

D.5.3.2

Policy recommendations to EUSAIR, EUSALP, EUSDR

WP5 Transport strategies and results roll-out

A.5.3 Contribution to the relevant local, national and
macro regional policies

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1 Sommario

2	Introduction	3
2.1	The ICARUS project.....	3
2.2	Aim of the document	4
3	European macro-regional strategies: EUSALP, EUSAIR and EUSDR	5
3.1	Pillars and goals related to mobility and transport	8
4	Importance of the involvement and engagement of stakeholders.....	10
5	Main results of activities 5.2 and 5.3.....	11
5.1	Deliverable 5.2.1 – Policy Action Plan on ICT & MaaS	12
5.2	Deliverable 5.2.2 – Policy Action Plan on Intermodal transport	14
5.3	Deliverable 5.2.3 – Policy Action Plan on Behavioural change	16
5.4	Output 5.2 – ICARUS position paper for seamless intermodal connections.....	18
5.5	Deliverable 5.3.1 - Policy recommendations to SUMP and local regional policies	19
6	Main findings and recommendations to EU macro-strategies	21

2 Introduction

2.1 The ICARUS project

Car transport is still at 80% of land transport in EU28 and trends say it will grow in the next years. This is particularly true for Italy and Croatia, due to bottlenecks in multimodal connections and to a governance which is not receiving market signals and mobility trends. As also mentioned in the IT-HR Work Programme, new travellers are demanding the implementation of new transport services addressing the lack of efficient multimodal networks (road, rail, air, water transport), as well as low connectivity and mobility of hinterland and coastal areas of the IT-SI cross-border region.

The ICARUS project (*“Intermodal Connections in Adriatic-Ionian Region to Upgrowth Seamless solutions for passengers”*), financed by the Interreg Italy- Croatia Programme, attempted to tackle these challenges through the improvement of passenger intermodal transport connections within the Programme area, thus easing coast-hinterland sustainable accessibility and promoting car-independent lifestyles among citizens and tourists.

Figure 1. The project partnership



More specifically, responding to the Programme specific objective 4.1 (*“Improve the quality, safety and environmental sustainability of marine and coastal transport services and nodes by promoting multimodality in the Programme area”*), project partners committed to implementing activities and testing solutions that have allowed to:

- Improve passengers’ intermodal connections throughout the territories of the Programme area, thus creating seamless multimodal and environmentally friendly intermodal transport solutions;
- Foster the behavioural change of transport users and increase the use of intermodal low carbon transport solutions, also through the concept of Mobility as a Service (MaaS);
- Boost existing or new maritime connections among the Italian and Croatian coasts by raising the number and efficiency of services of both ports and land sides, thus supporting the sustainable transport integration of coastal and hinterland areas;

- Enhance the capacity of territorial authorities and stakeholders to better plan and promote intermodal transport solutions through a more efficient cooperation as well as an improved sharing of data and best practices.

Sustainable multimodal seamless solutions have been tested by regions of Emilia-Romagna, Abruzzo, Veneto, Friuli Venezia Giulia, Primorsko-Goranska, Istrian Region and throughout the Croatian railway area through **8 pilot actions**. These have led to the harmonization of timetables, the improved availability of car/bike sharing within transport nodes, the implementation of innovative ICT solutions for seamless flow of information, as well as of integrated intelligent multimodal payment systems, dynamic travel planning and cross-border intermodal services.

2.2 Aim of the document

In the framework of WP5 (*“Transport strategies and results roll-out”*) and activity 5.3 (*“Contribution to the relevant local, national and macro regional policies”*), the deliverable D.5.3.2 aims at addressing the transnational level of EU macro-regions by presenting a specific set of policy recommendations to push the three pillars of ICARUS – which are ICT tools, behavioural change and mobility as a service (MaaS) – to the agenda of the main transnational strategies involving the IT-SI cross-border regions, namely the EUSAIR, EUSALP and EUSDR.

More specifically, after a short presentation of the macro-regional strategies mentioned above (Chapter 2), with a special focus on pillars and goals related to mobility and transport, the document will proceed with a brief overview of the importance to engage stakeholders (Chapter 3) and the main outcomes resulting from the policy action plans resulting from activities 5.2 and 5.3 (Chapter 4), as shown in the figure below.

Lastly, Chapter 5 will deal with the main policy elements to be conveyed to the three macro-regional strategies insisting on the IT-SI territory (EUSAIR, EUSALP and EUSDR). These policy recommendations, in fact, are crucial to ensure a more efficient streamline and roll out of results achieved and lessons learned by partners throughout the project lifetime, thus benefitting not only the macro-regions mentioned above, but also the European territory on the whole.

3 European macro-regional strategies: EUSALP, EUSAIR and EUSDR

European Union (EU) macro-regional strategies are policy frameworks that enable countries located in the same regions to tackle and solve problems or better exploit the potential they have in common. In doing so, countries benefit from enhanced cooperation aimed at addressing issues more effectively than they would have done individually.

As a matter of fact, EU macro-regional strategies tackle specific geographic challenges and opportunities that are too local in scope to affect the EU as a whole but are too broad to be effectively addressed at national level. In other words, they act as a link between the EU and local policies.

