the terminal area with nearby destinations; and the rising profile of the Gerovasileiou and Slovenian Istria wine routes as excursion options.

The current eco-tourism offer at Koper, as mapped across interviews, includes: bike and e-bike rental at or near the terminal; walking tours of the old town; cycling routes along the Slovenian coast (including the historic Parenzana trail); excursions to local wineries and olive oil farms; visits to rural gastronomy providers; and nature-based trips to the Karst region, Postojna Cave, and Predjama Castle. The Municipality holds a Slovenia Green Destination – Gold certification, and the Praetorian Palace carries a Green Key accreditation, providing a certified institutional foundation for eco-labelled promotion.

Despite this relatively rich offer, several critical gaps are identified. The most significant is the absence of pre-defined, time-optimised itineraries designed specifically for cruise passengers' compressed dwell time: multiple respondents from both cruise companies and the tour operator note that passengers with e-bikes or an interest in hinterland exploration have no clear, immediately accessible route structure to guide their choice, and the absence of digital wayposting creates a barrier to uptake. AIDA and TUI both explicitly state that if pre-defined e-bike routes were available on-screen at the terminal, uptake would increase materially. VIKING and AZAMARA echo this, noting that information about the hinterland offer needs to be available in a format that is instant and multilingual to reach their older, time-constrained passengers. The Marežige–Boršt wine area — despite its high intrinsic quality — is effectively invisible in current communication materials and is not referenced by any tour operator or cruise company,

which directly correlates with the geolocation finding of only 1% engagement.

Platform needs and functional requirements

The PortCREW platform ratings provided by Koper stakeholders are among the highest observed across all pilot sites, reflecting the maturity and specificity of their platform vision. The most consistently highly rated features are: information on eco-attractions in the metropolitan area (5/5, TUI; 4/5, AZAMARA and Municipality); self-guided tours using sustainable modes (5/5, Municipality and VIKING); pre-defined bike/walking tours (5/5, Cruise Terminal and TUI; 4/5, VIKING and AZAMARA); information on sustainable mobility services (5/5, AIDA, Cruise Terminal, TUI, and VIKING); and accessibility information (5/5, AZAMARA, Cruise Terminal, TUI, and VIKING). The Municipality gave 5/5 across virtually all back-end features including dashboard upload, booking API integration, inter-platform integration, and feedback/ratings.

The convergence around the smart bench infrastructure envisioned in the Koper pilot is striking: TUI, AIDA, VIKING, and the Cruise Terminal all independently reference the planned on-terminal displays as the optimal channel for delivering e-bike route information to passengers. This reflects a clear understanding that pre-disembarkation or at-terminal engagement — rather than a mobile app requiring pre-download — is the effective intervention point for this destination. The Municipality adds a dimension of broader ecosystem integration: the platform should connect with existing regional tools and support coordinated stakeholder governance, including local gastronomy events such as the Altroke Istra Gourmet Festival as potential content hooks.

7.5. Demand analysis via geolocation

Overview and analytical framework

The geolocation analysis for the Koper pilot area presents specific methodological challenges that distinguish it from the other four pilot sites. The maritime detection zone required for identifying cruise passenger candidates is constrained by the complex shipping geography of the northern Adriatic, where the sea lanes approaching Koper intersect with heavily trafficked routes connecting Trieste and Venice. To minimise the inclusion of transit maritime traffic, a more restricted sea area was defined — a trade-off that results in a slightly smaller sample size than the other pilot areas. Consequently, the margin of error is $\pm 8\%$ at a 95% confidence level, compared to $\pm 7\%$ at the other sites. Slovene residents were excluded. The dataset covers January to November 2025 and the Koper region was selected as the main analysis area.

Despite the higher margin of error, the dataset is sufficient to address the specific business questions raised by Luka Koper stakeholders, which are structured around three distinct spatial questions: the extent to which cruise passengers travel to the national capital (Ljubljana), the degree of engagement with two designated sustainable rural tourism corridors within the Koper region, and the proportion of passengers who remain concentrated in the port's immediate urban area.

Detailed methodology process

Following our methodology, an area in the sea to get the users candidates for cruise passengers must be defined. See figure below.

In this case, the area is restricted, as it overlaps with numerous maritime routes connecting Trieste and Venice.

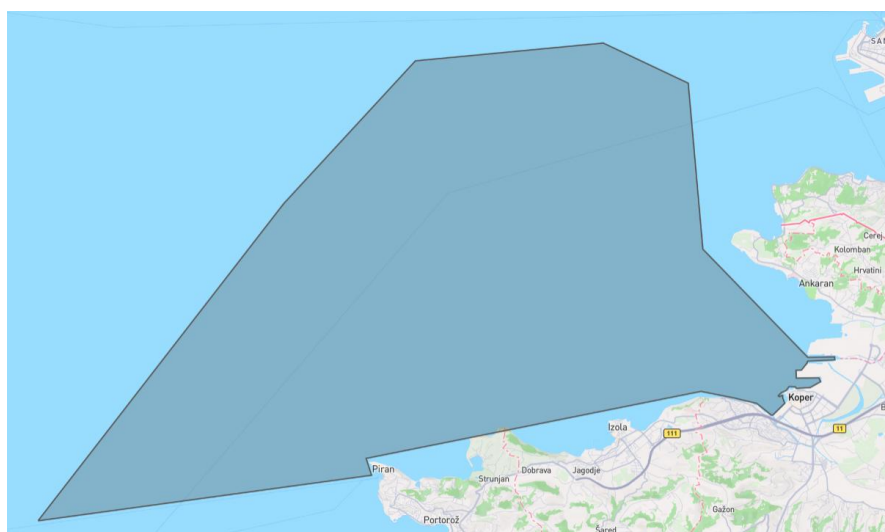


Figure 56: Area in the sea to get cruise passengers candidates arriving in Koper

Koper region is selected as main analysis area as figure below:

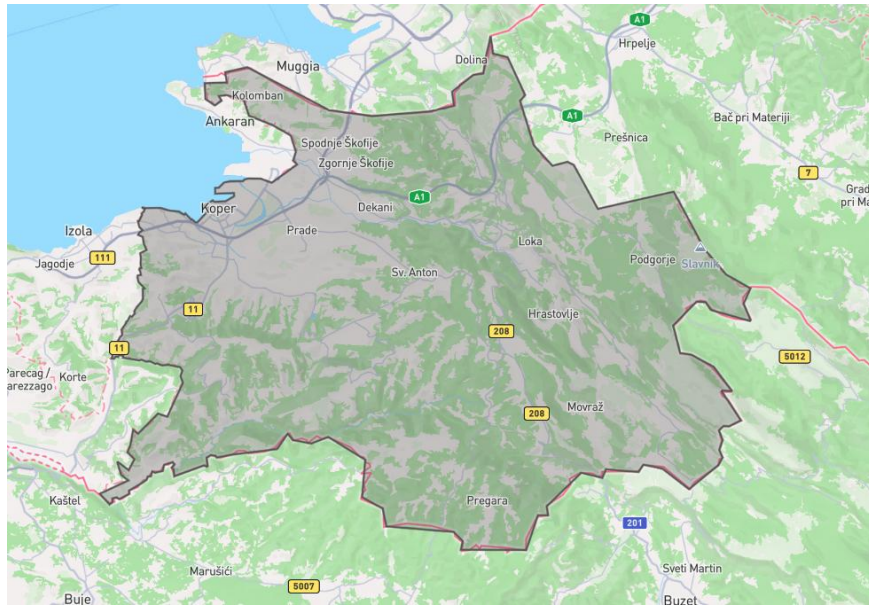


Figure 57: Main analysis area for destination Koper

Once we have the geolocations of all the user candidates for cruise passengers in the selected analysis area, we clean the data getting only those non-domestic users staying only for one day in the region.

For this analysis, we used geolocation data from January to November 2025. The data sample size obtained in this case is slightly lower than the previous cases. However, the margin of error is still 8% with a confidence level of 95%.

Finally, we may proceed with the business questions this destination has:

Stakeholders are interested in knowing the percentage of cruise passengers arriving in Koper and visiting other destinations like Ljubljana, or the Italian region of Trieste. However, data for Italy was not available in the moment of execution of this case study, so only considered Ljubljana.

Additionally, there are two touristic areas within Koper region which are very interesting for them as they are linked to two products related to sustainable tourism. These areas are: The **Dekani – Tinjan – Škofije** area which is clearly associated with quiet, rural, local gastronomy, cultural, and proximity-based tourism, rather than mass tourism; and **Marezige-Boršt** which is positioned as a destination for high-quality wine and rural tourism, rooted in landscape, local products, and authentic experiences, serving as a tranquil complement to Slovenia's coastal destinations.

Before addressing the first business question, we define the polygons or points of interest needed. In this case, we define an area around Ljubljana region. We apply a buffer to the actual administrative division of the region as we are interested in those cruise passengers visiting Ljubljana or its surroundings, and we do not need to be very restrictive. See figure below with main analysis area and the polygon defined for Ljubljana:

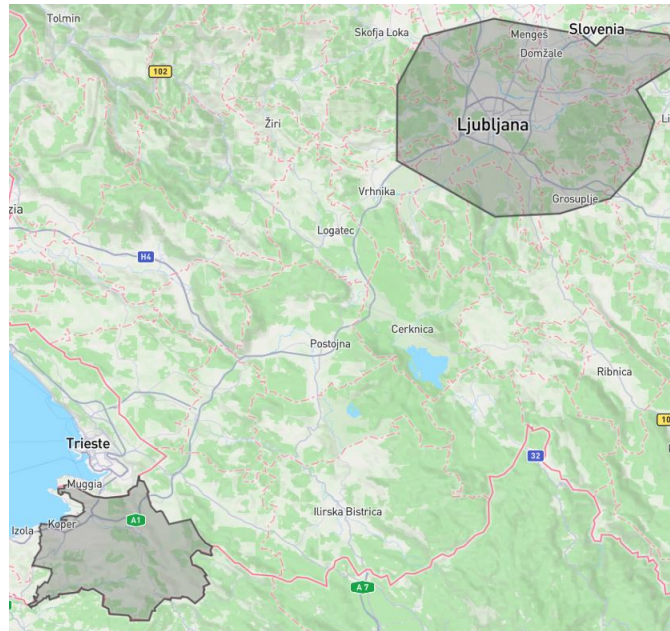


Figure 58: Areas (points of interest) defined for Koper first business question

For the second business question we define the regions Dekani – Tinjan – Škofije (red) and Marezige–Boršt (green) as figure below. Additionally, we define a new region called Koper port (blue) containing the port and the main urban area of Koper.

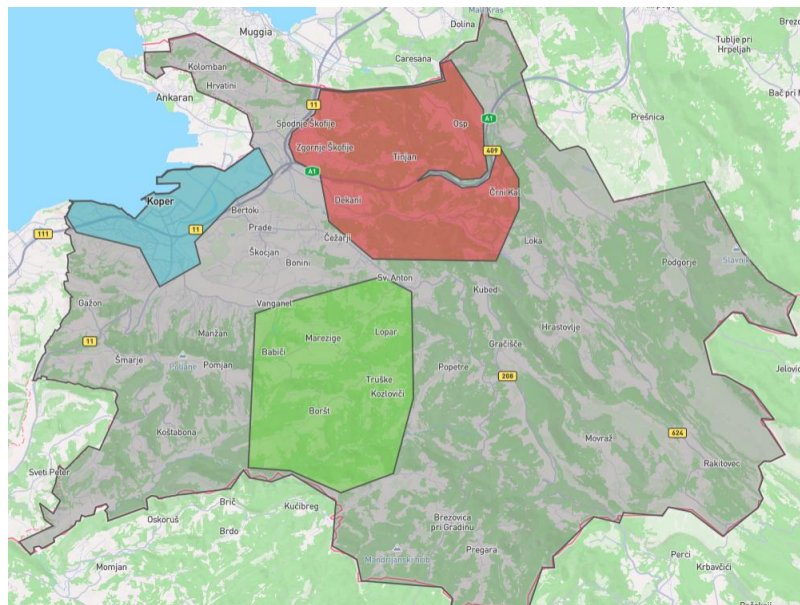


Figure 59: Sub-areas (points of interest) defined in Koper region

Mobility to Ljubljana: capital city as a competing draw

The first business question examines the proportion of cruise passengers who travel from Koper to the Ljubljana region during their port call. Ljubljana, the Slovenian capital, is located approximately 100 km from Koper — a journey of roughly 70–80 minutes by car or coach. Given this travel time, visiting Ljubljana during a single-day port call would leave

very little time at either the origin or the destination. The data confirms this constraint clearly: only 5% of non-domestic cruise passengers arriving in Koper were subsequently detected in the Ljubljana region. This figure is the lowest observed for any capital-city outflow across the PortCREW pilot analysis, and it underlines the fundamental time limitation of the cruise call as a vehicle for distributing tourism benefits to inland urban destinations. Data for cross-border movements to the Italian region of Trieste, which was also of stakeholder interest, was not available at the time of execution and represents a gap to be addressed in future iterations.

