

D.3.2.3 CROSS-BORDER MULTIMODAL SUSTAINABLE TRANSPORT GUIDELINES

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Introduction

When we speak about cross-border mobility, a large number of travel types are generally introduced: from migratory mobility with all the ensuing security and control problems, to commuter mobility for work reasons, to mobility for economic/business reasons (an increasingly growing phenomenon due to low-cost services/treatments or the search for lower-priced products such as the so-called: "Cross-border dental care: 'dental tourism' and patient mobility, with an increasing numbers of patients that are traveling to obtain affordable, timely dental care¹.). To these we need to add the goods cross-border mobility and the related vehicles flows, not to mention tourist mobility.



These Guidelines want to deepen this last point, the cross-border **mobility due to tourist flows**, that's to say the main motivation for international passenger flows.

In particular, we want to deepen the actions and possible measures on the Adriatic front, focusing, therefore, on flows in the maritime context (and not on cross-border flows, for example, in the mountains) even if much of what has been illustrated may be valid in every cross-border reality.

Therefore, this manual is focused on sustainable mobility actions that affect this type of travel, during the whole travel experience, from the departure and organization of the same to the return to one's residential location, analyzing both the extra-urban access movements and the urban movements necessary to enjoy the Points of Interest (from now called POI) present at destination.

Therefore, we do not want to duplicate general guidelines on sustainable mobility and SUMP (see the European ELTIS guidelines [1]) nor to collect and study the development and legislation of SUMP at cross-border level, as done in the Interreg Adrion SMILE project [2], but rather to identify detailed elements and actions useful for the **multi-scalar planning of cross-border tourism** in every phase of the planning process (mainly at Municipal/Local/Regional scale) following what is indicated by the European Community regarding Cross-Border Mobility, that's to say "developing and enhancing sustainable, climate resilient, intelligent and

¹ L. Turner, British Dental Journal volume 204, pages553–554 (2008)

intermodal national, regional and local mobility, including improved access to TEN-T and cross border-mobility” [7].

Tourism, in general, represents the set of movements generated by the search for places and activities that are different from usual and have no economic motivation (Miossec 1976, Page 2003, Cohen 2004). In this definition, tourism depends on the coexistence of at least three conditions:

- a displacement from the residence place to a different one;
- an overnight stay (twenty-four hour minimum to be considered as a tourist);
- a motivation that is different from work that activates the displacement.

We are also aware that tourism is a phenomenon that profoundly affects the Adriatic urban areas and that it can act as an “**accelerator of changing**” to improve a new mobility culture and to expand the sustainable mobility habits (for example coming from tourists coming from the Nordic European countries and other areas, towards our maritime areas, to encourage change local inhabitants behaviours. So sustainable mobility in tourism can also be a sort of “flywheel of change” in mobility habits of local citizens [8].

Every tourist is first of all a traveler: he expresses a demand for mobility to reach cultural cities and tourist sites, to enjoy the historical-artistic, environmental and landscape heritage. This demand is constantly growing and changing, becoming more informed but, at the same time, attentive and enriched with new environmental and cultural sensitivities. In general, these Guidelines have **five main objectives**, namely:

- to increase general accessibility to tourist sites;
- to enhance the infrastructural heritage as an element of the tourist offer;
- to digitize and modernize services for travelers through advanced telecommunications and information technologies;
- to promote sustainable tourism mobility models (which have an effect on both culture and the local economy);
- to closely integrate the tourism phenomenon with the transport sector.

The writing of these Guidelines is also an opportunity to carry out the recognition of initiatives already underway (or completed) promoted by central and local Administrations as well as by mobility operators or innovation leaders providing a series of **Good Practices** that will be presented (by way of example and without claiming to be exhaustive) in the various chapters of the Guidelines themselves.

Regarding this last point a Cloud Survey has been built to ask Sutra partners to insert the more representative Good Practices regarding Cross-Border Mobility, mainly involving tourism mobility and related to extra-urban, urban, inter-urban, multimodal mobility. Moreover, in the survey we ask you to give information and contacts about main stakeholder to involve in the Permanent Cross-Border Communication Table that Sutra project will establish to communicate and share, even after the end of the project, the actions taken by the various stakeholders in the context of sustainable cross-border mobility. (Annex 1 present some images of the cloud-survey).

The Plan will analyze different action types, from the development of cycle-pedestrian tourist transport infrastructural networks, from the promotion of non-conventional sustainable mobility services (sharing mobility, on demand-services and others) used to connect network nodes and/or POI, from actions capable of guaranteeing safety for tourist travel, from incentive policies to intermodality between cycle-pedestrian mobility and traditional modes of transport (bus and train). To these may be added a whole series of actions aimed at supporting the tourist in the "travel experience" in its various phases, elements connected with ICT equipment, with Digital Transformation and the tourist heritage enhancement.

1. A photo of tourist trips, with a focus on the Adriatic area

In order to be able to indicate, in the Guidelines, the possible actions and specific objectives for maritime/coastal tourism relating to the Adriatic area, it was decided to make an initial picture of tourism and mobility induced by relative travels.

A recent research made from Booking.com on about 24.000 tourists belonging to 31 different Countries indicates the following general trends/wishes:

- 62%: greater attention to costs
- 47% national trips, of which 43% are interested in local tourism
- 95% desire to escape following Covid restrictions
- 70% seek clear indications on the safety and cleaning measures applied by the structures
- 37% consider finding a place to stay to work from a different location
- 69% outdoor holidays, 56% rural experiences in the midst of nature
- 53% will use technology to book a restaurant last minute, 21% purchase self-service tickets
- 68% would like money spent on travel to go to the local community, while 73% would like to have genuine and representative experiences of the local culture
- 75% experience travel as part of their vacation and re-evaluate the use of public transport in cities (need to integrate internal travel into the platforms)

Affordable air travel, increased connectivity, new technological advances, new business models and greater visa facilitation around the world have fostered continuous growth of international and domestic tourism in the past decades. International tourist arrivals increased from 770 million in 2005 to 1.2 billion in 2016 and are forecast to reach 1.8 billion in 2030 [12]. Today, tourism is one of the most important economic sectors driving growth and development. It represents 10% of global GDP and 10% of global employment and is forecast to continue growing steadily.

A first global assessment of the emissions from global tourism was commissioned within the framework of the Second International Conference on Climate Change and Tourism which took place in Switzerland in 2007. This gathering resulted in the adoption of the *Davos Declaration on Climate Change and Tourism Responding to Global Challenges*² acknowledging the urgency for the tourism sector to respond to climate change.

Three quarters of CO₂ emissions from tourism are transport-related (see figure 1.1). Emissions from transporting tourists have grown steadily over the past decades, reaching almost 1,600 million tonnes of CO₂ in 2016, amounting to 5% of all energy-related CO₂ emissions.

Efficiency improvements have reduced emissions per passenger, but the growth in the number of tourists outweighs these improvements. UNWTO study results [12] highlight the need for systematic data collection and analysis to support evidence-based decision making for the effective reduction of tourism’s transport emissions.

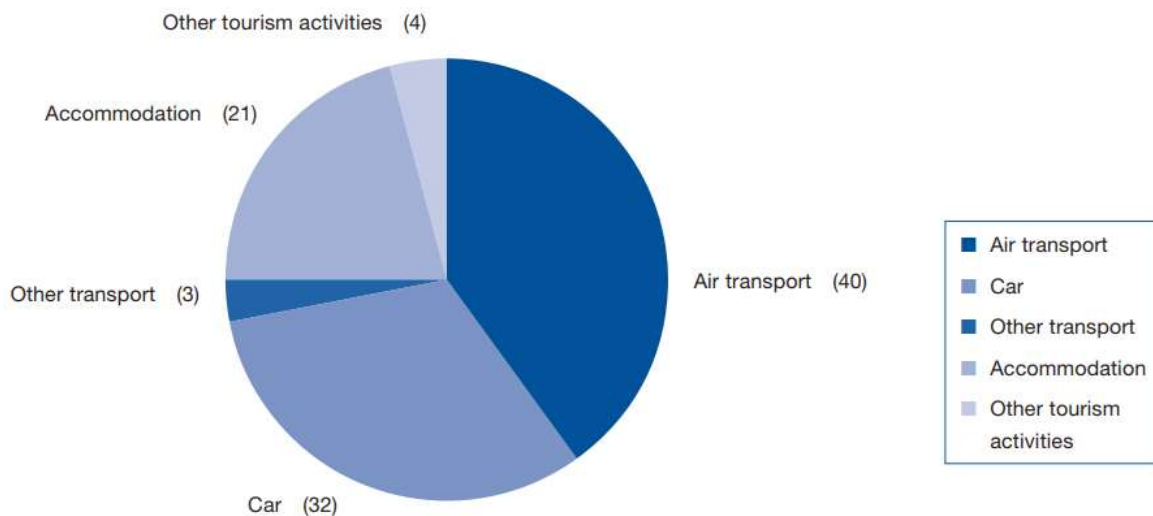


Figure 1.1 – Contribution of various sub-sectors to tourism CO₂ emissions, 2005 (%) (source: World Tourism Organization and United Nations Environment Programme, 2008)

² World Tourism Organization (2019a), ‘Davos Declaration “Climate Change and Tourism: Responding to Global Challenges”’, Compilation of UNWTO Declarations, 1980 – 2018, UNWTO, Madrid, DOI: <https://doi.org/10.18111/9789284419326>.

In the next pages it is carried out an analysis for each country overlooking the Adriatic Sea and, subsequently, a global analysis of the connections and of the Adriatic area in general.

1.1. Single Country analysis

Albania

Tourist flows destined for Albania are present on Eurostat (2021) only for the year 2017 and show a value of about 4.6 million tourist trips, in line in the same year with the values of Slovenia and Croatia.

At the destination level of tourist flows originating from Albania, the most sought after destinations are Italy and Greece (see Figure 1.2) with an annual flow (2017 data) respectively equal to 829,000 and 500,000 citizens.



Figure 1.2 – Preferred destinations of Albanian tourists in 2017 (source: Albanian State Statistics Institute-INSTAT)

It therefore highlights how flows to Italy and other Adriatic destinations can be subject to sustainable mobility, also based on maritime mode.

Croatia

The effects of the financial crisis in 2008/9 didn't spare Croatia. They drove the country into a recession that lasted for six years. The gross domestic product (GDP) only began to grow again in 2015. But Croatia's economy could count on its continuously growing tourism sector during this difficult phase. The number of overnight stays in Croatia increased by over 30 percent over this period. 12.7 million tourists visited the country in 2015, which amounts to three tourists for every resident. In 2019 there were almost 3 million visitors from Germany followed by tourists coming from Austria, Slovenia and Italy (see figure 1.3).

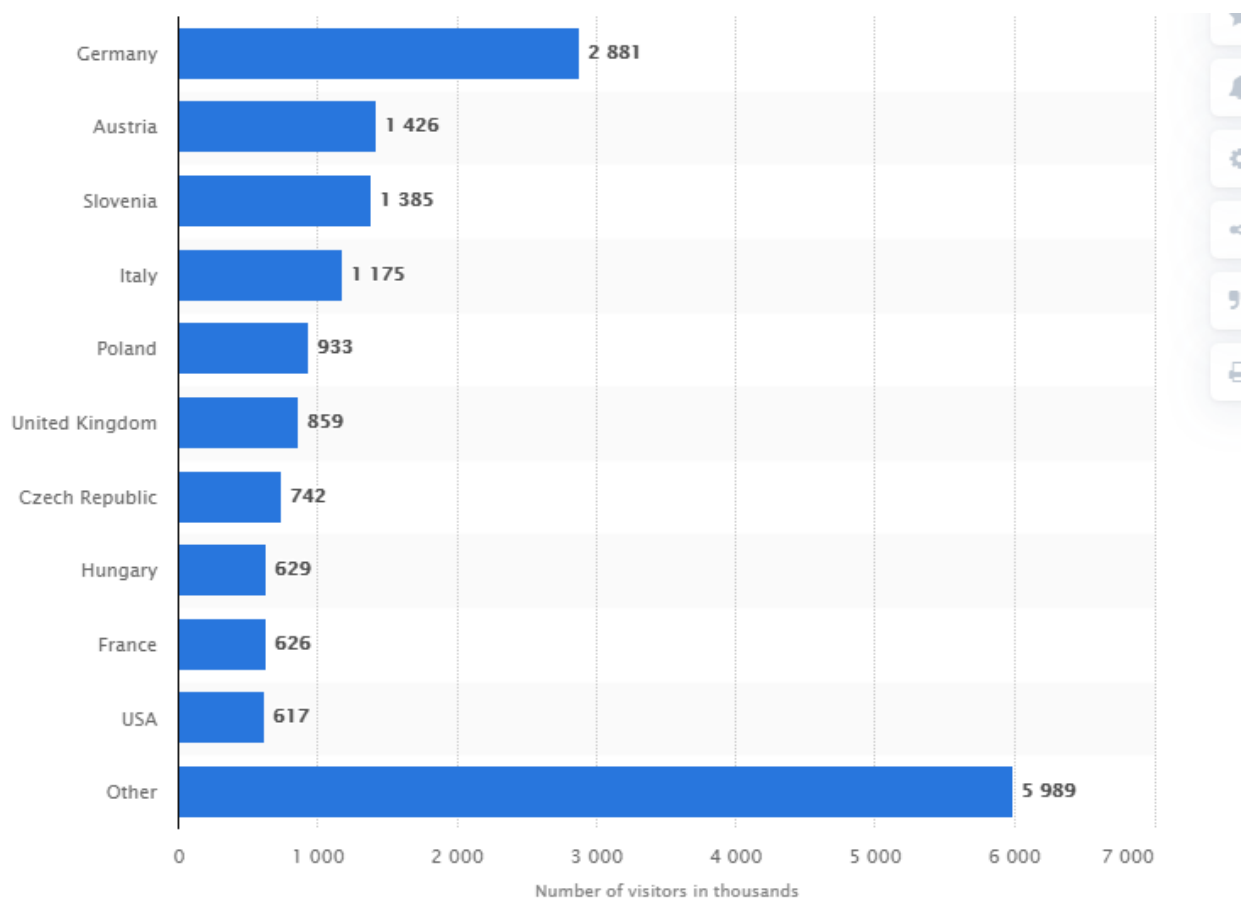


Figure 1.3 – Origin Country for Croatian tourists in 2019 (source: Croatian Bureau of Statistics)

Tourist flows in Croatia have the greatest value, in the Adriatic basin, after Italy and are in line with Greece. The trend saw a decline in flows up to 2016, the year in which growth began which, however, has not yet managed to recover the values of 2013, the year of maximum

attendance (see Figure 1.4). The trend is totally disconnected with the European tourist flows, despite 88% of the flows coming from the community basin.

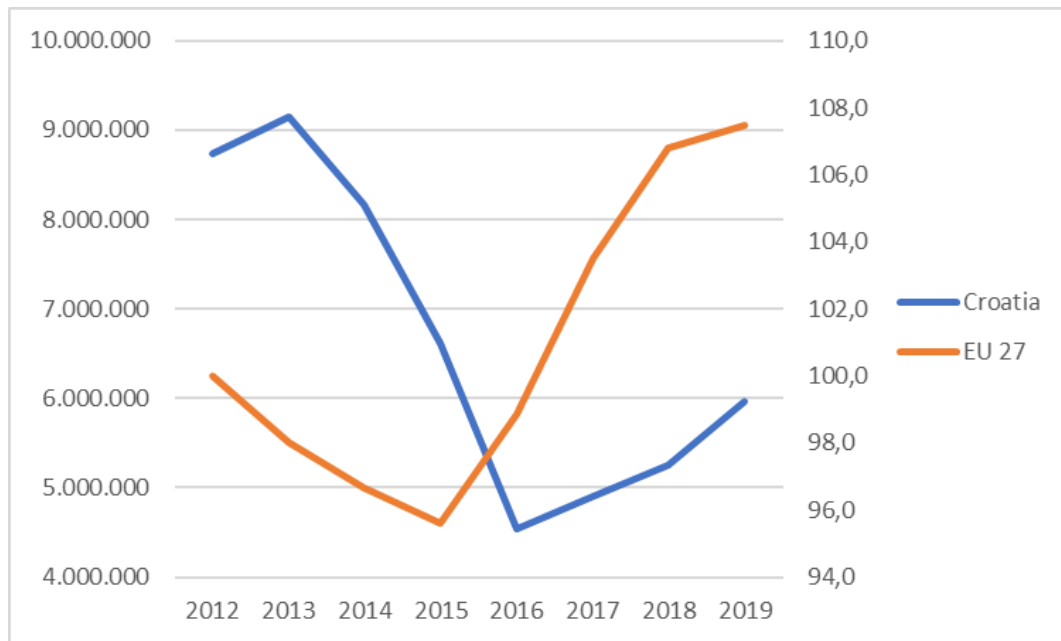


Figure 1.4 – Total tourist trips with destination CROATIA compared with total EU tourist trips percentual variation (100% = year 2012) (source: EUROSTAT, 2021)

Regarding outbound tourist flow from Croatia, residents of Croatia (aged 15 or over) made 7.3 million trips for personal purpose during 2012, corresponding to nearly 40 million nights. Some 56 % of these were short trips of 1 to 3 nights away from home, of which three quarters were spent in Croatia. For the 44 % of trips of 4 nights or more, domestic trips again accounted for the biggest share (two thirds). A majority of outbound trips had a destination in the EU, mainly in Italy, Slovenia, Austria or Germany (see figure 1.5). The flows towards Italy and Slovenia could be based on the sea carrier while those towards Northern Europe on the railway carrier.

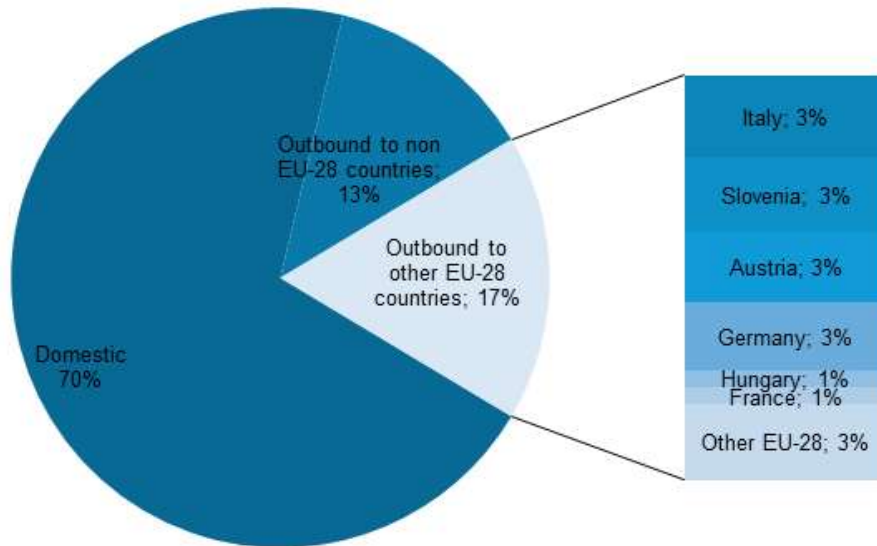


Figure 1.5 – Top destinations for holiday trips of Croatian tourists (source: EUROSTAT, 2012)

Greece

Tourist flows have the greatest value, in the Adriatic basin, after Italy and in line with Croatia. The flow trend is fluctuating with a peak in 2012 that was never reached again until 2019 (see Figure 1.6). It denotes the stabilization of flows in the range of 5.5-6.5 million trips from 2013 to today. The trend is totally disconnected with the European tourist flows, perhaps to identify a different basin of origin of the same.

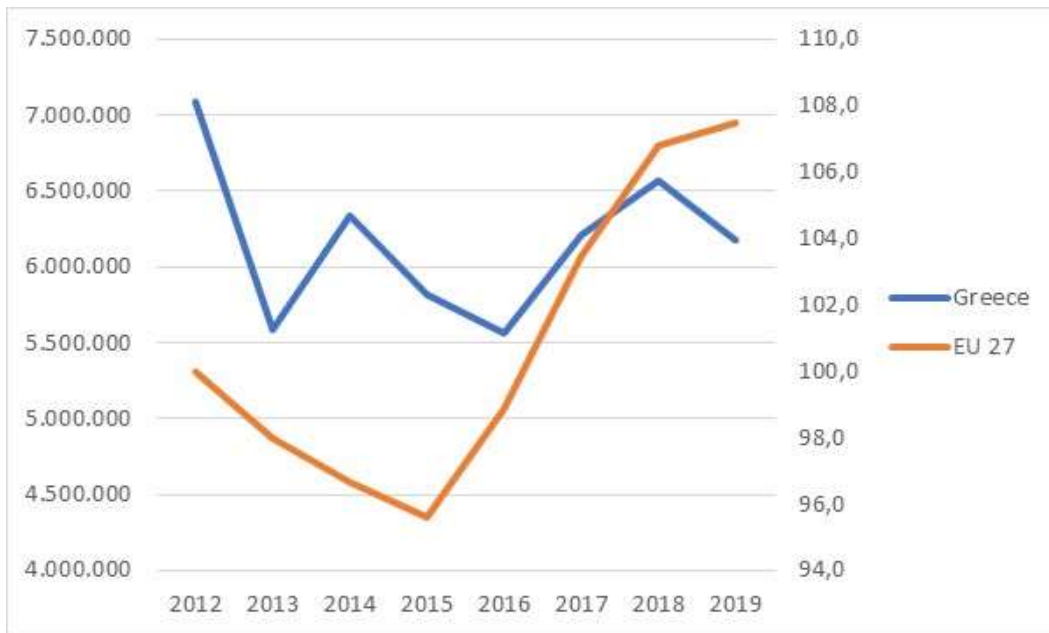


Figure 1.6 – Total tourist trips with destination GREECE compared with total EU tourist trips percentual variation (100% = year 2012) (source: EUROSTAT, 2021)

Italy

In recent years there has been a general increase in tourist flows which, in similarity with the flows dynamics at European level, with a minimum in 2015 starting from which there was a growth up to the maximum value of 2018 with a decrease in 2019 which is in contrast with the EU trend (see figure 1.7).

Eurostat (2016) outlines a fair division (50%) between national and international tourist flows in Italy, with Germany, the United States, France, China and the United Kingdom as the countries of greatest origin. Visitors to Italy mainly come from the North-East (37.5%), the Center (27.7%) and the North-West (22.5%), while only 12% of tourists access the South and Islands. In fact, the Southern Regions attract almost exclusively national tourism.

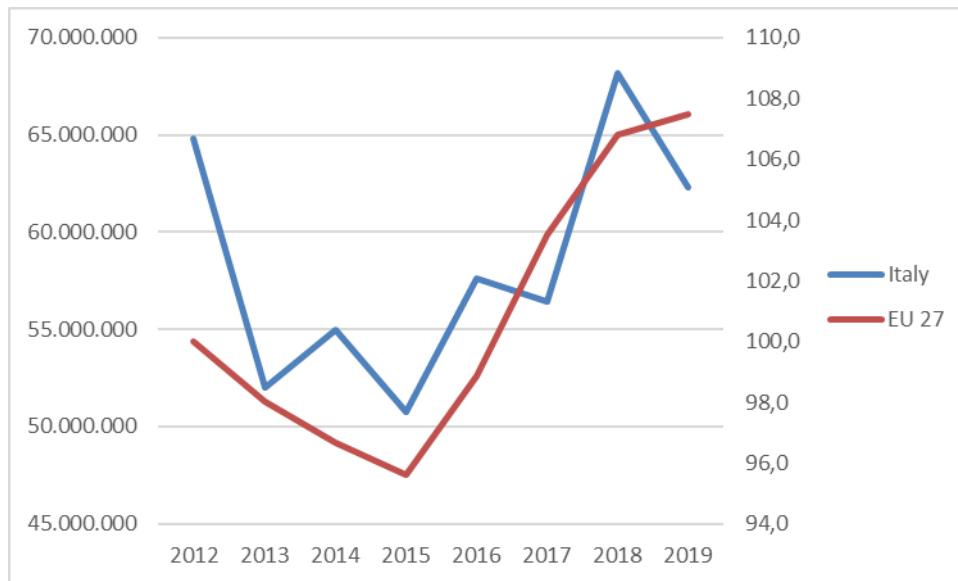


Figure 1.7 – Total tourist trips with destination ITALY compared with total EU tourist trips percentia variation (100% = year 2012) (source: EUROSTAT, 2021)

The Italian Adriatic regions attract tourists for a total of just over 32% of the national total with Veneto alone covering almost 22% and the other six regions sharing the remaining 10% (see Figure 1.8). Therefore, an increase in the tourist attraction of the southern Adriatic regions becomes a very important strategic element.

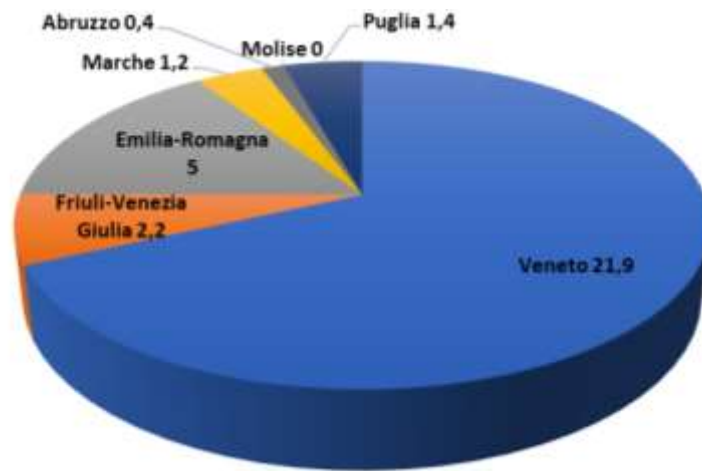


Figure 1.8 – Percentage of tourist destination in Adriatic Regions (source ISTAT, 2015)

In terms of transport modes, 62% of foreign tourists enter Italy mainly by road transport (car or bus), more than a third arrive by plane and the remaining 3% arrive by ship or train (see fig. 1.9).