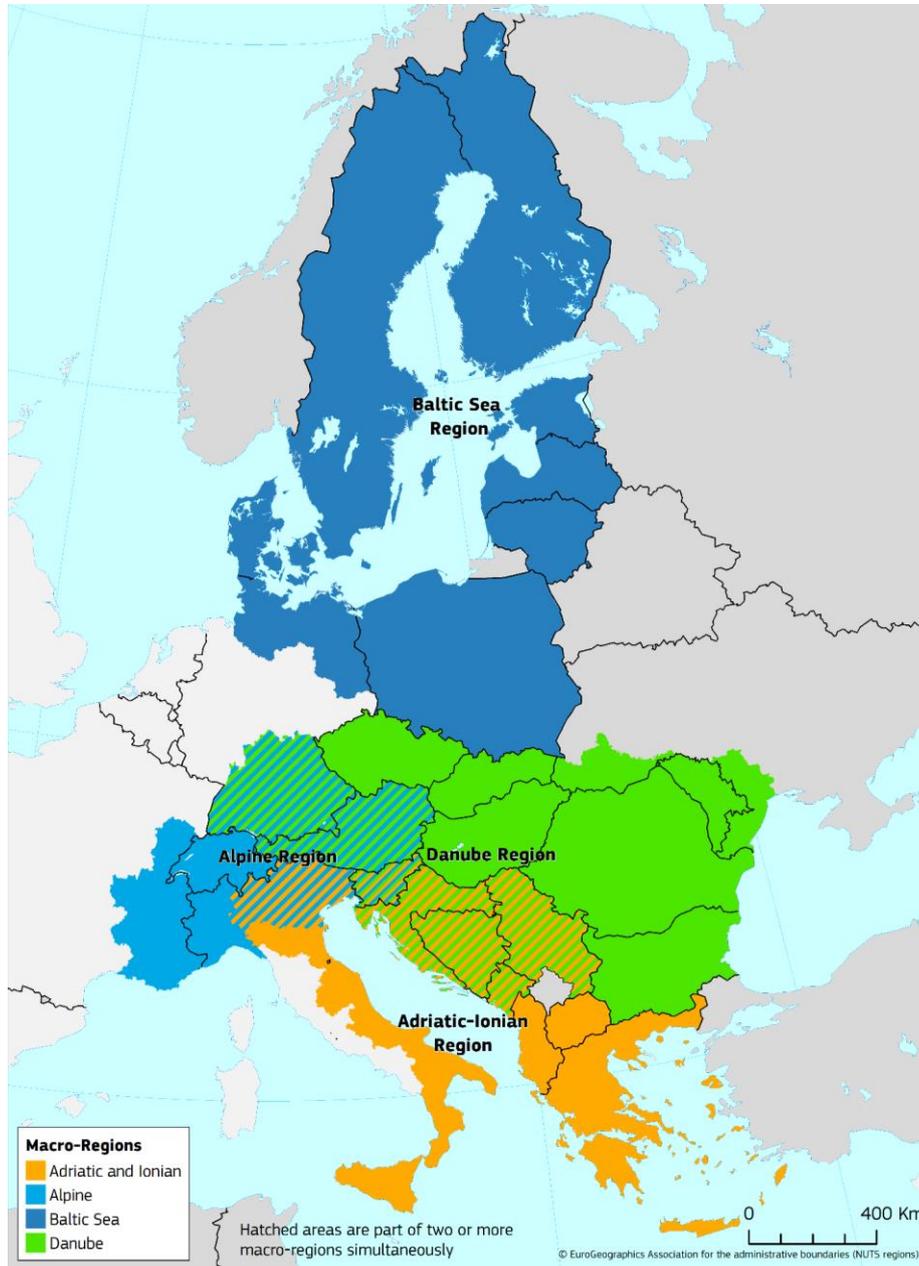
The objectives of the macro-regions' cooperation are strategic, long-term and agreed by the participating countries, including a total of 19 EU member states and 8 non-EU countries that can thus benefit from transnational platforms for strategic networking. Each strategy involves a wide range of actors at various levels (international, national, regional and local), sectors (public, private, civil society) and areas of expertise, providing a platform for multinational, multisectoral and multilevel governance.

Up to now, four EU macro-regional strategies have been established following a direct request of interested countries, including both EU member states and non-EU countries. Therefore, macro-regional strategies represent purely intergovernmental initiatives, and their implementation is largely based on the commitment of the participating countries. The process is as important as the outcome: it must be inclusive and bottom-up to ensure ownership.

Furthermore, each macro-regional strategy is accompanied by an action plan setting specific priorities, pillars or action groups, whose governance and specific functioning are established by each macro-regional strategy. In addition, priorities are regularly updated in accordance with emerging needs and the changing environment and on the basis of available funding.

Looking more closely at the Interreg Italy-Croatia, three of the four macro-regions established so far involve the area of reference of the Programme (see the map below) and are thus relevant for the ICARUS project.

Figure 2. The four EU macro-regional strategies



The following table provides additional information on the three macro-regional strategies relevant for the Interreg Italy-Croatia Programme.