Engagement with sustainable rural tourism areas within the Koper region

The second and analytically most significant business question examines the degree to which cruise passengers engage with two rural tourism areas within the Koper region that are directly linked to the destination's sustainable tourism strategy:

The Dekani–Tinjan–Škofije corridor is characterised by quiet countryside, local gastronomy, proximity-based cultural tourism, and an offer centred on small-scale, authentic experiences far removed from mass tourism. This area represents the Koper region's primary offer for visitors seeking a nature- and culture-based alternative to urban sightseeing. The geolocation data reveals that approximately 40% of non-domestic cruise passengers arriving in Koper were detected in this area — by far the highest non-metropolitan engagement rate observed for any specific eco-tourism zone across all five pilot sites. This finding is striking and strongly positive: it demonstrates that a large share of Koper's cruise visitors is already gravitating toward the type of rural, sustainable destination that the PortCREW project aims to promote, suggesting a strong latent demand that the platform can amplify and better serve.

The Marezige–Boršt area, positioned around high-quality wine tourism and authentic rural experiences rooted in the Istrian landscape, tells a very different story: only 1% of detected passengers were observed in this zone. Despite its considerable eco-tourism potential and its thematic complementarity with growing traveller interest in agri-tourism and slow food experiences, this area is almost entirely absent from current cruise visitor itineraries. The contrast between the 40% engagement with Dekani–Tinjan–Škofije and the 1% with Marezige–Boršt represents one of the most pronounced asymmetries in the entire PortCREW geolocation dataset, and it identifies a clear, specific intervention priority for the platform: making Marezige–Boršt visible, accessible, and attractive to a visitor profile that is demonstrably predisposed to rural experiences.

A third finding rounds out the spatial picture: 17% of cruise passengers remained exclusively within the Koper urban area and port zone, without visiting any of the defined areas beyond. This segment likely includes passengers with very limited dwell time, those with mobility constraints, and those who prefer a brief urban stroll near the terminal to any organised excursion.

Heat map analysis and emerging areas of interest

Spatial heat map visualisation of cruise passenger geolocation density across the Koper region confirms the strong concentration of activity in the Dekani–Tinjan–Škofije corridor. However, the analysis also identifies a significant cluster of activity in an area encompassing the localities of Barisonj, Colombano, and Norbedi — zones that were not included in the predefined POI structure for this study. The density of signals in this area suggests that it constitutes a meaningful destination for a segment of cruise visitors, potentially linked to rural tourism products or natural features that merit further investigation. This finding exemplifies the exploratory value of geolocation analysis and highlights the importance of incorporating emerging demand patterns into future platform design and pilot action scoping.

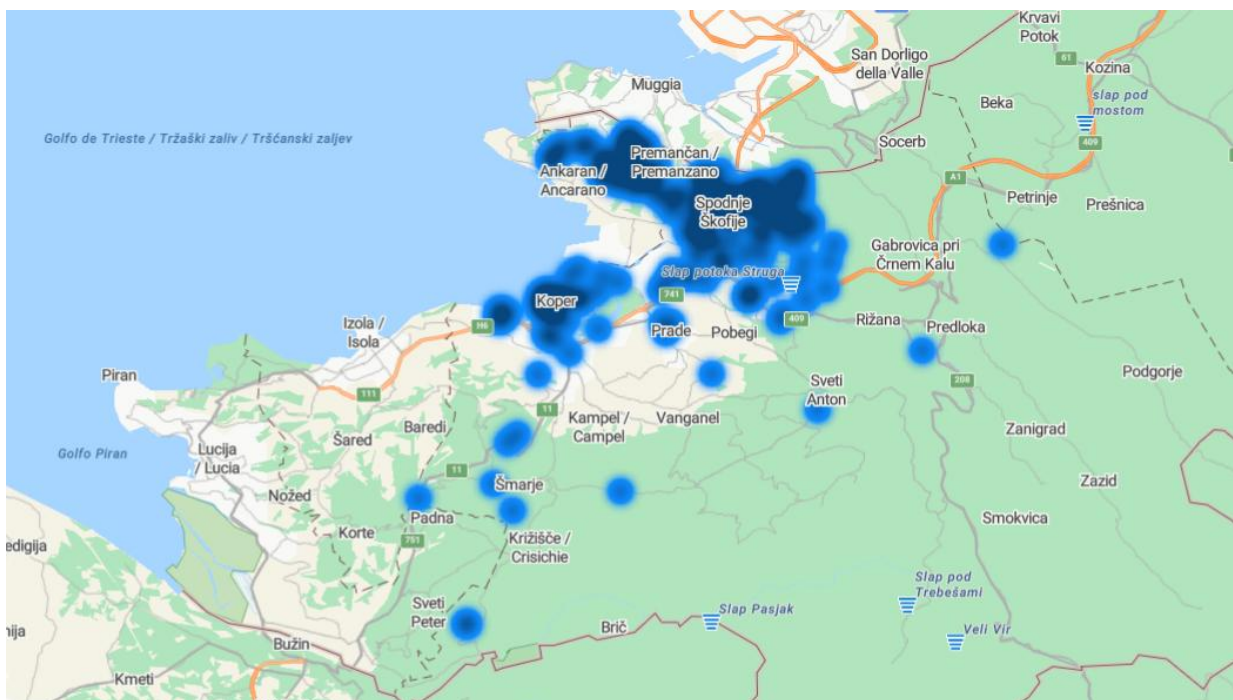


Figure 60: Heatmap with geolocation of cruise passengers in Koper region

Implications for the PortCREW platform

The Koper analysis generates some of the most actionable findings across the PortCREW pilot portfolio. The platform's priorities at this site should focus on: (i) reinforcing and enriching the already-strong demand for the Dekani–Tinjan–Škofije area with high-quality content, itinerary suggestions, and sustainable transport information; (ii) actively promoting the Marežige–Boršt wine and rural tourism offer to the substantial audience that is already oriented toward countryside experiences but has not yet discovered this zone; (iii) investigating and potentially incorporating the Barisonj–Colombano–Norbedi cluster into the platform's recommendation structure; and (iv) providing targeted information for the 17% of passengers who remain near the port, potentially converting a proportion of this segment to short, accessible eco-experiences within easy reach of the terminal.

8. Regional analysis: Thessaloniki Pilot Area

8.1. Local cruise outlook and infrastructure

8.1.1. Cruise outlook

Cruises are one of the significant pillars of tourism in Greece. With a constant increase on the arrivals of cruise ships and cruise passengers, Greece is one of the best-known cruise destinations in the Mediterranean. In 2024, over 7.9 million passengers arrived at Greece in 48 different destinations⁵. By comparison, cruise passenger arrivals in 2023 were just over 7 million. A dramatic increase of 900 thousand passengers were noted between the years 2023 and 2024.

Greece is the third most visited country by cruise passengers in Mediterranean and plays a leading role in Eastern Mediterranean. As green infrastructure is one of the most important nowadays, Greek ports have planned many projects as part of the green transition, which will enhance the overall experience for cruise passengers.

Another important improvement is that 9 out of 10 ports will provide shore-to-ship power supply by 2030. In addition to power supply, most of the ports have indicated a desire to provide LNG to ships.

The port of Piraeus, in 2024, recorded a historic high in cruise passenger traffic, reaching nearly 1.7 million passengers. It also increased the rate of homeporting, which has multiple benefits for the local and national economy of the country.

Based on INSETE, which is an Institute of the Greek Tourism Confederation (four partners with intense activity in critical areas of the Greek tourism market: 1) SETE, 2) The Hellenic Hoteliers Federation, 3) The Hellenic Association of Travel & Tourist Agencies and 4) The Confederation of Entrepreneurs of Rented Rooms and Apartments), and the Bank of Greece, cruise tourism in 2024 contributed 1.112 billion euros to tourism revenue. This contribution showed an increase of 22.4% compared to 2023. Overnight stays also

⁵ 2023-2024 Cruise Arrival data from Hellenic Ports Association. <https://elime.gr/wp-content/uploads/2025/03/%CE%A3%CE%A4%CE%9F%CE%99%CE%A7%CE%95%CE%99%CE%91-%CE%91%CE%A6%CE%99%CE%9E%CE%95%CE%A9%CE%9D-%CE%9A%CE%A1%CE%9F%CE%A5%CE%91%CE%96%CE%99%CE%95%CE%A1%CE%91%CE%A3-%CE%A3%CE%A5%CE%9D%CE%9F%CE%9B%CE%99%CE%9A%CE%91-2024-2023.pdf>

increased by 17% to 9.8 million stays compared to 8.3 million overnight stays in 2023.

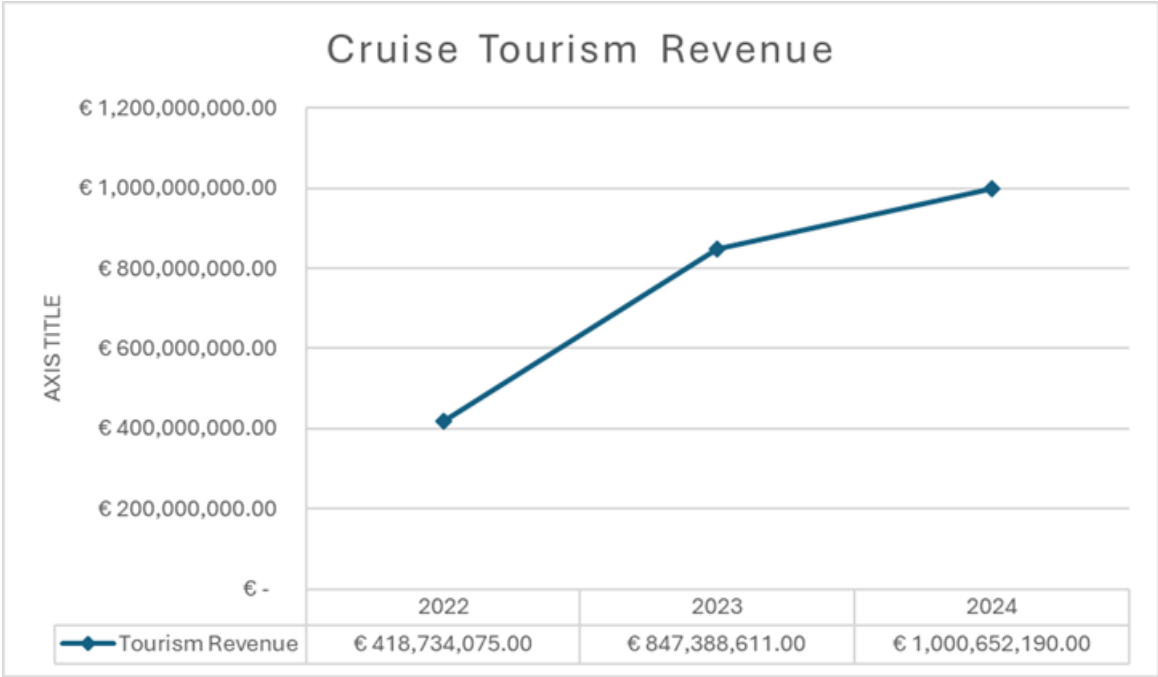


Figure 61: Cruise Tourism Revenue – Greece

However, the Average Expenditure per Journey in 2024 decreased to 211€, by -16.6% compared to 2023 (253.1€). This change on the average expenditure per journey is also affected by the decrease of the Average Duration of Stay to 2.1 overnight stays in 2024 compared to 2.5 overnight stays in 2023 (-17.2% decrease). This decrease also resulted in an increase of Average Expenditure per Overnight Stay by 0.6% (from 101.7€ in 2023 to 102.3€ in 2024).⁶⁷

⁶ The contribution of tourism to the Greek economy in 2023 (INSETÉ) https://insete.gr/wp-content/uploads/2024/04/23_04_Tourism_and_Greek_Economy_2022-2023-ENG-1.pdf

⁷ The contribution of tourism to the Greek economy in 2024 (INSETÉ) https://insete.gr/wp-content/uploads/2025/06/25_05_Tourism_and_Greek_Economy_2023-2024-ENG.pdf

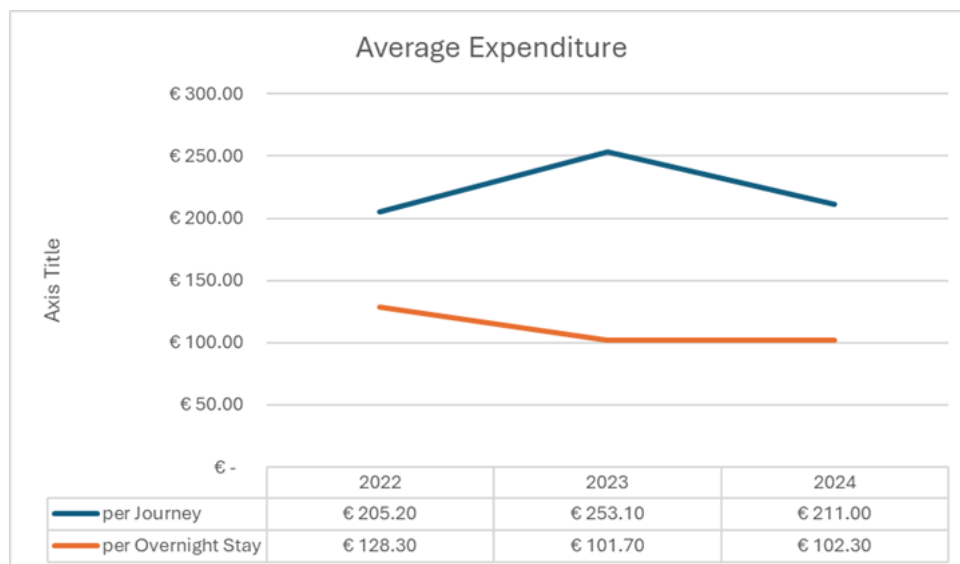


Figure 62: Average Expenditure - Greece

Based on these statistics, cruise tourism in Greece, after the pandemic of COVID-19, is increasing in terms of arrivals and passenger volume, but also decreasing in terms of money spent per overnight stay and journey. A paradox result is that, even though average expenditure is decreasing, the revenue created by cruise tourism is constantly increasing.

