

People on the move - Sustainable transport in Adriatic coastal areas and hinterland

The great success of Europe's transport system, in connecting people and reducing travel times, inevitably led to a growth of the carbon footprint of transport activities. Transport is now responsible for the 25% of EU's greenhouse gas emissions, and this figure, as demand increases, will rise. By 2050, the European Green Deal aims to reduce these emissions by 90%, by offering a user-centred and more sustainable transport and "more affordable, accessible, healthier and cleaner alternatives" (EC, 2021). According to Frans Timmermans, the Executive Vice-President overseeing the European Commission's work on the European Green Deal: "To reach our climate targets, emissions from the transport sector must get on a clear downward trend. Today's strategy will shift the way people and goods move across Europe and make it easy to combine different modes of transport in a single journey. We've set ambitious targets for the entire transport system to ensure a sustainable, smart, and resilient return from the COVID-19 crisis" (EC, 2021).

In the cross-border area between Italy and Croatia, road transport dominates all others, with steadily increasing traffic flows, causing big congestion and pollution issues, especially in summer months. Within this framework, the project "Sustainable transport in Adriatic coastal areas and hinterland" (SUTRA), funded under the Interreg V-A Italy-Croatia CBC Programme in 2019, contributes to address the common challenge of reducing traffic congestion and CO₂ emissions in urban coastal zones of Italy-Croatia cross-border area, in order to improve air quality and promote sustainable and soft mobility. SUTRA seizes the opportunities from a more systemic, integrated approach to passenger transport and contributes to the improvement of transport organisation, services, infrastructures and management. The project involves 6 Italian partners (Municipality of Caorle-Lead partner, Municipality of Ravenna, Municipality of Chioggia, Comunità Riviera Friulana, Municipality of Pescara, ISIG-Institute of International Sociology of Gorizia) and 4 Croatian partners (Split and Dalmatia County, Town of Poreč-Parenzo, Municipality of Vodnjan-Dignano, City of Split).

SUTRA promotes the implementation of actions and strategies aimed at integrating existing infrastructures (roads, bicycle paths, railways, docks) and services (local public transport) with innovative sustainable and smart transport systems (bike sharing, charging hubs for e-bikes and e-vehicles, maritime transport links) and the creation of proper multimodal connections for citizens and tourists in the pilot areas.

As part of the preliminary activity "Analysis of end users need regarding local multimodal mobility", the **Institute of International Sociology of Gorizia (ISIG)** developed a participatory model for involving (i.e., by means of Focus Groups and a dedicated survey) Local Authorities, transport stakeholders, residents and tourists in the identification of the main needs, challenges and possible actions concerning local and cross-border sustainable transport services as well as of the key factors that shape end-users' transport

and mobility choices. In 2019, a total of 106 stakeholders (52 transport stakeholders and 54 community stakeholders) were involved in SUTRA Focus Groups organised in each pilot area of the project. A survey was elaborated in order to identify end-users' (both residents and tourists) needs and preferences on local mobility and patterns in the use of local transport. From September to December 2019, with the support of all project partners, more than 1,000 answers (both from residents and from tourists) were collected.

Considering the results of the survey, the car resulted the main mean of transport used for travelling and moving around the cross-border area. In this sense, public transport services and services for cyclists are not widely used within the area and the level of satisfaction with such services is generally low, in particular in Croatia. End-users' actual choices, in terms of transport, seems to be mainly influenced by efficiency (for saving time), safety and economic reasons and by the (perceived) lack of alternatives. The results of the analysis supported local partners in planning efficient and sustainable transport actions and strategies, with a user-centred design principle.

Following the planning phase, each partner implemented one pilot action (with the exception of ISIG) for promoting multimodal connections by upgrading existing transport solutions with new, environmentally friendly transport services for passengers.

The Municipality of Caorle initially planned the activation of a sea connection between Caorle and the Town of Poreč-Parenzo. The activation process of the maritime link was blocked due to administrative and procedural issues at the institutional level. The initial solution was then "replaced" by the implementation of a bike sharing service, using pedal-assisted bicycles, and the construction of supporting infrastructure (i.e., parking and charging stations). The start-up of the bike-sharing system and the construction of the parking and charging stations are planned in October 2022.

The **Municipality of Ravenna** established in 2020 a new pedal-assisted bike sharing service for citizens and tourists. The pedal-assisted bike sharing system is called "Port-to-Port" since it aims at connecting the historic and non-historic ports of the area in a fast and sustainable way. SUTRA financed the construction of 4 intermodal stations for pedal-assistance bike sharing and the purchase of 45 pedal assisted bicycles.