	EUSAIR	EUSALP	EUSDR
Logo			
Founded in	2014	2015	2010
Participant countries	<ol style="list-style-type: none"> 1. Croatia 2. Greece 3. Italy 4. Slovenia 5. Albania (non-EU) 6. Bosnia and Herzegovina (non-EU) 7. Montenegro (non-EU) 8. North Macedonia (non-EU) 9. San Marino (non-EU) 10. Serbia (non-EU) 	<ol style="list-style-type: none"> 1. Austria 2. France 3. Germany 4. Italy 5. Slovenia 6. Liechtenstein (non-EU) 7. Switzerland (non-EU) 	<ol style="list-style-type: none"> 1. Austria 2. Bulgaria 3. Croatia 4. Czech Republic 5. Germany 6. Hungary 7. Romania 8. Slovakia 9. Slovenia 10. Bosnia and Herzegovina (non-EU) 11. Montenegro (non-EU) 12. Serbia (non-EU) 13. Moldova (non-EU) 14. Ukraine (non-EU)
Mission (Pillars / Action Groups / Priorities)	Pillar 1. Blue growth Pillar 2. Connecting the region Pillar 3. Environmental quality Pillar 4. Sustainable tourism	Action Group 1. Research & Innovation Action Group 2. Economic development Action Group 3. Labour market, education and training Action Group 4. Mobility Action Group 5. Connectivity and Accessibility Action Group 6. Resources Action Group 7. Green infrastructure Action Group 8. Risk governance Action Group 9. Energy	Priority Area 1a. Waterways Mobility Priority Area 1b. Rail-Road-Air Mobility Priority Area 2. Sustainable Energy Priority Area 3. Culture & Tourism Priority Area 4. Water Quality Priority Area 5. Environmental Risks Priority Area 6. Biodiversity, Landscapes and Air & Soil Quality Priority Area 7. Knowledge Society Priority Area 8. Competitiveness of Enterprises Priority Area 9. People & Skills Priority Area 10. Institutional Capacity & Cooperation Priority Area 11. Security
Website	https://www.adriatic-ionian.eu/	https://www.alpine-region.eu/	https://danube-region.eu/

3.1 Pillars and goals related to mobility and transport

In the framework of EU macro-regional strategies, priorities and goals often include the field of transport, which plays an important role as it ensures a smooth mobility of both citizens and tourists as well as seamless flows of goods transported across the macro-region. This is the case of the three strategies here considered, namely EUSALP, EUSAIR and EUSDR, whose pillars and goals related to mobility are resumed in the table below.

	EUSAIR	EUSALP	EUSDR
Name	Pillar 2 Connecting the region	Action Group 4 Mobility	Priority Area 1b Mobility
Description	<p>The specific objectives for this pillar are:</p> <ul style="list-style-type: none"> - To strengthen maritime safety and security and develop a competitive regional intermodal port system. - To develop reliable transport networks and intermodal connections with hinterland, both for freight and passengers. - To achieve a well-interconnected and well-functioning internal energy market supporting the three energy policy objectives of the EU – competitiveness, security of supply and sustainability. 	<p>In order to address the challenges and opportunities concerning mobility in the Alpine Region, AG4 works towards the following objectives:</p> <ul style="list-style-type: none"> - To promote inter-modality and interoperability in passenger and freight transport by supporting and fostering the removal of infrastructure bottleneck, by bridging missing links, coordinating planning and timetables of public transport, modernizing infrastructures and enhancing cooperation. - To support the modal shift from road to rail. The Alpine regions are particularly sensitive to negative environmental and social impacts caused by the excessive traffic flow of freight and passenger transport through the Alps. - To develop cooperation and greater integration between the existing bodies and structures in the field of transport. 	<p>The PA addresses the challenges of transport, which is essential for development of business and leisure activities. Transport enables facilitation of international partnerships and relations, the advancement of commerce, science and tourism. It is complex by nature due to differences between transport modes and development gaps between countries, regions and continents.</p> <p>All above can be seen also in the Danube macro-region. Road maintenance and road safety, rail freight transport contributing to full modal integration and improved air connectivity are for years high on transport agenda of the EU, as well as on most of the national transport agendas.</p> <p>Common to all transport modes are issues related to energy efficiency and emissions of conventional pollutants that require comprehensive actions on local, regional and global levels.</p>

Topic/ thematic areas	<p>To achieve the mentioned objectives, Pillar 2 will focus on three topics:</p> <p>Topic 1 – <i>Maritime transport</i></p> <p>Topic 2 – <i>Intermodal connections to the hinterland</i></p> <p>Topic 3 – <i>Energy networks</i></p>	<p>According to work plan 2020-2022, AG4 activities are implemented under three thematic areas:</p> <p>TA1: <i>Smart clean logistics and combined transport to support modal shift</i></p> <p>TA2: <i>Accessibility of local & regional transport links on secondary networks</i></p> <p>TA3: <i>Smart and low-carbon mobility & innovative public transport solutions</i></p>	N.A.
	LINK	LINK	LINK

ICARUS – AN EUSAIR LABELLED PROJECT

It should be noted that, after the request submitted by the project itself, in July 2020 ICARUS has been appointed as **EUSAIR labelled project under pillar 2 - Connecting the Region** (TSG2-Transport Subgroup), **together with MIMOSA¹ and PROMARES¹**, two projects also dealing with maritime transport and intermodality within the Italy-Croatia cross-border area.

This represents an **important formal recognition** by the Adriatic-Ionian macro-regional strategy, which underlines how these projects and the synergistic results obtained are fundamental for the development of passengers transport networks and intermodal connections within the IT-SI cross-border territory and in the whole EUSAIR area.