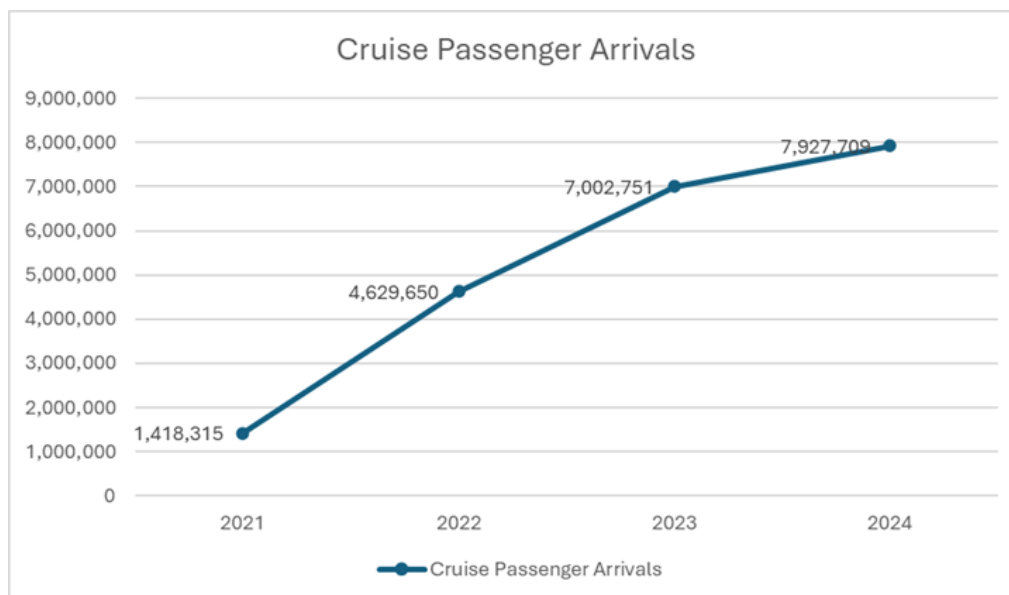


Figure 63: Cruise Passenger Arrivals – Greece, 2021 - 2024⁸

This graph justifies the constant increase in revenue, as the number of cruise passengers has been skyrocketing the previous years. This increase of passenger is shown also in the case of Thessaloniki, as it will be analyzed later on.

⁸ <https://elime.gr/en/krouaziera/> Association of Greek Ports (E.LIM.E.)

8.1.2. Cruise sector analysis in Thessaloniki

Thessaloniki is the second largest city in Greece and has a population of around 1 million inhabitants. The Port of Thessaloniki for over 2,300 years has been the most important port of Macedonia and one of the most important ports of Southeastern Europe. Located in the heart of the city of Thessaloniki makes it an ideal destination for a unique cruise experience either to begin and end a cruise or just passing for a day visit in Thessaloniki.

In 2024, 4.947.578 million passengers from international flights⁹ arrived at Thessaloniki compared to around 125,000 cruise passengers. In cruise traffic in Greece, Port of Thessaloniki ranked 12th. Domestically, it shares itineraries with Piraeus, Volos, Kavala, Mykonos, Limnos, Santorini and Chios. Internationally, it shares itineraries with Kusadasi, Istanbul, Canakkale and Amasra.

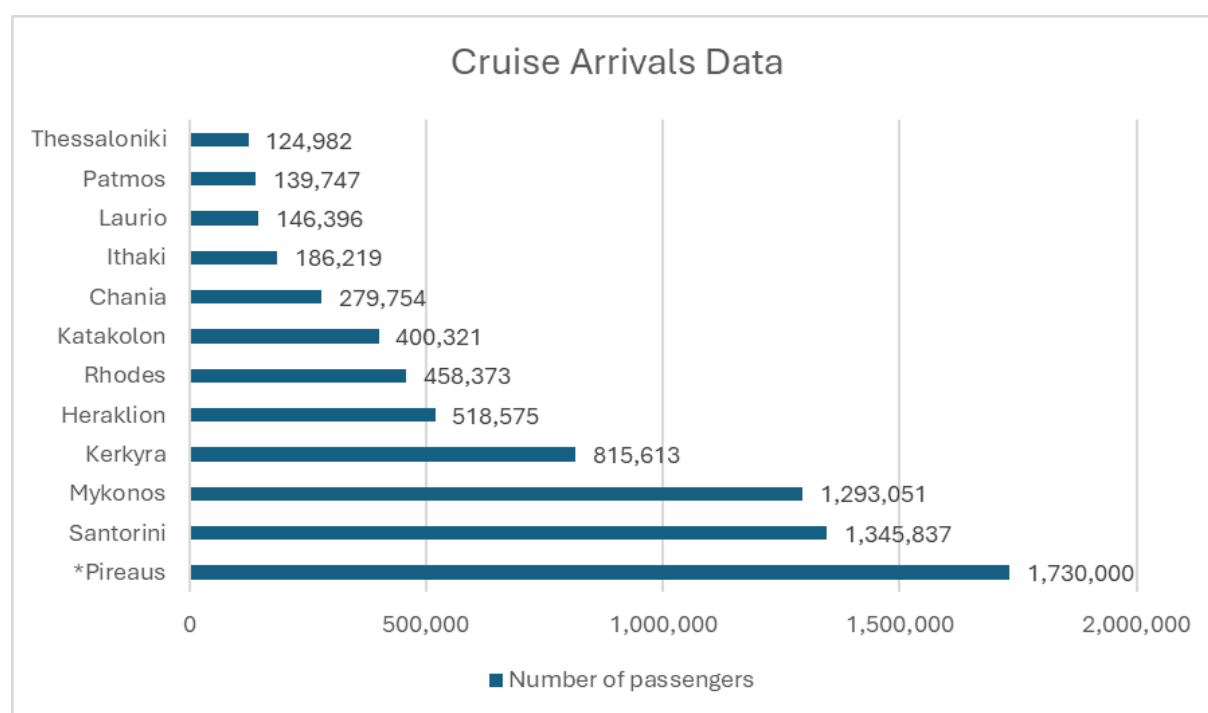


Figure 64: Cruise Arrivals Data at Greece ¹⁰

Over the past years, the number of calls at the Port of Thessaloniki has rapidly increased. In 2021, only 17 ships arrived, in 2022 increased to 61 ships, in 2023 had a small increase

⁹https://www.skg-airport.gr/uploads/sys_nodelng/2/2869/thessaloniki_12_Traffic_2024vs2023.pdf

¹⁰ 2023-2024 Cruise Arrival data from Hellenic Ports Association. <https://elime.gr/wp-content/uploads/2025/03/%CE%A3%CE%A4%CE%9F%CE%99%CE%A7%CE%95%CE%99%CE%91-%CE%91%CE%A6%CE%99%CE%9E%CE%95%CE%A9%CE%9D-%CE%9A%CE%A1%CE%9F%CE%A5%CE%91%CE%96%CE%99%CE%95%CE%A1%CE%91%CE%A3-%CE%A3%CE%A5%CE%9D%CE%9F%CE%9B%CE%99%CE%9A%CE%91-2024-2023.pdf>

*for the port of Piraeus, the data are approximate.

to 68 ships and in 2024 reached 81 cruise ships. This evolution of cruise passengers can also be projected with figures.

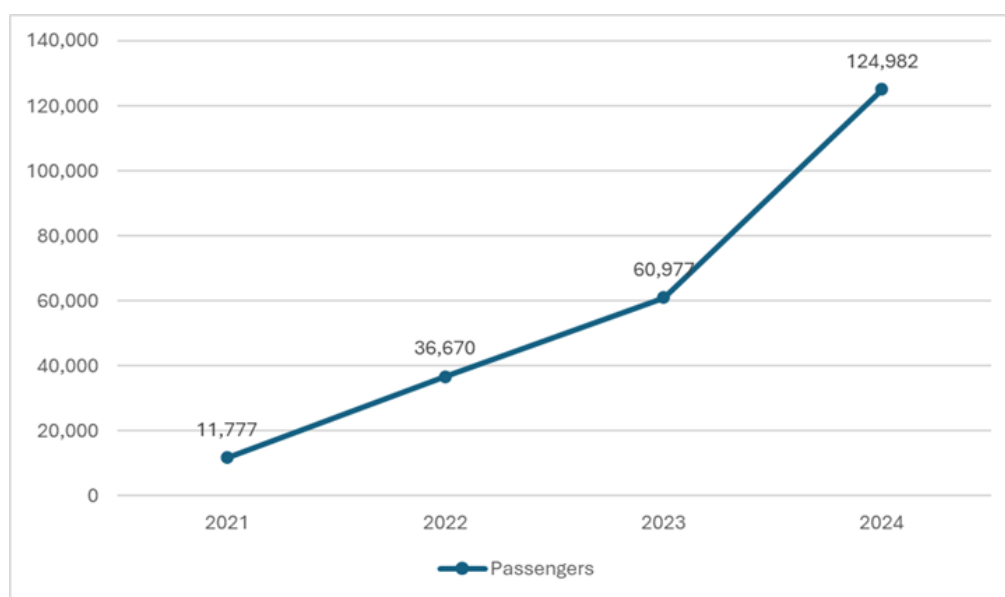


Figure 65: Port of Thessaloniki cruise passengers' evolution (2021 – 2024) (Source: Hellenic Ports Association)

Thessaloniki, a small-sized cruise port, can serve up to 3 vessels simultaneously and can welcome 88% of types of cruise ships worldwide. It accommodates many people, from families to the elderly and people with disabilities.

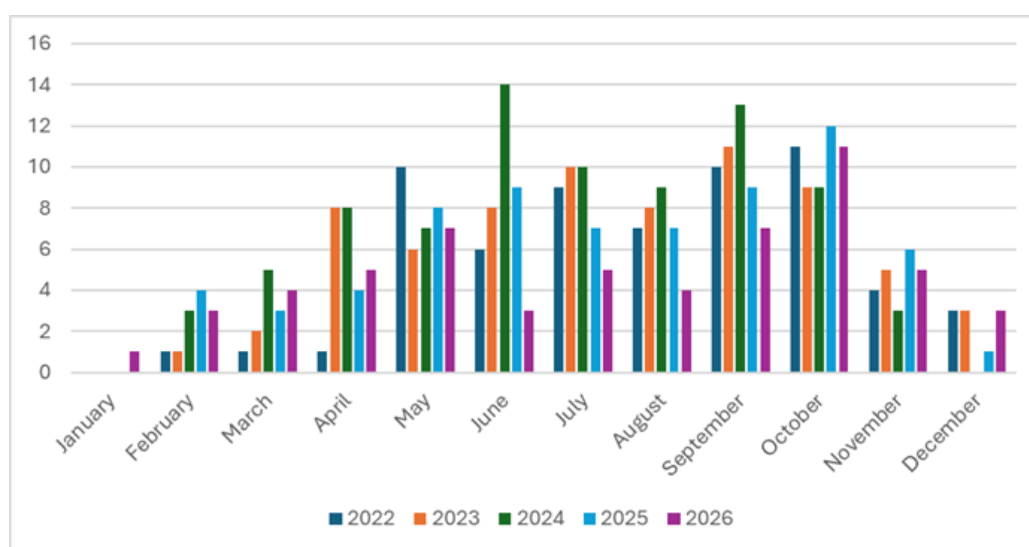


Figure 66: Seasonality of cruise stops in Port of Thessaloniki (Source: Thessaloniki Port Authority)

The period June to October is presenting the highest volume of cruise ship arrivals, showing that Thessaloniki is a summer destination mainly. Most of the cruises are staying for around 10 to 12 hours at Thessaloniki. During this time, cruisers can make an excursion at destinations like Meteora, Vergina and other outside Thessaloniki or can walk in the city and explore the fifteen UNESCO monuments of Thessaloniki.

