O.4.3 POSITION PAPER ON INTEGRATED ACTIONS APPLIED ON DIFFERENT TRANSPORT MODES

WP4 – Analysing and piloting new sustainable mobility solutions

Act.4.3. – Piloting actions in connecting different transport modes

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Table of Contents

Main challenges

MIMOSA has faced the challenge of defining a new approach to the mobility of people in the study area focusing on the need to initiate a marked change (i.e., concerning both policy makers and transport end users' behaviour), which involves the entire cross-border territory as well as regional connections, making passenger transport more accessible and sustainable in the whole Program area.

Within the Project, Work Package 3 (WP3) is dedicated to the in-depth quantitative and qualitative analysis of passenger transport demand, while WP4 is concerned with the implementation of pilot projects aimed at supporting new solutions for enhancing multimodality. More specifically, action 4.3, which this position paper refers to, focuses on experimenting with new strategies for improving the interconnection of different transport modes in the cross-border area. Indeed, all the pilot projects implemented in the context of this WP (and the three of action 4.3 in particular) are perfectly welded to the challenge assumed by the MIMOSA Project to increase multimodality, also reducing the environntal impact of transport in the Adriatic area.

In this context, the pilot projects tested under action 4.3 have allowed MIMOSA, as will be highlighted below, to achieve objective 2: to Improve multimodal and sustainable passenger transport connections as well as to harmonize and standardize supplied services.

This was achieved by 1) testing integrated and sustainable transport solutions (as alternatives to traveling by car) between Italy and Croatia with a business oriented and technological approach, so as to contribute to the improvement of the criticalities generated by road congestion, air pollution and lack of accessibility and connectivity, 2) developing new integrated tools and services based on the sharing, harmonization and standardization of approaches and information to overcome existing market segmentation and "putting the user at the center" to favor multimodality and modal shift opportunities and 3) proposing the development of new services focused on the integration of cycling with other modes of transport (bike&bus, bike&train, bike&flight and bike&ship).

MIMOSA therefore appears absolutely consistent with the consideration (i.e., stated in the "Key Facts" of the Italy-Croatia Cooperation Program) that cross-border connections show bottlenecks and lack of quality so to favor road transport mode. This results in a strong need to reduce the environmental impact of transport activities, on the one hand increasing multimodality by exploiting the potential of more sustainable transport modes (i.e., compared to all-road) and, on the other hand, strengthening and improving the use of information and communication technologies (ICT) to make access to information on transport services and intermodal opportunities available to people open and easier.

Finally, two aspects deserve to be underlined that can be considered as the preconditions that have favored the achievement of the Project objectives and, specifically, those of action 4.3:

- The Project partnership, composed of the main regional and national actors of Italy and Croatia, had and has a great determination to jointly tackle the common challenge of increasing multimodal transport services to support the reduction of the environmental impact of passenger transport. Furthermore, the network of MIMOSA Partners is made up of competent and expert Institutions that have been collaborating since the beginning of the second millennium in various cross-border and transnational projects on these themes;
- A second relevant background can be seen in the documents, results and outputs produced by the ICARUS Project (acronym of "Intermodal Connections in Adriatic-Ionian Region to Upgrowth Seamless solutions for passenger"), also funded by the Interreg V-A Italy - Croatia CBC program (http://italy-croatia.eu/). In addition to consolidating the relationships among different Partners also present in MIMOSA, ICARUS, even if at a smaller geographical scale, has introduced concepts, methodologies, analyses, solutions and action plans that, together with the lessons learned from the implemented studies and pilots, are at the basis of the MIMOSA Project and of its achieved results.

Introduction

The MIMOSA Project has promoted a new cross-border approach to the critical issues of the mobility system in the Program area, with the aim of improving the supply of multimodal and sustainable transport services for people. Indeed, this appeared necessary to solve the common problems of an extremely predominant road transport and to improve connectivity between Italy and Croatia through an enhancement of the supply of sustainable mobility options (i.e., to citizens and tourists) based on the shared knowledge of the transport demand, both in quantitative terms and with regard to people habits and needs in terms of mobility.

The analyses carried out in the context of WP3 and in particular in action 3.1 have shown that there is an annual flow of about 1.5 million of tourists between Italy and Croatia (i.e., with reference to 2019), of which 80% are Italians. Furthermore, this flow has been growing since 2010, especially in the Croatian component. The car is used by about 90% of Italian tourists and 76% of Croatian ones (see D.3.1.1 and O.3.1). Moreover, Italian tourism is much more seasonal than Croatian tourism and it is concentrated in the counties of Istria called Primorje-Gorski Kotar, Split-Dalmatia and Lika-Senj. However, if we consider excursionists (i.e., those who return to their country of origin during the same day) in addition to tourists, the flow of people moving between Italy and Croatia drastically rises to almost 5 million people, 96% of whom are Italians.