After an in-depth feasibility study, the **Municipality of Chioggia** has opted for a mixed model of bike sharing. Bicycles are equipped with a smart lock system that allows them to be picked up and returned either at fixed stations or in other dedicated areas (i.e., light stations). The provision and management of the bike sharing service started in summer 2022 with 3 fixed stations, 9 light stations, 48 bikes, 14 e-bikes as well as 8 children's bikes.

SUTRA for the **Comunità Riviera Friulana (Friulan Riviera Community)** represents a pilot project to strengthen the river connection (Stella river) between the coastal area and the hinterland, to promote tourism and increase the number of users of cycle paths. This will be done through a “cycle-river park”, intended as a system of cycle paths connecting naturalistic sites on the Stella river to the Tagliamento river, to the Marano lagoon, to historical and archaeological sites, to historic centers and inland villages in the area. The specificity of the project consists in providing, along the river banks located in the Municipalities of Lignano Sabbiadoro, Precenicco and Palazzolo dello Stella, three intermodal hubs with functional and integrated equipment for e-bikes. Starting from autumn 2022, the pilot project will be fully operational, with the integration of the intermodal hubs to a boat service (operating on the Sella river) dedicated to cyclists’ transport.

The **Municipality of Pescara** added three new eco-friendly hubs to the already existing ten Eco Mobility Points funded under “POR FESR 2014/2020 ASSE VII” funds, with the aim to ensure a better connection between the harbour, the airport, the hospital and city centre in order to promote food and wine routes, cultural and environmental paths of the area.

Moreover, the **Municipality of Pescara**, within SUTRA, is responsible to define a joint Cross Border Multimodal Strategy for urban centres. The general aim of the Strategy is to identify, collect and analyse Case Studies on cross-border multimodal mobility, developed both within SUTRA consortium and within other initiatives in the cross-border area. The Cross Border Multimodal Strategy intends to provide a guidance and a methodological framework on how to develop (or replicate) sustainable mobility actions and solutions, at the local/cross-border level.

On the Croatian side, the **Split-Dalmatia County**, within SUTRA is financing the implementation of a bike-sharing system and the construction of e-charging station for vehicles. Preparatory actions were financed by local self-government units, cities and municipalities. The Split-Dalmatia County, in coordination with two cities (Solin and Sinj) and four municipalities (Klis, Otok, Hrvace and Dugopolje), planned the establishment of smart bike stations (bike-sharing system) and e-charging station for vehicles. The bike sharing system has been installed in the cities of Solin and Sinj, and in the municipalities of Klis, Otok and Hrvace. While an e-filling station for vehicles has been installed in the Municipality of Dugopolje (50 Kw with three different connections). All equipments are fully operational since the end of 2021.

The **Town of Poreč-Parenzo** has procured an electrical mini bus, which is suitable for persons with disabilities and has the capacity of carrying 20 passengers. Considering that Poreč-Parenzo previously did not have any kind of public transport, this activity represents an experimental sustainable solution for connecting the city center with the hinterland. The e-mobility service started operating on 16th

December 2021. During the winter season, the service has been available until 8 p.m., but starting from June 2022 the e-mini bus operates until 11 p.m. By collecting monitoring data on the use of public transport, the Town of Poreč-Parenzo will analyse how to lay sustainable and quality foundations for further development of the concept of establishing a green public transport service in Poreč, in order to satisfy the needs citizens living in other parts of the Town not covered by the existing two routes.

The **Municipality of Vodnjan-Dignano** will develop a new type of mobility in order to redirect tourist flows from the coast to the hinterland. The pilot activity in Vodnjan-Dignano foresees the purchase of 4 electric vans, which are environmentally friendly and will ultimately contribute to the reduction of CO₂ emissions.

The **City of Split** conducted a public procurement procedure for the improvement of the public bicycle system, which includes the supply, transport, delivery and installation of 16 bicycles and 8 e-bikes on 4 locations (together with bicycle parking racks, communication terminals and user cards). The implementation of the SUTRA project fits into the City's efforts to raise awareness on the importance of using energy-efficient transport solutions.

Moreover, in order to promote innovative mobility concepts based on multimodality and soft mobility, it has been developed (in May 2022), under the coordination of the **City of Split**, a joint smart phone APP (Interreg Italy-Croatia SUTRA) for easy access to multimodal transport solutions. The free of charge APP allows users to map all the existing possibilities to use sustainable means of transport in the areas covered by the project, to book them, showing the locations of bike sharing and recharging hubs, parking areas, bus/boat/train stops, with relevant tourist information.

SUTRA was able to promote more sustainable mobility models and behaviours among residents and tourists in pilot areas. The project accelerated the adoption of efficient and sustainable multimodal transport systems in coastal and inland areas, ultimately contributing to the sustainable development of the cross-border region.

REFERENCES

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