8.1.3. Thessaloniki port infrastructures

The cruises that arrive at Port of Thessaloniki are operated by “Makedonia” or “Alexander the Great” terminals. Both terminals are located at the northern entrance of the port, the closest to the city and in a freely accessible area. The total quay length of the terminals is 950 meters with a draft up to 9.5 meters. The “Makedonia” terminal caters ships with length up to 400 meters and the “Alexander the Great” up to 320 meters. There are available 3 cruise ships berths, they provide provisions, fresh water and waste reception and other fully functional facilities to serve both crew and passengers.



Figure 67: Port of Thessaloniki scheme (Source: Thessaloniki Port Authority)

Thessaloniki's port cruise passengers' profile

The passengers arriving at Thessaloniki are mostly middle to older-aged individuals with a medium-high socioeconomic profile. Based on their age different excursions are either pre-planned or not even on their to-do list. Most of the passengers are originated from USA, who they are starting to show a great interest on eco-attractions.

Younger tourists often look for opportunities to walk or bike (bike or e-scooter renting) around the city, engage in active tourism activities and find places to run or train. At night, they typically seek restaurants, bars or clubs for drinking and dancing.

Elderly passengers usually prefer easily accessible cultural and historical points of interest. They prefer well organized group excursions to major cultural sites within or outside the city. For many elderly, if they not choose a group excursion to historical sites, proximity to the port and minimal physical effort strongly influence their choice of activities.

Families value activities that are interesting for both parents and children (depending on their age). Families with young children usually prefer open spaces such as natural parks or central urban areas with playgrounds, funfairs or similar facilities. Families with older

children and teenagers tend to favor active experiences, including family-friendly bike tours, cycling along the seafront or visit eco-attractions such as zoos or environmental education sites.

People with disabilities and reduced mobility require reliable accessibility at every stage of the visitor journey. This includes clear and accessible information in advance, step-free routes, accessible transport options and well-designed public areas.

Additionally, an emerging traveler profile are Jewish people, who are interested in visiting the synagogue of Thessaloniki and the Jewish Museum.

Passengers have the ability to pre-book an excursion from the cruise company and they are accompanied by dedicated buses, managed directly by the ship. On the contrary, Cruise passengers who do not participate in pre-booked excursions can get around on their own using the following options: hop on – hop off buses, public buses, metro, taxis, bikes, e-scooters, and by foot.

- Organized excursions booked through the cruise line: Passengers who have reserved an official excursion with the cruise company are accompanied by dedicated buses managed directly by the cruise line. All logistics—from disembarkation to return—are coordinated internally, and passengers do not need to arrange transportation on their own. Buses depart directly from the terminal.
- Independent visits to the destination: Cruise passengers who have not booked in excursions from the cruise company, can get around on their own using the following options:
 - Hop on – Hop off buses to the city's monuments: buses with departure and return schedules that leave from a specific point at the terminal, go around the city showing Thessaloniki's monuments and arrive at a specific stop at the terminal. This is a paid service that can be booked after disembarkation.
 - Public buses (OASTH): public bus connections from bus stops near the port to different neighbourhoods and passing by cultural sites include Lines 23 and 24 which pass by the Old Walls of Thessaloniki, Line 33 which passes by the White Tower, the Archaeological and Byzantine museums and Lines 03, 05 and 06 which pass by the Thessaloniki Concert Hall.
 - Taxis are available outside the terminal.
 - Walking: The port is in the city center and some cruise passengers may choose this option to visit the city or other nearby neighbourhoods such as the seafront or the White Tower.
 - Other options: there are some other choices in the areas surrounding the port that cruise passengers can reach within a few minutes walking, such as public e-scooter option, as there are stations available outside the port or the Cultural Bus Line 50, which starts from the White Tower.

The percentage of passengers disembarking is 70% to 90%. The percentage of passengers

who prefer pre-booked organised tours directly from the cruise company is 30% to 40%. A little over the half of the passengers visiting the city are independent travellers. Most of the passengers are from USA, United Kingdom, Canadians and Bulgarians.

Excursions for cruise passengers who booked them directly from the cruise

Passengers who book an excursion with the cruise company are accompanied by dedicated buses, managed directly by the ship. All logistics are coordinated internally and passengers do not need to arrange transportation on their own. The buses depart directly from the terminals.

These excursions have as destinations mainly Meteora and the Archaeological Site of Aigai. Meteora is located approximately 250 km outside Thessaloniki; the monasteries are perched on and within the sides of enormous rock formations. The Archaeological Site of Aigai is located approximately 70 km outside Thessaloniki. It contains the tomb of Philip II, father of Alexander the Great, along with other Royal Tombs. Both are UNESCO World Heritage Sites.



Figure 68: Meteora and Archaeological Site of Aigai (Source: DiscoverGreece.com)

Visits to the destination by independent cruise passengers

Cruise passengers who do not participate in excursions can use different mobility options such as local public buses, bikes, e-scooters, taxis and the new Thessaloniki Metro. They can also walk to their chosen activities. The tourist information desk inside the terminal offers maps, which provide information about itineraries in the city center. However, a central digital information point could be useful to provide information for activities not only in the city center, but also to other eco-attractions.

8.2. Ecotourism strategy of Thessaloniki

In 2023, 25% to 35% of cruise passengers chose to book an organized excursion offered by the cruise company. In 2024, 30% to 40% chose to book an excursion offered by the cruise company. This increasing interest of booking an organized excursion to locations outside of Thessaloniki and the low availability of information at the tourist information desk, reduces the interest for exploring Thessaloniki.

In order to better promote Thessaloniki, the available itineraries and eco-attractions, Thessaloniki pilot aims to diversify and enrich its tourism offer by creating new tourist packages that attract a wider range of visitors adapted to the needs of profiles of travelers. Sustainability and environmental preservation are central to the project and for Thessaloniki pilot, as the exploitation of digital technology of the Thessaloniki Smart City Pass Card can provide new ecotouristic packages. Thessaloniki pilot seeks to promote new eco-attractions through a smart and digital place, like the PortCREW platform and the Thessaloniki Tourism Blockchain app.

8.3. Field results: stakeholder insights

The objective of the survey was to analyze the current eco-tourism offer and understand cruise-related tourism needs from the perspective of key local stakeholders.

The collected insights allowed to:

Better know the tourist needs (WP1.1)

Support the design of the PortCREW platform

Contribute to the definition of the PortCREW pilot actions and related pilot eco-tourism packages (WP2)

8.3.1. Interviewed profiles

Interviews were conducted with the following organisations:



Thessaloniki Port Authority S.A. manages the main passenger and cruise gateway of

Northern Greece, providing ferry and cruise-ship reception services through its centrally located passenger terminal. The port plays a growing role in cruise tourism, serving as both a port of call and an emerging home-porting hub, offering visitors direct access to Thessaloniki's and the broader region's cultural attractions. ThPA also supports sustainable port operations through environmental management and infrastructure modernization, contributing to eco-friendly and responsible tourism development in the region. (www.thpa.gr)



THESSALONIKI TOURISM ORGANISATION
www.thessaloniki.travel

Thessaloniki Tourism Organization is a non-profit organization which constitutes the official tourism board of Thessaloniki's Region. Its main responsibilities are advertising and promoting destination Thessaloniki in Greece and abroad, designing the tourism brand of Thessaloniki, preparing and implementing tourism development strategic plans, promoting and highlighting the strategic advantages of Thessaloniki as an important touristic, commercial, economic, cultural, religious and cruise destination as well as a MICE destination, creating promotional and informative material and publications, such as, maps, city guides, and targeted thematic brochures, while designing, implementing and promoting new tourism products and services and supporting and coordinating various events that promote the tourism profile of the Region. (www.thessaloniki.travel)



THESSBIKE is a sustainable urban mobility company operating in Thessaloniki, offering bike sharing and bike-scooter rental services, guided bike tours, and tailor-made cycling experiences for visitors and residents. Their core mission is to promote eco-friendly transportation and low-impact tourism by providing visitors with an accessible, healthy, and environmentally responsible way to explore the city. In the context of eco and sustainable tourism, they support slow tourism, reduce reliance on motorized transport,

and encourage authentic, local experiences through cycling routes that highlight Thessaloniki's cultural heritage, waterfront, historic neighbourhoods, and everyday urban life. (www.thessbike.gr)



Capsule T – Accelerator builds an innovative ecosystem in the tourism sector by offering opportunities to create and develop startups with a global perspective and impact on eco and sustainable tourism. It is part of the Hellenic Chamber of Hotels. (www.capsuletaccelerator.gr)



Taxiway is a taxi company. Having a fleet of more than 900 taxi (many of them are e-vehicles) the company serves the visitors of Thessaloniki for their everyday trips to the different attractions but also organizing dedicated tours to the main monuments of the city but also to close destinations (vergina, Olympus, Loutra Pozar). (www.taxiway.gr)

8.3.2.Key messages from the stakeholders' interviews

From the taxi and bike company

- Families stay in the city to see the main attractions
- Younger people use scooters or bikes to explore the city

From the Port Authority

- Main visitors from USA are interested on sustainable issues
- Elderly prefer group organized excursions
- Visitors mainly get information about the group excursions and there is not enough information about the city
- Group excursions include popular sites, such as the Archaeological Site of Aigai, Mount Olympos, the Archaeological Site of Dion, Meteora and others
- No example of ecotourism model available in the area of Thessaloniki

From the local DMO

- Visitors who stay in the city are interested in eco-attractions like cultural-historic monuments, which can be visited with a taxi, hop on – hop off buses or luxury cars with chauffeurs.

From the Capsule T

- Cruise visitors are generally elderly or families who prefer pre-planned experiences
- Many success stories of companies who are dealing with the promotion of eco-attractions like wineries, farms etc

PortCREW platform

The stakeholders have provided their input to help us shape this tool in line with their needs. The key types of information and services that are currently missing and could effectively enhance the promotion of eco-tourism has been rated on a Likert scale from 1 (not missing) to 5 (missing).

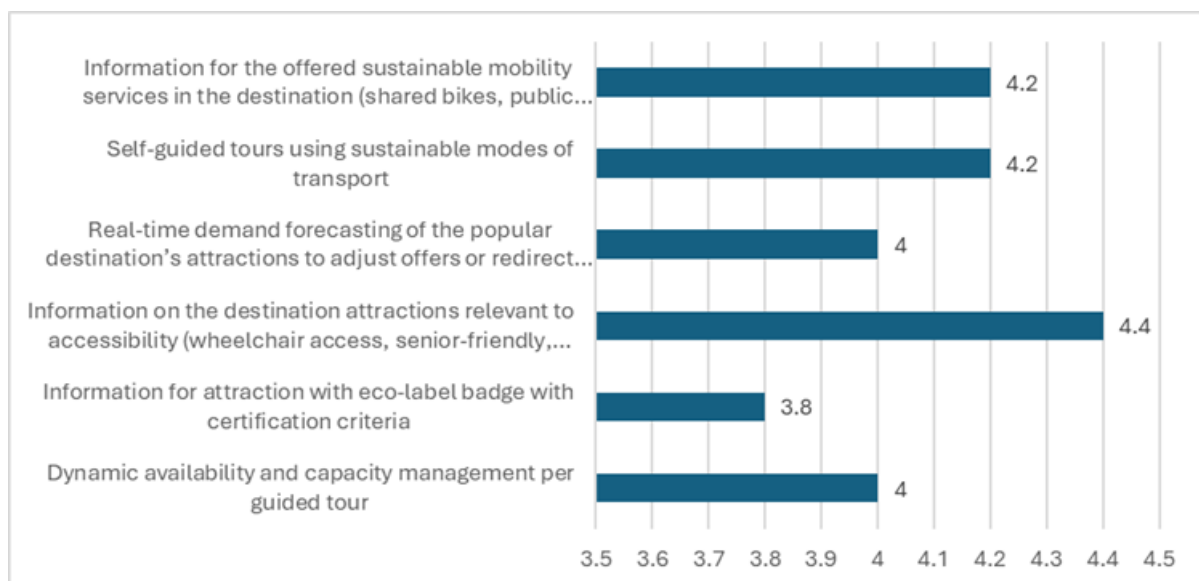


Figure 69: Missing available information to be included in PortCREW platform

Based on this graph, local stakeholder show that there are major missing input in almost every aspect. Most important are the information about accessibility, sustainable modes of transport on self-guided tours and offered sustainable mobility services. In addition, stakeholders noted as important back-end functionality the creation of a dashboard to upload relevant to sustainability and accessibility touristic services and offers.