These flows translate into road traffic of between 1.3 and 1.5 million cars crossing the Croatian border yearly, of which about 20% are Italian. Most of the foreign vehicles in Croatia passes through the border with Slovenia, concentrating on five border crossings points, where long queues occur, especially on summer weekends.

The future scenarios elaborated in MIMOSA (i.e., D.3.1.4) highlight different possibilities depending on the combination of various trends:

- Increase of tourist flows (also as a consequence of Croatia's entry into the EU Schengen area, which has just taken place);
- Technological improvements related to internal combustion engines and turnover of vehicle fleet;
- Increase in the share of electric and hybrid cars;
- Reduction of the car modal share with an increase in other modes, including public road transport.

For the purposes of this position paper, it is worthwhile to underline that polluting emissions could increase in the near future due to the expected growth of transport demand expressed by tourists and excursionists. However, as the output of Project O.3.1 underlines, this increase can be mitigated or even canceled out, due to the combined effect of the technological change and a modal shift induced by the provision of new services and by users' behavioral changes.

The 3 pilot projects developed in action 4.3 are placed in these context analyses. Mainly they are aimed at improving cross-border multimodal connections between different transport nodes:

- The first one (i.e., D.4.3.1), implemented by Partner PP9-IDA, is based on the development of a network of multimodal connections (bike, train, bus and ship) in the Croatian region of Istria. Named "Via Istra", it involves the realization of new multimodal connections and the creation of new ICT tools (such as interactive maps) to increase the multimodal options available to people and to facilitate access to related services by interested citizens and travelers;
- The second (i.e., D.4.3.2) and the third (i.e., D.4.3.3) ones, implemented by Partner 1–FVG, tested respectively a new maritime connection between Lignano and Grado (filling a missing link) and a new bike&bus service between Trieste and Porec integrating the multimodal supply along the Lignano-Trieste-Rovigno cross-border route. The new services, implemented in and for the summer season, on the one hand extend westwards the consolidated seasonal network of maritime public transport services set up by the Autonomous Region of Friuli Venezia-Giulia and on the other side they increase the options supporting sustainable mobility, through a new intermodal bike&bus service, in the cross-border area for the benefit of citizens, tourists and hikers who travel, or would like to travel, by bike.

Current situation and lessons learned

In this context, pilot projects implemented in action 4.3 allowed MIMOSA to reach objective n.2, i.e., the improvement of multimodal and sustainable connections for passenger transport and the harmonization and standardization of offered services. In the pilot project called "Via Istra" (D.4.3.1), with reference to a territorial context (i.e., the Istrian region) in which the mobility system is characterized by a great modal share of private cars due to a lack in public (road and rail) transport, previous ICT solutions have been integrated to develop interactive maps focusing on the harmonization of services. Notably, the following new solutions have been tested: timetable harmonization, car/bike sharing, ICT solutions for a seamless exchange of information, integrated and intelligent multimodal payment systems, dynamic planning of trips, and cross-border multimodal services.

Based on the existing situation and on the actual implementation of the "Via Istra" pilot project, the lessons learned refer to the need of:

- Achieving behavioral changes by part of all "stakeholders" (i.e., decision makers and users) and developing business models in which mobility is intended as a user-centric service (e.g., the creation of a help desk for mobility services to provide users a seamless door-to-door travel experience based on their preferences);
- Fostering the use of public transport through incentives (discounts) for users and also boosting a better integration of the public transport network and private transport services;
- Integrating and strengthening the cooperation among transport companies and tourist operators to face key aspects, such as the value of services accessible through the smart card, the identification of actors able to sell smart cards and manage payments, and the way to refund the different service operators.

Regarding the second and third pilot projects, which have been implemented by PP1-FVG and are denominated, respectively, "new multimodal and maritime service" and "new cross-border intermodal bike&bus service", it can be underlined that:

- On one side, other than completing the regional maritime network covering a missing link, the realization of a new maritime connection between Lignano and Grado has contributed to connect two important tourist centers, enhancing the offer of multimodal and sustainable transport services for users, tourist and excursionists, in integration with the network of cross-border maritime connections along the axis Lignano-Trieste-Istrian coasts. This initiative has allowed to improve the multimodal accessibility of the two involved coastal cities and to reduce the environmental impact of road traffic in an area already affected by road congestion during the summer season, especially in the weekends;

- On the other side, the realization of a new cross-border intermodal (bike&bus) connection has allowed to integrate the extensive network of regional cycling routes, on which the Friuli Venezia Giulia region has been heavily investing in the latest years, with the Parenzana cycling path and, thus, with the Istrian region. This initiative has boosted the multimodal service network in the two cross-border regions, which both represent interesting destinations for people willing to experience and enjoying "slow mobility".