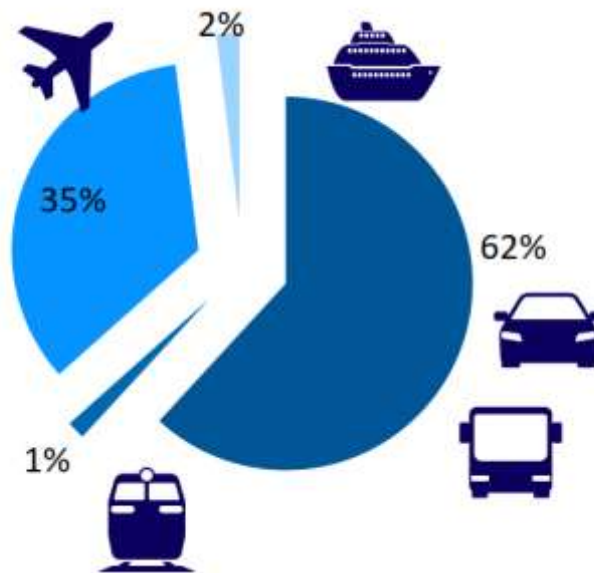


Figure 1.9 – Transport mode of foreign tourist entering in Italy (source ISTAT, 2015)

It is, therefore, logical that the flows arriving in Italy by sea through the Adriatic Sea are currently a minimal part (under 2%) of the total flows and this is a clear indication of poor coordination of the multi-modal transport system and / or of an access to the Adriatic coast which practically always occurs on the land side (see figure 1.10).



Figure 1.10 – Amount of attracted tourist flows and direction of tourist flows

It is, therefore, clear that it is necessary to increase the tourist demand level in the southern Adriatic area, while maintaining the primary objective of sustainable mobility (mainly by rail, bus or sea, at least to reach the Italian coasts).

In terms of transport supply, railway services saw a decrease in long-distance connections by 22.4% from 2010 to 2016 [4] due to the reduction of Intercity trains with passenger demand

which, in the same period, decreased by 36 %. Faced with this, the long-distance bus service is growing sharply, especially in the 400-600 kilometer range.

Montenegro

Tourist flows with destination Montenegro are present on Eurostat (2021) only for the years 2016 and 2017 and they show a decrease in tourist flows of about 12% (see figure 1.11). Incomplete data does not allow for further analysis.

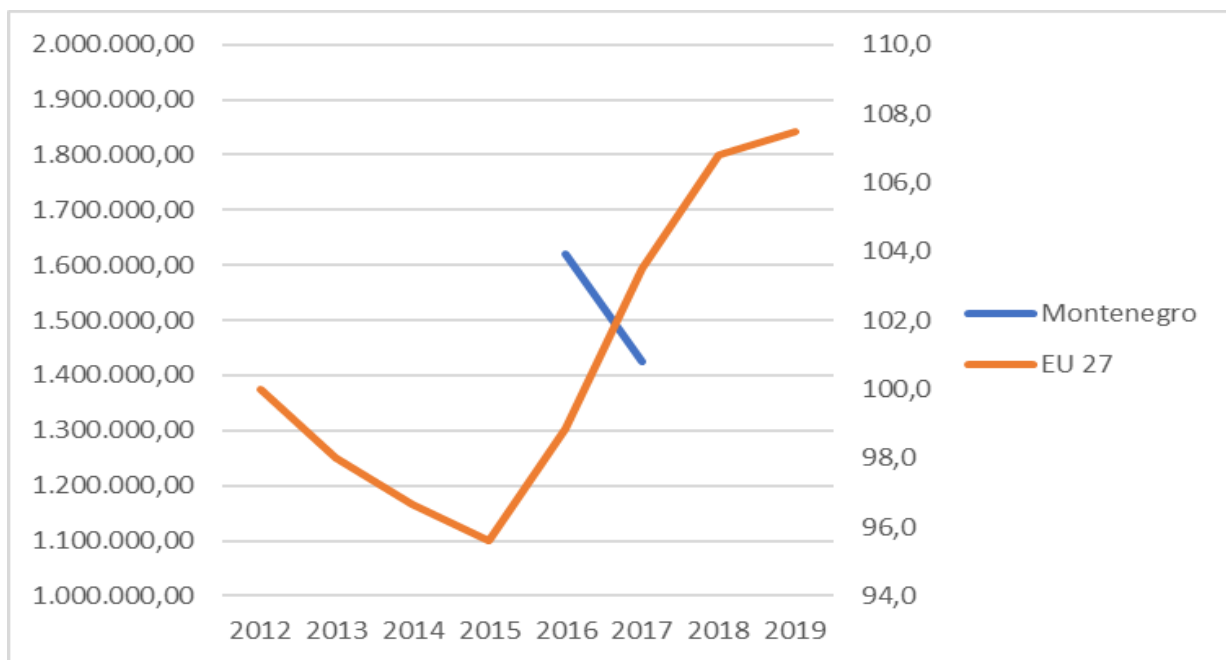


Figure 1.11 – Total tourist trips with destination MONTENEGRO compared with total EU tourist trips percentual variation (100% = year 2012) (source: EUROSTAT, 2021)

Slovenia

The trend of flows in Slovenia traces the trend of flows in Italy and, more generally, follows the European trend. In recent years there has been a general increase in tourist flows, with a

minimum in 2015 starting from which there was a growth up to the maximum value of 2018 with a decrease in 2019 which is slightly bucking the EU trend (see figure 1.12).

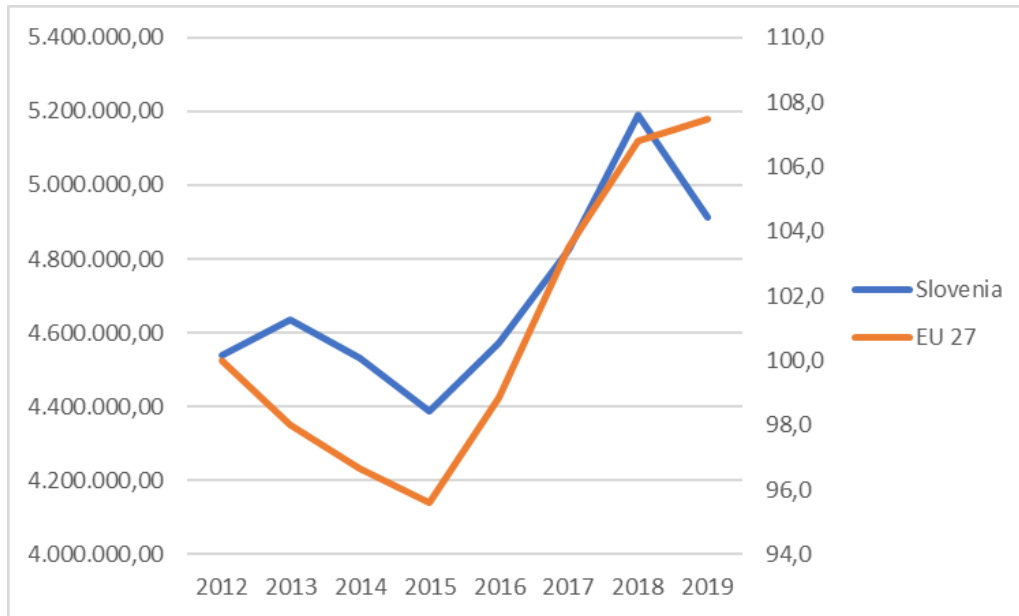


Figure 1.12 – Total tourist trips with destination SLOVENIA compared with total EU tourist trips percentual variation (100% = year 2012) (source: EUROSTAT, 2021)

1.2. Analysis of the whole Adriatic basin

The summary of data below should be enough to give an idea of the unequivocal and relevance that the Adriatic assumes in international geography and maritime tourism.

At the level of the whole Adriatic basin there are more than 30 cruise ports, with a total of 5,16 million passenger movements, more than 40 ferry ports with a total of over 19 million passenger movements, six of them traveling international routes and, finally, 332 structures for boat tourism with a total of more than 75,000 moorings [9].



Figure 1.13 – Maritime tourist in the Adriatic Sea in 2019 at a glance: Adriatic gates and routes (source: AdriaticSeaForum, 2019)

Analyzing the maritime tourism movements in Adriatic Countries in 2018 [9] about the 47% of Cruise ship passengers belong to Italian ports, the 25% to Croatian ones and about the 14% to Greek ports with an absolute passenger flows respectively of 2.4, 1.3 and 0.7 million passengers (see Table 1.1).

Regarding Ferry ship passengers in 2018 [9] more than 48% of Cruise ship passengers belong to Croatian ports, the 27% to Greek ones and about the 17% to Italian ports with an absolute passenger flows respectively of 9.5, 5.4 and 3.3 million passengers (see Table 1.2).

The tourist supply (Berth and structures) are mainly concentrated in Italy and Croatia while the geographical area where the supply is more dense is the North of the Adriatic area with about 58% of the total supply.



PORTS	2018		Share % on total	
	Pax. mov.	Calls	Pax. mov.	Calls
Country				
ITALY*	2,420,333	978	46.9%	31.3%
CROATIA	1,300,845	1,180	25.2%	37.7%
GREECE*	737,479	415	14.3%	13.3%
MONTENEGRO	514,948	427	10.0%	13.7%
SLOVENIA	101,415	75	2.0%	2.4%
ALBANIA	84,815	52	1.6%	1.6%
BOSNIA-HERZEGOVINA	0	0	0.0%	0.0%
TOTAL 2018	5,159,835	3,127	100%	100%

Table 1.1 – Cruise traffic by Country, absolute values and share % (source: [9])

PORTS	2018		Share % on total	
	Country	Pax. mov.	Calls	Pax. mov.
CROATIA	9,560,814	46,433	48.4%	50.9%
GREECE **	5,394,028	33,765	27.3%	37.0%
ITALY **	3,292,455	7,302	16.7%	8.0%
ALBANIA	1,487,568	3,525	7.5%	3.9%
SLOVENIA	14,850	120	0.1%	0.1%
MONTENEGRO	n.a.	n.a.	n.a.	n.a.
BOSNIA-HERZEGOVINA	0	0	0.0	0.0
TOTAL 2018	19,749,715	91,145	100%	100%

Table 1.2 – Ferry traffic by Country, absolute values and share % (source: [9])

With regard to cruise traffic, 2019 marked the historical record of passengers handled in the over thirty cruise ports of the area and also for the ‘ships touched’, the forecasts of Risposte Turismo show an expected growth of 7.2%, for a total of 3.307.

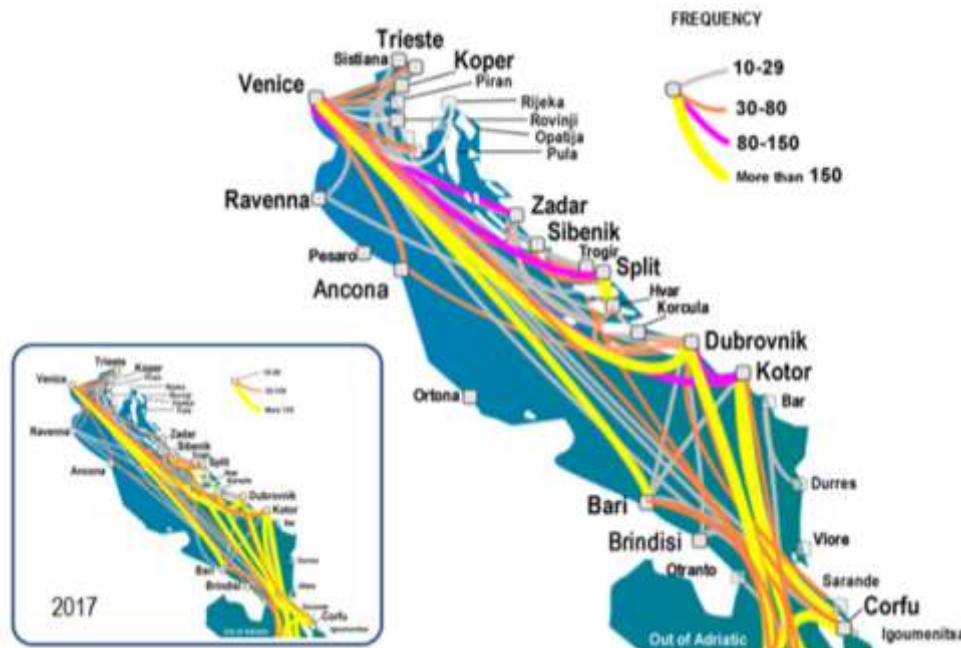


Figure 1.14 – Main cruise routes in the Adriatic Sea in 2019 (source: [9])

Analyzing the departure/arrival ports of the cruise traffic, compared to the transit ports of the same, it must be emphasized that the cruise traffic sees how Venice is firmly in first place with 1.56 million cruise passengers handled (stable compared to 2018) and 502 touched ship (stable compared to 2018), followed by Corfu with 787 thousand cruise passengers (+ 7% in the period 2018-2019) and 416 touched ship (+ 0.7% in the period 2018-2019) and Dubrovnik, with 745 thousand cruise passengers.

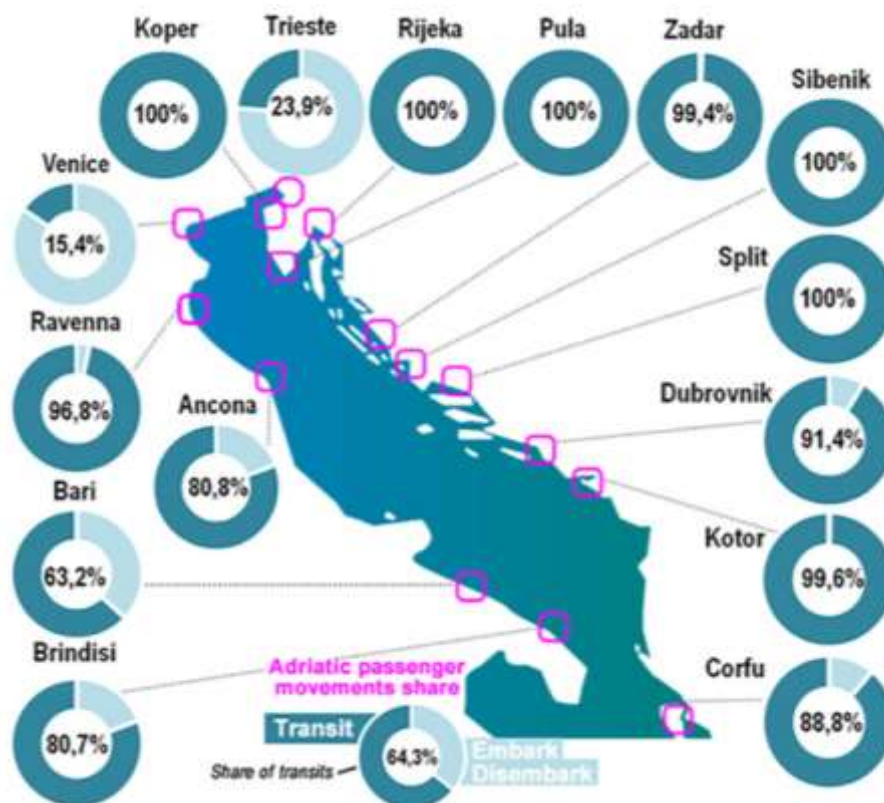


Figure 1.15 – Percentage distribution of cruise traffic between embarks-disembarks and transits in 2018 (source: [9])

Analyzing the routes present to date, it must be emphasized, in the last two seasons, the reopening of the international ferry connections to/from Montenegro with the Bar-Bari line operated by Jadrolinja, as well as of the fast routes between Civitanova Marche-Hvar and between Cesenatico and the Croatian islands (see fig.1.16).

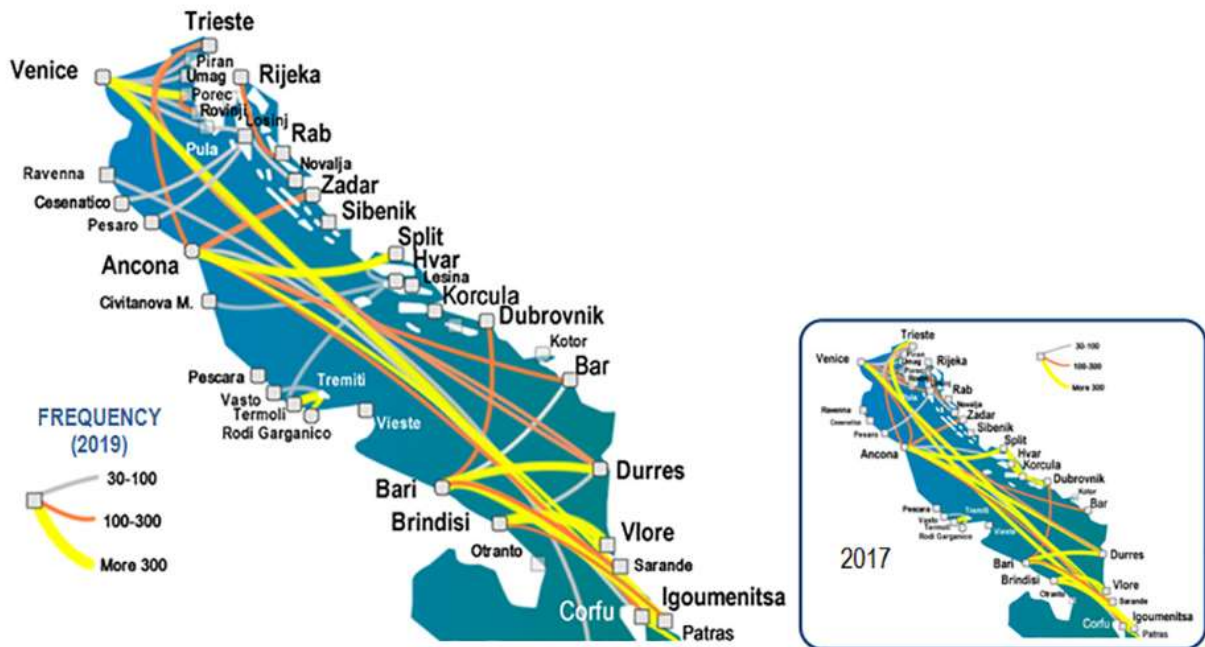


Figure 1.16 – Main Adriatic ferry, hydrofoil and fast catamaran routes in 2019 (source: [9])

However, the overall results - even with an expected increase due to an overall positive outlook in 2019 – still do not appear to be aligned with the potentials. However, the overall results - even with an expected increase due to an overall positive outlook in 2019 - still do not appear to be aligned with the potentials. The southern Adriatic is under-exploited and requires greater infrastructural development while routes in the west-east direction and vice versa must be encouraged, such as the Ancona-Split or Bari-Durres route, routes that can be framed in a vision of multimodal cross-border mobility sustainable.

2. General methodology

The Cross-border Sustainable Mobility Guide Lines will incorporate the SUMP methodology (Urban Sustainable Mobility Plan and in particular the Guidelines for Polycentric Areas³) which contains the elements of innovation, transparency and participation that characterize the new 'vision' of the Mobility Plans incorporating the Case Studies identified inside the right SUMP step (for example: data collection, data analysis, stakeholder involvement and participatory process, plan monitoring and so on).

Therefore, the Guidelines present the various typical phases of SUMPs (see Figure 2.1 below), indicating for each of them the data, methodologies and tools useful for planning sustainable cross-border mobility with the aim of designing an approach that is the most possible systemic; to these, in relation to the different steps of the SUMP process, a series of commented explanatory Good Practices will be added to help clarify and transmit the more theoretical concepts.

The tourist demand, in any area, can be of three types, National, European or Extra-European and the transport modes that can be used are summarized in table 2.1 together with the different multimodal nodes types involved.

³ European Commission-Directorate-General for Mobility and Transport (2014), "The Poly-SUMP Methodology How to develop a Sustainable Urban Mobility Plan for a polycentric region"



Figure 2.1 – The SUMP process general framework

Transport mode	Transport type at cross-border level	Nodes involved
Air	Airliners	Airport
	Charter	Airport
Road-Car	Owned cars	No-one directly
	Rent cars	No-one directly
	Car-sharing/Car-pooling	No-one directly
Road-Bus	Scheduled busses	Terminal Bus
	Touristic busses	Sometimes Terminal Bus
Road-Bike	Cycle paths	No-one directly
Rail	Scheduled trains	Rail Station
	Touristic trains	Sometimes Rail Station
Sea	Cruises	Port
	Ferries	Port

Table 2.1 – Transport mode and relative tourist node supply

Each of these modes of transport is more or less preferred, more or less suitable for the different types of tourism currently present in reference to the more well-known ones:

- Cultural tourism;
- Seaside tourism;
- Mountain tourism;
- Environmental/naturalistic tourism;
- Cruise tourism;
- Thermal tourism;
- Food and wine tourism;
- Sports tourism;
- Congress tourism;
- Business tourism.

Each of these tourism types has different needs and specificities both in relation to the trip and to the use of the POI at the destination; **we must, therefore, think of different models of mobility capable of satisfying different tourism demands.**

In practice, at a logical level and in detail in these Guidelines, cross-border maritime mobility can be schematized as a chain of movements between the origin and destination of the journey located in a Country other than that of origin, where part of the journey is made by sea. The different displacement nodes can represent modal exchange points, intermediate stop points in the journey that can belong to multi-destination journeys or final destination nodes.

In practice, there can be intermodal nodes (which certainly include port nodes on the Adriatic coast), 'intermediate destination' nodes and final destination nodes. These guidelines allow you to accompany the tourist along the entire chain (from the travel organization phase to the phase of providing the final feedback on the lived experience, encouraging the use of sustainable mobility in every displacement/trip (see figure 2.2).

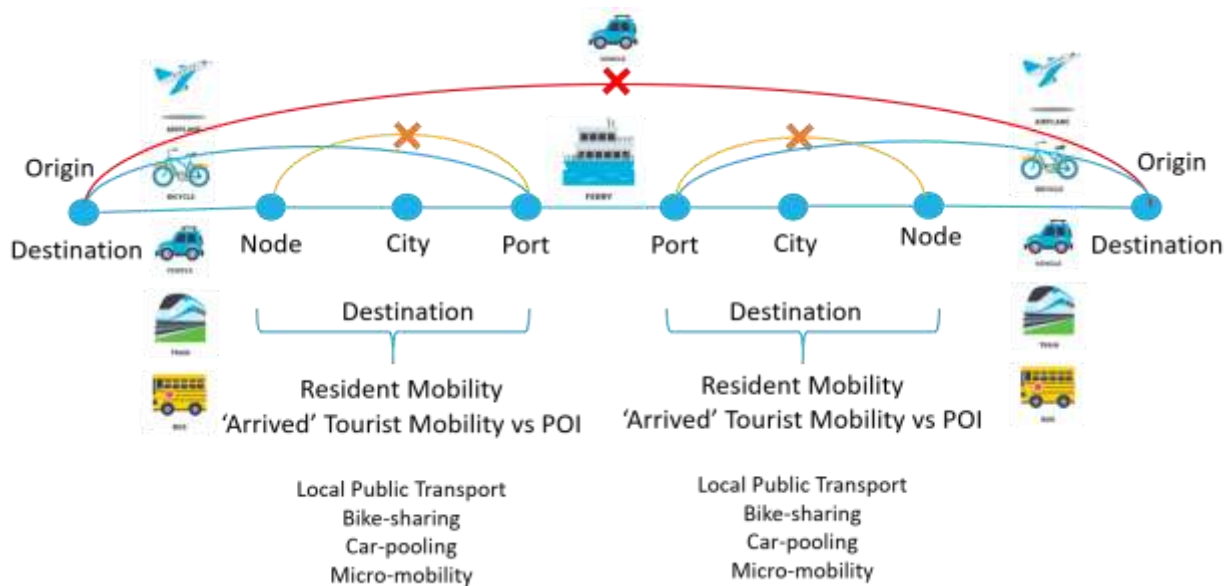


Figure 2.2 – The Bidirectional Maritime Cross Border Mobility Graph

Figure 2.2 highlights some objectives of a general policy of cross-border mobility, such as the need to avoid "all car" trips which, in the Adriatic area, may involve the passage through Friuli Venezia Giulia on the Italy - eastern Adriatic coast connection or trips to a unique destination, with the total by-pass of intermediate urban nodes that become areas that are only affected by the cross-border tourism negative impacts.

In relation to this last point, instead, it is necessary to seek the greatest 'continuous' use of the territories crossed so as not to have areas with a prevalence of negative impacts due to cross-border movements, areas that can become, over time, weak nodes of the chain, nodes with little interest in qualifying and modernizing due to the low economic return of the cross-border phenomenon.

Moreover, the whole area around the Adriatic and Ionian Seas shares a substantial number of cultural and natural heritage sites which, if appropriately preserved and promoted, could make a strong contribution to conservation and to economic development [15].


Figure 2.2 also shows the concept of sustainable mobility not only in the phase of accessing to tourist areas but also the need to provide sustainable mobility supply that can make points

of interest easily reachable, once tourists are arrived at their destination, taking up the concept again of cross-border mobility multi-scalarity already seen in the introduction⁴.

This element is very important as a tourist who is unable, for example, from its hotel/local base to reach the area he wants to visit with the sustainable transport modes supplied, he decides to move with his own car nullifying all investments in innovative systems, services and infrastructures carried out in the network and intermediate nodes met a long the access path to destination. This, therefore, highlights how the chain we are thinking of is interrelated and, in order to find the most possible sustainable cross-border transport, it must be efficient and effective at every point/node. This means planning the mobility of one's own territory thinking of it as a part of a larger system, trying to coordinate with neighboring Countries, Regions and Cities from multiple points of view (level of accessibility, pricing, marketing/communication and others) (for this the European Community has introduced Cross-Border Mobility within the Cohesion Policies).

⁴ There is no tourism without physical displacement, as the WTO-World Tourism Organization definition affirms, highlighting that the movement of people is connected with two different mobility forms: the tourist displacement is generated by the need to reach the destination (transit or, better, access mobility) or flows are generated by tourist activities at destination (visit, stay, entertainment, etc..), defined as an internal mobility. Our aim is to join together these two mobility types.

3. Vision



Cross-border tourism continues to grow year after year and represents a fundamental sector for the relaunch of the individual economies of the Countries involved. It is necessary to innovate the mobility services offered to travelers and improve the accessibility of tourist destinations and the usability of alternative routes. Following the phenomenon of tourism continuous 'specialization', which is differentiated into different types such as, for example, cultural tourism, thematic (landscape, naturalistic, sports and others), sustainable tourism must be promoted to preserve the tourist heritage and the environment for future generations but also to expand the range of tourist supply with immersion experiences in the landscape, nature and local traditions.

For this reason, the digital revolution has changed the operating mechanisms of the tourism supply chain and the operators business models. To meet the technological innovation challenges, it is necessary to take into account that the travelers choices are increasingly the result of new needs and habits that are rooted in a constantly evolving physical and digital travel experience.

A **more accessible tourism**, reducing the connection times between the access gates and the tourist sites and adapting infrastructures and mobility in the tourist districts with a view to intermodality and integration between services, trying to overcome the disparities existing today in the infrastructural development between different Countries and improving access for users with reduced mobility.