8.4. Field results: interview analysis

Context and interviewed profiles

Four stakeholders were interviewed for the Thessaloniki pilot area (plus one additional respondent from the innovation ecosystem), representing the principal actors in the city's cruise tourism system: the Thessaloniki Port Authority S.A. (ThPA), which manages the port and its passenger terminal infrastructure; the Thessaloniki Tourism Organization (TTO), the city's DMO and associate partner in the PortCREW project; THESSBIKE, a sustainable urban mobility company offering bike-sharing, e-bike rental, and guided cycling tours; Taxiway Thessaloniki, a fleet operator of over 900 taxis (including electric vehicles) serving cruise visitors; and Capsule T, the travel and hospitality accelerator of the Hellenic Chamber of Hotels, representing the innovation and startup ecosystem. The interviews were conducted in late 2025 and early 2026.

Cruise tourism profile and operational context

The Thessaloniki Port Authority provided the most detailed quantitative baseline. The port experienced a dramatic increase in cruise activity between 2023 and 2024: from 68 ship arrivals and 60,977 passengers in 2023 to 81 calls and 124,982 passengers in 2024 — a near-doubling of passenger volumes in a single year. The 2025 forecast projects 70 calls. Peak season runs from June to October. Average dwell time is 10–12 hours. Between 70% and 90% of passengers disembark. Organised excursions account for 25–40% of passengers, while independent travellers represent 55–65% — the highest independent traveller rate across all five PortCREW pilot sites. The main nationalities are American, British, Canadian, and Bulgarian, with Americans and British being the dominant groups most frequently mentioned in relation to eco-tourism interest. The port operates two passenger terminals with three berths, and is undergoing ongoing infrastructure modernisation, including a new "Alexander the Great" terminal.

Cruise tourist profiles and segmentation

Stakeholder responses on visitor segmentation reveal a city whose cruise visitor base is markedly heterogeneous and whose needs span a very wide range of preferences. There is consensus around a core profile: older, organised, culturally curious visitors who prefer comfortable, guided itineraries covering the city's UNESCO monuments, Byzantine walls, and archaeological sites, and who rely on taxis, hop-on hop-off buses, or guided tours for mobility. Families with young children are predominantly drawn to water parks and beaches, while families with older children show more appetite for nature-based and active experiences. People with disabilities rely predominantly on taxis for accessible city exploration.

However, two respondents — the Port Authority and THESSBIKE — describe an emerging and growing segment of younger, active, sustainability-oriented travellers, particularly among North American visitors, who are explicitly interested in cycling, walking, eco-

attractions, and low-impact exploration. The Port Authority notes that younger visitors "often look for opportunities to walk or bike around the city, engage in active tourism activities, and find places to run or train." THESSBIKE, drawing on its direct operational experience serving cruise passengers, confirms that this segment is particularly interested in waterfront cycling routes, cultural landmarks combined with food stops, and social-media-oriented experiences. This profile contrast — between the majority organised/comfort-oriented visitor and the growing independent/eco-oriented segment — defines the central challenge for the PortCREW platform at Thessaloniki: serving two quite different demand profiles simultaneously.

There is one notable tension in the data. Capsule T and the TTO both offer a more sceptical view of eco-tourism readiness: Capsule T notes that "cruise visitors are generally elderly people or families who prefer comfortable, pre-planned experiences" and are "generally not very active tourists" for whom "the eco dimension is not included in their priorities." The TTO similarly notes that most visitors do not appear strongly interested in sustainability per se, preferring to reach cultural monuments by taxi or chauffeur-driven vehicle. This discrepancy between stakeholder views likely reflects genuine market segmentation — different types of cruise ships and nationalities generate very different visitor profiles — and reinforces the importance of profile-based platform personalisation.

Current eco-tourism offer and gaps

The current eco-tourism offer at Thessaloniki is relatively limited and fragmented compared to other pilot sites. Organised excursions available through local tourism companies include visits to Vergina (the Royal Tombs, a UNESCO World Heritage Site outside the city), Mount Olympus, the archaeological site of Dion, Meteora, and the Gerovasileiou Winery — a certified eco-attraction. Walking tours of UNESCO monuments in the city centre are available. The Port Authority and the Thessaloniki Tourism Organization provide a basic help desk near the cruise ships, offering maps and general information to independent travellers. THESSBIKE provides bike-sharing and guided cycling tours that are already aligned with the PortCREW sustainability objectives.

All three of the most substantive respondents (ThPA, TTO, THESSBIKE) independently identify the same critical gap: the absence of an integrated digital platform providing segmented, pre-visit information that allows passengers to plan independent sustainable itineraries before disembarkation. Currently, independent passengers have access only to a physical help desk; there is no app, no webpage, and no digital tool offering personalised, profile-based route suggestions. The platform should, in the view of all three respondents, include predefined routes by foot, bike, public transport, and taxi, as well as thematic routes covering cultural, religious, gastronomic, and shopping interests. THESSBIKE adds the need for real-time operational alerts (weather, route closures, port schedule changes) and an interactive geo-enabled map with route planning and real-time bike availability — features that reflect its specific operational requirements as a mobility

provider.

Taxiway raises a practical governance point with significant platform implications: the company already operates under a formal agreement with the Thessaloniki Tourism Card (TTB Card) and provides special transport rates to eco-destination sites such as the Pozar Bathhouses. This existing commercial relationship is a model for how the PortCREW platform could integrate private transport providers into a sustainable mobility offer — including the development of dedicated e-taxi packages for cruise passengers visiting eco-attractions.

Platform needs and functional requirements

The ThPA ratings for the PortCREW platform are moderate, reflecting the port authority's more operational orientation: dynamic availability management (4/5), eco-label information (4/5), and accessibility information (3/5) are prioritised, while real-time demand forecasting and self-guided tour features receive 3/5. For the TTB app integration, the ThPA rates eco-attraction information in the metropolitan area highest (5/5), followed by accessibility information and shared micromobility access (both 4/5). The TTO and other respondents do not provide numeric ratings but consistently emphasise the importance of pre-visit digital availability, profile segmentation, and multi-modal transport information as the platform's most critical functional requirements.

The unique institutional asset at Thessaloniki is the existing Thessaloniki Tourism Card (TTB) infrastructure, which the TTO has already promoted through its website and which Taxiway and Capsule T are both positioned to support. The PortCREW pilot's strategy of integrating the platform with and expanding the TTB card's functionalities is strongly validated by this stakeholder feedback: rather than building a standalone tool, the platform at Thessaloniki should be designed as an enhancement layer on top of an already-functioning digital tourism ecosystem, leveraging existing distribution channels (cruise agents, port agents, cruise lines) and existing partner networks (TTB-affiliated transport, hospitality, and attraction providers) to maximise reach and minimise adoption friction.

8.5. Demand analysis via geolocation

Overview and analytical framework

The geolocation analysis for the Thessaloniki pilot area applies the same detection methodology used across all PortCREW sites, with non-domestic cruise passengers identified through the cross-referencing of maritime and land-based geolocation signals within the Greek prefecture unit of Thessaloniki, defined as the main analysis area. Greek residents were excluded. The dataset covers January to October 2025, and it should be noted that the sample size obtained for Thessaloniki is somewhat smaller than in the other pilot areas, resulting in a maximum margin of error of approximately $\pm 10\%$ at a 95% confidence level — the highest margin observed across the five sites. This higher

uncertainty should be taken into account when interpreting the results, particularly for the second business question where specific proportional estimates are not available.

Thessaloniki's sustainability challenge is framed around the need to distribute visitor flows more equitably across the prefecture — alleviating pressure on the densely visited historic and commercial centre of the city while activating the considerable natural and cultural assets of the surrounding region, including forested hinterlands, lake ecosystems, archaeological sites, and traditional villages. The geolocation analysis provides the empirical baseline for this objective and directly informs the platform's content and recommendation architecture at this pilot site.

Detailed methodology process

In the case of Thessaloniki, we proceed with the same methodology.

First, we define an area in the sea to get the candidates to cruise passengers.

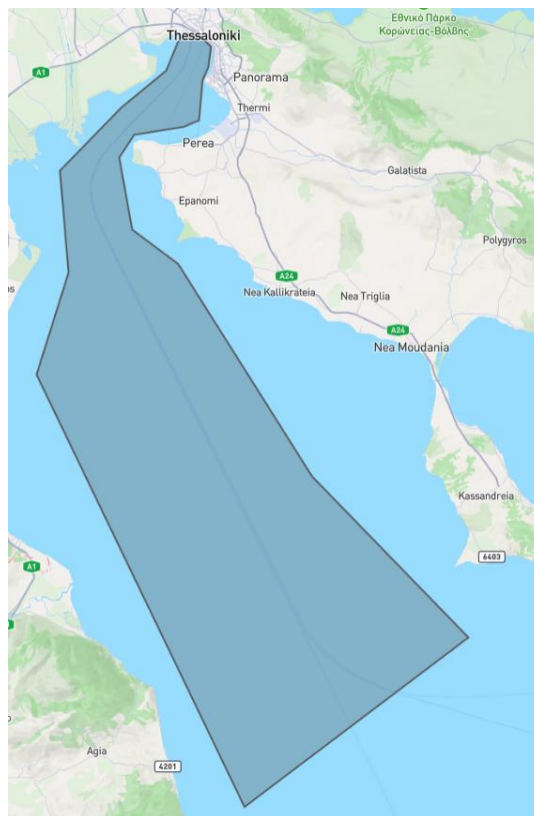


Figure 70: Area in the sea to get cruise passengers candidates for Thessaloniki

Second, we define the main analysis area. In this case, it is the Greek prefecture unit of Thessaloniki.

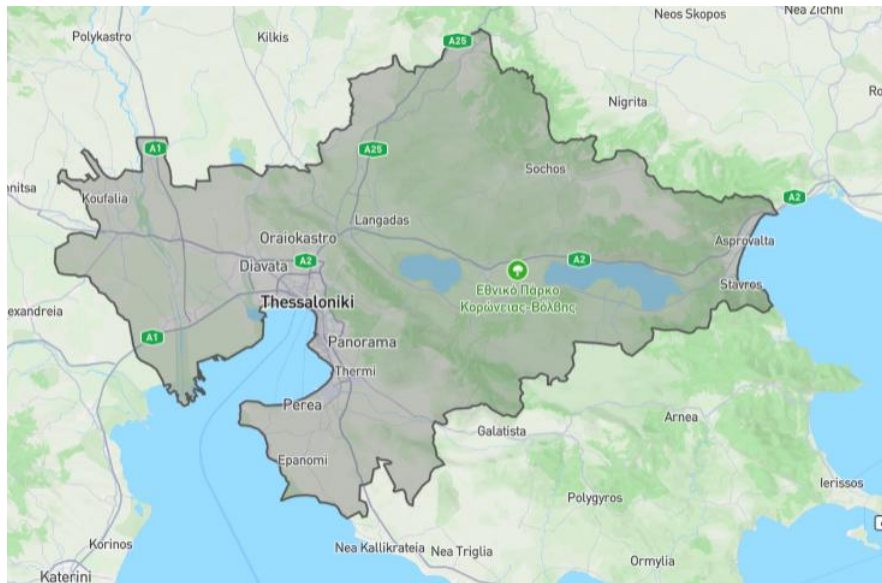


Figure 71: Main analysis area for destination Thessaloniki

Once we do have the user candidates to cruise passengers, we obtain their geolocations across the main analysis area. At this point, we remove the users detected in the main area more than one day. Note that the cruise passengers stay at the destination no more than 12 hours from the arrival of the cruise ship until the departure.

Finally, we do have a sample of the non-domestic cruise passengers arriving in Thessaloniki. In this case, the sample size is slightly smaller than in the previous scenarios. However, given the size of the sample, the estimated sample proportions have a maximum margin of error of approximately 10% at a 95% confidence level. For this case, we have used data from January to October 2025.

Business question: Thessaloniki aims to enhance the visibility and attractiveness of lesser-known, nature-based sites within its wider region, encouraging a more sustainable and balanced distribution of visitor flows. By promoting these under-visited attractions, the destination seeks to alleviate pressure on the highly frequented central areas while strengthening the appeal of more natural and culturally diverse environments. This strategic approach involves advancing sustainable mobility solutions to facilitate low-impact access, developing diversified tourism products such as thematic routes and agritourism experiences, and reinforcing community-driven initiatives that preserve local heritage and generate distributed economic value. Therefore, we want to know the percentage of non-domestic cruise passengers that remains at the metropolitan area, and the percentage that went to less crowded areas within Thessaloniki prefecture.