4 Importance of the involvement and engagement of stakeholders

EU macro-regional strategies represent a successful attempt at implementing territorial collaborative frameworks to exploit the full potential generated by transnational governance.

As a matter of fact, macro-regional strategies allow to better address territorial issues through a multi-faceted approach, improving policy coordination in different ways, making it more:

- i. transnational (coordination between countries);
- ii. multi-sector (coordination between different fields of action to tackle wider issues);
- iii. multi-level (coordination between actors at different levels – supranational, national, regional, local).

Such framework requires the contribution of every single actor to reach its full potential and provide efficient solutions to current issues and innovative perspectives for a sustainable development.

In this purpose, it is crucial that activities involve territorial selected stakeholders and target groups both throughout the implementation of projects and in the definition of EU macro-regional strategies, thus fostering a bottom-up approach and making macro-regional outcomes relevant and in line with the issues actually faced by citizens and territories.

This concept represents a horizontal aim that has been pursued by the ICARUS project through different activities, including several deliverables within the WP5 that aimed at upholding the main findings and recommendations resulting from the project at the transnational level of EU macro-regional strategies, thus representing the point of view of project partners as well as local and regional stakeholders involved in the project through its activities.

5 Main results of activities 5.2 and 5.3

The ICARUS project supports the Programme area through the improvement of sustainable intermodal mobility connecting the coastal regions with hinterlands. In this purpose, the objectives and activities of the project mainly addressed three interrelated thematic pillars:

- i. Mobility as a Service (MaaS) and ICT in transport;
- ii. Inter-modality;
- iii. Behavioural change.

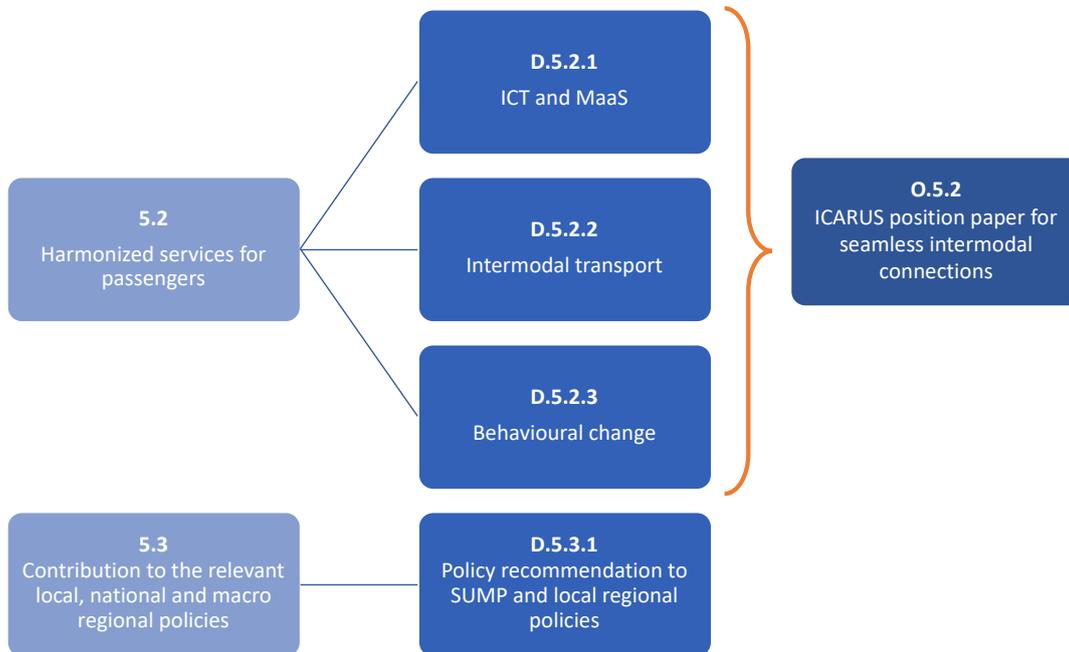
In the framework of WP5, aimed at transferring the results and solutions achieved to the cross-border IT-SI area and beyond, activity 5.2 (*“Harmonized services for passengers”*) has foreseen a set of three policy action plans, one for each of the three main pillars that are addressed from a bottom-up approach. More specifically, these are short documents that provide an overview of the contribution and results achieved by ICARUS for each topic, especially through pilot activities, thus serving as a baseline to formulate policy recommendations aimed at regional and local authorities in order to further develop MaaS and ICT, intermodal solutions and behavioural change in the whole IT-SI cross-border area and beyond.

The outcomes of policy action plans are further resumed in the ICARUS position paper for seamless intermodal connections (O.5.2), which has also been analysed to compile the policy recommendations to EU macro-regional strategies contained in this document.