This goal is followed, for example, from the italian *Easy Station project*, with investments of around 2 billion euros, for the accessibility improvement of 620 rail stations (lifts and ramps, tactile path signs, lighting), functionality, decoration and safety and info-mobility. To this is added approximately 1 billion euros for the improvement of the railway network connecting with the access gates by air (Milan, Bergamo, Rome Fiumicino, Catania, Genoa) and over 2.6 billion euros for the completion and " launch of new interventions in the sector of rapid mass transport systems in urban and metropolitan areas. Logically these are interventions relating to the large scale but which, at the local level, must find similar measures.



Tourism that enhances and integrates infrastructures, promoting the recovery of disused transport infrastructures and enhancing the tourist and cultural potential of transport systems, with a view to seeing infrastructures as places of social and cultural exchange. The recovery, for tourism purposes, of Cantoniere Houses, located near cultural and tourist circuits, paths and cycle paths and the enhancement of unmanned stations through free loan to non-profit associations is envisaged. This can be accompanied by the establishment of tourist railways through the reuse of disused or decommissioned lines located in areas of particular naturalistic or archaeological value.

A **digital tourism**, promoting the development of big and open data platforms for the collection of tourist mobility data and the technological upgrading of transport infrastructures with solutions for the integrated digital services supply throughout the tourist travel experience. This will also ensure greater safety for travelers and transport infrastructures.

For example, with the project Open Transporti⁵, the Italian Ministry of Infrastructure and Transport intends to develop new tools available to administrations and citizens, to improve the mobility and transport sector, while providing greater services to the community with particular reference to passengers. Specifically, it wants to make data accessible on:



- fleet of road vehicles, ships (including pleasure boats), trains, airplanes;
- polluting emissions by vehicle/engine category;
- statistics on the registry of drivers (eg. by territory, age, sex);
- statistics and detailed data on accidents in the various modes of transport;
- taxi licenses, NCC;
- TPL lines and related service contracts;
- car rental / car sharing.



⁵ <https://open.gov.it/2016/07/25/open-trasporti/>

Other measures may be Smart Station to enable innovative services to the traveler within the stations itself and Smart Digitalized Road with wi-fi hotspots and "islands" to provide renewable energy and drones for traffic monitoring.

Thanks to its infinite potential, technological and digital innovation represents a further lever for the realization of the Vision: in addition to creating synergies between all the players in the tourism supply chain, digital allows you to expand the tourism experience. Through the web, the journey begins before departure, in the planning phase of the journey, and does not end with the arrival at the destination, but also continues when the tourist returns home.

A **safe and sustainable tourism**, developing infrastructural networks for cycle-pedestrian mobility (e.g. cycle routes) with tourist purposes, integrated with conventional transport (e.g. bike by train). Safe mobility for travelers on foot and by bicycle.

This objective, for example, is part of the construction of the Italian Tourist Cycle Paths System, a total of 6,000 km with investments for over 180 million euros and the Valore Paese, Paths and Paths Project which provides for the redevelopment and reuse for tourism-accommodation purposes of over 300 public buildings. located along cycle-pedestrian and historical-religious itineraries and 60 million euros for the enhancement of paths of national importance, such as the Via Francigena and the Appia Regina Viarum.



The negative impacts that cross-border movements can create both for tourists and for those who live in the territories must be avoided, seeking a double sustainability that becomes an important common goal. For example, the presence of urban areas that see tourist traffic only as a transit to other destinations is a sure negative impact for the population who live there and who, in the face of atmospheric emissions and an increase in traffic, don't see economic return. Moving to reach the tourist destinations must in turn become a tourist experience, allowing the traveler to visit the places crossed.

4. General objective

The transport and tourism supply chain, especially at a cross-border level, is complex, articulated and often fragmented. Networking the tourist sites, making the tourist supply spread in the territories of the different countries really accessible, in a sustainable way, represents the main challenge to have a series of benefits such as the decongestion of traffic and major tourist destinations, the enhancement of thousands of attractions of various types present in cross-border territories, the seasonal adjustment of tourist flows (with consequent positive impact from the financial and human resources point of view). This means connecting, with the logic of intermodality, the different mobility combinations of cross-border tourists who move individually or in groups in both traditional and innovative mobility types.

GetYourGuide indicates sustainable tourism as a future and innovative model. Sustainability means decreasing the environmental impact during the journey of ecological vehicles and structures, but also the use of the experience on site: discovering minor cultural and natural assets, opting for local cuisine and producers.

Transport infrastructures and mobility services have a dual significance. First of all, they represent a key feature of the tourist experience: accessibility (air, road, rail, sea) is the necessary condition to allow the achievement of the numerous tourist destinations scattered throughout the adriatic countries territory. Secondly, mobility itself becomes a tourist experience: it is not a simple movement between places but it means living an important phase of the journey in which the tourist can:

- Observe the beauty of the area while on the move;
- Collect information and enrich your journey with new exploratory activities and curiosities;
- Benefit from the quality and comfort of the means of transport, be it traditional or innovative.

The various main objectives are indicated in the following chapter and, for each of them when necessary, a list of Specific Objectives are indicated. All objectives are accompanied by target indicators to be quantified for each individual reality (with possible indications of threshold values to be inserted in the different plans).



These indicators can be useful to quantify each local desired objective level and to monitor, in a second phase, the impacts of adopted measures. After, in the Chapter 6, the possible measures and actions to follow each objective indicated are presented.

5. Main and specific objectives

5.1. Objective 1: Reduction of the demand seasonality

Actions must be introduced so to keep constant throughout the year the Adriatic areas tourist attractiveness. This action type is linked both the tourism and transport supply. This means that the individual areas must diversify the tourist supply (think of the mountain places that offer summer trekking routes and bike rides on the green slopes and others) and maintain an acceptable service level in existing mobility systems. Events and attractions must also be offered in winter/autumn in the Adriatic coastal areas.

Target Indicators

TI_1.1-Relationship between non-summer tourist presences and summer tourist presences (demand side)

TI_1.2- Percentage of restaurants and hotels open at least one month in addition to the summer period

TI_1.3-Relationship between non-summer and summer transport supply (differentiating between conventional and unconventional mobility, like bike-sharing, for example)

5.2. Objective 2: Integrate tourism with the local population

To date, eco-friendly mobility formulas are the most popular, especially by "Millennials", ie by those who favor freedom of movement and choose the tourist destination characterized by its own authenticity, looking for direct contact with the local community (think of American tourism, very focused on this concept of "Near Life"). This trend must be encouraged in cross-border mobility policies taking, as the first objective, the maintenance of local identity, an essential element that must be preserved and combined with policies of different types but always necessary to avoid the depopulation of:

- Entire large urban centers, whose attractiveness (in the face of a limited residential room supply) increases the value of the land and, over time, leads the resident to look for other cheaper and liveable spaces, often outside the center itself. So the urban center, depopulating from the original residents, consequently becomes a sort of tourist park, losing the traditions and typical activities to the detriment of a general globalization and homogenization (this is also connected with a more general objective, which goes beyond these Guidelines, relating to the decrease in flows and emissions from transport); examples of territories that have seen this phenomenon are the Munich Region, where the shortage of housing available for new residents has generated, in the face of a growing demand and attractiveness of the center, the relocation of residences to areas outside the urban area, generating a phenomenon of abandonment of the center and urban sprawl.
Cross-Border tourism and its mobility need to be integrated with local population tradition and economy so to avoid this facts. Local tradition must be the engine of international tourism, enhancing local specificities towards different foreign cultures.
- Entire villages often located in marginal areas, not very accessible and economically unprofitable. Example is the village of Villa Saletta (which for its beauty became the set of the film Fiorile) located in the Tuscan countryside and actually completely uninhabited (see figure 5.1 below).



Figure 5.1 – An image of the village called Villa Saletta

Therefore, the need for **greater integration of the life experience** emerges with the consequent disincentive to the depopulation of urban areas/villages by the 'indigenous' population.

Integrated tourism with the local population must be encouraged so that foreign mobility cultures come to 'influence' local cultures which, especially in southern Europe, have less propensity for sustainable mobility. Seeing tourists who take public transport or use sharing mobility to move around cities becomes an excellent incentive for local populations to use them too, populations that are often less dynamic and flexible in the face of the daily travel habits with their own car. Therefore, the **integration of sustainable mobility habits must be encouraged**.

Furthermore, integrating tourism with the local economy (think of craftsmanship and typical products) means keeping it alive and not losing the history of the countries bordering the Adriatic, using the tourist economic drive as the glue of local development. of every city activity.

Inoltre, integrare il turismo con l'economia (si pensi all'artigianato ed ai prodotti tipici) locale significa mantenere la stessa viva e non perdere la storia dei Paesi che si affacciano sull'Adriatico, utilizzando il traino economico turistico come collante dello sviluppo locale di ogni attività cittadina⁶.

Target Indicators

TI_2.1 - Ratio between the number of residents living in the city and the number of tourists visiting it

TI_2.2 - Ratio between occasional trips and systematic/commuter trips

5.3. Objective 3: Develop infrastructure

The enhancement and incentive in the **improvement of the infrastructural heritage**, with the promotion of **innovative transport services with a low environmental impact** are one of the cornerstones of these Guidelines, aimed at promoting the spread of **modern, responsible and sustainable tourism**.

Through the development and efficient and rational infrastructures use, reconciling the tourist flows impact with the transport systems and reception services capacity, it is necessary to avoid congestion and overcrowding, which cause environmental degradation and natural resources impoverishment. It is necessary to develop a **virtuous circle** starting from the awareness that the environment represents a resource that feeds tourism.

Analyzing the Italian situation, we can see how Italy is fifth in the world in terms of arrivals (2015), second in international tourist overnight stays but is only in 26th place for the air

⁶ *"With more than a billion tourists traveling the world each year, tourism has become a powerful transforming force that is making a real difference in the lives of millions of people. Tourism offers important livelihood opportunities, helping to alleviate poverty and drive development".*

Ban Ki-Moon, former UN Secretary General, on the occasion of the proclamation by the United Nations of 2017 as the "International Year of Sustainable Tourism"

transport competitiveness and in 32nd place for land and port infrastructures to highlight a significant need for infrastructural development.

1.1.1. Sub-Objective 3.1 - Promote the recovery of disused transport infrastructures for tourism purposes

The goal is to recover the infrastructures that no longer fulfill their original function in order to use them for tourist purposes (we are talking about sections of disused tramways, disused railways, infrastructural nodes to be recovered and others).

Target Indicators

TI_3.1.1 – N° of infrastructure recovered for tourism purposes

1.1.2. Sub-Objective 3.2 - Enhance the tourist and cultural potential of transport systems

The goal is to promote the use of punctual or linear infrastructures developed and present in the territories, highlighting the tourist recognition of the places with a vision of cultural, social and economic contamination.

Target Indicators

TI_3.2.1 – N° of initiative to enhance tourist infrastructures

5.4. Objective 4: Transport digitization

The concept of the Digital Revolution must be introduced, which allows us to see the tourism experience as a continuous and integrated tourism and transport supply chain, no longer, as it often happens today, fragmented, allowing for end-to-end planning of the tourist, including his mobility. This means following the tourist from planning from home to providing feedback on the experience, integrating mobility, services, hospitality, real-time information, social networks, fare integration etc.

To accompany a consumer who is increasingly evolved in terms of digital services use, it is necessary to increase the supply chain "smartness" level. The concepts of smart road, smart city, smart territory, smart destination materialize through investments in technological upgrading of all the players in the tourism ecosystem.

Digitization allows the tourists services integration, thus offering the possibility of enriching and personalizing their trip according to an **integrated travel experience logic**. The travel experience acts as a link between the use of the tourist site and the trip considered in all its phases. It creates value for the tourist destination itself, for the traveler and for the industrial supply chains connected to tourism.

The services integration arises, for example, from the possibility of organically collecting data on transport services at different scales (international, national, regional, local) and being able to integrate them in a smart way.

Digitization also concerns physical infrastructures, such as the provision of free wifi in the POI, the implementation of a sensor network able to providing the city user with advanced smartness elements (info-mobility, tourist information based on one's own location and other).

Target Indicators

TI_4.1 – N° of measures adopted to digitalize transport

TI_4.2 – Monitored users of digitalized systems

5.5. Objective 5: Decrease of tourism impact

5.5.1. Sub-Objective 5.1 - Transport decarbonization and increase of tourist multimodality

Tourism, despite having a role in the economy, is also a catalyst for negative impacts on the environment (emissions of pollutants due to the increasing volume of traffic; increased waste;

noise; consumption of primary resources; etc.) and more generally on urban livability (quality of services, social integration, well-being and safety of the resident population).

In this case we need to promoting sustainable multimodal urban and extra-urban mobility, as part of transition to a net zero carbon economy. All starts from urban mobility because well-functioning and sustainable urban transport system is the key for a high quality of life and of tourist experience: many urban areas struggling with congestion and externalities (air emissions, noise, congestion, accidents).

Therefore, the tourist flows must be directed through sustainable transport modes.

This means developing urban railway networks, subways and tramways that are the primary axis of tourist travel starting from the access gates to the territories, creating interchange points at the cordon of the cities where there are sustainable transport systems (from bus to bike- sharing and more).

Once the tourist arrives (even if by car), he must find the services to be able to access the city in a sustainable way and leave his car at the cordon of the city or at the so-called Base Camp (usually his local accommodation); just think that the new 'more itinerant' tourism than before and more in search of local specificities distributed in the territory, uses the city as a logistical support point and, therefore, generates during its stay continuous vehicular flows in and out of the 'main location'. It is, therefore, necessary to encourage that these flows 'towards POI' are themselves sustainable and are not a factor of congestion on urban roads.

In respect of the environmental impact of tourism, the Adriatic and Ionian Seas face substantial issues of air pollution caused by emissions from shipping: cruise-ships, high-speed ferries and international shipping are involved.

Other measures are possible and they will be described in detail in the “Planning Phase Chapter”.

Target Indicators

TI_5.1.1 – Congestion level of urban/extra-urban roads (measured by the average speed)

TI_5.1.2 – Monitored sustainable mobility tourist uses (public transport, modal exchanges at the cordon and other)

TI_5.1.3 – Air quality indicators (measure of air pollution)

TI_5.1.4 – Noise level indicators (measure of noise pollution)

5.5.2. Sub-Objective 5.2 – Tourist loads differentiation

The principle of sustainability requires the adoption of strategies and actions aimed at inducing the differentiation of territorial tourist 'loads', based on the level of maturation of the individual destinations and their ability to receive tourists avoiding the system saturation and the relative negative consequences (often residents' relocation).

Therefore, the main cities tourist supply must be integrated, also from the transport point of view, by a direct supply to neighboring destinations distributed in the area, often minor art cities, villages, small rural centers, protected areas and parks.

At the Adriatic level, think of the inland areas that contain mountain, rural and natural territories which constitute an important part of the heritage and which often require greater enhancement and a higher level of accessibility, always starting from the major centers (mainly located along the coast) which are the main reason of the tourist movement.

Target Indicators

TI_5.2.1 – Level of transport supply linking secondary POI

TI_5.2.2 – Distribution of Tourists between the local POI

5.6. Objective 6: Increase transport accessibility

Accessibility is an essential driver of the national tourism systems competitiveness; it represents the most important point of intersection between the tourism and transport chains.

If it is true that tourist destinations (especially UNESCO sites, the Capitals of Culture and EDEN destinations) are all the more visited the more easily accessible to the traveler, it is essential that the tourist mobility strategies definition starts from the tourist supply analysis in terms of accessibility, in its various meanings:

- **Physical accessibility** is directly connected to the transport infrastructures adequacy and to the mobility services efficiency and capillarity;
- **Digital accessibility** plays an equally important role: in fact, it constitutes a factor of visibility and preferability of the destination in the trip decision and planning phase, as well as improving the overall use of the tourist experience.

These two elements provide two clear sub-objectives, 6.1, Physical Accessibility and 6.2-Digital Accessibility, described below.

5.6.1. Sub-Objective 6.1 – Physical accessibility

In relation to physical accessibility, or the reduction of access times, it is divided into accessibility at multimodal nodes and more generally road accessibility:

- **Accessibility to multimodal nodes**
 - **Airport accessibility**, which considers the proximity to airports, the average daily frequency of national and international flights, the last/first mile airport-city connections⁷;
 - **Railway accessibility**, which considers proximity to stations served by national and/or international services, average daily frequency of connections and last/first mile station-city connections;
 - **Maritime accessibility**⁸, which considers the proximity of ports, the connection services supply for different types of traffic (cruise, private ships) and the presence of intermodal connections.
- **Road accessibility**

⁷ There are a very limited number of scheduled cross-border flights

⁸ There are a number of cross-border ferry routes operating within the adriatic area, particularly in the summer periods, although the sailing times are long (the vast majority of routes involving a duration of more than 3 hours)

- **Private vehicle accessibility**, which considers the motorway junctions proximity and the average access times to the main tourist hubs;
- **Public vehicle accessibility**, which considers the bus services supply, both in relation to conventional lines and authorized long-distance services in addition to the presence of bus stations for tourist buses;
- **Cycle accessibility**, which considers the presence of connections with national cycle routes and/or the presence of trains that allow the bicycles transport.

A good practices is related to the project ICARUS Intermodal Connections in Adriatic-Ionian Region to Upgrowth Seamless solutions for passenger, ended in December 2021 that developed eight Pilot projects regarding sustainable multimodal



accessibility, for example:

- Intermodal solution bike&train in Friuli Venezia Giulia Region: bike ramps installed in the train stations connecting two cycle routes AIM: Easier access to the stations and trains for a biker;
- A new cross-border intermodal service bike&bus from Trieste to Porec, connecting CAAR and Parenzana cyclepaths (the service ended in October 2021)
- Istrian Development Agency (IDA) planned to improve connections between the coast and the rural areas in the Istrian county by promoting the combined use of bike and train. IDA focused on the railway route from Pula to Buzet where up to now passenger had no possibility to load their bikes on the train.



Furthermore, a transversal feature to all the aforementioned meanings is the accessibility to sustainable transport to all tourist types (disabled people, big tourist groups, tourists with animals, with big luggages, with children and so on). Every time a new transport service is introduced at regional but also at local level Public Authorities must ask themselves this question: who should be the users of this service, it can be used from disabled people or I'm introducing a barrier for them?

For example, the Bike-sharing organized within the Municipality of Pisa and called CicloPi requires registration from the specific App of the supplier and the purchase of the package built ad hoc for tourists "one day mobile" (at a cost of € 5 for the use of the bike up to a maximum of 4 hours). Now the system allows the unlocking of bikes directly from mobile phones while, for residents/commuters there is a different procedure based on a card to be collected at two offices and an annual cost of € 38. As you can see, the service has a simplified procedure for the occasional user. The main problem is that this procedure is not explained on the service site where the only method presented regards systematic users. All this makes the service practically inaccessible to tourists (and data about its use verify it).



The reduction of access times must be seen at a multiscale level, that is:

- on a **large scale**, in relation to the access times from the origin places to the access gates, which are followed by actions which, however, are of a strategic international or national level (WORLD2GATES);
- at the **medium scale**, in relation to the connection times from the access gates to the major territorial nodes (those that the Italian Strategic Tourism Development Plan-PST calls "strategic areas of tourist attraction") (MIBACT, 2017), where they go to locate tourist accommodation and which coincide with large cities in most cases or with UNESCO sites (GATES2LOCAL);

- on a **small scale**, in relation to the connections from the aforementioned major territorial nodes to the distributed nodes of minor attraction (which are the places that the PST calls 'emerging tourist destinations' or 'new' tourist destinations) (LOCAL2LOCAL).

The last two points are of greater interest for urban areas and for the possibilities of a Municipality, a Province or a Region to intervene on the accessibility levels. Therefore, two further sub-criteria are identified, namely:

Starting from the access gates (railway stations, bus terminals, airports, ports) located in the tourist destination area, it is necessary to provide a sustainable transport supply system for tourists, making them digitally accessible in order to communicate their existence and information already in the trip 'planning' phase from home. In this way, tourists can arrive at their Base Camp or at the main destination of their trip without using their car and then managing local travel, always subject to prior reservation (see next point).

Moreover, the challenges of relatively poor accessibility and connectivity are obvious. Many coastal and island communities have poor accessibility and connectivity, and even where there are connections in place these are often less than optimal. The links between local transport networks and the core transport routes that provide essential external connections for the islands and coastal areas are insufficiently developed.

Target Indicators

TI_6.1.1.1 – Accessibility level to main cities/POI from access gates (time for each available sustainable transport mode)

TI_6.1.1.2 – Ratio between access time in private cars and each other sustainable transport mode

1.1.1.1. Sub-Objective 6.1.1 - Reduce access times to emerging or new tourist destinations-POI

The framework based into two sub-objectives arises from the indications of the PST which sees two levels of interventions, namely those concerning mature destinations, represented, especially at the Adriatic level, by the poles of strong attraction such as the urban areas located along the coast. These areas must be a reference for relaunching and distributing the tourist offer precisely towards emerging or new tourist areas, seen as enlarged contexts (see Figure 5.2 below).

This is an element closely related to Objective 5 relating to the decrease of the tourism negative impacts and in particular to the Specific Objective 5.2 relating to the differentiation of tourist loads.



Figure 5.2 – The link between Access Gates and POI Classes

Target Indicators

TI_6.1.2.1 – Accessibility level to new POI from Camp Base (time for each sustainable transport mode)

TI_6.1.2.2 – Ratio between access time to new POI in private cars and each other sustainable transport mode

5.6.2. Sub-Objective 6.2 – Promote Digital Accessibility

With **Digital Accessibility**, we mean the possibility of using a tourist destination before physically reaching it and the possibility of making the tourist more informed about the services available and the supply present in the area, through social channels such as Twitter, Facebook, Instagram, Youtube, etc. .. and the supply of interaction systems with them or through access channels such as websites, dedicated apps or other.

The 2018 data released by the Italian Digital Innovation in Tourism Observatory indicate what are the habitual behaviors of the digital tourist:

- 86% use at least one app while traveling, creating new opportunities for engagement;
- 86% use the network to book;
- 83% use the network to search for information;
- 36% use the web to write a review;
- 33% share the online experience at the end of the trip.

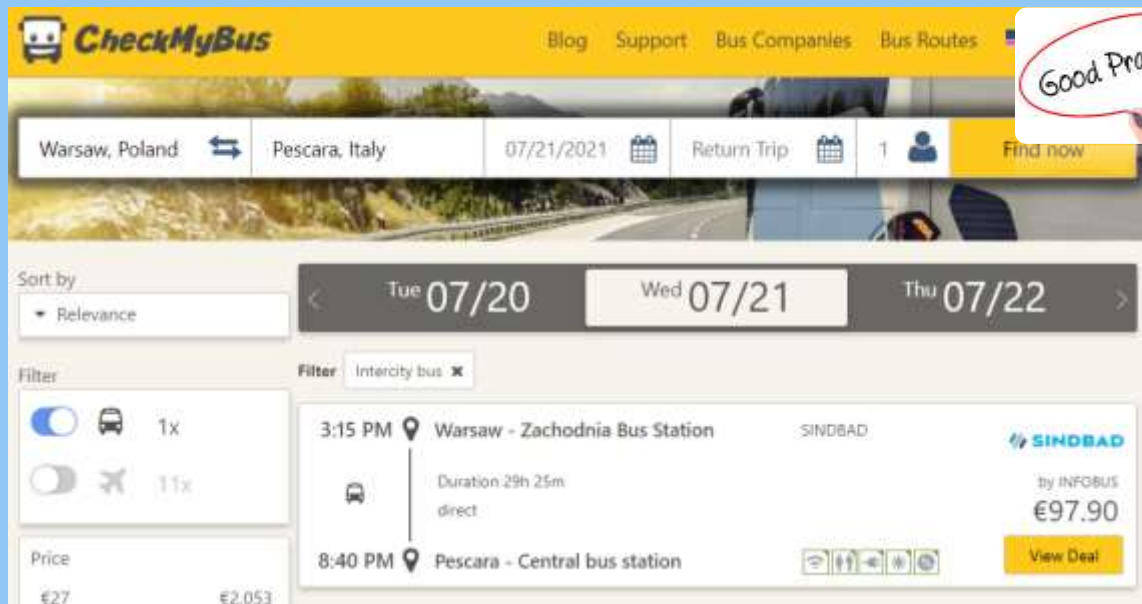
The world of Transportation is still the main category with 61% of the total transacted online, followed by accommodation (29%) and packages (10%).

Furthermore, digital accessibility also includes the implementation of service use models, with the possibility of buying tickets online or booking a visit, having info-mobility and virtual systems for visiting the various places of interest (eg . augmented, virtual, mixed reality).

For example, the service given from the German company ChekMyBus allows you to browse the services of over 3,000 bus transport companies, identifying if, in the requested origin-destination couple, there is a low-cost bus service.



For example, a journey was requested from the central bus station in Warsaw to the Pescara station on 21 July 2021 and the system provided the solution indicated in figure 5.3. to enter to bring this new priority to maturity.