With this objective, we define the sub-areas within the main analysis area as follows: The metropolitan area (in red) and the rest of the region (in blue)

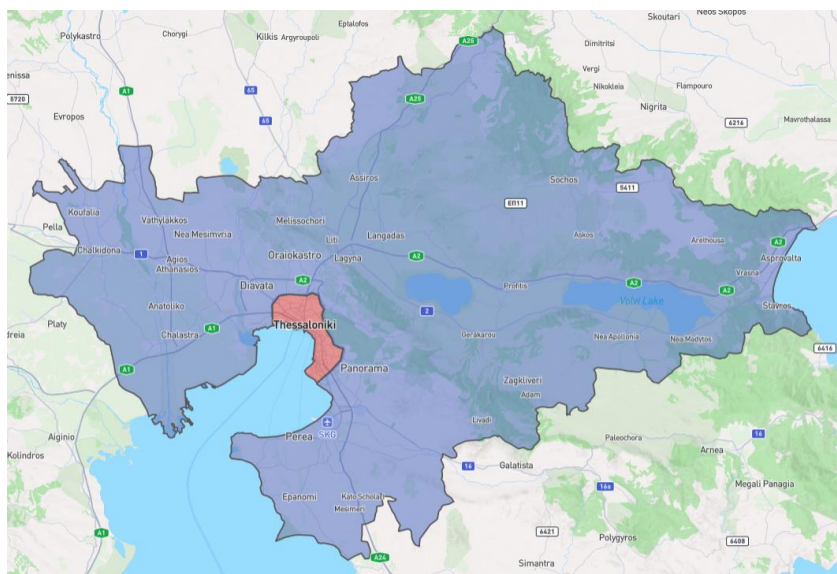


Figure 72: Sub-areas (points of interest) defined for Thessaloniki first business question

Business question: On the other hand, Thessaloniki is also interested in understanding the proportion of non-domestic cruise passengers who arrive in the city and subsequently visit nearby regions such as Chalkidiki or the Autonomous Monastic State of the Holy Mountain, which can be accessed through organized boat excursions. This information would help the destination better assess regional mobility patterns and the spillover effects generated by cruise tourism beyond the city itself.

We define the areas of interest as follows:

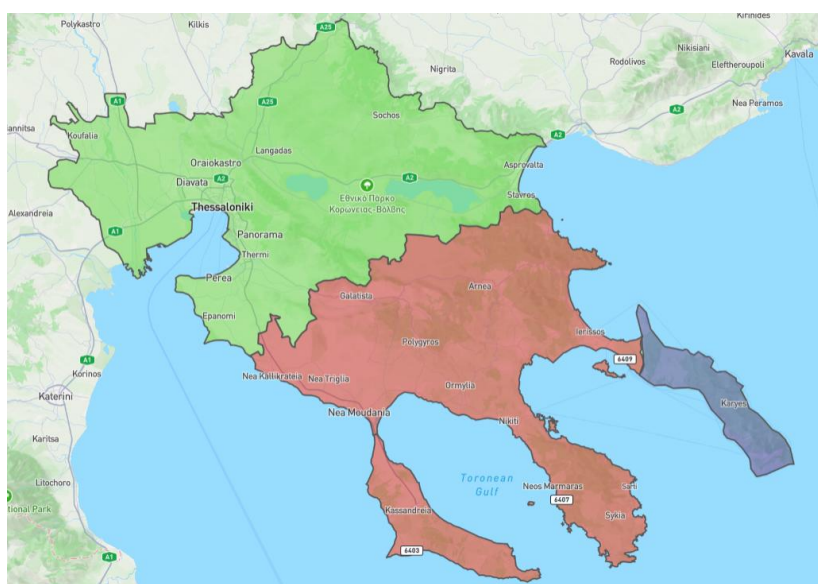


Figure 73: Sub-areas (points of interest) defined for Thessaloniki second business question

Spatial distribution: one of the most balanced patterns across all pilot sites

The spatial analysis divides the main analysis area into the Thessaloniki metropolitan zone and the rest of the prefecture. The results reveal a strikingly balanced distribution: 51% of non-domestic cruise passengers were detected within the metropolitan area, while 49%

were observed in other locations across the wider Thessaloniki prefecture. This near-equal split is the most evenly distributed spatial pattern observed across all five PortCREW pilot sites, and it is a finding of considerable strategic importance.

The 49% of passengers who already venture beyond the metropolitan core represent a very large proportion of the total cruise visitor population — far exceeding the comparable figures for Valencia (27%) or Ravenna (45%), and suggesting that Thessaloniki's cruise visitors are characterised by an exceptionally high degree of spatial curiosity and independence. Several factors may contribute to this pattern: Thessaloniki's position as a less institutionally "packaged" cruise destination compared to more visited Mediterranean ports may encourage a higher proportion of independent explorers; the prefecture's relatively compact and accessible geography may facilitate spontaneous excursions; and the city's emerging reputation as an authentic, less overtouristed alternative to Athens may attract a visitor profile predisposed to exploration.

Whatever the underlying drivers, this finding establishes a strongly positive baseline for the PortCREW platform. The platform's challenge at Thessaloniki is not to overcome visitor inertia toward the city centre — that inertia is already significantly weaker than at other pilot sites — but rather to channel the existing dispersal instinct toward ecologically and culturally sustainable destinations while providing the quality of information and ease of access needed to make those choices confidently.

Regional mobility: Chalkidiki and Mount Athos

The second business question examined whether cruise passengers arriving in Thessaloniki subsequently travel to two notable and ecologically significant regions accessible from the city: the Chalkidiki peninsula — a major coastal and nature tourism destination — and the Autonomous Monastic State of Mount Athos, which is accessible from Thessaloniki via organised boat excursions.

The geolocation data shows that no non-domestic cruise passengers detected upon arrival in Thessaloniki were subsequently identified in either region. This result requires careful interpretation. Two methodological factors are likely to explain the absence of detectable movement rather than an actual absence of passenger flows. First, organised excursions to the Mount Athos area are conducted by boat, and the defined analysis zones did not include maritime areas — meaning that passengers on such excursions would not generate land-based geolocation signals within the defined polygons during their transit. Second, the relatively small sample size and the associated $\pm 10\%$ margin of error mean that low-frequency movements (e.g., 5–8% of passengers) may not be captured with statistical reliability. These limitations should be acknowledged explicitly and addressed in future iterations of the analysis through refined spatial definitions that incorporate maritime transit zones and larger sample periods.

Implications for the PortCREW platform

The Thessaloniki geolocation findings point to a platform design logic that is in some

respects the most optimistic of the five pilot sites: the destination already has a visitor base that is highly predisposed to spatial exploration. The platform's role here is therefore less about creating demand for non-metropolitan experiences and more about providing the information infrastructure needed to guide an already-mobile visitor population toward the most sustainable and least-pressured areas. Key priorities include: (i) rich content on the natural and cultural assets of the Thessaloniki hinterland — including thematic routes, agritourism experiences, and nature-based activities — developed in close collaboration with the Thessaloniki Tourism Organization and local stakeholders; (ii) dedicated information on sustainable and low-emission transport options for reaching inland destinations; (iii) content and booking tools for organised excursions to Chalkidiki and the Mount Athos coast, helping to formalise and make visible a demand that the current data suggests exists but cannot yet be quantified; and (iv) integration with the Thessaloniki Smart City Pass, as envisaged in the pilot's broader strategy, to provide a seamless digital experience linking cruise visitor flows with the wider urban and regional tourism ecosystem.

9. Cross pilot analysis

9.1 Introduction and analytical approach

This section synthesizes the findings from the five regional analyses presented in Sections 4 through 8 into a comparative, cross-territorial assessment. Drawing on three complementary data pillars — desk research and eco-tourism standards benchmarking, stakeholder interview analysis, and geolocation-based demand profiling identifies the patterns, divergences, and strategic insights that emerge when the five PortCREW pilot areas are examined together.

The comparative lens serves two purposes within the deliverable. First, it allows the project to distil the shared structural challenges of sustainable cruise tourism across the MED region, establishing a common baseline that transcends individual destination contexts. Second, it identifies the differentiated starting positions and specific intervention priorities that must inform the design of the PortCREW platform and the subsequent pilot actions in WP2, ensuring that the platform is simultaneously coherent at the transnational level and sufficiently adaptive to local realities.

The five pilot areas — Valencia (Spain), Toulon (France), Ravenna (Italy), Koper (Slovenia), and Thessaloniki (Greece) — represent a deliberately diverse sample of MED cruise destinations: ranging from an established, high-traffic western Mediterranean hub (Valencia) to a rapidly growing eastern Mediterranean city of call (Thessaloniki); from a port whose dominant function is turnaround embarkation (Ravenna) to one whose unique physical proximity between ship and historic city creates immediate congestion (Koper); and from a destination actively losing visitors to competing riviera destinations (Toulon) to one already demonstrating exceptional spatial dispersal of its cruise visitor base (Thessaloniki). This diversity makes the cross-pilot comparison analytically rich and practically actionable.

9.2 Cruise volume, profile, and market structure: a comparative overview

The five pilot areas differ significantly in scale, growth trajectory, and market structure, and these differences directly condition the nature of the sustainability challenge at each site.

In terms of volume, Valencia is by far the largest pilot, with approximately 776,000 cruise passengers in 2024 across 270 calls — nearly double the next largest. Ravenna handled approximately 331,000 passengers in 2024 (86 calls), followed by Toulon with 151,000 (87 calls) in what was a below-trend year, with 2025 forecast to rebound sharply to 291,000.

Thessaloniki nearly doubled its passenger volume between 2023 and 2024, reaching 125,000 passengers across 81 calls, while Koper received approximately 125,000 passengers across 74–79 calls in 2024. At the lower end of the scale, the five pilot ports collectively serve well over one million cruise passengers per year, concentrated in the period May–October.

Several market-level observations cut across all five pilots. The share of passengers booking organised shore excursions directly through the cruise line has declined across the board — consistently reported at 20–30% at Valencia, 23–25% at Koper, and 25–40% at Thessaloniki — reflecting a structural shift toward independent exploration facilitated by digital information and growing passenger confidence in self-organised visits. This shift has significant implications for the PortCREW platform: the growing independent traveller segment is precisely the most accessible audience through a destination-level digital tool, as it is not captive to the cruise line's excursion programme. At the same time, the tour operator ecosystem remains critical as a distribution channel for the eco-tourism products that the platform aims to promote.

The passenger age profile is broadly consistent across pilots: the modal visitor is aged 45–65, tends to travel as a couple or family, and originates predominantly from northern European and North American markets (Germany, UK, USA, France). However, all pilots report an accelerating shift in composition, with younger adults (30–45), multigenerational groups, and more sustainability-conscious travellers growing in share — particularly on luxury, expedition, and premium vessels which are disproportionately represented at smaller, less-trafficked ports such as Koper and Ravenna.

9.3 Spatial distribution of cruise visitor flows: geolocation findings compared

The geolocation analysis, conducted by ForwardKeys across all five pilot areas using a consistent passenger detection methodology and the same study period (January–November 2025 for most sites), provides the most directly comparable quantitative evidence of how cruise passengers actually distribute themselves at each destination. The key metric — the share of non-domestic cruise passengers who remain within the metropolitan area versus those who venture into the wider regional analysis zone — reveals a striking gradient across the five pilots.

Valencia shows the most pronounced metropolitan concentration: 73% of passengers remain in the extended metropolitan area, with only 27% detected in other municipalities of Valencia province. This makes Valencia the pilot with the greatest untapped potential for flow redistribution, and the one where the PortCREW platform's role in diverting passengers toward lesser-known destinations will need to be most actively designed.

Toulon presents a structurally distinct pattern: rather than internal urban concentration,

the challenge is external leakage to competing Riviera destinations — approximately 30% of passengers leave Toulon to visit Marseille, Nice, or Monaco, with Nice and Monaco together attracting 14% of all passengers and Marseille capturing 6%. The 70% retention rate within the Toulon area means the destination is not failing to attract visitors but is losing a significant fraction to high-profile neighbours.

Ravenna shows a notably balanced distribution: 55% of passengers within the metropolitan area and 45% in the wider regional zone — the most evenly split metropolitan/non-metropolitan ratio among the five pilots (excluding Thessaloniki). This is reinforced by meaningful outflows to nearby cities: 17% of passengers also visited Bologna and 8% visited Venice, confirming that Ravenna's cruise visitors are relatively mobile and comfortable with independent regional exploration.

Koper presents the most asymmetric internal distribution: while only 5% of passengers travel as far as Ljubljana, a remarkable 40% are detected in the Dekani–Tinjan–Škofije rural corridor — the highest engagement rate with a specific eco-tourism zone recorded across all five pilots. This figure coexists with an almost complete absence from the Marezige–Boršt wine area (1%), creating the sharpest demand asymmetry in the dataset and identifying a clear and specific platform intervention priority.