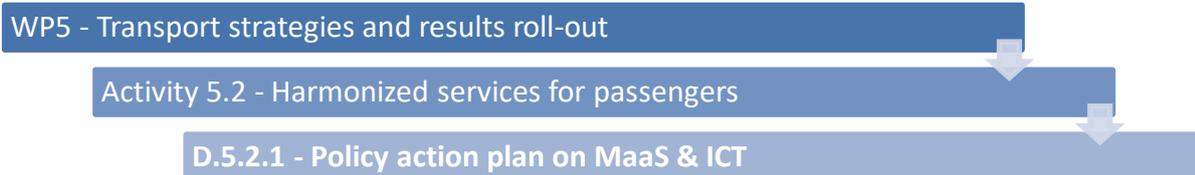
At the same time, activity 5.3 (*“Contribution to the relevant local, national and macro regional policies”*), which includes this document, has provided a top-down approach to the issues addressed by the ICARUS project. The deliverable D.5.3.1, in particular, presents a set of policy recommendations to SUMP and local regional policies, results from both pilot activities and the engagement of local authorities by project partners.

This chapter provides a baseline for the policy recommendations that will be presented in chapter 5. In this purpose, the documents mentioned above have been carefully analysed and the main features and outcomes have been summarized in the following paragraphs.

Figure 3. Overview of deliverables and output feeding into the present policy recommendations (D.5.3.2)



5.1 Deliverable 5.2.1 – Policy Action Plan on ICT & MaaS



Main findings

MaaS applications are collaborative platforms involving transport and ICT providers: they integrate public and private transport offer based on user's needs.

MaaS applications vary significantly with reference to two dimensions:

- i. **Transport services** (it can include traditional transport services as well as shared mobility services, DRT services, taxis, car rentals and so on);
- ii. **Functionalities** (MaaS functionalities can vary in terms of types of fares, level of integration, services available on the platform and so on).

Among all pilot projects implemented in the framework of ICARUS, five pilot actions addressed four main topics related to MaaS and ICT, each according to two levels of complexity.

1. **Information customisation:** information provision to passengers can focus or not on individual travel choices;

<u>Customised travel information</u> 3 pilot actions	<u>General travel information</u> 2 pilot actions
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2. **Information embeddedness:** the ICARUS tools / applications can directly provide information to passengers or link to third parties' information provision (e.g. transport operators apps/websites);

<u>Direct information provision</u> 3 pilot actions	<u>Indirect information provision</u> 2 pilot actions
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3. **Dynamic information:** the ICARUS tools / applications can provide real time travel information to passengers or static information which does not reflect real-time updates on services and transport conditions;

<u>Real-time information provision</u> 1 pilot actions	<u>Static information provision</u> 4 pilot actions
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4. **Ticketing functionalities:** further than information provision the pilot projects can provide (or plan to provide) ticketing applications.

<u>Focus on ICT services including ticketing</u> 2 pilot actions	<u>Lack of focus on ICT services including ticketing</u> 3 pilot actions
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With reference to macro-regional strategies, the topic of MaaS and ICT turned out to be relevant for both EUSAIR and EUSALP as follows.

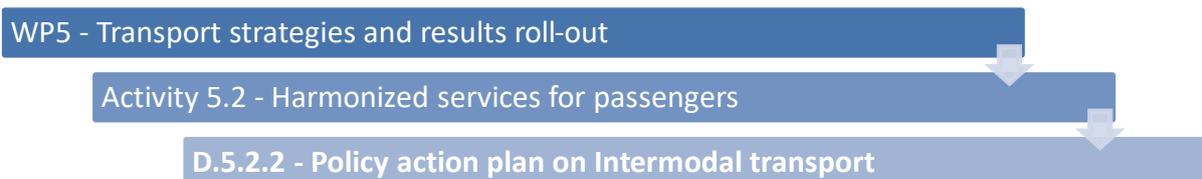
EUSAIR	Pillar 2 – Connecting the region	The development of ICT and MaaS applications fully contributes by improving passenger's access to transport services through non-physical investment.
	Pillar 4 – Sustainable tourism	ICARUS regions have a strong touristic vocation and transport innovation can contribute to tourism sustainability. In particular MaaS applications and ICT solutions can provide tourists with sustainable transport options and include touristic services.

EUSALP	Action Group 4 – Mobility	The Action group Work plan 2020-2022 specifically includes smart and low-carbon mobility, and innovative public transport solutions. Therefore, ICARUS and its focus on ICT in transport is fully relevant and contributes to the Action Group
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Recommendations to policy-makers

- A careful analysis of public transport service and infrastructure availability is a pre-condition to develop MaaS applications. Additional and alternative transport services should be added only after offering core services and through a detailed demand analysis.
- Multiple aspects have to be considered when developing a MaaS platform, including data exchange and GDPR issues, transport providers’ systems interoperability and the method to establish specific fares (pay-as-you-go, packages).
- Some key elements for an efficient service are the provision of real-time data to check status and availability as well as an open technology framework to add future service additions.
- As for ticketing, MaaS initiators should assess which services should be included in the integrated ticketing functionalities, as this requires commercial agreement with transport providers; a payment service provider should be engaged.
- Public authorities should carefully consider different existing models to overcome initial difficulties, private-commercial initiators could be engaged, and a public-private partnership could be established.
- In general terms, public authorities have a pivotal role in building strict cooperation in the transport eco-system to engage key stakeholders in the MaaS platform development

5.2 Deliverable 5.2.2 – Policy Action Plan on Intermodal transport



Main findings

Intermodal transport can be defined as using a combination of at least two modes of transport to reach the destination point of the journey from the starting point of the journey. This is done either through enabling integrated public transport services between two or more providers of public transport using different transport modes, or by enabling users to combine public transport services with active transport

options, such as cycling, allowing them to store bicycles within the bus, train or ship while using that transport mode. If organised and developed properly, intermodal passenger transport offers a safer, greener and possibly cheaper way of travelling.