CheckMyBus | Blog | Support | Bus Companies | Bus Routes

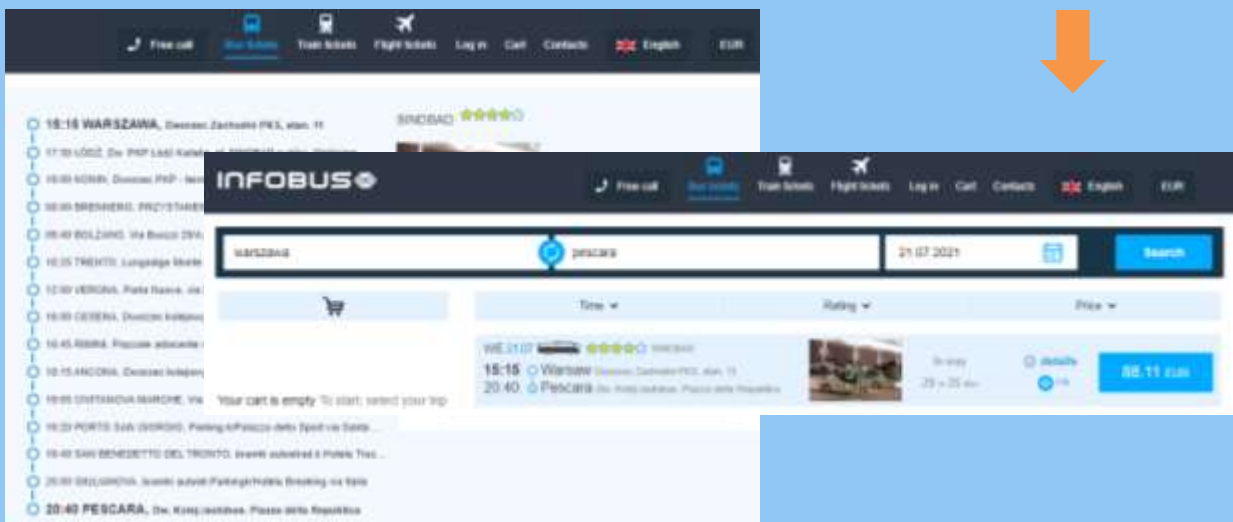
Warsaw, Poland ↔ Pescara, Italy | 07/21/2021 | Return Trip | 1 | Find now

Sort by: Relevance | Tue 07/20 | Wed 07/21 | Thu 07/22

Filter: Intercity bus

3:15 PM Warsaw - Zachodnia Bus Station | SINDBAD | by INFOBUS | €97.90 | View Deal

Duration 29h 25m direct
 8:40 PM Pescara - Central bus station



INFOBUS | Free call | Bus tickets | Train tickets | Flight tickets | Log in | Call | Contact | English | EUR

15:15 WARSZAWA, Dworzec Zachodni PKP, ul. 11 | SINDBAD | 4.5 stars

20:40 PESCARA, Str. Kasprowicza, Piazza della Repubblica

15:15 Warsaw (Dworzec Zachodni PKP, ul. 11) | 20:40 Pescara (Str. Kasprowicza, Piazza della Repubblica) | 29h 25m | 88.11 EUR

Figure 5.3 – Result of the bus travel request between Warsaw (origin) and Pescara (destination-access gate) (first response and subsequent detail from the service provider website)

The same thing is present in relation to both the railway network through the web service thetrainline.com which, moreover, also provides the possibility of connections by bus. We interrogated about the same Warsaw-Pescara route and on the same day this service and we received the answer in figure 5.3 with the same service as time and cost. In addition, this system allows direct access to the purchase of the ticket, allowing you to easily organize ex-ante your trip. In addition, these services allow you to query the transport supply made by operators of different nationalities, integrating their services in an intelligent way.



Figure 5.4 – Result of the request for travel by bus or train between Warsaw and Pescara with the thetrainline.com service

The screenshot shows search results for a journey from Warsaw to Pescara. It lists two options for Wednesday, July 21, 2021, and Thursday, July 22, 2021. Both options show a departure at 15:15 and arrival at 20:40, with a price of 89.00 €. A 'Continua' button is visible for the selected option. A note indicates that the booking is for Wednesday, July 21, and the journey includes a night train. The selected journey details show a departure from Warsaw Aleje Jerozolimskie at 15:15 and arrival at Pescara Terminal Bus at 20:40.

The screenshot shows the checkout page for the selected journey. The route is 'da Warsaw Aleje Jerozolimskie a Pescara Terminal Bus' for 89.00 €. The total amount is 91.70 €, including a 2.70 € commission. Payment options include 'Paga con carta' (VISA, MASTRO) and 'Paga con PayPal'. The page also displays the journey details: departure at 15:15 from Warsaw Aleje Jerozolimskie and arrival at 20:40 at Pescara Terminal Bus. There are buttons for 'Sieditiad' and 'Da stampare a casa'.

Figure 5.5 – Ticket payment for the selected journey

Tourism plays a fundamental role in our economy but it is also the cause of polluting emissions and waste of resources. According to data from the Italian Digital Tourism Innovation Observatory presented at TTG2021, 87% of Italian accommodation facilities already implement at least one action related to this issue. However, 45% do not duly communicate it to their customers through actions and awareness campaigns: there is therefore a strategic gap in which

Among the central elements of Digital Accessibility are:

- mobile Internet access for tourists is the basic element;
- the possibility of exchanging data between tourists and involved operators in the tourism value chain which also enables new services;
- the infrastructures digital transformation of (think of vehicle-to-infrastructure-V2I communication) which makes it possible to collect data enabling, in this case too, new digital services;
- social networks are one of the most effective contact channels: they allow you to contact communities of users with common interests, amplify content through sharing, and they provide to sentiment analysis a large number of data;
- social networks sentiment analysis provides an innovative reading of actual and potential customers needs and perceptions;
- people's trips analysis and geolocation offer the possibility of orienting the tourist supply in real time with respect to the mobility demand dynamics;
- Internet platforms, based on self-produced content, customer reviews, booking and purchase transactions, facilitate the matching of supply and demand and introduce new selection criteria (e.g. feedback based on reviews)

In practice, Digital Accessibility allows the transformation of the journey into an experience to be shared during all its phases, as indicated in Figure 5.6.

Before the trip, in the decision phase, a lot of features plays an important role: the promotion on the digital channels of the location and events, the segmentation by community of interest and, in the same way, in the **planning phase of the trip** many elements are relevant such as the possibility of consulting online the museums list, monuments or events, the existence of recommended itineraries for user segments, the possibility of customizing the

itinerary, the accommodation facilities booking services as well as seeing the transport supply available.

During the trip, in the **on-site experience phase**, all the services provided directly to the tourist's smartphone come into play, which allow him to access geo-localized information and to the management systems of tourist flows and their monitoring, to ticketing on -line to skip the queue at the ticket office, etc.

After the trip, in the **phases of memory** and the **possible decision to return**, social networks play a fundamental role on the one hand, which amplify positive experiences through sharing and allow you to create communities of people linked to each other by the common tourist experience. on the other, the mechanisms linked to "reputation", based on user reviews.

Some institutional tourism portals are opening up to interact with tourists, and offer the possibility of uploading self-produced content (photos, videos), publishing reviews, buy local products online to extend the lived experience. This last element is important, for example, in relation to cycle tourism and all other sustainable mobility on two wheels. These systems also play an important role in the search for tourist loyalty.

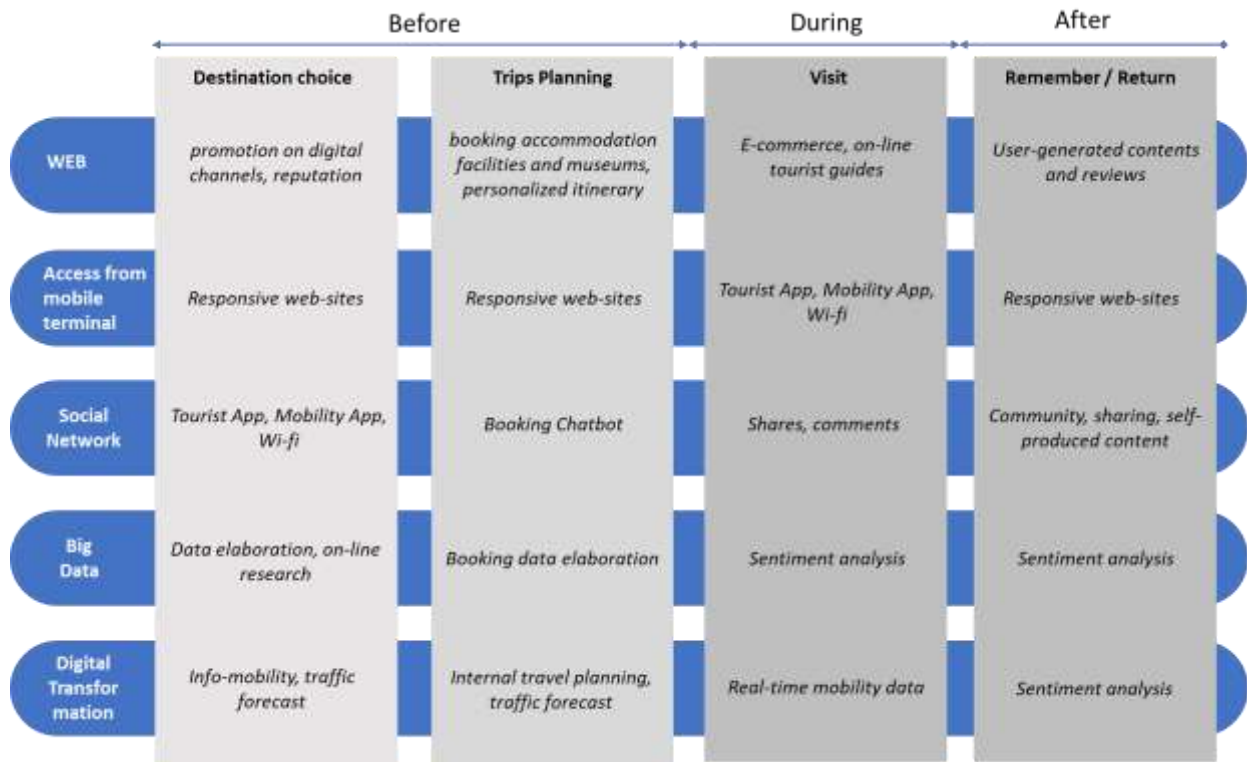


Figure 5.6 – The role of Digital Access in the travel experience (Source: elaboration from [4])

An example of Digital Accessibility is given in the ICARUS project where, in one of the eight pilot projects, International Transport Cluster developed an ICT solution for promoting intermodality in the Primorsko Goranska County, in Croatia. Moreover, the web platform offers information about the new integrated solutions in other partner regions (link to the platform: <https://icarus-mobility.com/>). The platform represents a one-stop shop for users who wish to travel around Croatia in a more sustainable way. Quickly available information enables citizens and tourists to find their optimal travel solutions and choose a set of environmentally friendly transport modes for their journey. Figure 5.7 shows a section of the platform with the service maps and the links to timetables and other information for passengers.



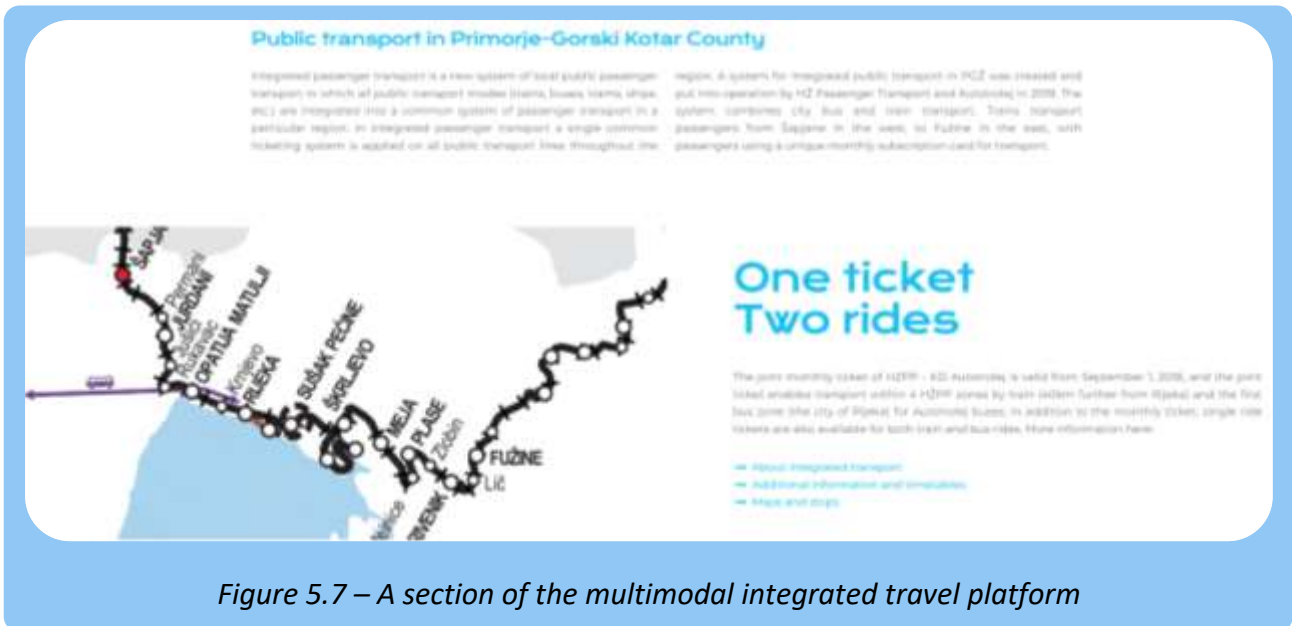


Figure 5.7 – A section of the multimodal integrated travel platform

Target Indicators

TI_6.2.1 – N° of access to local digital contents

TI_6.2.2 – N° of services with their information accessible from the web

5.7. Objective 7: Develop Cross-Border Cooperation and Communication framework

This Objective is included as the last one because it's the basis of all previous objectives. Without cooperation it's difficult to establish good measures regarding sustainable mobility at Cross-Border level. Also very local action (for example, a new bike-sharing for tourist families in a single city), can have poor results if not communicated in a preventive way to tourists through agreements with other Countries. Seeing them only when we are on site may often not be enough, but tourist need to 'organize the visit' (leave his bikes at home, for the previous example).

Moreover, it's extremely important to communicate the ongoing sustainable mobility actions within the Adriatic area from each Stakeholder localized in the area to enhance each action and to coordinate it with our "neighbors". So this Guidelines suggest to develop a first framework to communicate programmed and actuated action useful for a parallel cooperation level to coordinate sustainable measures between Adriatic Regions.

At a very high level, in Adriatic area, political cooperation was initiated by Italy via the Adriatic Ionian Initiative. This cooperation has evolved to lead to the establishment of the EU Strategy for the Adriatic Ionian Region and all four EU Member States around the Adriatic-Ionian seas are recipient of cohesion policy funding [13].



All European project are now following cohesion policy and, especially, Interreg ones worked to stimulate cooperation at Cross-Border level.

Each local partner need to start from this project type to establish a good Cross-Border Network and must work to keep the network active even beyond the end of the project itself, capitalizing on the knowledge developed.

Target Indicators

TI_7.1 – N° of Memorandum of Understanding or other agreement types with Cross-Border Stakeholders/Partners (both Administrations than Private Companies)

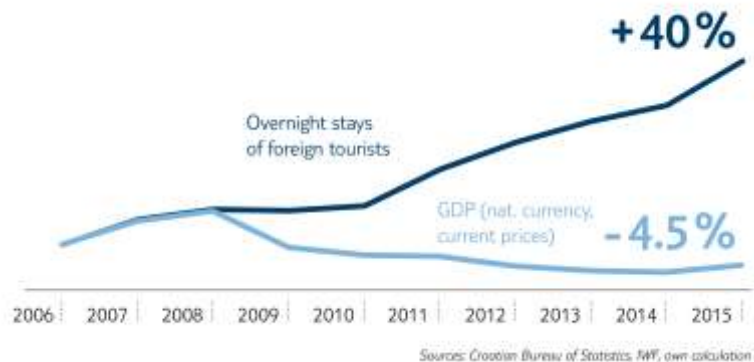
TI_7.2 – N° of Cross-Border sustainable mobility Good Practices measures exchanged between stakeholders

6. Planning phase

6.1. State of art reconstruction: analysis and critical issues

In the sustainable cross-border mobility incentive measures design, the first step is the analysis of data on tourist flows, differentiating the analysis of the current supply and forecast from that of tourist demand.

In relation to the **analysis of current demand**, one of the major problems relating to the analysis of flows between different Countries is the collection of data from different sources and the verification of the **consistency between the different sources** themselves. For example, for the analysis carried out at the beginning of this manual (Chapter 1) which represents a summary reconstruction of the current state of tourism, the tourist flows were analyzed, both from the point of view of dynamics and of their origins / destinations. For Croatia, for example, data from Eurostat were found showing a decline in flows up to 2016 with a subsequent growth while the data from the National Census of Bureau of Statistics show an uninterrupted growth in the period 2006-2015 which, in the 10 years, saw an increase of 40% in stark contrast to the Eurostat data.



Furthermore, there are often inconsistent data in the values and measurement units between the inbound and outbound tourist flows between the single countries pairs (e.g. outbound flows from Italy to Croatia, present in the Italian database not are equal to the inflows from Italy to Croatia in the Croatian Database), a factor that creates problems in evaluating the dynamics of current flows. Often the different values are due to initial differences in the data and phenomena represented (which in fact represent different 'populations') but are not easily traceable except in the presence of good metadata.

In addition to the evaluation of the current total flows at National level, it is also necessary to reconstruct the demand among the single Origins/Destination pairs even at a lower scale (for example, for an analysis only on the Adriatic coastal territory) and the forecast of cross-border flows. In order to be able to calibrate the tourist offer in detail at the local/regional level and evaluate the capacity to absorb these future flows.

For this last point in [12] has been developed two tourism demand models:

- One **tourism demand model for international tourism**;
- One tourism demand model for domestic tourism.

Overall, for both models, multiple data sources were used, including arrivals data from UNWTO and OECD, population data from the UN Department of Economic and Social Affairs (UN DESA) and data on GDP growth from OECD. These models are based on 2016 data as this was the most populated dataset available year when the study was initiated. The estimates refer to overnight stays only (i.e., international and domestic tourist arrivals) and therefore do not encompass sameday visitors. Since persons arriving by cruise are accounted as same-day visitors, they have not been integrated in the demand models.

The data and modelling approach used for the demand model for international tourism, the one interesting this Guidelines, formed the basis of future projections as it allowed estimating tourism flows between different areas. International tourism was divided into intraregional and interregional tourism: intraregional tourism referring to tourist movements from one area to another within the same region and interregional tourism referring to tourist movements from an area to another in different region.

The proposed model for international tourism demand does not use complex formulas and region specific assumptions and parameters. As assumptions and parameters reality rarely remain stable over a longer period of time, it was found preferable to use a simple model that follows general economic trends and projections. The model used to predict the demand for international tourism between two areas during the study period is described by the following formula:

$$T_{ij} = C e^{\delta K_{ij}} \frac{P_i^{\alpha_i} (P_j I_j)^{\beta}}{d'_{ij}}$$

where:

d_{ij} stands for the distance between area i and j ;

K_{ij} is also introduced, which takes the value of 1 if the two areas belong to the same region and 0 otherwise.

P_i and P_j are quantification of the respectively tourist trips generation and attraction potential (typical of this Gravity-based model). Many time they can be the simple population of these areas.

I_i and I_j are quantification of the wealth level of the origin/destination. For the origin we can use the simple mean income while for the destination it's used the mean GDP.

Estimates for the coefficients are given in table 6.1 below.

Variable	Coefficient estimate
Constant	2.2
Origin potential (income), 2005 (USD PPP)	0.0064
Destination potential (GDP), 2005 (USD PPP)	0.85
Distance (km)	-0.67
Same region	2.2

Note: PPP: purchasing power parity.

Table 6.1 – Calibration results for the international tourism demand model (Source: [12])

Estimation for future years can be introduced by making prediction of the variable used in the previous formula (GDP, income and population) for the interested areas.

An interesting Good Practice it has been applied from Abruzzo Region inside the Easyconnecting project (<http://www.easyconnectingproject.eu/>) where, collaborating with Italian Coast Guard, a regional mobility observatory



was developed through which the data deriving from the PMIS-Port Management Information System, data relating to the timetables of the departing/arriving ships,



vehicles and passengers present, arriving to each regional ports or departing from it was collected do to have useful information to plan land-side mobility.

At the level of the **transport supply**, as already mentioned, the connecting element between tourism and transport is accessibility and, on a large scale, there is **the model of "access gates"** for its evaluation, a methodology developed in [4] to assess the degree of physical accessibility of tourist sites.

In these Guidelines we have extended this methodology by introducing the concept of:

- wide area accessibility to gates (WORLD2GATES);
- wide area accessibility from gates (GATES2LOCAL);
- accessibility from local gates (also called Base Camp) (LOCAL2LOCAL).

As already mentioned above, examples of **wide area level access gates** are:

- Airports (Ten-T Core or Comprehensive network). In the Adriatic area, the only Core-type airports are Zagreb, Venice and Bologna, while another 13 nodes are included in the Comprehensive airport network;
- Ports (Ten-T Core or Comprehensive network). In the Adriatic, the Core network includes the ports of Bari, Ancona, Ravenna, Venice, Trieste, Rijeka and Koper while the Comprehensive network contains another 11 ports on both sides of the Adriatic.
- Main railway stations (Ten-T Core or Comprehensive network). On the Adriatic, this network is present only on the Italian side with the Core stations of Bologna, Venice and Trieste, while the stations of Ferrara, Ancona, Pescara and Bari are Comprehensive;
- Main road network (Ten-T Core or Comprehensive network). The Core network arrives, on the Italy side, coming from north to south, it stops in Ancona to review a Core network on the branch that from Naples connects Bari and Taranto while the eastern Adriatic side is completely covered, on the coast side (see figure 6.1);
- National / European cycle network (EuroVelo network or national tourist cycle routes), as shown in figure 6.2.



Figure 6.1 – Rete Ten-T Core Network and Comprehensive



Figure 6.2 – EuroVelo European Network and example of National Tourist Cycle Routes

The three accessibility levels are identified in the following figure by the rectangles in the two directions (precisely in black the accessibility to the gates-WORLD2GATES, in green the accessibility from the gates (considering the destination corresponding to the city closest to the POI of interest, as often happens) – GATES2LOCAL and in blue the local accessibility, that is the accessibility to the points of interest from the arrival city - LOCAL2LOCAL.

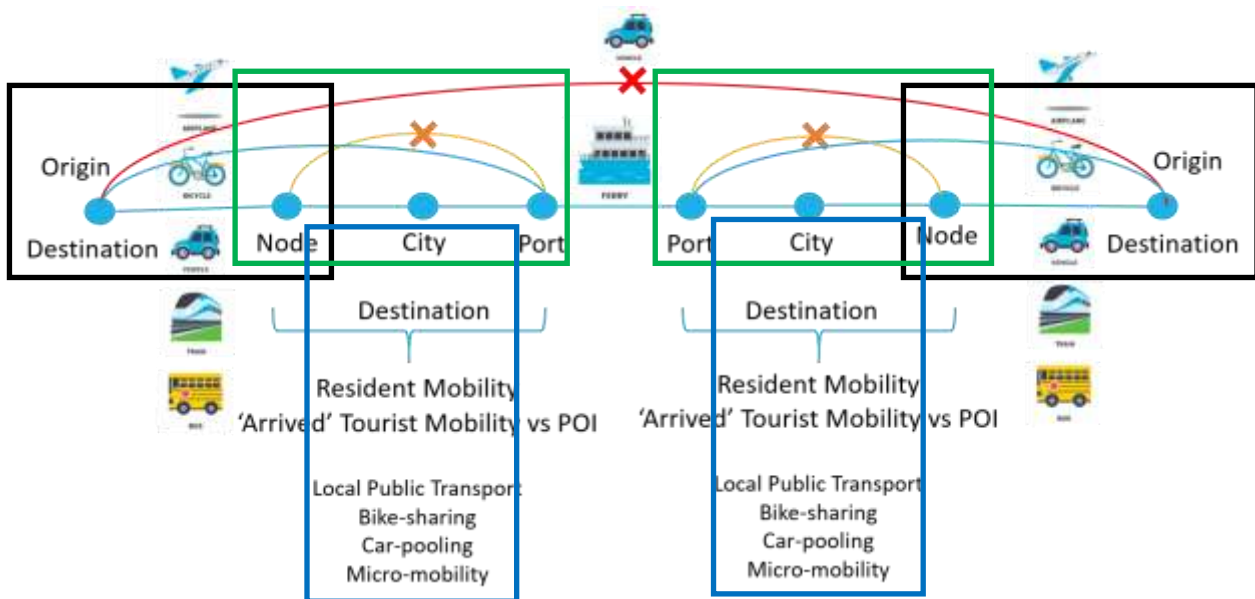


Figure 6.3 – The three levels of accessibility introduced in these Guidelines

The **wide area accessibility at the gates** (WORLD2GATES) represents the analysis of the supply, info-mobility and cost levels to access the gates themselves. Think of the revolution introduced by Ryanair which has suddenly increased accessibility to the gates of major European cities by increasing tourism to them, often in a not so sustainable way. In the same way, the connection of the railway station, a port and any road node to the Core network increases its accessibility, thanks to the European economic resources that allow to increase the travel supply and connections with the rest of the world.

Therefore, in this case, the connection levels of the ports with the major nodes of origin of foreign tourists must be checked, identifying weak points such as poor supply, only seasonal transport supply, excessive costs or too high connection times, all elements that lead the journey cross-border towards the choice of private car or verifying the presence of positive

elements such as family ticket packages or other. The assessment of service levels in accessibility to the gates, integrating in a multi-criteria way features such as quantification of the supply, access times and costs, comparing the calculated results for individual motorized transport modes with the collective one, allows to identify elements of orientation for community policies and the development of the transport supply at cross-border level, by regional, national and European bodies.

The **accessibility from the gates** (GATES2LOCAL) to the points of interest can be assessed starting from the access gates themselves, which allow you to reach these POI in the shortest possible time with private transport modes (cars, motorcycles, caravan) and public transport services using existing road, rail and sea networks. The analysis of travel times from the access gate closest to tourist destinations, broken down by transport mode, highlights the sites where the difference in accessibility between private cars and public transport services is greater, and on which, therefore, it is necessary to intervene by strengthening the infrastructures and the public mobility services supply. Figure 6.4 shows the analysis made by the Italian Ministry of Transport and Infrastructure [4] for this accessibility type, considering UNESCO, EDEN or the Capitals of Culture as the ultimate arrival points.