Thessaloniki shows the most balanced overall distribution: 51% of passengers in the metropolitan area and 49% in the wider prefecture — a near-equal split that reflects an already highly mobile and exploratory visitor base. This is the most favourable baseline for eco-tourism dispersal of the five pilots, suggesting that the primary platform challenge at Thessaloniki is not demand creation but information provision.

These five patterns can be grouped into three distinct strategic typologies that should inform platform design:

Typology 1 – High urban concentration (Valencia): The dominant challenge is redirecting visitors from a saturated city centre toward provincial eco-destinations. Platform priorities: pre-arrival personalised recommendations, sustainable last-mile connectivity information, and time-optimised itineraries for destinations such as the Albufera.

Typology 2 – Destination leakage (Toulon): The dominant challenge is retaining visitors who currently depart for competing destinations. Platform priorities: compelling content positioning the local hinterland as a superior alternative to high-carbon coach excursions, early-morning engagement at the terminal, and sustainable mobility to natural areas.

Typology 3 – High natural dispersal with visibility gaps (Koper, Ravenna, Thessaloniki): Visitors are already mobile and exploratory, but eco-tourism destinations are either invisible (Marezige–Boršt at Koper, the Po Delta at Ravenna), underconnected digitally (Thessaloniki's TTB ecosystem), or insufficiently differentiated from competing urban draws (Bologna and Venice for Ravenna). Platform priorities: discoverability, eco-certification labelling, profile-based matching, and integration with existing local digital tools.

9.4 Stakeholder perspectives: cross-pilot thematic synthesis

The stakeholder interview programme — covering more than 25 organisations across the five pilot areas — reveals a set of recurring themes that transcend individual destinations, alongside important local specificities.

Universal finding 1: Growing but uneven eco-tourism demand. All stakeholder groups across all five pilots confirm a growing interest in eco-tourism services among cruise passengers, with near-unanimous agreement that the trend is real and commercially significant. However, the strength of that demand varies systematically by vessel segment: luxury, premium, and expedition lines (well represented at Koper, Ravenna, Toulon, and Valencia) show the most explicit and actionable eco-tourism demand, while large contemporary mass-market ships (dominant at Valencia and Thessaloniki) show far more limited uptake. This distinction is crucial for platform design: the platform should offer profile-based eco-recommendations that are calibrated to the passenger type, not a one-size-fits-all sustainable tourism menu.

Universal finding 2: The decline of organised excursion uptake and the rise of the independent traveller. Across all pilots, the share of passengers buying excursions through the cruise line has declined. This is simultaneously a challenge (tour operators face pricing pressure and commercial uncertainty) and an opportunity (independent travellers are the most directly accessible audience for a destination-level digital platform). The PortCREW platform is uniquely positioned to serve this growing segment by providing the information infrastructure that replaces the cruise line's packaged offering with a personally curated, sustainable alternative.

Universal finding 3: The information gap as the primary barrier. Despite the diversity of destination contexts, stakeholders at all five pilots independently identify the same fundamental obstacle to eco-tourism uptake: the absence of comprehensive, centralised, pre-arrival digital information tailored to passenger profiles. At Thessaloniki, the only resource for independent passengers is a physical help desk. At Ravenna, tourist information at the terminal is provided from a temporary lodge. At Valencia, apps exist but are rarely downloaded. At Toulon, information is fragmented across multiple sources. At Koper, the eco-tourism offer exists but lacks the digital wayposting needed to make it accessible in real time. The PortCREW platform directly addresses this universal gap.

Universal finding 4: Accessibility as a cross-cutting priority. Accessibility — for passengers with reduced mobility, elderly travellers, families with young children, and visitors with sensory impairments — is flagged as a priority need at every single pilot site. It is also consistently identified as the area where current information provision is most inadequate. This finding strongly validates the inclusion of accessibility information as a core feature of the PortCREW platform, and suggests that it should be one of the most rigorously and comprehensively implemented features rather than a secondary add-on.

Universal finding 5: Mobile apps are not the right delivery channel. Multiple tour operators and port authority respondents across Valencia, Koper, and Toulon explicitly note that cruise passengers are reluctant to download destination-specific apps, and that this reluctance is a structural barrier to digital tool adoption. The cross-pilot evidence supports a delivery strategy centred on: pre-departure engagement via cruise lines and travel agents; physical smart terminals or totems at cruise terminals (as envisaged at Koper and Valencia); QR-code-based access to platform content from physical signage; and web-based access requiring no download. The PortCREW platform architecture should be designed with these access modalities as primary, not secondary, channels.

Universal finding 6: Platform integration over standalone tools. At every pilot, stakeholders flag the importance of connecting the PortCREW platform with existing digital tourism ecosystems rather than building a parallel, competing infrastructure. At Thessaloniki, integration with the TTB Smart City Pass is a strategic priority. At Toulon, the Cruise Friendly programme and the R-ItinERA eco-routes represent existing content assets to be incorporated. At Ravenna, the Footprints project's experience catalogue provides ready-made content. At Koper, the Municipality's existing bike route infrastructure and the Altroke Istra Gourmet Festival represent contextual hooks. At Valencia, integration with the Port Authority's existing passenger communication tools and the Diputació's provincial tourism platform is essential. This convergent finding argues strongly for an open-architecture platform with APIs and interoperability built in from the start.

9.5 Eco-tourism product offer: strengths, gaps, and transferable models

The cross-pilot mapping of existing eco-tourism products reveals both a richer supply than expected and significant structural gaps that are remarkably consistent across destinations.

The strongest and most commercially proven eco-tourism products across the five pilots are: wine and gastronomy tours featuring local producers (present and commercially successful at Koper, Toulon, Valencia, and Ravenna); nature-based experiences in protected areas (Po Delta at Ravenna, Port-Cros National Park at Toulon, Albufera at Valencia, Karst landscape at Koper, Mount Olympus and Vergina at Thessaloniki); walking tours of UNESCO heritage sites (Thessaloniki, Ravenna, Koper); and cycling and e-bike experiences (Koper above all, with growing uptake at Valencia and Toulon). Wildlife and conservation experiences, such as the turtle sanctuary at Toulon and bird-watching in the Po Delta, represent a smaller but high-satisfaction niche.

The most consistent gaps across all five pilots are: (i) the near-absence of time-optimised eco-itineraries specifically designed for the 10–12 hour cruise call window; (ii) the lack of verified eco-labelling and certification information that would allow passengers and operators to identify sustainable options quickly and with confidence; (iii) the

fragmentation of sustainable mobility information — passengers at every port struggle to find practical, real-time information about low-emission transport options connecting the terminal to eco-destinations; and (iv) the underperformance of highly attractive eco-destinations that are simply not visible in current marketing and digital tools, of which the most dramatic example is the Marezige–Boršt wine area at Koper (40% vs 1% engagement with the two adjacent rural zones).

Three transferable models emerge from the cross-pilot analysis as particularly replicable across the portfolio. The Koper e-bike model — pre-defined thematic routes displayed at terminal smart benches, with bikes available onboard or rentable steps from the ship — is a low-cost, high-impact intervention that could be adapted at Valencia (Albufera cycling routes), Toulon (Var countryside trails), and Thessaloniki (waterfront and city cycling). The Toulon turtle sanctuary model — a wildlife conservation experience embedded within a commercial excursion programme — demonstrates how ecological value can be monetised sustainably and is replicable wherever PortCREW destinations have protected natural assets of equivalent profile. And the Ravenna Footprints model — using a parallel EU-funded project to build a curated, quality-certified catalogue of sustainable experiences that the PortCREW platform can then distribute — is a governance template that other pilots could replicate by identifying analogous local sustainability initiatives and integrating them into the platform's content pipeline.

9.6 Platform functional requirements: a consolidated cross-pilot view

The cross-pilot synthesis of stakeholder platform ratings and qualitative feedback allows a consolidated and prioritised view of the PortCREW platform's functional requirements, grounded in evidence from across the five destinations.

Tier 1 – Highest consensus priority across all pilots: information on eco-attractions in the destination area; information on sustainable mobility services (shared bikes, public transport, e-mobility options); accessibility information for attractions, routes, and transport; pre-defined self-guided routes by sustainable mode of transport; and a tourist feedback and ratings system for service quality assessment.

Tier 2 – High priority with pilot-specific weighting: real-time demand forecasting and crowd management at popular attractions (highest priority at Toulon and Valencia, where concentration and leakage are most acute); eco-label and certification badges for verified sustainable products (most important to Toulon and Koper operators); integration with cruise line excursion booking APIs (a strong priority for all tour operators, enabling the platform to function as a genuine distribution channel); and integration with existing local touristic platforms (highest strategic importance at Thessaloniki/TTB and Toulon/Cruise Friendly).

Tier 3 – Contextually important features: virtual guided tours of monuments (higher importance at Thessaloniki and Toulon than at other sites); dynamic availability and capacity management per guided tour (important for ground handlers like Intercruises at Toulon); back-end dashboard for stakeholders to upload sustainable tourism content (consistently rated important across all pilots as a tool for maintaining content currency beyond the project end).

Two cross-pilot back-end priorities that go beyond individual feature ratings deserve particular emphasis. First, analytics and reporting: multiple stakeholders — including Intercruises (Toulon) and Valenciaport — request tools to monitor visitor flows, demand trends, and eco-product performance, transforming the platform from a passenger-facing information tool into a strategic management instrument for destination authorities. Second, governance and sustainability of the platform beyond the project: the Ravenna municipality and the Emilia-Romagna Region explicitly raise the question of who owns, updates, and finances the platform after the Interreg grant period ends. This is not a technical but a governance challenge, and one that must be resolved at the transnational level — the cross-pilot design of the platform's content management architecture should build in a clear model for distributed post-project ownership and updating responsibility.

Conclusions

This deliverable has produced a comprehensive, multi-method diagnostic of eco-tourism supply and cruise passenger demand across five Mediterranean pilot areas, combining international standards benchmarking, qualitative stakeholder evidence from more than 25 organisations, and behavioural geolocation analysis covering January–November 2025. The conclusions presented here synthesise the most significant findings by thematic area, establishing the evidence base that will directly inform the design of the PortCREW digital platform under Activity 1.2 and the deployment of the five pilot actions in Work Package 2. They are formulated at a moment when Mediterranean cruise tourism is undergoing both unprecedented commercial expansion — with capacity approaching six million berths in 2026 — and increasing institutional pressure to reconcile this growth with European climate targets, host-community acceptance, and the structural limits of UNESCO and natural protected sites. PortCREW's diagnostic responds directly to this tension and offers a transferable, evidence-based framework for action.

On the cruise market and passenger profiles, the five pilot areas collectively serve well over one million cruise passengers per year, yet share a structural feature that defines the project's core challenge: the share of passengers booking organised shore excursions through the cruise line has fallen to 20–30% across all pilots, with the independent traveller now the dominant visitor profile. This is both a challenge and an opportunity. At Valencia, approximately 48% of passengers still book excursions through the cruise line, but 84.5% of those excursions remain concentrated in the metropolitan area — confirming that the cruise industry's own commercial logic reinforces, rather than alleviates, urban concentration. At Koper, only 23–25% of passengers use organised tours, and the e-bike rental service at the terminal has grown from 12 independent users in 2023 to an estimated 23 in 2025 — small numbers, but a trend that the PortCREW smart benches are specifically designed to accelerate. The passenger age profile is broadly consistent at 45–65 years across all pilots, but all destinations report an accelerating shift toward younger, more sustainability-conscious travellers on luxury and expedition vessels — the segment where eco-tourism uptake is highest and where platform-mediated recommendations carry most commercial potential.

On spatial distribution of cruise visitor flows, the geolocation analysis delivers the single most striking empirical finding of the deliverable: the degree of urban concentration at Valencia (73% of passengers confined to the metropolitan area, with the Albufera Natural Park attracting only 6%) stands in sharp contrast with the near-equal dispersal at Thessaloniki (51% metropolitan, 49% wider prefecture), with Ravenna (55%/45%), Koper, and Toulon occupying intermediate positions. The Koper data produces the most operationally specific insight: a 40-fold difference in engagement between two adjacent rural eco-tourism zones (Dekani–Tinjan–Škofije at 40% vs. Marezige–Boršt at 1%) that are of comparable ecological and gastronomic quality. This

asymmetry is entirely explained by visibility: the first corridor has been progressively promoted through local operators and municipal initiatives; the second is effectively absent from every existing information channel. It is perhaps the clearest single demonstration in the entire dataset of what the PortCREW platform can achieve. At Toulon, the geolocation data quantifies for the first time the scale of the destination's visitor leakage problem: 14% of all non-domestic passengers travel to Nice and Monaco, and 6% to Marseille, generating carbon-intensive coach journeys of 80–120 kilometres each way that directly undermine the sustainability objectives of the port call. Redirecting even half of this outflow toward the Var's natural parks and vineyard routes would represent a material sustainability gain and a significant economic benefit to the local economy.