All pilot actions implemented in the framework of ICARUS addressed the topic of intermodality, although in different ways:

- i. through the development of ICT solutions aimed at increasing users’ knowledge about existing intermodal solutions and services (3 Pilot actions);
- ii. through the implementation of new and innovative services and light infrastructural works aimed at fostering bike-bus-ferry intermodality (3 Pilot actions);
- iii. through a combination of both categories of interventions (1 Pilot action).

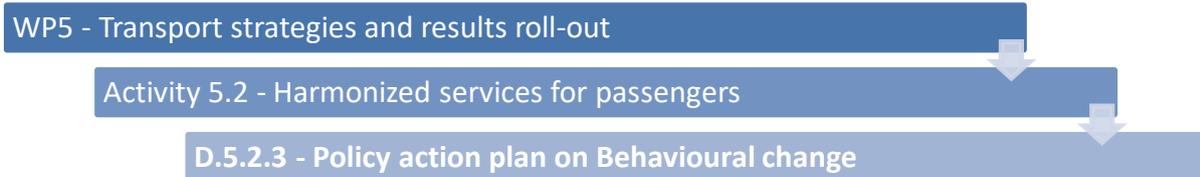
The new intermodal solutions introduced and tested within ICARUS project are in line and contribute to the goals of the Macro-regional strategies as well, as explained in the table below.

EUSAIR	Pillar 2 – Connecting the region	The pilot actions implemented by IDA, MCVE and FVG (FVG’s 2nd pilot action) all tested new intermodal services which provided coast and hinterland connections in their respective regions and, in FVG’s pilot action case, intermodal cross-border round trips.
	Pillar 4 – Sustainable tourism	The pilot actions promote responsible and sustainable tourism behaviour by enabling transport of bicycles on buses in FVG’s second pilot action and CMVE’s pilot action and on trains in IDA’s pilot action. FVG’s first pilot action contributes to the development of bicycle tourism, though not by introducing intermodal services directly, but rather by removing barriers at railway stations across CAAR cycle path by installing bicycle ramps along staircases in those stations.
EUSALP	Action Group 4 – Mobility	As ICARUS partners tested regional and cross-border intermodal services, they have directly contributed to the goal of this action group by both introducing new intermodal lines and services and by promoting them through multiple different channels.
EUSDR	Priority action 1b – Rail-Road-Air Mobility	The pilot actions implemented by IDA, MCVE and FVG all tested new intermodal services in their respective regions and intermodal cross-border round trips. Two of these pilot actions focused on road transport, enabling the transport of bicycles on buses, and one pilot action focused on rail transport enabling the transport of bicycles on trains
	Priority action 3 – Culture & Tourism	ICARUS pilot actions not only enable new intermodal services for the local population, but also encourage the development of bicycle tourism, thus contributing to PA 3 Culture & Tourism.

Recommendations to policy-makers

- Intermodality can be supported both through actions aimed at increasing users' awareness on available services and the possible combinations between them and through more concrete interventions that create new services or facilitates the use of more active and sustainable means of transport such as bicycles to be combined with the existing services.
- When introducing new intermodal services, it is essential to gather users' feedback in order to improve and adapt the offer and achieve high users' satisfaction, which is the key to securing the successful future of sustainable intermodal transport.
- It is essential to establish a dialogue between all stakeholders and operators in order to foster the harmonization of services and exploit their potential for intermodality.
- The promotion of new services is as important as the service itself: all involved organizations and actors should pay a wide effort in advertising the service to reach the widest possible audience.

5.3 Deliverable 5.2.3 – Policy Action Plan on Behavioural change



Main findings

The activities and pilot actions implemented by partners in the framework of the ICARUS project have contributed to mobility behavioral change within the whole It-SI cross-border region through a multi-channels approach:

- i. As a result of a set of activities: easier accessibility to transport services also through ICT services, activation of seamless not pre-existent intermodal solutions.
- ii. Set up pilot, training & promotional activities boosting seamless harmonized intermodal transport in cross border territories. Pilot test activities showed practical benefits of using multimodal transport solutions to passengers, commuters, and tourists. The lessons learned in behavioural change practices have been rolled out by local/regional authorities to be embedded in policies or used by operators in the framework of their decision-making procedures.
- iii. By educating people about sustainability related issues and enhancing the sense of community because of the use of intermodal transport solutions and sharing mobility.

- iv. The change of behaviour has been supported by strong marketing techniques with local events and a clear brand image to make the ICARUS intervention recognizable.

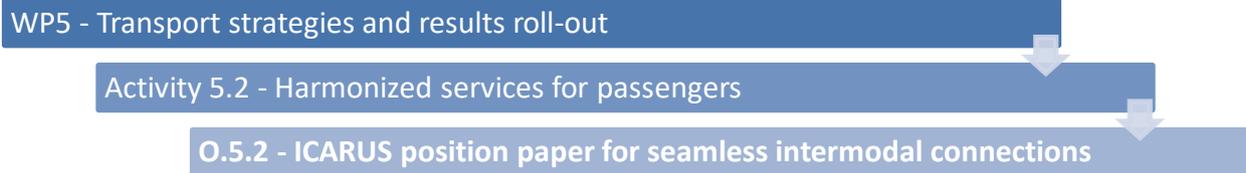
The following table highlights the contribution of ICARUS activities related to behavioural change to the main EU macro-regional strategies affecting the Programme area of reference.