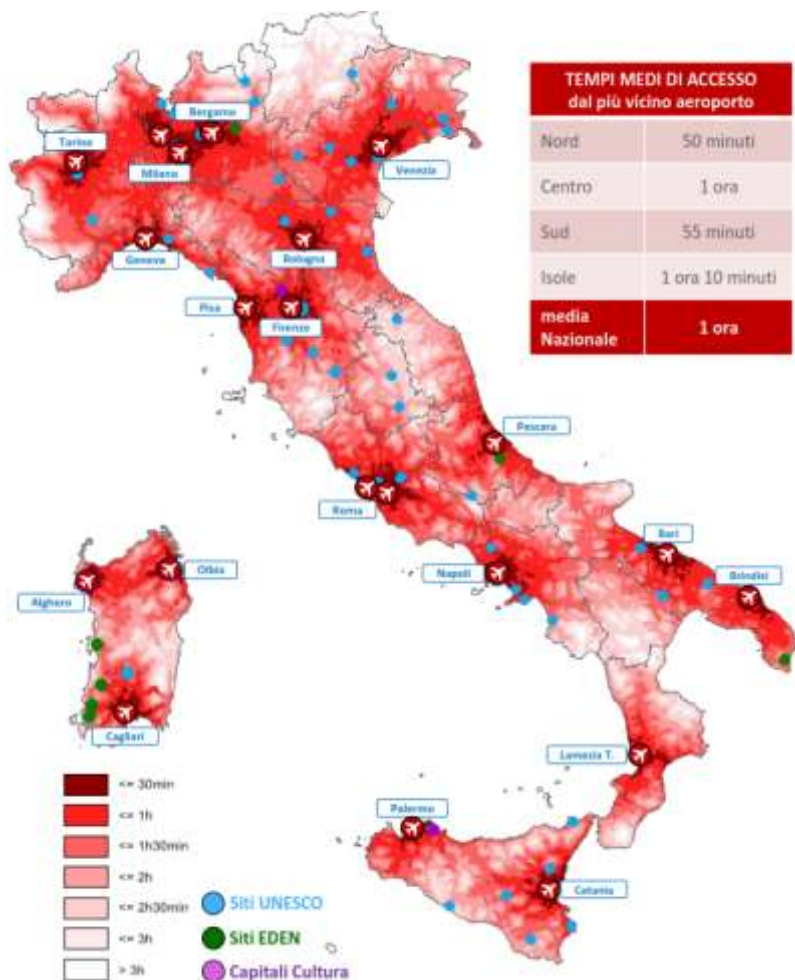


Figure 6.4 – Physical airport

accessibility analysis (source: [4])

Figure 6.5 shows the intersection between the access times from the gates to the aforementioned sites of private vehicles with respect to public transport for airport accessibility, an intersection that allows us to understand the disparities present in the various territories between the two aforementioned transport modes and to identify areas where infrastructural upgrading is needed, as both methods exceed the threshold of 1.5 hours, considered as the maximum time value for access from the gates to tourist sites.

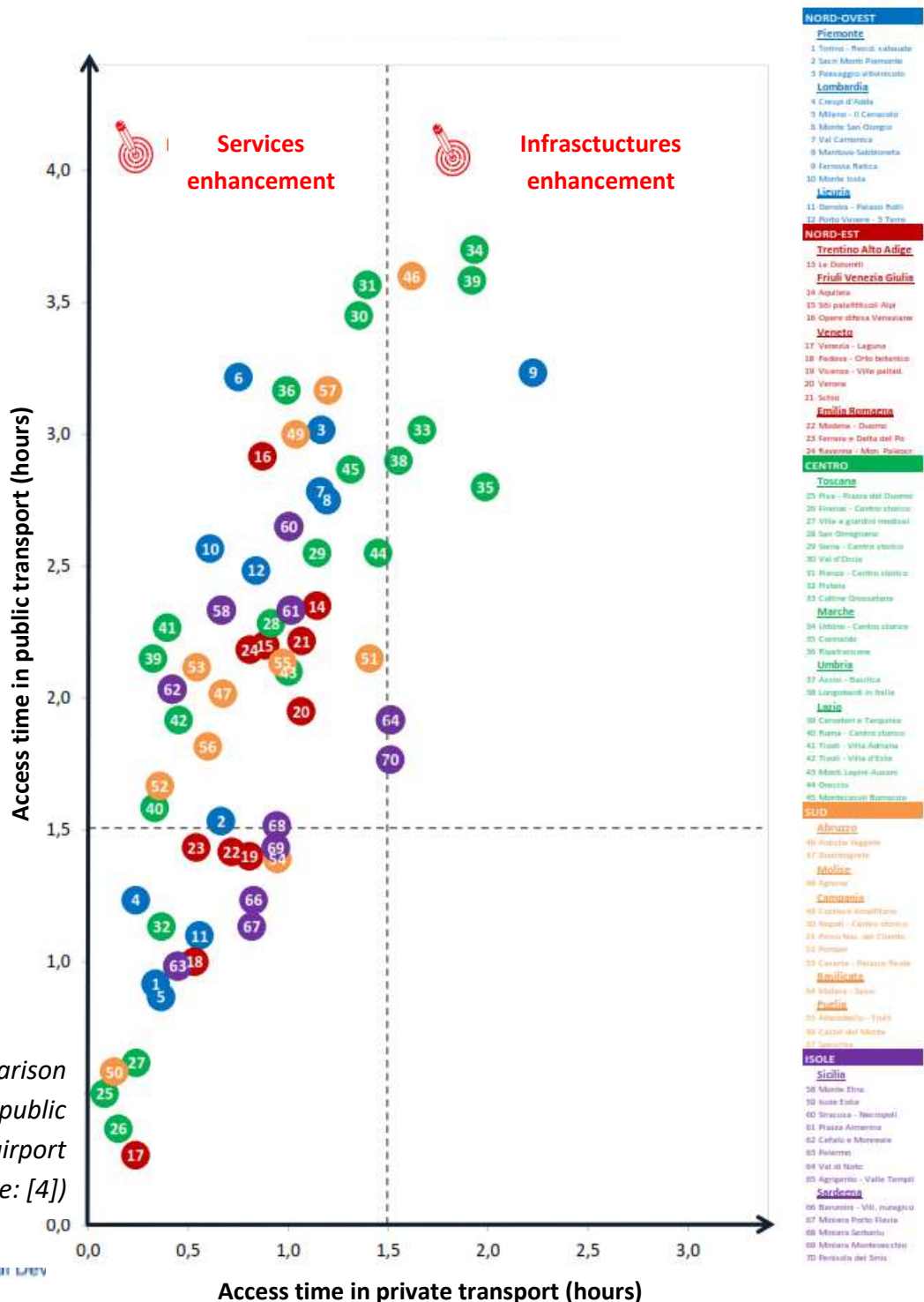


Figure 6.5 – Comparison of private and public accessibility from airport (source: [4])

The aforementioned analyzes do not consider, however, the fact that the tourist first searches for accommodation (often in larger cities close to the interest sites) and then reaches the final destination from this 'Base Camp'. It is, therefore, necessary to break this analysis in two part and verify the local accessibility levels (focusing the accessibility analysis from the gates not on the sites but on the places with the greatest presence of the tourist accommodation supply).

Therefore, it is necessary to do a sub-regional analysis to understand what we have called **local accessibility**.

Local accessibility (LOCAL2LOCAL) becomes the most connected element to the classic municipal transport planning tools such as SUMP and, given the many 'last mile' connection possibilities in the city, it also becomes the node of the tourist travel chain where a local Municipalities can have more tools to implement actions to encourage sustainable mobility.

Connecting the last local tourist mile means, as already mentioned, creating services that make the individual Points of Interest accessible, thus starting from a clear picture of the tourist actual supply in the area and the need for marketing and communication that each of its points requires to keep its image alive and attractive. This framework of tourism management/relaunch priorities (whose objective must be to distribute the tourists themselves in the territory in the most homogeneous way possible, avoiding gatherings them in the most attractive points and, consequently generating a more equitable distribution of the resulting economic benefits), is based on the continuous monitoring of tourist presences both from the side of their local chain departure point, or in the place of tourist accommodation, and from the side of the destinations. By monitoring the movements of tourists, the transport modes used and the main destinations of their trips, it is possible to plan both the communication and local transport supply towards the aforementioned objective and apply actions to encourage their use. One of the possible analyzes useful for identifying connections on which to develop infrastructures and/or services is identical to that shown in figure 6.5, by comparing private accessibility and conventional and unconventional public accessibility (micro-mobility, sharing mobility and other).

In the following paragraph, the measures to achieve each of the objectives are explained together with the indicators to assess their impacts and allow monitoring of the effects.

Another element to consider when analyzing the mobility supply is the presence of any **bottlenecks** in potential tourist trips. This means verifying, at a sub-regional level, the presence of links with sustainable methods between the various multimodal nodes involved in the journey and the possibility, through an analysis of the coincidences between the timetables of the different modes of transport, to carry out modal exchanges.

Other bottlenecks types derive, especially at maritime level, from the shipowners and / or maritime transport managers policies who, often, incentivize fare policies encouraging the boarding of private cars during sea transport, to increase their own revenues, to the detriment of sustainability. Other very frequent phenomenon is the management, by the shipowners, of their passengers even beyond the simple sea trip: often the travel agencies organizing cruise passengers land tours are owned by the same shipowners who take the passengers at the port and, at very expensive prices, they bring them to major tourist destinations, usually using buses, but certainly encouraging mass tourism in major tourist places. And, in relation to the number of cruise passengers, there are 10-15 buses that often go to the same destination, with a significant impact on the tourism sustainability in the destination locations.

In this regard, within the SIC - Safety, Innovation and Competitiveness project, an analysis was carried out on the connection, by bus, of the various Tuscany port nodes with the major tourist travel destinations in order to understand if it is possible to access the different POIs in a sustainable way. Table 6.1 shows that Florence, Rome and Genoa are practically unreachable.



Localities	N° of total bus links	Connections on incoming ferries	Connections on departing ferries
Leghorn	7	1	6
Follonica	7	1	6
Pisa	6	1	5
Rome	5	0	5
Florence	3	0	3
Genoa	2	0	2

Table 6.1 – Piombino port connections between ferries and busses (fonte: Tages sc)

6.2. Action lines for each specific objective

Measures for Objective 1: REDUCTION OF THE DEMAND SEASONALITY

Measure 1.1 - Timely homogenize the distribution of tourist supply

Events and attractions must also be offered in the autumn/winter period starting above all from the coastal areas towards the internal areas and communicating these events to an efficient dissemination and marketing system, often carried out in the summer period in order to be sure to intercept the 'mass' of annual tourists who, seeing the offer, can reschedule their holidays in the following years. Often elements such as the architectural archaeological heritage, the search for sports and food and wine, naturalistic and landscape tourism are the basis to reach an attractiveness distributed throughout the year.

The system is also based on preliminary agreements made between local administration with local companies and with the various transport operators systems in order to guarantee a lively tourist reception and not to be in semi-deserted cities where restaurants, hotels are closed and transport links are limited.

A good example of this measure is the 'Palio della Costa Etrusca', an event scheduled at the beginning of October in the city of San Vincenzo, within the Province of Livorno. This event takes place on the beaches, in this period free from summer tourists and allows to attract tourists trying to extend their season in the autumn period.



Figure 6.6 – Example of tourist event in a maritime area in autumn season

KPI Indicators

KPI_1.1.1 – N° of events organized outside of summer period

KPI_1.1.2 – Tourist frequentation outside of summer period

KPI_1.1.3 – Public Transport level of service (trips n°) outside of summer period

KPI_1.1.4 – Percentage of public spaces closed outside of summer period

Measure 1.2 - Promote the tourist image of the Adriatic area

This action integrates the entire tourist supply of the Adriatic area through the promotion of an "Adriatic brand" for tourism that is unique and recognizable in every part of the area at a cross-border level, to be presented to visitors at the access gates (Airports, Stations, Ports, etc ..) in order to integrate various types of supply in the general brand, summer coastal, winter more internal and urban-cultural in order to broaden the tourist horizon of the entire area.

The "abruzzoturismo.it" website presents the "regional brand" of tourism that contains the integrated summer and non-summer tourist supply of the regional territory (see the screenshot in figure 6.7).

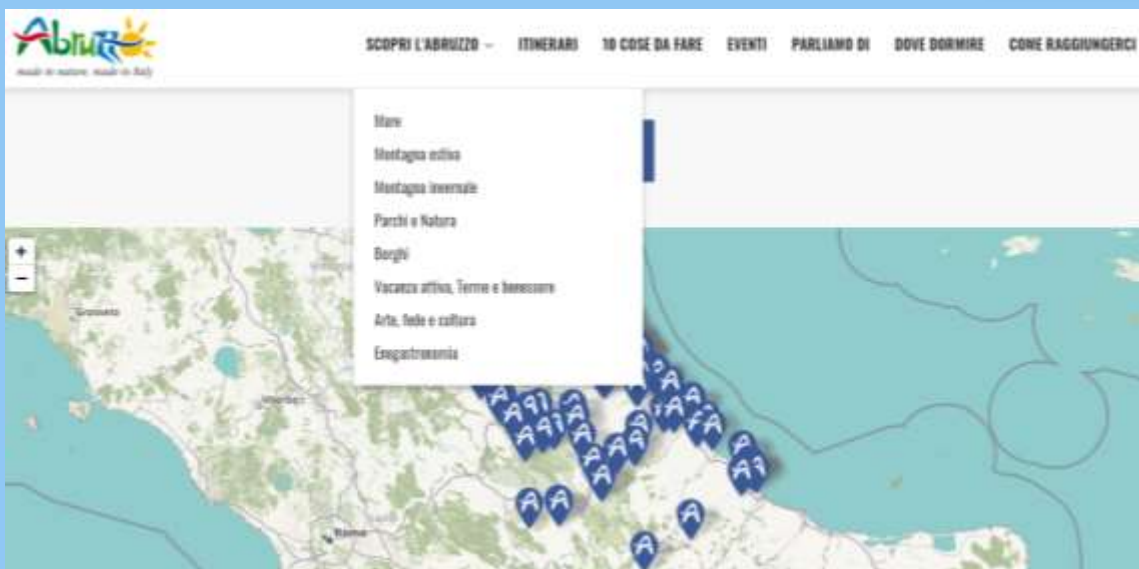


Figure 6.7 – Screenshot of the Abruzzoturismo web page

KPI Indicators

KPI_1.2.1 – N° of use of the ‘Adriatic Brand’ on the web

KPI_1.2.2 – N° of events/POI/activities requesting the use of the ‘Adriatic Brand’

Measures for Objective 2: INTEGRATE TOURISM WITH THE LOCAL POPULATION⁹

Measure 2.1 - Encourage policies for the return of original citizens to urban centers

The major urban centers are increasingly seeing the depopulation of original residents who, under the tourism pressure and its negative impacts, move to the neighboring peri-urban or extra-urban areas, generating considerable and systematic daily return flows as well as making lose vitality and original 'culture' at the center itself. Intervening on this phenomenon means decreasing the share of systematic flows as well as preserving local specificities by seeing tourism as a resource that must be used by residents.

Regarding the integration of tourist and local population, to solve the problem of the urban depopulation and integrate it with tourist accomodation, a good practices has been adopted in the Munich Region (municipalities of Haar and Neubiberg) inside the project ASTUS, where it was found underused central quarters and it was implemented a **behavioural change campaign** for resident identifying motivators and barriers to incentivize the participation in house moving or sharing policy (allowing also the sharing with tourists). The action in detail analyzes possibilities and advantages of moving to a smaller flat or sharing its central flat with a co-habitation policy (similar to the one used from many students in big cities) (see figure 6.8). There is huge demand for the small flats because they have perfect access to all infrastructure needed. The concept of co-habitation is the one that the new tourist type desire to immerse himself in the local culture and habits.



⁹ We are aware that this measure is not very connected with the primary objective of these guidelines but we believe that the maintenance of the local specificities of the various territories is a primary requirement to maintain its attractiveness, especially for foreign tourism that wants to know the Adriatic culture, cuisine and traditions

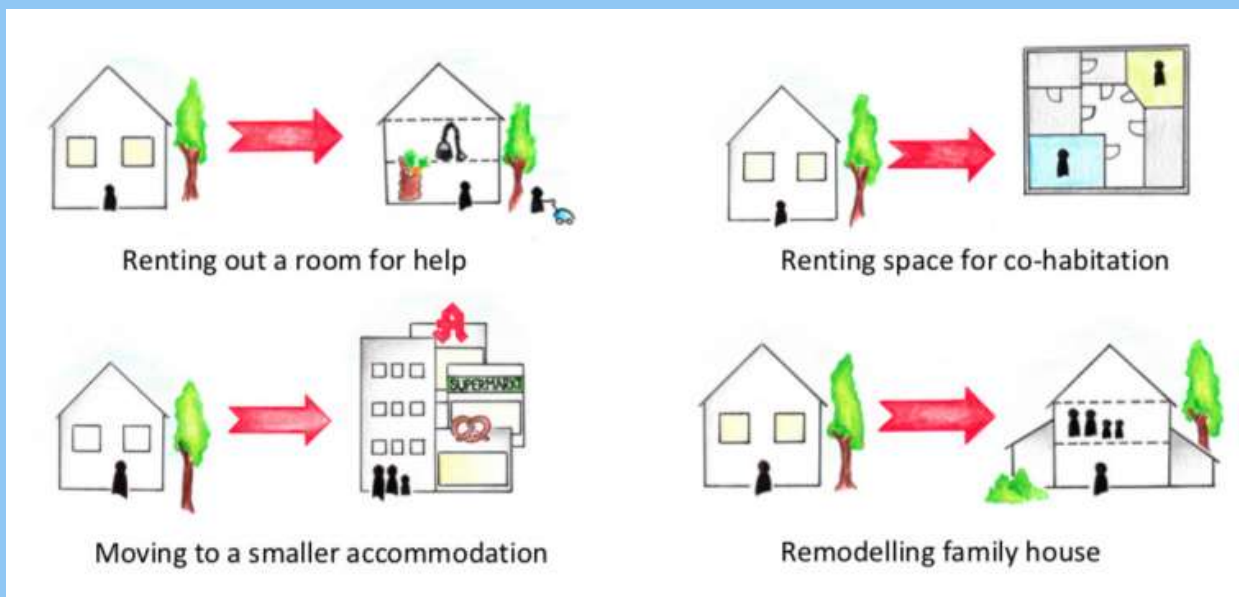


Figure 6.8 – An image of the cohabitation motivation campaign (source: Astus Project)

KPI Indicators

KPI_2.1.1 – Demographic trend of the urban area

KPI_2.1.2 – N° of events/activities linked to local culture/traditions

Measure 2.2 - Integrate 'sustainable' tourism with the local economy

Promote tourist services and itineraries that include areas of important value in order to be attractive to tourists, integrating these itineraries with the local tourist offer of handcraft products, accommodation and, especially in the Adriatic area, maritime itineraries such as trips, mini-cruises along the coast and more.

With the DGR decree n. 305 of 31.05.2021, the Abruzzo Regional Council approved the update of the "Abruzzo Bike Friendly" specification, which provides for access to the network for all Abruzzo municipalities that have implemented actions for bike mobility. Applications for admission to the



network can be submitted by individual economic operators belonging to:

- Tourist accommodation facilities - Hotel and non-hotel facilities and outdoor accommodation facilities, B & Bs;
- Tour operators and businesses complementary to the cycle tourism offer - Specialized shops selling bicycles, rentals and bike centers, tour operators, bike schools, transport services (bike taxis, bike shuttles, etc.), travel agencies and tour operators;
- Activities related to catering - Restaurants, agritourisms, bars with small catering (Bike Bar);
- Bathing facilities;
- Municipalities of Abruzzo that have implemented actions to incentive bike mobility.

On the website “abruzzoturismo.it” there is the link to register with the network (see figure 6.9) and the list of the 72 companies registered to date.



Figure 6.9 – The network of economic operators inside the abruzzoturismo.it website

In the same way, it is possible to promote initiatives for the enhancement of local food and wine excellences and local craftsmanship in spaces dedicated to the access gates or within the sustainable mobility services that connect the gates themselves with the attraction places, generating a virtuous circuit.

The Municipality of Pisa, within its SUMP, has launched a reward system for good mobility practices linked to local companies. Each member of the reward system, by tracking their own sustainable trips, collects credits points that can be spent as discounts on products/services provided by the local



activities who subscribe to the reward platform itself, called GOODGO (www.goodgo.app). They are possible to create awards linked to sustainable multimodal transport modes, linked to tourist behaviour like park&ride at cordon parking areas or others.

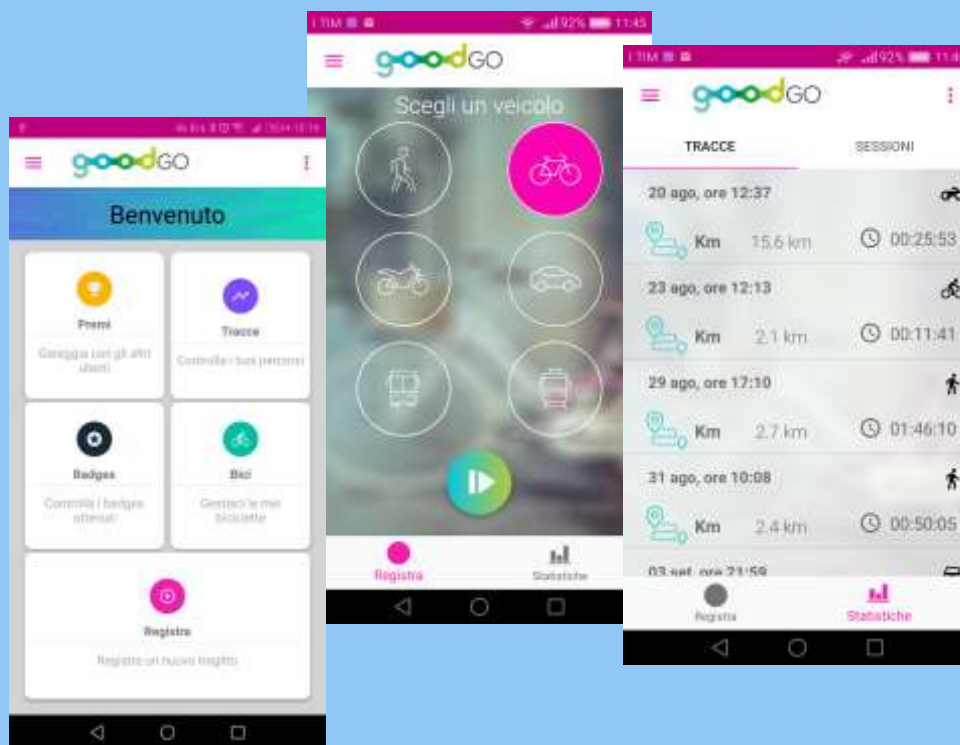


Figure 6.10 – Some screenshots of the GoodGo app and images of products booked with the collected points

KPI Indicators

KPI_2.2.1 – Percentage of local shops revenues deriving from international tourism

KPI_2.2.2 – N° of activities regarding local traditions present in the territory

Measures for Objective 3: DEVELOP INFRASTRUCTURE

Measure for the Specific Objective 3.1: Overcoming disparities in infrastructural development

Measure 3.1.1 - Homogenize sustainable infrastructures in a cross-border context

This action is aimed at making the sustainable mobility supply for tourists, an essential element in encouraging sustainable mobility itself, continuous on the cross-border area. If I want to go to Croatia by bike and I do not find continuity of services on the way from the Access Gates to the destination, I am inclined to use a private car. This means designing public services and cycling routes in a coordinated cross-border vision in order to have integrated services and tariffs.

A first good practice belongs to the SMISTO project that is part of the Interreg Italy-Switzerland program in the mobility intervention axis. The aim of the project is to increase the quality of cross-border mobility, introducing more sustainable transport solutions, both environmentally and economically. The project developed a study for an integrated mobility in Ticino and Lombardy [16] in relation to the definition of the integrated tariff system. The geographical context of reference is characterized by a small number of cross-border corridors that cause congestion along some lines, causing a lengthening of travel times and a worsening of air quality. The project elaborates three different integrated parts:



- Definition of the service cross-border routes, starting from the Origin/Destination analysis (in figure 6.11 it's represented one of the three routes developed);

- Design of a coordinated design for the bus stop so to give a clear image of the unique services;
- Definition of the integrated fare system of cross-border services, and in particular:
 - the identification of new pricing methodologies for cross-border services;
 - identification of the types of travel tickets, fare values of the cross-border tariff system;
 - the definition of the conditions of transport for cross-border services;
 - the definition and simulations of the economic and financial impacts of the new cross-border fare system;
 - the finalization of an agreement for the clearing of revenues;
 - the proposed agreement between the carriers and institutional entities.



This project demonstrate the needs for a participative and collaborative approach both from the Administration side than from the Public Transport Companies involved.

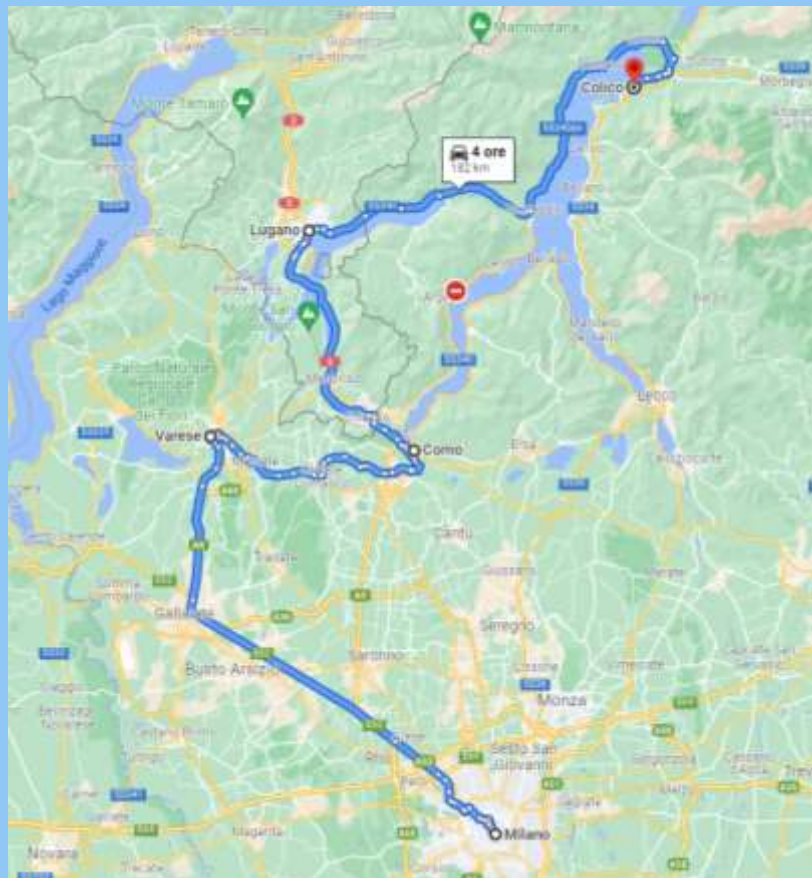


Figure 6.11 – One of the cross-border route

A second good practice is directly related to the Adriatic area. In this case the partners have been introducing pilot multimodal bike & bus services along the Adriabike cycling route, which connects the Alps with the Adriatic Sea, as well as the boat connections for bike transports. In the summer 2018 and 2019, a cross-border bus with a bike trailer drove between Koper, Trieste, Grado and Cormons. The bus service connects Adriabike and Alpe Adria (Salzburg – Grado) route. In the summer 2019, a boat for the transport of bikes experimentally drove along the Lemene River in Veneto. The boat, which has been driving between Bibione and the natural area of Vallevocchio near Caorle since the summer 2019, shortens the cycling route across the Venetian Lagoon (an explaining video is present at the following link: <https://youtu.be/si5WVm2zJIU>).