On temporal patterns, the hourly distribution analysis at Valencia reveals that peak urban concentration occurs between 08:00 and 15:00 — a compressed seven-hour window during which the city centre, Poblats Marítims, and the Ciudad de las Artes y las Ciencias simultaneously saturate. At Toulon, the temporal signatures of competing destinations tell a revealing story: Marseille and Nice-Monaco show sharp, concentrated activity peaks in the morning and early afternoon, confirming that they are visited as time-limited day excursions, while Toulon itself shows a flat, extended distribution across the full 13-hour dwell window — confirming its role as hub rather than destination. These temporal patterns define the platform's intervention window: pre-arrival and early-morning engagement, before passengers commit to coach excursions or spontaneous urban drift, is the moment of maximum leverage for redirecting flows toward sustainable alternatives.

On the eco-tourism offer and its gaps, the cross-pilot mapping confirms both a richer supply base than often assumed and a set of structural gaps that are remarkably consistent across destinations. The commercially proven eco-tourism products — wine and gastronomy experiences with local producers, nature-based visits to protected areas, cycling and walking tours, and wildlife conservation experiences — are present at all five pilots. The Toulon turtle sanctuary, the Koper Istrian wine routes, the Valencia Albufera boat tours, the Ravenna Po Delta, and the Thessaloniki Gerovasileiou Winery are all viable, market-tested products. What they lack is not quality but discoverability, digital integration, and the time-optimised itinerary packaging that would make them a realistic choice for a passenger with 10–12 hours ashore. Three transferable models emerge as particularly replicable: the Koper e-bike model (pre-defined thematic routes at terminal smart benches, bikes available steps from the ship); the Toulon wildlife conservation model (a commercially viable excursion embedded within a credible conservation narrative); and the Ravenna Footprints model (a parallel EU-funded project building a quality-certified experience catalogue that the PortCREW platform can distribute without duplicating effort).

On stakeholder perspectives and platform requirements, more than 25 organisations across the five pilots converge on a set of priorities that is both highly consistent and

specifically actionable. The feedback and ratings system from tourists is the most frequently cited back-end priority across all destinations — a finding that points to a fundamental need for real-world performance data to replace the currently anecdotal understanding of what eco-products actually work. Integration with cruise line excursion booking APIs is the most commercially transformative feature requested, as it would convert the platform from a passive information channel into an active distribution mechanism — the difference between informing passengers and selling to them. Accessibility information is cited as the most critical content gap at every single pilot, and the one where current provision is most inadequate relative to demand: at Thessaloniki, for example, the Port Authority explicitly identifies the absence of accessibility data as a barrier to equitable visitor distribution. And the near-universal scepticism toward mobile apps — with stakeholders at Valencia, Koper, and Toulon independently noting that cruise passengers are resistant to downloading destination-specific applications — converges on a clear platform delivery strategy: terminal smart benches and totems, QR-code access from physical signage, and pre-departure engagement via cruise lines are the channels that will actually reach passengers, not app stores.

On governance, one finding deserves particular emphasis as it transcends the technical design of the platform and points to a systemic challenge for the project. The Ravenna Municipality and the Emilia-Romagna Region raise, independently, the same question: who will own, update, and finance the PortCREW platform after the Interreg grant period ends? This is not a peripheral concern. A platform that provides real-time eco-attraction information, sustainability certifications, crowd management data, and sustainable mobility schedules requires continuous content maintenance and operational governance — none of which is automatic after project closure. The cross-pilot evidence strongly supports the design of the platform with post-project sustainability built in from the start: distributed content ownership among partner destinations, API-based integration that enables autonomous updating by local stakeholders, and a governance model that assigns clear responsibilities to the DMO or port authority at each pilot site. Addressing this question in the platform design phase, rather than deferring it to the project's final year, is among the most important operational conclusions of this deliverable.

Converging challenges, differentiated responses

The cross-pilot analysis confirms that the five PortCREW destinations share a common underlying challenge — the concentration of cruise visitor flows in the most visited urban and coastal hotspots, at the expense of lesser-known eco-tourism destinations that offer greater sustainability value and lower social and environmental impact — but that the specific form this challenge takes, and therefore the appropriate platform response, differs significantly across sites.

Valencia's challenge is primarily one of metropolitan concentration and the near-invisibility of the provincial eco-tourism offer to current cruise visitors. Toulon's challenge

is destination leakage to higher-profile competing cities, requiring a platform strategy centred on retention and local differentiation. Ravenna's challenge is the relative invisibility of its unique combination of UNESCO heritage, natural delta landscapes, and regional gastronomy, in a context where passengers are already mobile and receptive. Koper's challenge is the asymmetric visibility of its rural eco-tourism zones, where one corridor already attracts 40% of visitors while an equally rich adjacent area captures almost none. Thessaloniki's challenge is the near-absence of digital infrastructure for independent visitors, in a destination whose passenger base already displays the highest spatial dispersal rate of the five pilots.

In aggregate, the findings of D1.1.1 confirm that the PortCREW platform responds to a real gap in the Mediterranean cruise tourism ecosystem. The five pilot areas have delivered the spatial baselines, the stakeholder requirements and the eco-tourism supply mapping that will allow the platform and the pilot actions to be designed with precision, tested with methodological rigour and evaluated against measurable outcomes in WP2 — including the share of passengers redirected toward eco-attractions, the carbon footprint avoided through modal shift to sustainable mobility, and the resident satisfaction levels associated with cruise-day flow management. Three forward-looking implications deserve particular emphasis. First, the deliverable demonstrates that geolocation analytics, when combined with stakeholder triangulation, can produce decision-grade evidence for cruise destination management at a level of granularity not previously available to MED port-city authorities — a methodological contribution that is itself transferable beyond the PortCREW partnership. Second, the consistency of stakeholder findings across five very different destinations indicates that the structural barriers to sustainable cruise tourism in the Mediterranean are systemic rather than local, justifying a transnational platform response and the wider replication of the PortCREW model across the Interreg Euro-MED area. Third, the deliverable establishes a direct evidence chain — from passenger behaviour, through stakeholder needs, to platform features and pilot actions — that will allow the project to demonstrate, in a quantifiable manner, its contribution to the European Green Deal's decarbonisation targets, to the EU Strategy for Sustainable and Smart Mobility, and to the cruise industry's own commitment to net-zero emissions by 2050. The next phases of the project can proceed on the basis of a robust, shared diagnostic, with clearly differentiated intervention priorities for each pilot site and a strong common architecture for the transnational PortCREW platform.

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Bibliography

- CCI du Var. (s. f.). *Chambre de Commerce et d'Industrie du Var*. <https://www.var.cci.fr/>
- Cruise Lines International Association. (2024). *Cruise Industry Annual Report*. <https://cruising.org/news/state-cruise-industry-report-2024>
- Cruise Lines International Association. (2018–2024). *Global source passenger market report*. <https://cruising.org/resources/2024-global-source-passenger-market-report>
- Dataestur. (s. f.). *Datos turísticos de España*. <https://www.dataestur.es/>
- Emilia-Romagna Region. (s. f.). *Tourism and territory information*. <https://www.regione.emilia-romagna.it/>
- European Commission. (2019). *The European Green Deal*. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
- European Commission. (2021). *Fit for 55: Delivering the EU's 2030 Climate Target on the way to climate neutrality*. <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/fit-55-delivering-eus-2030-climate-target-way-climate-neutrality>
- European Commission. (2024). *EU Tourism Transition Pathway*. https://transport.ec.europa.eu/tourism/transition-eu-tourism/tourism-transition-pathway-co-creation-and-co-implementation-process_en
- European Commission. (2025). *Corporate sustainability reporting*. https://finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/implementing-and-delegated-acts/corporate-sustainability-reporting-directive_en
- Fundación Valenciaport. (s. f.). *Port-City logistics and innovation projects*. <https://fundacion.valenciaport.com/en/>
- Global Sustainable Tourism Council. (2019). *GSTC Destination Criteria v2.0*. <https://www.gstc.org/wp-content/uploads/GSTC-Destination-Criteria-v2.0.pdf>
- Hellenic Ports Association (ELIME). (s. f.). *Statistics and publications*. <https://www.elime.gr/>
- INSETE. (s. f.). *Reports and studies*. <https://insete.gr/en/>
- International Organization for Standardization. (2018a). *ISO 20611: Adventure tourism — Good practices for sustainability — Requirements and recommendations*. <https://www.iso.org/standard/68548.html>
- International Organization for Standardization. (2018b). *ISO 21401: Tourism and related services — Sustainability management system for accommodation establishments — Requirements*. <https://www.iso.org/standard/70869.html>
- International Organization for Standardization. (2021). *ISO 21902: Tourism and related services — Accessible tourism for all — Requirements and recommendations*. <https://www.iso.org/standard/72126.html>
- Istranka Tours. (s. f.). *Shore excursions in Koper*. <https://dmcfinder.com/listing/istranka-tours-slovenia/>
- Luka Koper. (s. f.). *Living with the port / sustainable portal*. <https://www.luka-kp.si/>
- Luka Koper. (2021). *Green Port "Online"*. <https://www.luka-kp.si/en/news/green-port-online-2/>
- Port de Toulon. (s. f.). *Port of Toulon information*. <https://www.portsradetoulon.com/en>
- Port of València. (s. f.). *Port of València / cruise traffic information*. <https://www.valenciaport.com/en/>

- Ports Europe. (2025). *Valencia cruise passenger numbers fall 7.7% as city enacts tourism control strategy*. <https://www.portseurope.com/valencia-cruise-passenger-numbers-fall-7-7-as-city-enacts-tourism-control-strategy/>
- Ravenna Civitas Cruise Port. (s. f.). *The new cruise terminal*. <https://www.risposteturismo.it/wp-content/uploads/2024/03/RavennaPortPresentation-ASF24.pdf>
- Ravenna Port Authority. (s. f.). *Port of Ravenna / cruise development*. <https://www.port.ravenna.it/>
- Royal Caribbean Group. (2024). *Construction begins on new Ravenna cruise terminal*. https://royalcaribbeanmedia.com/files/pr-pdf/2025-Mar-7-Fri/1729774287_Ravenna-press-release-241024.pdf
- SeaTrade Cruise. (2025). *Shore power facilities at Toulon's three berths are operational*. <https://www.seatrade-cruise.com/ports-destinations/shore-power-facilities-at-toulons-three-berths-are-operational>
- Slovenian Tourism Organisation. (s. f.). *Port of Koper as a green point of entry into the heart of Europe*. <https://slovenia.si/excellence/port-of-koper-as-a-green-point-of-entry-into-the-heart-of-europe>
- Thessaloniki Port Authority. (s. f.). *Thessaloniki port / cruise contact*. <https://www.greekcruise.gr/index.php/port/contact/63>
- Thessaloniki Tourism Block. (2024). *The smart tourist card for the city of Thessaloniki*. <https://thesstourblock.imet.gr/en/2024/09/10/newsletter-2/>
- Thessaloniki Tourism Organization. (2024). *Thessaloniki Tourism Organization (T.T.O.)*. <https://thessaloniki.travel/about-us/thessaloniki-tourism-organization-t-t-o/>
- Toulon Provence Méditerranée. (s. f.). *Official destination and mobility information*. <https://www.toulon-provence-mediterranee.fr/>
- UN News. (2002). *UN hails forum's declaration defining basis for ecotourism*. <https://news.un.org/en/story/2002/05/36022>
- United Nations Environment Programme & World Tourism Organization. (2005). *Making Tourism More Sustainable: A Guide for Policy Makers*. <https://www.e-unwto.org/doi/book/10.18111/9789284408214>
- United Nations World Tourism Organization. (2004). *Indicators of Sustainable Development for Tourism Destinations: A Guidebook*. <https://www.e-unwto.org/doi/book/10.18111/9789284407262>
- Visit Koper. (2024). *Koper – Green Town*. <https://visitkoper.si/en/travel-info/koper-green-town/>
- Visit Valencia. (s. f.). *Official tourism information and statistics*. <https://www.visitvalencia.com/>
- World Commission on Environment and Development. (1987). *Our Common Future*. <http://www.un-documents.net/our-common-future.pdf>
- World Tourism Organization. (2002). *Québec Declaration on Ecotourism*. <https://www.gdrc.org/uem/eco-tour/quebec-declaration.pdf>
- World Tourism Organization. (2022). *The Glasgow Declaration on Climate Action in Tourism*. <https://www.unwto.org/the-glasgow-declaration-on-climate-action-in-tourism>



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