EUSAIR	Pillar 2 – Connecting the region	ICARUS and its focus on mobility behavioural change is fully relevant to this pillar, as it aims at promoting public transport services already available, instead of private cars which is the dominant way of moving around the region.
	Pillar 4 – Sustainable tourism	ICARUS and its focus on mobility behavioural change contributes to this pillar through the promotion of the use of more sustainable means of transport to move across the region and visit these territories.
EUSALP	AG 4 – To promote inter-modality and interoperability in passenger and freight transport	Activities of ICARUS fully support the aims of this action group by fostering the promotion of intermodal and combined transport solutions across the macro-region, in order to further reduce the use of private cars.
	AG 5 – To connect people electronically and promote accessibility to public services	The promotion of this objective is pursued by ICARUS activities through the promotion of public services by providing users with reliable and updated sources of information on available mobility solutions, in order to make them more accessible.

Recommendations to policy-makers

- When it comes to behavioural change related to mobility, it is important to adopt a multi-faceted approach in the promotion of available intermodal solutions through various channels, including dissemination events and communication materials, as well as through ICT tools, web mobility portals and so on.
- In addition to the creation of new services, the available services should be improved on the basis of the users' direct feedback, in order to encourage and support a long-term modal shift of passengers.
- It should be noted that promoting intermodality, raising awareness and achieving behavioural change are long-term processes which need to be carefully planned and organized in order to reach as many target groups as possible.
- At the same time, it is not enough to create a virtuous tool to bring about change, it is necessary to work continuously on the creation of awareness on the territory: only then a tool will be truly useful in the process of behavioural change.

5.4 Output 5.2 – ICARUS position paper for seamless intermodal connections



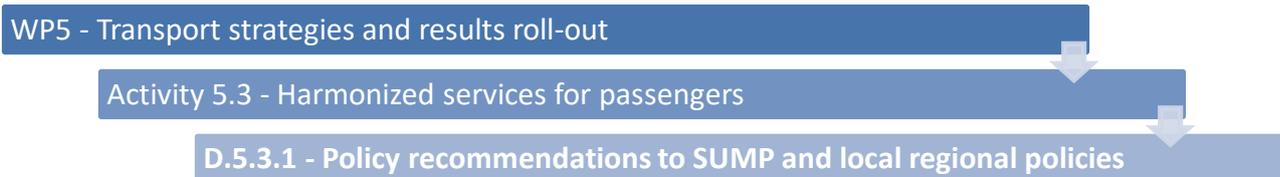
Main findings and policy recommendations

- ICARUS contributes to the EUSAIR Action Plan Connecting the region, particularly through the development of ICT and MaaS applications, by improving passenger’s access to transport services thanks to non-physical investment, by developing new services.
- ICARUS contributes to the EUSAIR Action Plan Sustainable tourism as the ICARUS regions have a strong touristic vocation and transport innovation can contribute to tourism sustainability. In particular, MaaS applications and ICT solutions can provide tourists with sustainable transport options and include touristic services.
- ICARUS is fully relevant to the EUSALP in the Mobility Action Group/Thematic Policy Area.
- Transport technology innovation and the underlying organisational changes are means to integrate multimodal transport offer, ease public transport access, and increase sustainable transport modal share by fostering user’s behavioural change.
- The development of the ICARUS pilot projects shows that transport technology delivery can be complex and needs considering multiple challenges.
- A careful analysis of transport service and infrastructure availability is a pre-condition to develop MaaS applications. Public transport is the backbone of a MaaS platform. Nevertheless, European regions differ in the availability of public transport services and public transport may be limited in some regions. This needs to be considered before engaging in the development of a MaaS application or service.
- It is important to market the initiative, plan sale channels and customer assistance. Efforts must be promoted in all the pilot actions by marketing the initiative, thus informing the target audiences, raising awareness for newly achieved improvements, installations and services, and encouraging their usage.
- For services, it is important to provide sale channels as well as customer assistance service which can offer help in greater detail and resolve issues. It is important to present intermodal and integrated passenger transport and active transport as a greener and healthier alternative to the currently most used personal car, as it encourages physical activity through cycling, reducing

traffic congestion, reducing the carbon footprint and reducing multiple forms of pollution, such as noise pollution and air pollution.

- Concerning transnational cooperation, the main added value was in the mutual learning for the organisations taking part in ICARUS, especially in the design phase of the pilot.
- The pilot's results contribute to achieve the application of an innovative service. The overall strategic targets set by project partners and relevant stakeholders involved was indeed to develop and test a completely new "innovation ecosystem" for public transport at regional level.
- Pilot outcomes are then the basis for a radical change in the attitudes towards innovation in the field at regional and cross-border level. The results of the pilot actions have been particularly relevant in terms of knowledge increase.