Figure 6.12 – An example of a cross-border multimodal connections

In the CONNECT2CE Interreg Project the Pilot Action 2 was the elaboration of a cross-border Public Service between Slovenia (Ljubljana) and Croatia (Zagreb). Croatian Railways - Passenger Transport Ltd. (HŽPP) and Slovenian railways – Passenger transport Ltd. (SŽPT) tested the transnational tool for the improvement of regional/crossborder railway and public transport connections through the design of a feasibility study which contains recommendations on how to improve the railway service between the two countries. The study mentioned covered three themes:



- the analysis of rail supply between Slovenia and Croatia;
- the requirements assessment for the Public Service Obligation (PSO);
- the development of a financial model.

KPI Indicators

KPI_3.1.1.1 – N° of tourists arriving by bicycle/bus/sea/rail using cross-border routes

Measure 3.1.2 - Infrastructure technological upgrade

Technological upgrading of the important transport infrastructures for tourist mobility, such as motorways, which must increasingly become "Smart Roads", and the rail and public road transport services technological upgrading (for example, user monitoring systems, attendance at the travel origins / destinations).

The Public Transport company Tiemme srl, operating in the Provinces of Arezzo and Siena, has organized the extra-urban ticketing on the basis of a system for the travel tickets purchase integrated with the relative Origin / Destination information, in order to have always updated information on the trips carried out by its own clients. The same thing applies to tickets from Trenitalia srl, the main trading company of the railway service in Italy. Integrating the various information on Origin/Destination pairs, especially in the cross-border context, would give the possibility to efficiently plan the tourist mobility supply. The major obstacle to this is the ability to share such information, often considered by the individual transport operator as 'sensitive data' at the business level and, therefore, not inclined to disclose it to third parties.



This upgrading must also take place at the local scale in order to facilitate the use of services by tourists. This means installing systems such as bike-sharing, car-sharing and more that are **accessible to tourists** (both from economic and functional side). This accessibility is often provided by innovative technological solutions.

Another area of improvement of infrastructures is related to **security**, often obtained also through advanced IT sensors systems, data on transport flows collection/analysis and technologies for crisis management. This also includes the "safety" resulting from the use of new technologies in the tourism sector such as transport with autonomous vehicles or the use of drones for the communication and intervention management in the emergency phase.

The AURORA project (sAfe Urban aiR mObility for euRopeAn citizens) within the Horizon 2020 program, regarding to the use of air vehicles in the urban environment (UAM), is experimenting communication systems between drones and tourists in the port and peri-port area in order to communicate the behaviors to be followed and other information in case of emergency.



KPI Indicators

KPI_3.1.2.1 – N° of innovative tourist services developed

KPI_3.1.2.2 – N° tourist subscribed to each innovative service

Measure for the Specific Objective 3.2: Recovering disused infrastructures

Measure 3.2.1 - Recovery of disused road lines

An action that is often possible is the recovery of disused railway lines, tramways or other types for tourist purposes (for example, introducing historic railways or recovering such sites as cycle-pedestrian paths) in order to increase the tourist transport supply itself and/or the sustainable accessibility level of the areas. This intervention is useful both at the urban level (especially in the case of old tramways) and in the peri-urban area, as often happens with old railway routes.

Thanks to an action of this type, the Abruzzo Region won the 2020 Italian cycling tourism Oscar. The proclamation and delivery of the prizes took place today during the "CosmoBike Show", the cycling exhibition held in Verona. The Abruzzo Region has developed, recovering an old railway lines, the "Bike to Coast" cycle path, a 131-kilometer cycle path that crosses 19 municipalities with a view of the Adriatic, from Martinsicuro (Te) to San Salvo (Ch) and which changes its appearance midway through more points to reach the hinterland. It is the 'bike to coast' of Abruzzo, a journey on a bike between beaches, protected nature, small villages, castles, all along the most beautiful cycle path in Europe.



Figure 6.13 – Map of the cycle-pedestrian path called “Bike to Coast”

The Abruzzo tourism councilor expressly said "Now it is understood that only by activating **synergies between territories** can we think of a real turning point in the offer of the various types of tourism, and cycling in particular. As a Region, we are working alongside the municipal and provincial administrations and the chamber of commerce and other territorial subjects (Gal and Dmc) of Abruzzo, so that a unicum is created that allows cycling tourism to be transformed into an authentic possibility of growth for the economy of our territories, also for the related industries that it manages to generate in terms of services, catering, assistance points and further possibilities of intermodality between territories".

In addition to this, these lines can be recovered by inserting the "historic trains" service, especially on routes with high tourist potential.

KPI Indicators

KPI_3.2.1.1 – Length of recovered infrastructure

KPI_3.2.1.2 – Tourist using recovered infrastructure

Measures for Objective 4: TRANSPORT DIGITALIZATION

Measure 4.1 - Integration and modernization of payment systems

Integrated payment systems must be developed between the different transport modes in order to allow easy ex-ante booking of the various carriers that make up the 'sustainable tourist journey'.

In 22 July 2021 UITP (Union Internationale des Transports Publics) launches Urban Mobility Open Payments Forum, trying to bring together payment providers and transport operators to promote understanding of **open loop payment systems**.



The Forum aims to advance adoption of open loop payment systems in public transport across the globe and help cities create efficient, inclusive, and sustainable door-to-door travel experiences, enabled by simple, convenient, and secure open loop payments systems.

Together UITP, Visa, American Express and Scheidt & Bachmann, will help pave the way for a world in which paying for public transport at home is as familiar and compelling as it is when visiting a city abroad. Open loop means any eligible payment method can be used without having to be part of the system itself. A passenger can use their existing contactless card to pay for a trip, even if they are not affiliated with the transport network.



Figure 6.14 - Contactless payment buses

Passengers can use public transport without additional hurdles. They do not have to install an app first or buy an agency specific smartcard for every city they live in or visit. Riders can simply use a payment card or contactless device such as a phone. They are already familiar with these tools, easing concerns about unused credit balances [10].

The Forum facilitates an exchange of ideas and a dialogue on solutions and processes. Through raising awareness, it aims to make implementing open loop payment systems easier and less costly for public transport companies. The Urban Mobility Open Payments Forum will launch a series of initiatives to inform and educate the wider market and improve understanding and know-how of the stakeholders of the public transport sector, in particular public transport operators and authorities. The Forum will be uniquely placed to understand the challenges of the markets, to educate its players, and together advance innovation.

The responsible for the Urban Mobility Open Payments Forum is Andrea Soehnchenat¹⁰ and the Forum is actively looking for new members to broaden the discussions on open loop payment in public transport.

Venezia Terminal Passeggeri S.p.A. (VTA) is a private-public company to manage the Venice passenger port. VTA has developed the application “” which is dedicated to passengers, crew members and operators aiming to facilitate the use of the services available at the Cruise Port of Venice. In particular, Venice My Port is the mobile Info point at Venice Cruise Port. It is possible to receive all the information



related to the port services connected to the cruise or to the possible booked parking. Venice My Port, provides all the information related to the services available in the port and also identification of sites -Geolocation. Not to mention, that the APP can also help passengers in finding their car after disembarkation in port facilities.



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A fully integrated multimodal transport app encompassing all of the city and public transport networks in Finland was launched in the summer of 2016. (<https://whimapp.com/helsinki/>), allows users to plan their route and purchase their tickets via bus, train, bike, taxi or through an agreement with a participating hire car company.

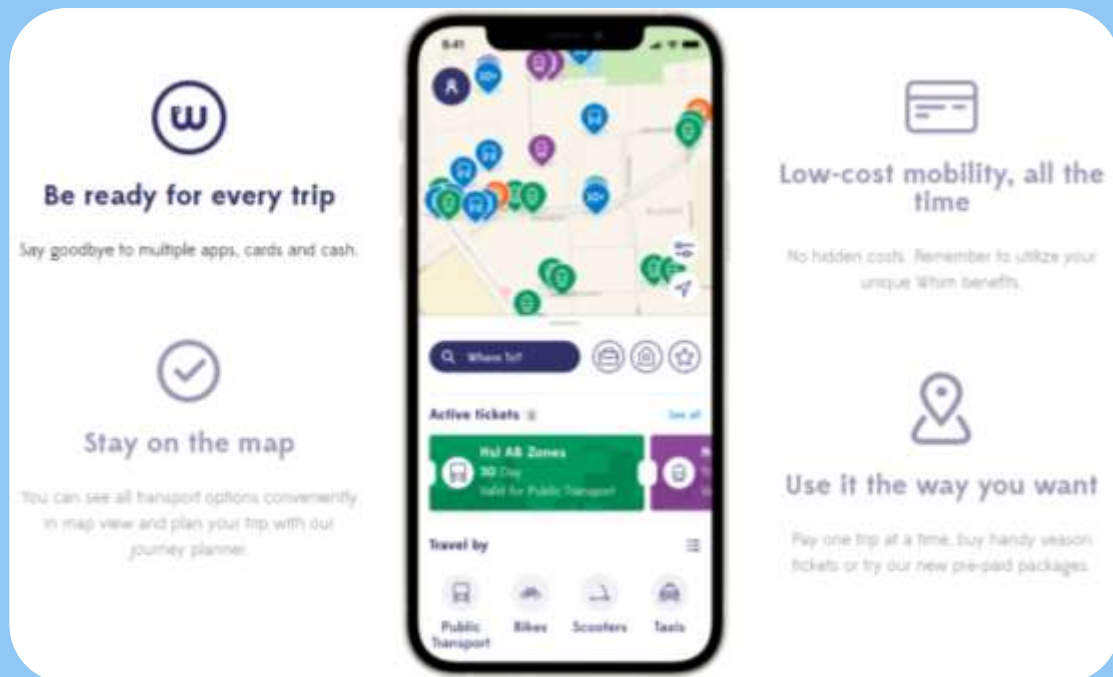


Figure 6.15 – The screen of the Whimapp application for smartphone

KPI Indicators

KPI_4.1.1 – N° of innovative payment systems implemented

KPI_4.1.2 – N° of tourist using the innovative payment systems

Measure 4.2 - Information access systems and mobility data homogenization

Another critical element is the discrepancy and inhomogeneity in the 'smart' systems present in the different territories and in the different urban realities. The tourist, going from one city to another, finds very variable ways of information access services. Even when he finds the same services type, he finds it on completely different websites or apps, with totally different user experience and different completeness level. This discrepancy can represent an obstacle for tourist, forced to access constantly different information sources, download new apps, register each time, reset the parameters for electronic payment each time, etc..

The needs for standardized open information system platform is very important to incentive sustainable Cross-Border mobility. This homogeneization is important to be expanded to all tourist data, both from the tourist cultural supply side (POI/events and so on) than from the mobility side.

The main transport operators must be involved in cross-border, national, regional and local areas (depending on the working planning scale) and memoranda of understanding must be stipulated for the sharing of traffic data, timesheet and frequentation data.

This point is strictly connected with the definition of common standards to allow the collection and structuring of data in a simple and homogeneous way. For example, if each Public Transport Company structures its data (trips, routes, timetables, stops and more) according to different systems, the construction of a platform that brings together the transport supply data for tourists becomes a very complex and expensive operation.

Common standards must be defined for the collection and use of mobility data, to allow a homogeneous (following the GTFS standards¹¹) data communication and an easy updating, for example, of the public transport supply levels. This also means providing the various Transport Operators with tools (GTFS editors) allowing the transmission of data in a simple and immediate way.

¹¹ The General Transit Feed Specification (GTFS), defines a common format for public transportation schedules and associated geographic information. GTFS "feeds" let public transit agencies publish their transit data and developers write applications that consume that data in an interoperable way.

At this level, the Tuscany Region was the first in Italy to launch a regional tender for the management of the Regional Observatory of Local Public Transport which provided each local operator (both road, rail and sea) with a software and management platform based on common standards. This platform was integrated by the transport operators in their daily service planning work allowing the simple communication of changes in the service program to the Region itself and of rates and services user's frequentation. The Database is included within the Muoversi in Toscana service and presents web services to be able to connect to it and organize multimodal information services for tourists such as the one shown in Figure 6.16 (developed from Pisa Municipality for its tourists).



Figure 6.16 – The Dashboard collecting transport multimodal data (source: Snap4Pisa project, Pisa Municipality)

KPI Indicators

KPI_4.2.1 – N° of tourist using the standard digital platform

KPI_4.2.2 – Platform users Sentiment Analysis – satisfaction level

Measure 4.3 – Transport infrastructure technological upgrading

Roads must become ‘smart roads’ at every level: new ICT application and sensors can improve Vehicle to Infrastructure (V2I) or Vehicle to Vehicle (V2V) communication increasing data sources from and for roads users and increase road safety. Develop AVM-Automatic Vehicle Monitoring system for bus network, traffic count data for cycle-paths, roads and any other ICT innovation allowing digital transformation services.

In particular, for sustainable cross-border mobility, all those innovative technological services which, connected to the road network, allow the use of sustainable transport modes, such as charging stations for electric vehicles, info-mobility stations / localized totems, acquire particular importance, especially at network nodes, innovative systems providing any type of comfort to the traveler.

Title: Eco Mobility Points

Project: Sutra

Area of Interest: Pescara metropolitan area



The "Eco Mobility Points", located in strategic areas of the city (Airport, Tourist port and Hospital), are hubs of exchange and connection of various transport systems dedicated to "sustainable" mobility (bike sharing, electric bikes, car sharing, car-pooling, shuttle buses powered by energy electric, train, etc.).

They are located near routes of public transport lines and/or cycle paths.

The "Eco Mobility Points" contain technological shelters equipped with bike racks and electric vehicle charging elements, with WI-FI devices that allow free access to the network, and multimedia devices that provide information about the city, on urban traffic, on waiting times for public transport and on cultural and recreational offers in the city of Pescara.

Electric bicycles are parked in the "Eco Mobility Points" for recharging purposes and it is possible to check from your computer device (computer, telephone, tablet, etc.) the availability of seats in the appropriate charging stalls.



Figure 6.17 – An Eco-Mobility Points under construction (source: Il Pescara local newspaper)

KPI Indicators

KPI_4.3.1 – N° of transport technological innovation implemented

KPI_4.3.2 – N° of innovative digital services linked to tourist mobility

Measures for Objective 5: DECREASE OF TOURISM IMPACT

Measure 5.1 - Connections between multimodal area nodes

Strengthen road connections between stations, ports and airports in the same tourist area in order to create a network between sustainable transport systems.

An interesting study regarding the impact of this measure type was made in the SIC project (Safety, Innovation and Competitiveness). After the preliminary analysis of the actual connection between inland Tuscany territory and the major touristic location of Corsica Island, it was designed a network of possible sustainable transport modes (see figure 6.18).



Figure 6.18 – The scenarios of sustainable mobility elaborated between Italy and Corsica

Fare scenarios were prepared for each hypothesized transport service and these were included in a questionnaire with which more than 1,000 tourists were interviewed directly on the ferry. The results provided useful information to calibrate the costs of transport services and understand both the attractive demand and the economic feasibility of the services themselves. In figure 6.19 an example of elasticity of the demand regarding the weekly on demand transport service fare variable (overall 4.8% chose the transport service on demand, 11.3% the car rental service and 6.5% the motorbike/car-sharing service).

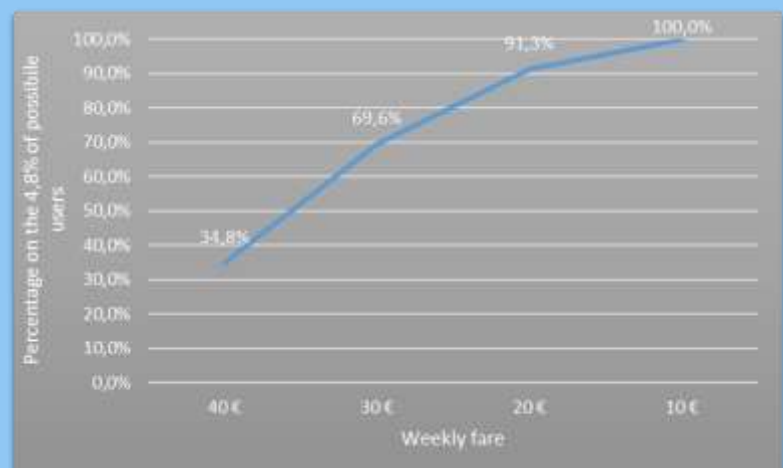


Figure 6.19 - Change in use of the on-call bus service as the weekly rate changes (percentage of those who have chosen the service) (source: Province of Leghorn)

An interesting feasibility study for a new sustainable maritime transport between Termoli (and its port) and Dubrovnik/Ploce was made in the MOSES project, belonging to the



Interreg Italy-Croatia Program from Molise Region [14]. In this study it was made a detailed analysis about the “as is state”, a demand analysis (see figure 6.20) and finally, a Cost Benefit Analysis comprehensive of a risk and sensitivity analysis. It was analyzed the actual passengers trend for all nearest ports both for Croatia than Italy area and the temporal dynamic of the traffic between this two Countries, the existing connections with their operators, tariffs, costs and duration.



Passenger occupancy rates (load factor)						
Period	May	June	July	Aug	Sept	Oct
2020	25,0%	37,0%	45,0%	52,0%	37,0%	25,0%
2021	28,5%	39,7%	48,8%	54,9%	39,7%	28,5%
2022	29,0%	40,3%	49,7%	55,9%	40,3%	29,0%
2023	29,4%	41,0%	50,5%	56,8%	41,0%	29,4%
2024	29,9%	41,7%	51,3%	57,7%	41,7%	29,9%
2025	30,4%	42,4%	52,2%	58,7%	42,4%	30,4%
2026	30,9%	43,1%	53,1%	59,7%	43,1%	30,9%
2027	31,5%	43,8%	53,9%	60,7%	43,8%	31,5%
2028	32,0%	44,6%	54,8%	61,7%	44,6%	32,0%
2029	32,5%	45,3%	55,8%	62,7%	45,3%	32,5%

Figure 6.20 – Passenger occupancy rates (load factor)

The demand forecast analysis was rightly made with three different Scenarios, a pessimistic, a realistic and an optimistic one, using as main driver indicator the GDP (and its forecast made from the International Monetary Fund).

KPI Indicators

KPI_5.1.1 – N° of public transport trips linking multimodal transport nodes

KPI_5.1.2 – N° tourists using multimodal transport modes in their main trips to destination POI

Measure 5.2 - Creation of intermodal itineraries

Definition of intermodal itineraries for accessing and connecting tourist districts, also including cross-border tourist districts (therefore with prior agreements between the various Administrations), based in particular on an "active mobility network" that's to say on bicycle/pedestrian routes. This action also includes the implementation of connections between the main urban areas and the most important POIs with the national and European network (Eurovelo) of cycle paths.

To facilitate this measure, complementary features must be introduced such as:

- Encourage train/bus/ferry transport operators to guarantee the bicycles transport on their vehicles;
- Designing maintenance and/or parking areas for bicycles at the main multimodal hubs (eg cyclo-stations);
- Propose discounted pricing initiatives on traditional transport means, for Public Transport and for tourist sites, dedicated to cycle tourists;
- Promotion of services for cyclists along the main cycle routes (cycle-workshops, refreshment points, etc ..).

KPI Indicators

KPI_5.2.1 – Length of pedestrian tourist paths developed

KPI_5.2.2 – Length of cycle tourist paths developed

KPI_5.2.3 – N° of tourist using pedestrian/cycle paths

Measures for Objective 6: INCREASE THE TRANSPORT ACCESSIBILITY

Measures for the Specific Objective 6.1 – Physical Accessibility

In this case, we do not consider the actions relating to national accessibility and, more generally, accessibility to the Access Doors (WORLD2GATE), but only the actions subsequent to arrival at the Doors themselves (GATE2LOCAL and LOCAL2LOCAL areas).

Measure 6.1.1 Sea side ports accessibility

This action contains all measures such as improving the maritime connections capacity both by increasing the supply and by coordinating them with sustainable land-side transport systems linked to the port. Furthermore, maritime reception services must be improved such as management of the mooring and/or anchoring as well as harbor reception services (bike rental systems, bike-sharing, ecar-sharing and more, intended for passengers on ships/boats).

An interesting and innovative good practice was developed by the company Ecogeko srl (www.ecogeko.com) which developed the B-Share system to manage the boats anchoring in ports and, above all, in protected maritime areas or in areas with greater sea-side attraction (think of the most



famous coves, fjords and areas that every day see the access of hundreds of private boats). Thanks to a (patented) remote management mechanism of the possibility of anchoring at the single buoy, B-Share allows the temporal management of the pricing of the anchoring service of boats (similar to the management of land parking), monitoring the demand, the types of boats (the type of boat must be indicated when registering), increasing the capacity of the buoy fields, decreasing the impact on the seabed due to the hundreds of

anchors thrown on the seabed. In this case, a sea-side service is combined which also increases environmental sustainability.



KPI Indicators

KPI_6.1.1.1 – N° of services sea-side for tourists

KPI_6.1.1.2 – N° of tourists using supplied services

KPI_6.1.1.3 – N° of sea-side services for disabled people

Measure 6.1.2 Land side ports accessibility

This action contains all measures regarding the adaptation of ports waterfronts and land services. This means developing both technological solutions and services that favor the use of ports by People with Reduced Mobility and innovative solutions that make it possible to increase the physical and digital accessibility of ports.

Improving land-side accessibility and connectivity has several dimensions and should include measures to improve maritime connections where these are less developed and are feasible, and also to increase the hinterland accessibility of key coastal connection-points (ports) so that land-sea interactions are improved. Interventions in this area need to be consistent with, and linked to, current and planned land-based networks and connections (including particularly links to core land-based TEN-T networks where appropriate).

In the Adrion project called Inter-Pass that stand for Intermodal Passengers Connectivity between Ports and Airports, in the summer season



2019, Pula Airport and Pula Port Authority have finalised their testing actions planned in WPT2 “Action Plans and testing to improve the intermodal passengers connectivity between ports and airports”. Finally, a direct connection between Port and Airport has been established allowing the passengers to reach the port and airport through a direct bus line. The testing action are:



- Construction of temporary bus station in Pula Port which is 4 minutes from railway station walking distance and 7 minutes walking

distance from central bus station;

- Establishment of the shuttle bus between Airport and Port by direct (every 30 minutes)
- Creating the timetable of the shuttle, which has been integrated within public transportation system of Pula City
- Promotion of the service through media (social, web, tourist agencies, tourist points)
- Passengers satisfaction evaluation.

KPI Indicators

KPI_6.1.2.1 – N° of tourists land-side port services

KPI_6.1.2.2 – N° of tourists using supplied land-side port services

KPI_6.1.2.3 – N° of land-side services for disabled people

Measure 6.1.3 Accessibility from the Access Gates to tourist sites

Road links and transport services (as sustainable as possible) between Access Gates (ports, railway stations and airports) with tourist sites must be improved. This means strengthening existing services and introducing new public transport lines (or of other types) to localities with significant tourist demand (including unconventional transport services, such as on-demand services, in order to limit their costs or sharing mobility services).

The BUSITALIA FAST service is provided by the Simet company and connects, among the many lines in constant growth, the Milan Malpensa airport to the main cities of Northern Italy: direct connections to and from the following cities are provided every day: Turin, Novara, Genoa, Savona, Sanremo, Ventimiglia, Verona, Padua. in this case they are connections of the GATE2LOCAL type. Furthermore, the service connects 7 German cities to the main Italian cities and, soon it will also connect Spanish and French cities, with a service in this case of the WORLD2GATE type.



Particular attention must be paid, in this case, in the tariffs planning, considering that a tourist travels with his family group (on average 3 people) and, therefore, the costs of the services must be counted at least 2-3 times (one of the three is often a minor).

A free-floating sharing assisted pedaling service of an Italian city it's started in summer 2021 with the aim of connecting tourists from the city center, located inland, to the sea, at a distance of 12 kilometers (easily covered with a pedal assistance bike and with the current presence of reserved cycle paths). The service started at a price of € 0.25 / minute which, for a distance of 12 kilometers at 24km / h, takes about 30 minutes each way, or one hour between the two ways, or the cost of € 15. Multiplying this value by three means asking € 45 to allow tourists to access the seafront by bike. Economically impossible solution.



In the same city, a technologically advanced and sustainable urban transport service, of the PEOPLE MOVER type, has been developed, which connects the airport with the city center at a cost of € 4 / person. Multiplying this amount by three, you get to € 12, an amount higher than a taxi ride which, moreover, takes you directly to your destination (e.g. at the hotel accommodation), without final stretches, often with luggage, on foot. This service saw little use until the fares were revised.

The same Extraordinary Tourism Mobility Plan of Italian Ministry of Transport encourages the extension of sharing mobility services to tourists, with advanced technological solutions for recognition related to digital identity. It is important to take the side of tourists and make an economic plan of the service and its real attractiveness.

The Freccialink Frecciarossa + bus integrated service to tourist resorts (Madonna di Campiglio, Cortina d'Ampezzo, Sorrento, Matera, Siena, Gallipoli ...) is of interest in the context of the GATE2LOCAL connection and it's



carried out by Trenitalia, the main Italian railway group. In practice, the service starts from the main Italian railway stations and connects with cities of art, mountain tourist sites but sees few connections with maritime sites.



Another very similar example is the Trenord service "Discover the white of Lombardy": the integrated project "train + shuttle bus + skipass" that takes skiers by train on the snows of Aprica and Valmalenco and Montecampione, in Valcamonica. In three months since the launch of the initiative, now in its second edition, there was an 87% increase in customers compared to the entire winter season of 2017. 20% of customers have already used the offers more than once; sales of tickets valid for two days increased compared to a year ago, increasingly chosen by the owners of second homes in Valtellina and Valcamonica to reach their homes for a weekend in the snow, avoiding traffic and "return queues".



KPI Indicators

KPI_6.1.3.1 – N° of transport services implemented linking Access Gates to local sites

KPI_6.1.3.2 – N° of tourists using transport services linking Access Gates to local sites

KPI_6.1.3.3 – N° of linking services available for disabled people or for tourist with big baggages

Measure 6.1.4 Tourist accessibility and SUMP

As the impact of tourist mobility becomes more and more an important element, both in relation to positive and negative impacts on urban areas, it becomes increasingly important to introduce action lines dedicated to tourist mobility within the SUMP-Sustainable Urban Mobility Plans.

Moreover, inside this pandemic situation, the issue of health safety will be a decisive element for most tourists in the choice of travel, opening up new opportunities for the creation of "safe" travel thanks to new technologies, and a propensity towards slow tourist enjoyment, attentive to environment and the rediscovery of small villages and new experiences. Urban planning need to follow this general line.