Despite the limitations imposed by the Covid-19 pandemic, the implementation of the two new connections has underlined the following aspects:

- The importance of promotion campaigns, which require to be properly planned and integrated with marketing campaigns on the territory;
- The need of developing ICT solutions, including smartphone applications, which facilitate the access to multimodal services;
- The revelant opportunity of testing innovative sustainable mobility solutions at cross-border level, whose success represents a significant contribution supporting the long-term planning of cross-border intermodal policies.

Proposed Solutions and Recommendations

The solutions proposed in MIMOSA within the action 4.3 are represented by the 3 pilot projects implemented by the Partners PP9-IDA and PP1-FVG and they are widely described in the following reports:

- D.4.3.1 - Via Istra;
- D.4.3.2 - Pilot maritime connection;
- D.4.3.3 – Pilot cross-border intermodal service.

According to these reports, the following recommendations can be drawn, with the aim of enabling their application to other territorial contexts of the Program area and also within other Cooperation Programs.

- Solution A: Use of ICT solutions to foster multimodal transport services through the integration of more sustainable transport modes
    - Recommendation A.1: It is important to prioritize services based on their relevance. This task should be performed starting from a demand analysis, primarily focusing on high-demand services. Transport services should be inclusive and great priority should be given to public transport services, connections with airports and bike-sharing systems;

- Recommendation A.2: In terms of communication strategies, it appears crucial to draw the attention of users on the comprehensive "tourist experience" that they can undertake by opting for sustainable transport, rather than to offer only the possibility of buying transport services;
- Recommendation A.3: It appears crucial to plan the selling network of smart cards especially in the most important locations, which means including airports, air companies, hotels, camping sites, and bathing establishments. Besides, since many tourists are likely to buy the smart cards on-line, it could be useful to develop a smartphone application enabling them to perform such operation;
- Recommendation A.4: Ensuring the availability of resources and the update of smartphone applications. It appears fundamental to guarantee not only public financing, but also the support from public decision makers since the realization of the pilot project requires at least a year of preparatory activities. In addition, it is necessary to build a work team operating according to a market perspective.

- Solution B: New cross-border maritime and multimodal services
  - Recommendation B.1: Public support for the realization of new multimodal sustainable services is essential (to implement the testing phase, to ensure the performing of services beyond the testing phase and to properly define the relationships among service managers);
  - Recommendation B.2: The new multimodal services should be created addressing the mobility needs expressed by target groups (even resorting to the involvement of consumer associations, e.g., the Italian federation fostering environment sustainability and the use of the cycling mode called Federazione Italiana Ambiente e Bicicletta – FIAB);
  - Recommendation B.3: A fundamental support to the considered pilot projects derives from promotion campaigns, which should be integrated with territorial marketing policies and sustained through the adoption of effective tools pertaining to modern ICT solutions.

Conclusions and relevance for the EUSAIR area

The above-mentioned pilot projects contribute to accomplish the objective of improving the connectivity of transport networks which characterizes the second pillar of the EUSAIR strategy (i.e., "Connecting the Region"), enhancing the attractiveness of the involved areas and fostering their economic and social development. Indeed, on one side, the creation of the interactive info-mobility platform "Via Istra" enables users to efficiently plan their trips, adopting multimodal transport solutions integrated also at a tariff level. Besides, the proposal of introducing smart cards for

transport ad tourist services with special discounts dedicated to card holders, encourages users to actually undertake a more sustainable travel behavior and favors the respective commercial activities. On the other side, the extension of the public transport maritime service of the Friuli Venezia Giulia Region along the axis Lignano-Grado-Trieste-Rovinj in the summer season allows to increase the interconnection between the involved areas, providing users a multimodal and sustainable cross-border solution while ensuring the compliance to existing service limitations. Similarly, the realization of the cross-border bike&bus connection between Trieste and Porec permits to enlarge the offer of multimodal services, accommodating also the needs of users enjoying slow mobility.

The transferability of results obtained in MIMOSA will be ensured through different channels, such as the Permanent cross-border Network and the EUSAIR stakeholder platform. The commitment of both stakeholder groups aims at transferring results both for analysis activities and for transport planning purposes, not only in Italy and Croatia but also in other countries of the Adriatic-Ionian region. In addition, the engagement of some MIMOSA partners in projects of the 2021-2027 programming period offers the opportunity to further transfer the obtained results, creating synergies for the advancement of passenger mobility.

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