5.5 Deliverable 5.3.1 - Policy recommendations to SUMP and local regional policies



Main findings and policy recommendations

MaaS development

- The development of MaaS applications requires to take into account different aspects, including transport services, regulation, technology as well as fares, marketing, sales and assistance.
- As for transport services, a careful analysis of transport service and infrastructure availability is a pre-condition to develop MaaS applications, together with a careful analysis of the mobility demand of a certain territory. In addition, it is necessary to properly involve all stakeholders and transport operators, who may perceive MaaS initiatives as competitors and thus limit the extension and efficiency of the service.
- Concerning regulation and technology, an aspect that should be tackled concerns the interoperability between different transport operators' systems, including the fares and ticketing methods. As a matter of fact, the possibility of paying tickets is one of the major added values of MaaS applications, thus it is important to include it. Furthermore, the MaaS technology framework should be open, while data should be dynamic to allow checking service availability and status and booking.

- The category of marketing, sales and assistance presents the issue of properly promoting the service, also providing a dedicated customer assistance, especially for more vulnerable categories and elder people who are not used to handle complex technologies and digital tools.

Harmonised services for passengers

- In the case of harmonised services for passengers, which include the implementation of both infrastructural improvements and new intermodal services (i.e. bike-bus cross-border service, bike-train intermodal service), it is necessary to look at two main categories: business model and integration, and marketing.
- Concerning business model and integration, a preliminary phase of demand analyses and feasibility studies is much needed to ensure the efficiency and financial sustainability of services in the long run. Furthermore, different stakeholders and operators should cooperate to avoid inefficient and useless services, as well as to implement integrated tickets that simplify and encourage the use of intermodal services.
- The marketing aspect requires, again, an adequate promotion of available intermodal solutions from all involved operators/organizations, as well as the provision of enough sale channels and a customer assistance to resolve issues that users may encounter, thus making these solutions simpler.
- Last but not least, intermodal and integrated passenger transport solutions should be presented as a greener and healthier alternative to individual mobility with personal cars, as they encourage physical activity through cycling, reducing traffic congestion, the carbon footprint as well as noise, air and other forms of pollution.

6 Main findings and recommendations to EU macro-strategies

- In general terms, a shift from an **approach based** on discussing principles and priorities **to the adoption of specific target to be achieved** shall be ensured, in order to truly support a pragmatic and efficient approach of all participants that involves the piloting, adoption and scaling-up of innovative solutions in the fields of transport and mobility to make it more sustainable and efficient.
- At the same time, a **real involvement and engagement of stakeholders at all levels should be pursued, also belonging to different thematic domains**, in order to foster a more comprehensive approach to single issues. For instance, the topic of mobility is strictly related to the environment, being the transport sector one of the main source of pollutants and carbon emissions. As solutions for one topic imply benefits for the other, the topics go hand in hand, thus requiring the involvement of experts of both thematic areas.
- A seamless implementation of high-level decisions taken at the supranational level needs to be better addressed. These, in fact, are not always followed at the regional and local level due to a variety of reasons, including a lack of communication and different priorities. This requires **a more efficient and intense interaction, both top-down and bottom-up, in order to truly mobilise and directly assist regional/local stakeholders and push decisions and proposals in both directions**, i.e. from the higher levels to the lowest but also from lower levels to the highest.
- In order to be able to truly monitor and evaluate the actual support to the implementation of the strategies, **concrete instruments and pragmatic targets to be achieved within each macro-region should be set at the supranational level.**
- **The issue of passengers mobility requires a multi-faceted approach**: ICARUS activities and pilot actions demonstrated how different aspects can contribute in different ways to the implementation, promotion and up-scale of intermodal and sustainable connections throughout the IT-SI cross-border area. From the promotion of already existing services to foster behavioural change, to the implementation of both ICT tools and the elimination of infrastructural barriers to facilitate intermodal travels and the testing of innovative MaaS platforms, the whole framework synergically supported intermodal and sustainable passengers mobility across the project area. While one aspect might not be sufficient, the combination of all of them has improved the situation bringing a tangible support, to be replicated in other areas of the EU.

- **The focus on intermodality should exploit all available means of transport**, including the bicycle and ferries (where available), which often do not live up to their full potential of providing sustainable alternatives, to be combined with other options for long-distance journeys (e.g. bike-train, bike-bus, bike-ferry). **All these options should be included in the potential development of a MaaS platform reuniting all available transport solutions, both private and public, and providing users with the opportunity to benefit from an integrated and harmonized ticketing offer.**
- **The direct involvement of users and citizens is essential to foster a modal shift from the use of private cars to public transport services.** Different strategies, from an accurate analysis of mobility demand to the collection of feedback on available and new services aimed at improving the mobility offer, should be devised to promote intermodality, raise awareness and ultimately achieve behavioural change, which is a long-term process that requires a long-term commitment and continuous work by the competent authorities.
- While the ICARUS Project is more oriented towards a local perspective, as it focused on connectivity at the urban and suburban level, EU macro-regional strategies often work at a higher strategic level. Therefore, while keeping an eye on the long haul and strategic cross-border connections, **EU macro-regional strategies should be able to address issues related to urban and local mobility.** This, in fact, plays a key role not only on short-distance planning but even on medium and long-range routes, ensuring the optimization of first and last mile connections.
- The **labelling initiative of projects** that are relevant for macro-regional strategies' priorities **should be further promoted** beside the mere recognition assigned. In this purpose, further steps should be taken in order to **acknowledge the results of these projects as a leverage tool to address future initiatives of macro-regional strategies and of their priorities.**