There is talk of introducing sustainable planning and management actions for tourism mobility, such as tourism MOBILITY MANAGEMENT actions to plan the methods of access to tourist sites also through agreements between the main local and railway transport companies

that offer transport services in the local area, the promotion of bike-sharing services in cities and tourist sites with subscription formulas dedicated to tourists.

In addition, insert specific actions for tourists within the BiciPlan, with an improvement of the signs dedicated to cycle and pedestrian routes, the safety of existing cycle and pedestrian paths and more.

In practice, SUMP must add to the classic two demand segments, consisting of the systematic and occasional demand of local citizens, the tourist segment and foresee action in this regard.

The Pisa City SUMP provides for the tourism development through the construction of a tourist itineraries system 'legible on the territory' or marked by color coloring both on the roads and at the various activities that are located on them; this system will be able to relaunch tourism, distribute it with respect to the excessive polarity of the Pisa Tower and Piazza dei Miracoli, allow the development of multi-day tourism with all the benefits deriving from an economic level. In connection with this, the implementation of a platform providing various information types (both links to simple websites and applications in Virtual/Augmented Reality) in a multimedia way is envisaged. The platform give to tourist an App monitoring their movements and allowing them to collect 'points' (inside a rewarding system) upon completion of an itinerary, by monitoring via GPS tracking. Point collected can be spent as discounts at local shops. The credits of the different routes and POI change dynamically, based on tourist demand in order to always seek a balance of the tourist footprint.



In the Inter-Connect Adrion project, the Emilia-Romagna Region developed soft-measures (time table changes with increase in train



frequency and other actions) to improve a

passengers' rail service between Ravenna,

Rimini and Bologna, reducing the time to reach the final

destination. The main aim of the measure was to revitalize the

railway line along the Emilia-Romagna coast and the connection

between the key regional transport hub (Bologna with the main regional high-speed train station and the International Airport) with the coastal area in order to increase the attractiveness of the service for tourists and residents. Nevertheless the new service had generated also some problems and drawbacks. In particular:



- The new train time table was developed without a full coordination with some schools and factories exit times. For these reasons there were users disappointed by this trains' time table changes as they need more time to reach their final destination;
- There were some complaints among the commuters of the train stations where the number of train stops per day were reduced. These commuters – a few dozens – asked to revoke these changes;
- The new train table didn't consider some important pre-existing coincidences among different trains and among train and buses of the local public transport;
- The increase of train frequency is not sufficient to resolve the problems of overcrowded trains during the morning and evening peak times. More structural and technical improvements are required

Another measures can be the research for a common transnational SUMP model, especially for action regarding transnational mobility so to have similar measures as the basis for a coordination and integration of sustainable mobility.

At this regard, the SMILE Project, in the Work Package T2, elaborate a common SUMP model for interurban areas in the Adriatic-Ionian macro-region,



focusing on the first and last mile of mobility including coastal, inland and bordering cities of different sizes [2]. The objectives of this review



of measures is to guide local/regional authorities to strengthen knowledge and operational capacity regarding sustainable mobility and to test good soft practices and solutions not requiring large infrastructure investments. Starting from six Adriatic Countries it was analyzed the level of implementation and the actual Policies and Regulations/Directives on Sustainable Mobility (link to the project web-site: <https://smile.adrioninterreg.eu/>).

The overall goal of the project MobiTour was to promote the joint design of sustainable multimodal urban mobility models in cross-border tourist areas, in order to encourage the use of alternative means of transport and



render the area more attractive to tourists, while at the same time decreasing pollution, thanks to a better connection between the coastal area and the hinterland.



The outputs are as follows:

- 5 “park&drive” pilot systems involving the acquisition of electric vehicles and the installation of charging stations at smart car parks;
- 3 Sustainable Urban Mobility Plans - SUMPs (Lignano, Caorle, and Piran) and 2 Sustainable Mobility Plans (LP and Lipica) for the benefit of tourists, residents of urban and rural areas, local administrations, and SMEs.

The project became a cross-border effort in the sense that it created a network of the areas with the greatest tourist presence, thus increasing the effectiveness of the environmental measures adopted. The innovation for the area consisted of the development of sustainable mobility plans that helped to reduce pollution and promote green and active tourism, which in turn improved the quality of life and tourism appeal of the entire area.

KPI Indicators

KPI_6.1.4.1 – N° of measures regarding tourist mobility integrated in the SUMP

KPI_6.1.4.2 – N° of tourists arriving in the area with sustainable mobility

KPI_6.1.4.3 – N° of tourists using local sustainable mobility supply (bike-sharing, e-bike rent, bus, etc..)

Measures for the Specific Objective 6.2 – Digital Accessibility

Measure 6.2.1 Implementation of an integrated Travel Planner

It is important to provide an integrated multimodal Travel Planner, a system that allows tourist to know the mobility supply between the departure point and the trip arrival/destination one. This travel planner can be developed, according to the scheme presented several times, at different scales:

- Travel Planner of the WORLD2GATE type, which contain travel with conventional and often scheduled transport systems (airplane, train, long-distance bus¹²) acting as a sustainable link between the tourist's starting point and the tourist area gate door;
- Travel Planner of the GATE2LOCAL type, ie containing the regional and provincial conventional transport services or even more local and unconventional services such as car-sharing, direct hub-city center shuttles and more;
- Travel Planner of the LOCAL2LOCAL type, ie containing all local transport services, from sharing-mobility to public transport services on demand or urban public transport.
- All-inclusive Travel Planners (WORLD2LOCAL), which constitute real MAAS-Mobility As A Service systems, allowing the planning of the whole tourist travel chain.

To do this, it is not necessary to collect the all transport services Databases from scratch every time, but it is possible to connect to services that already do this screening and provide updated data that can be easily integrated into an external platform.

An example of the first type of Travel Planner service is provided by thetrainline.com. Their site is a real travel planner that allows you to get information on routes by public transport at European level, both by bus and by train. Furthermore, this service can be integrated into external platforms, going towards the construction of a service of the fourth type, through the APIs provided by the system (see figure 6.21 below). The APIs allow you to query the database already set up and use the results of the Travel Planner at will, integrating them with further information within external systems.



¹² Think of the services of FlexyMob, Fliybus, Marino Autolinee, Marozzi, Sais Autolinee, Simet, RegioJet and others

Global API

Rail content that spans carriers, countries and continents. All in one place.



Our API brings you content from around the world. So you can offer your customers rail and coach, wherever their travels may take them.

Figure 6.21– The page of the service thetrainline.com regarding the possible API connection

Another interesting measure was carried out within the MOBIMART Project - MOBilità Intelligente MARE Terra. From Sardinia to the Côte d'Azur, passing through Corsica, Tuscany and Liguria: a single infomobility tool to allow citizens, tourists and commuters to travel between the 5 regions, plan their journeys and be informed in real time.



This is the goal of MOBIMART - MARE Terra Intelligent MOBility, proposed by a partnership of 11 public bodies. The focus of the project is the integration of the transport services that users use during the journey, considered as a single journey from departure to arrival, regardless of the vehicle, bus, train, plane - and regardless of the administrative and morphological barriers of the territories crossed. To date, the Travel Planner developed is online (accessible from the link: <https://mobimart.regione.liguria.it/>) and figure 6.22 illustrates a travel request from a tourist from Genoa, passing through Pisa and Follonica and then going to Bastia, activating all possible sustainable transport modes (metro, ferry, tramway, bus, railway, funicular and airplane).

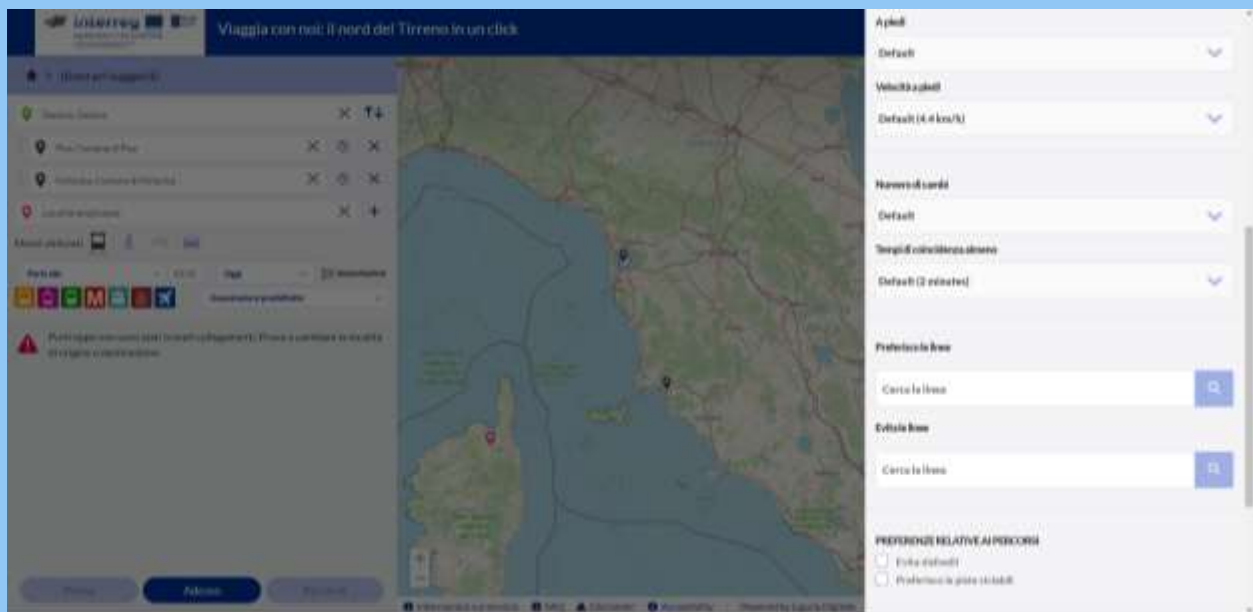


Figure 6.22 – The multimodal interregional travel planner

KPI Indicators

KPI_6.2.1.1 – N° of existing travel planner containing services arriving in the area (for Local Administration especially of GATE2LOCAL and LOCAL2LOCAL type)

KPI_6.2.1.2 – N° of tourists using previous travel planner services

Measure 6.2.2 Development of the internet network coverage

The coverage of optical fiber and public wi-fi in cross-border cities must be expanded to increase the digital services that are supported on them. Many services are based on geolocation and on Application for smartphone that need a connection to work. Guaranteeing this means encouraging digital tourism in general.

One of the current problems is the fragmentation of wi-fi connections: every city has its own and every tourist should, theoretically, subscribe to the single service, with a considerable burden on operations in the case of itinerant trips, which are often more and more common.



Launched by the Ministry of Economic Development and the Ministry for Cultural Heritage and Activities and Tourism, the wifi.italia.it initiative, a shared, "federated" wi-fi network that allows you to surf the Italian public network for free with a single tool (an app) and unique login credentials, avoiding having to re-register for each city visited to the local Citizen wi-fi network. To date (September 2021) there are 3,808 municipalities in this network (see Figure 6.23) with over 8,374 hotspots and 449,845 users of the related App. This operation would be interesting if done at the level of the entire transboundary Adriatic basin, a sort of 'Adriatic WiFi'.

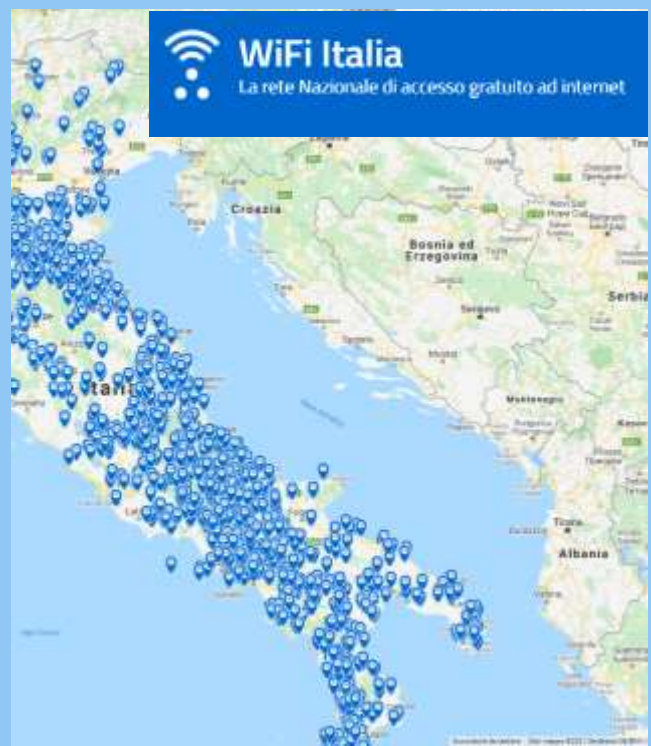


Figure 6.23 – Maps of the Italian WiFi Italia hotspot network

KPI Indicators

KPI_6.2.2.1 – Percentage of the area covered by a public wi-fi network

KPI_6.2.2.2 – N° of tourists using wi-fi public network

Measure 6.2.3 Digital platforms at the Access Gates

Digital platforms must be created at the Access Gates, integrated between the different Gates themselves (in a network vision), providing information on mobility services and the accessibility of tourist destinations. These platforms can be accessed through devices (information totems) installed at the doors themselves (as well as through smartphones with adequate advertising of the related APPs at the same Access Gates).

Moreover, technological solutions must be developed enabling the use of the Access Gates by People with Reduced Mobility.

The **PORTABLE** project (<https://portable.wp.webmapp.it/>) main objective is to increase sustainable mobility and incentive distributed and sustainable tourism. This aim can be reached by linking a showcase of the constantly evolving tourism supply with the availability of sustainable mobility in the area in order to allow the tourist trip ex-ante planning in the most sustainable possible way. The incentive to use the platform also stems from a rewarding system (linked to a more deep gamification approach) for those who move sustainably and visit particular POI or tourist itineraries connected with local activities and artisan products.



In the project ICARUS, in one of its eight pilots, the Abruzzo Regional Agency for Production Activities developed aimed at better connecting the countryside and the coast of the Abruzzo region. ARAP developed a new ICT solutions providing info mobility and integrated ticketing, real time check-in and tracking for passengers. The app is a tool for informing visitors about routes, points of interest and available means of transport to reduce the number of cars and to stimulate tourists to visit the sites using environmentally friendly transport. The application developed by ARAP allows tourists and citizens to organise their trip and buy tickets online. Easier access to information will increase the use of more sustainable transport means and incentive citizens to leave their car at home. In figure 6.24 some screenshot of the App developed, called Happy Travel are illustrated.



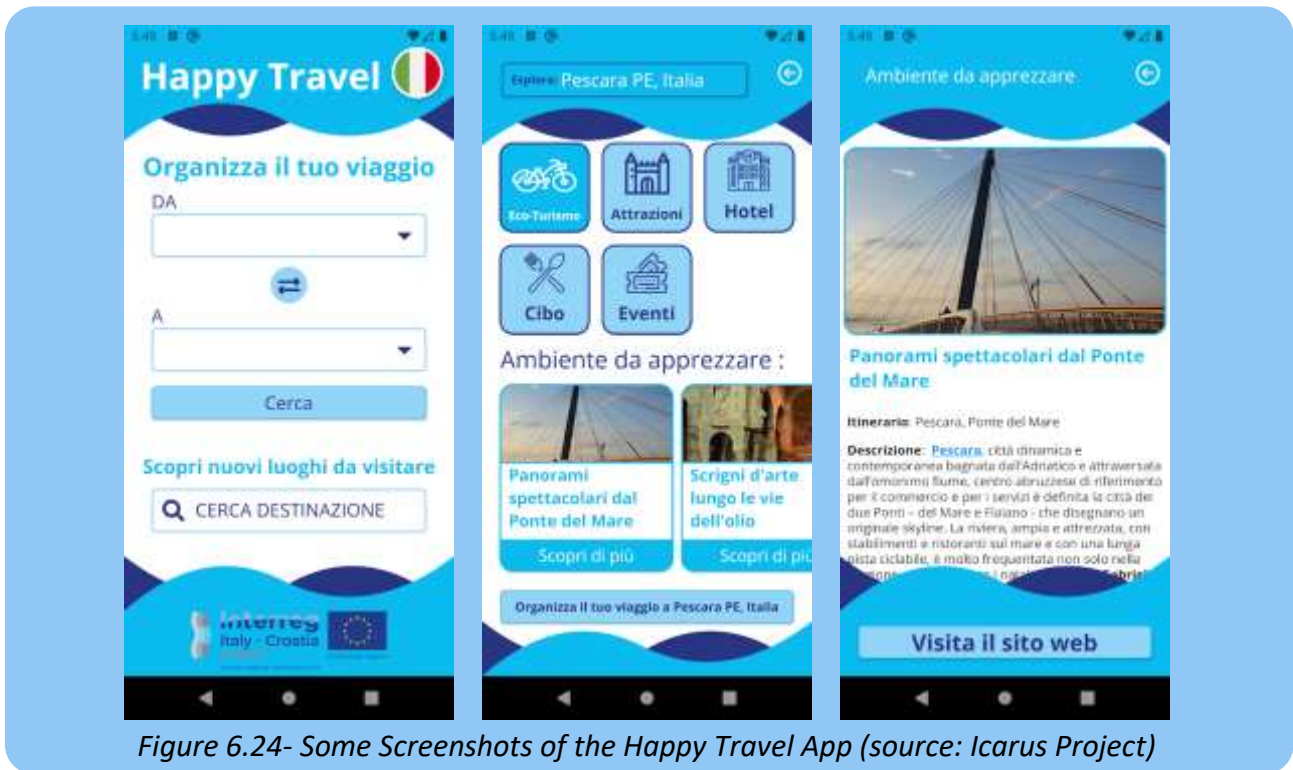


Figure 6.24- Some Screenshots of the Happy Travel App (source: Icarus Project)

KPI Indicators

KPI_6.2.3.1 – Presence of digital system at the Access Gates

KPI_6.2.3.2 – N° of tourists using the Digital system

Measures for Objective 7: DEVELOP CROSS-BORDER COOPERATION AND COMMUNICATION FRAMEWORK

It is important to activate collaborations between stakeholders (transport managers, tourist associations and more) and Public Administrations of cross-border Countries in order to coordinate policies and actions that encourage sustainable mobility.

Interreg projects and, in general, European projects, become the starting points for activating these networking operations between entities and must start collaborations that go beyond the simple project temporal period, building cooperation and communication tables that are as permanent as possible. These tables become both an opportunity for collaboration and moments of good practices communication and sharing in order to encourage their transferability and their replication between neighboring territories.

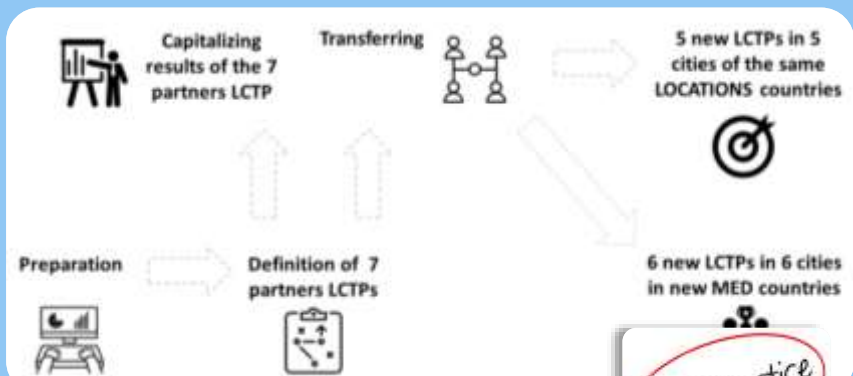
In the project LOCATIONS, belonging to the Interreg Mediterranean programme, Partners and associated partners in 5 countries (Italy, Spain, Portugal, Croatia and Albania) and representing 7 port cities (Trieste, Ravenna, Lisbon, Malaga, Durres, Rijeka and Zadar) shared and valorized



each territory's expertise and planning tradition and jointly devised a standardized, transnational, easily replicable operational model.

LOCATIONS' effective, easily replicable operational model to develop Low Carbon Transport Plans in MED cruise destination cities, aimed to produce short-term results (7 LCTPs-Low Carbon Transport Plans), transfer the outputs in the mid-term (5 new LCTPs), boost capacity building for 6 new technical organizations, promote the methodology in new MED countries and territories, cooperate with regional authorities managing ESI funds for the effective implementation of actions contained in the plans (see figure 6.25).

Figure 6.25- The LOCATIONS Project Methodology (source: project website)



In the Adrion Program it



was developed the Adrion Thematic Cluster on Urban and Interurban Low Carbon Intermodal Mobility for Passengers. This Cluster starts its activities the 15th of May 2020 and it join the stakeholder and partner coming from four previous projects, all belonging to Adrion Program:

- Inter-Connect project;
- Smile project;
- Inter-Pass project;
- EnerMOB project.

In totally it grouped 24 participating partners with the common goal of capitalizing, disseminating, promoting and upgrading the results of these projects¹³.

Inside the Inter-Connect Project, in June 2020 the Regional Development Agency of the Ljubljana Urban Region (RRA LUR) and 10 relevant Slovenian



stakeholders including the Ministry of Infrastructure signed the Memorandum of Understanding where they agree on improving public transport supply in the region. Stakeholders agreed to support the development of seamless and efficient PT operation, complementary services and intermodality in the LUR corridor.



The main aim of next project steps will be to address various sectoral policies and interdependencies to further improve intermodal operations across countries¹⁴.

The Interact Programme coordinates the Interreg Network on sustainable mobility. The network functions as a platform for exchanging knowledge, expertise and



¹³ The Thematic Cluster is Maria Morfoulaki (CERTH), Greece (email: marmor@certh.gr)

¹⁴ In case you are interested to exchange or join, please contact Ulf Wikström at the Interact Programme (ulf.wikstrom@interact-eu.net).

experiences among Interreg programmes and projects. On the other hand, the network is also open for others interested in Interreg cooperation related to sustainable transport.

Cross-border cooperation is not limited to Interreg programmes. It also builds on policies (e.g. cross-border mobility), on legal instruments (e.g. bilateral agreements, treaties, European Groupings of Territorial Cooperation) and on funding (including but not limited to Interreg). Actions and orientations set out in this section may be supported by using programme budgets as proposed in the draft European Territorial Cooperation (Interreg) Regulation for improving governance issues. Moreover cooperation can solve border obstacles coming from legal, administrative and institutional differences that are the major source of bottlenecks.

An interesting Transfer Programme, developed in a cooperative framework was implemented in the Icarus Interreg Italy-Croatia Project.



The Enlarged Transfer Programme (ETP) is a training programme, where non-partner



institutions can get insights and specific training into mobility issues. ICARUS partners shared their experience and knowledge to support the ETP participants in developing light action plans, focused on sustainable mobility solutions to improve cross-border connections between Italy and Croatia. Figure 6.26 shows some links, made in QRcode, at project webinars so to strengthen the knowledge transferability between all interested stakeholders.



Figure 6.26- The links to webinar content related to sustainable mobility (source: [18])

More information and case studies about Cross-border cooperation can be found in the webinar “Cross-border cooperation in mobility” [6] where partners of the ARPAF CrossBorder project (Tyrol, CIPRA, SAB) presented the policy recommendations on greening cross-border commuting in the Alpine Region and EU, EUSALP AG4 partner CEI presented the outcomes of the Interreg Central Europe Project Connect2CE. Moreover, DG Regio presented cross-border cooperation mechanisms relevant for transport and showed how they can support regions.

KPI Indicators

KPI_7.1 – N° of MoU or Convention signed with Cross-Border areas/Countries

KPI_7.2 – Membership of a Cross-Border coordination table



KPI_7.3 – Presence of international level communication channels of its own incentive actions for sustainable cross-border mobility

Finally, other information on good practices and success stories can be found in the Interreg project database at www.keep.eu.

7. Monitoring and Evaluation Plan

In relation to monitoring the achievement of the Objectives and consequent Actions, each Administration should integrate into the cross-border transport system and evaluate the actions taken in relation to it. This evaluation presupposes, as in all SUMP measures, the identification of a Monitoring Plan followed by the Evaluation Plan, represented, in summary, by the action performance indicators, which evaluate the contribution, also in relation to the objectives connected to the same action. Since these indicators have already been previously presented, for each action, the burden of identifying Target values for the indicators themselves is left to the individual Administration, values which, together with the timing of their achievement, constitute the actions impacts Evaluation Plan.

Also in this phase there are Good Practices coming from the TSG-Tourism Sustainable Group (which was set up by the European Commission in 2004 and comprises individuals from international bodies, member state governments, regional and local authorities) that elaborate a report [17] indicating the measures for a sustainable tourism, the mechanism for their implementation giving responsibility to each administration level for each actions. The more interesting features is the detailing of indicators for sustainable tourism in destinations, indicating for each of them the related measures and objective.



Each Municipality, Province or Region must take into account, when applying an action, the costs and elaborations deriving from the monitoring of the same. The sources can be free or not, direct (without the need for any analysis and predetermined data collection structure) or indirect (preliminary agreements with data providers are often required or data processing that requires human resources and time), available annually or less or not available because deriving from a detection system actually not present.

All these features must first be foreseen, quantifying the costs for a correct monitoring of the incentive actions for sustainable cross-border mobility.

The Monitoring Plan is now indicated for both the achievement of the Objectives (see Table 7.1) and the effects of the Actions indicated (see Table 7.2), identifying, for each indicator, the method of its monitoring, the update times and the possible data sources to calculate its value.

ID	OBJECTIVE	SPECIFIC OBJECTIVE	N° INDIC.	INDICATOR	DATA SOURCE	SOURCE TYPE &/or COSTS	MONIT. PERIOD
1	Reduction of the demand seasonality	Not present	TI_1.1	Relationship between non-summer tourist presences and summer tourist presences	National Statistical Institute, Regional, Provincial, Municipal Database. Data collected from individual local activities	Mixed Direct and Indirect (requires prior agreement) No cost	Yearly
			TI_1.2	Percentage of restaurants and hotels open at least one month in addition to the summer period	Data collected from individual local activities	Indirect (requires prior agreement) No cost	Yearly
			TI_1.3	Relationship between non-summer and summer transport supply	Transport scheduled services at all three scales analyzed (W2G, G2L, L2L). Data collected individually from local non conventional transport mode	Indirect (requires prior agreement) No cost	Yearly
2	Integrate tourism with the local population	Not present	TI_2.1	Ratio between the number of residents living in the city and the number of tourists visiting it	National Statistical Institute, Data collected individually from local hotel	Indirect (requires prior agreement with local hotel) No cost	Seasonal
			TI_2.2	Ratio between occasional trips and systematic/commuter trips	National Statistical Institute, Monitoring via ITS system like Bluetooth or others. Sales data divided for types (single tickets, subscriptions, others) from public transport operator	Indirect (to be verified the presence of a monitoring system for occasional trips) No cost	Seasonal
3	Develop infrastructure	Promote the recovery of disused transport infrastructures for tourism purposes	TI_3.1.1	N° of infrastructure recovered for tourism purposes	Public Administration info	Direct No cost	Every 5/10 years
		Enhance the tourist and	TI_3.2.1	N° of initiative to enhance tourist infrastructures	Public Administration info	Direct	Seasonal

		cultural potential of transport systems				No cost	
4	Transport digitization	Not present	TI_4.1	N° of measures adopted to digitalize transport	Public Administration and Public Transport company info	Indirect (requires prior agreement) No cost	Yearly
			TI_4.2	Monitored users of digitalized systems	Digitalized systems owners	Indirect (requires prior agreement) No cost	Seasonal
5	Decrease of tourism impact	Transport decarbonization and increase of tourist multimodality	TI_5.1.1	Congestion level of urban/extra-urban roads (measured by the average speed)	Data coming from Big Data service (for ex. TomTomMove data) or other FCD data	Indirect Cost (5-20K)	Seasonal
			TI_5.1.2	Monitored sustainable mobility tourist uses	Frequentionation data from transport company	Indirect (requires prior agreement) No cost	Seasonal
			TI_5.1.3	Air quality indicators	Measure of air pollution from local environmental agency	Direct No cost	Seasonal
			TI_5.1.4	Noise level indicators	Measure of noise pollution from local environmental agency	Direct No cost	Seasonal
		Tourist loads differentiation	TI_5.2.1	Level of transport supply linking secondary POI	Transport scheduled services	Indirect No cost	Seasonal
			TI_5.2.2	Distribution of Tourists between the local POI	Data coming from local POI management company	Indirect (requires prior agreement) No cost	Seasonal
6	Increase transport accessibility	Physical accessibility - Reduce access times to strategic tourist attraction areas	TI_6.1.1.1	Accessibility level to main cities/POI from access gates (time for each available sustainable transport mode)	FCD data or a transport model	Indirect Cost for FCD data (5-20K) or to build a transport model (20-80k)	Seasonal
			TI_6.1.1.2	Ratio between access time in private cars and each other sustainable transport	FCD data or a transport model	Indirect Cost for FCD	Seasonal

				mode		data (5-20K) or to build a transport model (20-80k)	
		Physical accessibility - Reduce access times to emerging or new tourist POI	TI_6.1.2.1	Accessibility level to new POI from Camp Base (time for each sustainable transport mode)	FCD data or a transport model	Indirect Cost for FCD data (5-20K) or to build a transport model (20-80k)	Seasonal
			TI_6.1.2.2	Ratio between access time to new POI in private cars and each other sustainable transport mode	FCD data or a transport model	Indirect Cost for FCD data (5-20K) or to build a transport model (20-80k)	Seasonal
		Promote Digital Accessibility	TI_6.2.1	N° of access to local digital contents	Data coming from local digital contents management company	Indirect (requires prior agreement) No cost	Seasonal
			TI_6.2.2	N° of services with their information accessible from the web	Data coming from local digital contents management company	Indirect (requires prior agreement) No cost	Yearly
7	Develop Cross-Border Cooperation and Communication framework	Not present	TI_7.1	N° of Memorandum of Understanding or other agreement types with Cross-Border Stakeholders/Partners (both Administrations than Private Companies)	Public Administration and/or stakeholders data	Direct No cost	Yearly
			TI_7.2	N° of Cross-Border sustainable mobility Good Practices measures exchanged between stakeholders	Public Administration and/or stakeholders data	Direct No cost	Yearly

Table 7.1 - The characteristics of the data sources necessary to monitor the Target Indicators relating to the sustainable cross-border mobility policy objectives

OBJECTIVE	SPECIF. OBJECTIVE	MEASURE N° AND DESCRIPTION	KPI INDICATOR	DATA SOURCE	SOURCE TYPE &/or COSTS	MONIT. PERIOD		
1 - REDUCTION OF THE DEMAND SEASONALITY	NOT PRESENT	1.1 - Timely homogenize the distribution of tourist supply	1.1.1 – N° of events organized outside of summer period	Public Administration & Local Stakeholders	Indirect (requires prior agreement) No cost	Yearly		
			1.1.2 – Tourist frequentation outside of summer period	Data coming from local POI management company	Indirect (requires prior agreement) No cost	Yearly		
			1.1.3 – Public Transport level of service (trips n°) outside of summer period	Sales data divided for types (single tickets, subscriptions, others) from public transport operator	Indirect (requires prior agreement) No cost	Yearly		
			1.1.4 – Percentage of public spaces closed outside of summer period	Public Administration	Direct No cost	Yearly		
		1.2 - Promote the tourist image of the Adriatic area	1.2.1 – N° of use of the 'Adriatic Brand' on the web	Web Research	Indirect Cost in (2-5k)	Yearly		
			1.2.2 – N° of events/POI/activities requesting the use of the 'Adriatic Brand'	Data coming from local POI management company	Indirect (requires prior agreement) No cost	Yearly		
		2 - INTEGRATE TOURISM WITH THE LOCAL POPULATION	NOT PRESENT	2.1 - Encourage policies for the return of original citizens to urban centers	2.1.1 – Demographic trend of the urban area	Data from National Statistical Institute and multitemporal Corine Land Use Cover Database	Indirect No cost	Yearly
					2.1.2 – N° of events/activities linked to local culture/traditions	Public Administration	Direct No cost	Seasonal
2.2 - Integrate 'sustainable' tourism with the local economy	2.2.1 – Percentage of local shops revenues deriving from international tourism			Data coming from local shops survey	Indirect (requires prior agreement) Survey: 5k	Seasonal		
	2.2.2 – N° of activities regarding			Public Administration	Direct	Yearly		

			local traditions present in the territory		No cost	
3: DEVELOP INFRASTRUCTURE	3.1: Overcoming disparities in infrastructural development	3.1.1 - Homogenize sustainable infrastructures in a cross-border context	3.1.1.1 – N° of tourists arriving by bicycle/bus/sea/rail using cross-border routes	Data coming from public transport management company	Indirect (requires prior agreement)	Seasonal
			3.1.2.1 – N° of innovative tourist services developed	Public Administration	Direct No cost	Yearly
		3.1.2 - Infrastructure technological upgrade	3.1.2.2 – N° tourist subscribed to each innovative service	Data coming from innovative services management companies	Indirect (requires prior agreement)	Seasonal
	3.2: Recovering disused infrastructures		3.2.1 - Recovery of disused road lines	3.2.1.1 – Length of recovered infrastructure	Public Administration	Direct No cost
		3.2.1.2 – Tourist using recovered infrastructure		Public Administration	Direct ITS sensors (10-40k)	Yearly
	4: TRANSPORT DIGITALIZATION	NOT PRESENT	4.1 - Integration and modernization of payment systems	4.1.1 – N° of innovative payment systems implemented	Data coming from public transport management companies	Indirect (requires prior agreement) No cost
4.1.2 – N° of tourist using the innovative payment systems				Data coming from public transport management companies	Indirect (requires prior agreement) No cost	Seasonal
4.2 - Information access systems and mobility data homogenization			4.2.1 – N° of tourist using the standard digital platform	Public Administration	Direct No cost	Seasonal
			4.2.2 – Platform users Sentiment Analysis – satisfaction level	Public Administration	Indirect Analysis: 5k	Seasonal
4.3 – Transport infrastructure technological upgrading			4.3.1 – N° of transport technological innovation implemented	Public Administration	Direct No cost	Yearly

			4.3.2 – N° of innovative digital services linked to tourist mobility	Public Administration, tourist association and stakeholders	Indirect (requires prior agreement) No cost	Yearly
5: DECREASE OF TOURISM IMPACT	NOT PRESENT	5.1 - Connections between multimodal area nodes	5.1.1 – N° of public transport trips linking multimodal transport nodes	Public Administration and transport management companies	Indirect (requires prior agreement) Analysis: 5k	Seasonal (differentiating weekday from holiday)
			5.1.2 – N° tourists using multimodal transport modes in their main trips to destination POI	Data coming from public transport management companies or coming from ITS sensors	Indirect (requires prior agreement) No cost if there is no need to install ITS systems	Seasonal
		5.2 - Creation of intermodal itineraries	5.2.1 – Length of pedestrian tourist paths developed	Public Administration	Direct No cost	Yearly
			5.2.2 – Length of cycle tourist paths developed	Public Administration	Direct No cost	Yearly
			5.2.3 – N° of tourist using pedestrian/cycle paths	Data coming from ITS sensors	Direct ITS sensors (10-40k)	Seasonal
		6: INCREASE THE TRANSPORT ACCESSIBILITY	6.1 – Physical Accessibility	6.1.1 - Sea side ports accessibility	6.1.1.1 – N° of services sea-side for tourists	Public Administration
6.1.1.2 – N° of tourists using supplied services	Data coming from Port Community System and sea operators				Indirect (requires prior agreement) No cost	Seasonal
6.1.1.3 – N° of sea-side services for disabled people	Public Administration and sea operators				Direct No cost	Seasonal

	6.1.2 - Land side ports accessibility	6.1.2.1 – N° of land-side tourists port services	Public Administration and sea operators	Direct No cost	Seasonal
		6.1.2.2 – N° of tourists using supplied land-side port services	Public Administration and sea operators	Indirect No cost	Seasonal
		6.1.2.3 – N° of land-side services for disabled people	Public Administration and sea operators	Indirect No cost	Seasonal
	6.1.3 - Accessibility from the Access Gates to tourist sites	6.1.3.1 – N° of transport services implemented linking Access Gates to local sites	Data coming from public transport management companies	Indirect (requires prior agreement) No cost	Seasonal
		6.1.3.2 – N° of tourists using transport services linking Access Gates to local sites	Data coming from public transport management companies or ITS sensors	Indirect (requires prior agreement) No cost if there is no need to install ITS systems	Seasonal
		6.1.3.3 – N° of linking services available for disabled people or for tourist with big baggages	Data coming from public transport management companies	Indirect (requires prior agreement) No cost	Seasonal
	6.1.4 - Tourist accessibility and SUMP	6.1.4.1 – N° of measures regarding tourist mobility integrated in the SUMP	Public Administration	Direct No cost	10 Year
		6.1.4.2 – N° of tourists arriving in the area with sustainable mobility	Data coming from public transport management companies	Indirect (requires prior agreement) No cost	Seasonal
		6.1.4.3 – N° of tourists using local sustainable mobility supply (bike-sharing, e-bike rent, bus, etc..)	Data coming from sustainable mobility management companies	Indirect (requires prior agreement) No cost	Seasonal

7: DEVELOP CROSS-BORDER COOPERATION AND COMMUNIC. FRAMEWORK	6.2 – Digital Accessibility	6.2.1 - Implementation of an integrated Travel Planner	6.2.1.1 – N° of existing travel planner containing services arriving in the area (for Local Administration especially of GATE2LOCAL and LOCAL2LOCAL type)	Data coming from public transport management companies or tourist operators	Indirect (requires prior agreement) No cost	Yearly	
			6.2.1.2 – N° of tourists using previous travel planner services	Data coming from public transport management companies or tourist operators	Indirect (requires prior agreement) No cost	Seasonal	
		6.2.2 - Development of the internet network coverage	6.2.2.1 – Percentage of the area covered by a public wi-fi network	Public Administration	Direct No cost	Yearly	
			6.2.2.2 – N° of tourists using wi-fi public network	Public Administration	Direct No cost	Seasonal	
		6.2.3 - Digital platforms at the Access Gates	6.2.3.1 – Presence of digital system at the Access Gates	Access Gates Management Companies	Indirect (requires prior agreement) No cost	Yearly	
			6.2.3.2 – N° of tourists using the Digital system	Access Gates Management Companies	Indirect (requires prior agreement) No cost	Seasonal	
		NOT PRESENT	Develop Cross-Border Cooperation and Communication framework	7.1 – N° of MoU or Convention signed with Cross-Border areas/Countries	Public Administration	Direct No cost	Yearly
				7.2 – Membership of a Cross-Border coordination table	Public Administration	Direct No cost	Yearly
				7.3 – Presence of international level communication channels of its own incentive actions for sustainable cross-border mobility	Public Administration	Direct No cost	Yearly

Table 7.2 - The characteristics of the data sources necessary to monitor the Key Performance Indicators-KPI relating to the sustainable cross-border mobility measures

As is evident from the two previous tables, the monitoring of cross-border sustainable mobility incentive actions requires a whole series of agreements with local tourist bodies, companies that manage the various transport systems and others.

This is one of the most important elements to always have an updated picture of tourist flows and all the services provided and their use. It is not enough to develop a cycle path, for example, but its use must be verified, otherwise the objective of the expenditure made will not be reached.

For this reason, the Monitoring Plan is often transformed, at the local implementation level, into an Implementation plan for ITS systems, i.e. sensor systems which, in an automatic and less expensive way (especially from the point of view of human resources), they are able to collect data on the behavior of tourists and on the use of services and modes of transport

Annex 1 – The Good Practices/Stakeholders Survey

These pages show the on-line questionnaire proposed to SUTRA partners, a questionnaire that presents a preview of the data entered in order to avoid duplicate input both in relation to good practices and stakeholders.

Each good practices has been classified in one or more of the following values:

- Data collection;
- Actual data analysis;
- Feasibility/simulation study;
- Definition of Cross-Border Vision/Objectives;
- Local urban sustainable mobility actions/measure;
- Extraurban sustainable mobility actions/measure;
- Impact monitoring action/measure;
- Participatory/coordination action;
- Dissemination/marketing/communication action;
- Others


Moreover, each good practices has been classified on the base of the transport mode involved, introducing the following possible values:

- Bike and e-bike;
- Sharing mobility (bike-sharing, scooter-sharing, car-sharing, etc...);
- Road public transport;
- Maritime transport;
- Rail transport;
- Air transport;
- Private road vehicle;
- Car-pooling;
- Micro-mobility.

SUTRA PROJECT


QUESTIONNAIRE

Project	Case Studies	Others	Modal Type	Main aim	Area
Portable	Local Urban Sustainable Mobility Action/Measure, Extraurban Sustainable Mobility Action/Measure, Impact Monitoring Action/Measure		Bike and e-bike, Sharing-Mobility (bike-sharing, scooter-sharing, car-sharing, etc.), Road	Increase sustainable mobility and incentive distributed tourism	Tuscany



[INSERT CASE STUDIES](#)

Stakeholder	Stakeholder type	Others	description
Vodnjan Tourism Office	Tourist related Company (Tourist Boat C., Museum Manag. C., etc..)		The main task of the Vodnjan Tourism Office is to support, maintain, improve and promote of all the county's existing tourist resources and potential and to create a strong and recognizable brand for Vodnjan.
Local action group "South Istria"	Tourist related Company (Tourist Boat C., Museum Manag. C., etc.), Associations (Bike Italy, Bike-Hotel Assoc., etc..)		LAG represents a local partnership which brings public and private sector partners together, seeing to the balanced representation of local interest groups, whose members belong to different socio-economic segments.



[INSERT STAKEHOLDERS](#)

Figure a1 – The first summary page of the cloud survey

SUTRA-SUSTAINABLE TRANSPORT IN ADRIATIC COASTAL AREAS AND HINTERLAND



* Required fields

Title

Project *

Involved Partners/Entities *

Type of Case Studies *

Others



Modal Type *

Description *

Next

Figure a2 – The first form regarding good practices collection part

SUTRA-SUSTAINABLE TRANSPORT IN ADRIATIC COASTAL AREAS AND HINTERLAND

* Required fields


Title

Main aim of the practice *

Area of Interest *

Centroid of the area *

Mappa
Satellite



Google | Scrittabile da tastiera | Dati mappa ©2021 GeoBasis-DE/BNZ (©2020), Google, Inst. Geogr. National | Termini e condizioni d'uso | Segnala un errore nella mappa

Figure a3 – The second form regarding good practices collection part

SUTRA-SUSTAINABLE TRANSPORT IN ADRIATIC COASTAL AREAS AND HINTERLAND

* Required fields

Title

Web-reference * Upload documents

no file selected

Contacts person * E-mail * Phone

I authorize the processing of private data for the purpose of this document *

Figure a4 – The third and final form regarding good practices collection part

SUTRA-SUSTAINABLE TRANSPORT IN ADRIATIC COASTAL AREAS AND HINTERLAND



* Required fields

Stakeholder name *

Stakeholder type *

Others

Stakeholder description/activities *

Stakeholder Contact E-mail *

Stakeholder Contact phone

I authorize the processing of private data for the purpose of this document *

Send

Figure a5 – The unique form regarding stakeholder collection part

Annex 2 – The Stakeholder involved in the Permanent Cross-Border Communication Table

The following table lists all Stakeholders, indicated from SUTRA partners, to be involved in the Permanent Cross-Border Communication Table. The SUTRA partnership will define a way to coordinate, also after the end of the project communication and collaboration of partners in a permanent way so to share sustainable mobility actions and, in case it is necessary, to sign protocols and agreements for integrated cross-border actions.

Stakeholder	Stakeholder type	Others	Description
Vodnjan Tourism Office	Tourist related Company (Tourist Boat C., Museum Manag. C., etc..)		The main task of the Vodnjan Tourism Office is to support, maintain, improve and promote of all the county's existing tourist resources and potential and to create a strong and recognizable brand for Vodnjan.
Local action group "South Istria"	Tourist related Company (Tourist Boat C., Museum Manag. C., etc..), Associations (Bike Italy, Bike-Hotel Assoc., etc..)		LAG represents a local partnership which brings public and private sector partners together, seeing to the balanced representation of local interest groups, whose members belong to different socio-economic segments.
INOLTRA SCARL	Local Transport Companies (Public Transport Company, Ferry C., etc..)		The Cluster is composed of a consortium of over 40 Italian companies, which added more than 3700 employees and a turnover of about 300 millions, this is a combination between, small, medium and large firms who have found the opportunity to extend their markets, because they provide essential services to all sectors of the economy and that expressed an intrinsic need for innovation between the member companies are the main regional companies of local public transport, goods transport by road and rail, logistics, management of large infrastructure, port services company, specialized training institution, business and technology services firms and financial services. The structure of the company is completed by a network formed by different research centres, university departments, both local and national training facilities, including an international character and other subjects of associative and representation of interests is a complex structure, but set to grow further. INOLTRA aims as a subject of reference in the field of regional policy and wants to be a place where companies can find answers to needs at innovation, technological and organizational, from which it can not be ignored in order to maintain and increase its competitiveness and respond to challenges on the market that demands ever increasing customers

			focus, quality of services and cost management. Network, integration, research and innovation, specialized training, internationalization are the key words of the development in the near future and elements too are those who find themselves in the INOLTRA's project.
Consortium company METE S.p.A	Local Transport Companies (Public Transport Company, Ferry C., etc..)		The company operates in the sector of the transport of people, goods and documents in any form, type and modality and of any further accessory or complementary activity to mobility. Start Romagna SpA - as a result of a company merger - took over from ATM and AVM in the management of local public transport services in the Ravenna basin.
Port system authority of the central-northern Adriatic (Port Authority)	Public Administrations (Municipalities, Port Authorities, Region Departments, etc..)		The Port System Authority of the central-northern Adriatic Sea works to direct, program, coordinate, promote and control port operations and other commercial and industrial activities carried out in the port, administers the assets of the maritime state property, ensures the maintenance of the seabed and the construction of large port infrastructures financed by the state and guarantees the ordinary and extraordinary maintenance of the common parts. http://www.port.ravenna.it/
Tourism Service of the Municipality of Ravenna	Public Administrations (Municipalities, Port Authorities, Region Departments, etc..)		RAVENNATOURISM is the name of the Tourism Service of the Municipality of Ravenna. It deals with tourist information and reception, organization of entertainment and animation activities and tourism promotion for Ravenna and its territory. https://www.turismo.ra.it/chi-siamo/
Il Papavero	Tourist related Company (Tourist Boat C., Museum Manag. C., etc..)		The cooperative society "Il Papavero - Touristic Guides Emilia Romagna" offers accompanying, guide and interpreting services in the city of Ravenna and in the main neighboring tourist realities of the regional territory. www.guide-ravenna.com
Ravenna Incoming	Tourist related Company (Tourist Boat C., Museum Manag. C., etc..)		Ravenna Incoming is a consortium made up of private operators, which deals with the promo-marketing of accommodation proposals, with the main destination of the Ravenna area and its province. The activity of Ravenna Incoming is aimed at individual and organized tourism, the organization of congresses, incentives, fairs and events. https://www.turismo.ra.it/consorzi-turistici/ravenna-incoming/
Sea Area Territorial Council (with the PRO LOCO Citizen)	Public Administrations (Municipalities, Port Authorities, Region Departments, etc..)		The Territorial Maritime Area of the Municipality of Ravenna acts as a reference for the inhabitants of the hamlets of Casalborgorsetti, Marina Romea, Porto Corsini, Marina di Ravenna, Punta Marina Terme, Lido Adriano and Lido di Dante. The municipal office of reference is the decentralized office of Marina di Ravenna.

Committees)			
Managing Authority of the POR FESR 2014-2020 - Abruzzo Region Office	Public Administrations (Municipalities, Port Authorities, Region Departments, etc..)		Manages, controls and monitors funded projects POR FESR
TUA S.P.A.	Local Transport Companies (Public Transport Company, Ferry C., etc..)		In-house provider company of the Abruzzo Region. It manages the TPL services in the metropolitan area.
Enel Distribution	Others (indicate)	Energy Provider	Company for the distribution of e.e. and of recharging points
Telecom	Others (indicate)	Phone-Web-Provider	Telephone and web line provider company
Tourism and Sports Policy Service - Abruzzo Region	Public Administrations (Municipalities, Port Authorities, Region Departments, etc..)		It promotes policies for the development of tourism and tourist mobility
Helbiz Italia srl	Others (indicate)	Electric vehicles provider	Manager of electric scooters, electric bikes and electric scooters
Faieta Motors srl	Others (indicate)	Service for bikes and micromobility provider	Station cycle manager, station veil and infopoint at the Pescara Portanuova FFSS STATION
Legambiente	Associations (Bike Italy, Bike-Hotel Assoc., etc..)		Environmental protection association
Taxi rental	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Taxi service
Ncc	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Car rental with driver

S.A.G.A. S.p.A.	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Società Abruzzese Gestione Aeroporto S.p.A. Manager's Abruzzo international airport
Marina of Pescara	Tourist related Company (Tourist Boat C., Museum Manag. C., etc..)		Manager's tourist port of Pescara
Pronto bus Italia	Tourist related Company (Tourist Boat C., Museum Manag. C., etc..), Local Transport Companies (Public Transport Company, Ferry C., etc..)		Private scheduled buses
Di Carlo Bus	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Private scheduled buses
Di Febo Capuani Bus	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Private scheduled buses
Di Fonzo Bus	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Private scheduled buses
ATM Bus	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Private scheduled buses
Promoturismo FVG	Public Administrations (Municipalities, Port Authorities, Region Departments, etc..)		Regional entity responsible for tourism promotion on the Friuli Venezia Giulia Region.
TPL FVG (Trasporto Pubblico Locale)	Local Transport Companies (Public Transport Company, Ferry C., etc..)		Since 2020, company founded by the local public transport companies of Friuli Venezia Giulia. It manages integrated and multimodal mobility services that connect all the territories of Friuli Venezia Giulia.

Table a1 – The stakeholders list

Bibliography

1. Rupprecht Consult (editor), *Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan*, Second Edition, 2019
2. Project SMILE - FirSt and last Mile Intermodal mobility in congested urban arEas of the Adrion Region (Interreg V B ADRIATIC-IONIAN Cooperation Programme 2014-2020) - *Action Plan for a Transnational Sustainable Urban Mobility Plan (SUMP) Concept-Executive Summary*, October 2020
3. Project USEFALL - UNESCO Site Experience For All, in Italy and Croatia (Programme Interreg V-A Italy Croatia 2014 -2020), Comparative analysis on different solutions for accessibility of UNESCO sites. Guidelines: a management model for accessibility to and enjoyment of UNESCO sites. Innovative solutions for the Management and Promotion of the Heritage and Territory
4. Ministero delle Infrastrutture e dei Trasporti, 2017, Piano Straordinario per la Mobilità Turistica 2017-2022 – Viaggiare in Italia
5. ESPON, Cross-border Public Services (CPS) – Final Report Scientific Report – Annex II – Good Practice factsheets, Version 16/11/2018
6. Webinar “Cross-border cooperation in mobility”, inside the 19th European Week of Regions and Cities, 13rd October 2020, Weblink:https://europa.eu/regions-and-cities/programme/sessions/1329_en
7. European Commission, REGIO D2 Interreg (2020), Cross-Border cooperation for a better mobility-Policy objective 3. Accelerating the shift to sustainable and smart mobility
8. Rosa A. La Rocca (2015) Tourism and Mobility. Best practices and conditions to improve urban livability, in TeMA, Journal of Land Use, Mobility and Environment, 8 (3) , p.311-330
9. Risposte Turismo “Adriatic Sea Tourism Report”, 2019 Edition
10. Union Internationale des Transports Publics, “Demystifying ticketing and payment in public transport”, Report of Novembre 2020
11. Ministero dei Beni e delle Attività Culturali e del Turismo – MIBACT (2017) “Piano Strategico di Sviluppo del Turismo – Italia Paese per Viaggiatori – 2017-2022”
12. World Tourism Organization and International Transport Forum (2019), Transport-related CO2 Emissions of the Tourism Sector – Modelling Results, UNWTO, Madrid, DOI: <https://doi.org/10.18111/9789284416660>
13. DG Regional and Urban Policy (2019) “Cross-Border Cooperation in the Adriatic-Ionian Area”
14. Moses Project – WP4 – Piloting new connections and improving services (2019) “(D.4.2.1) Report for the feasibility study for the reactivation of a (clean fuel powered) maritime transport service between Termoli and Dubrovnik/Ploče”

15. DG Regional and Urban Policy (2019) “Cross-Border Cooperation in the Adriatic-Ionian Area”
16. Zillmer S., Holstein F (2018) “Cross-border Public Services (CPS) – Targeted Analysis – Final Report Practical Guide for Developing Cross-border. Public Services”, ESPON CPS Practical Guide
17. Tourism Sustainable Group (2007) “Action for more sustainable european tourism”.
18. ICARUS Lead Partner – ITL Institute for Transport and Logistics Foundation (2021) “ICARUS Final Publication – 2021”