

**O.T3.1 Transnational
strategy for sustainable and
innovative mobility in the
cities of the AI region**

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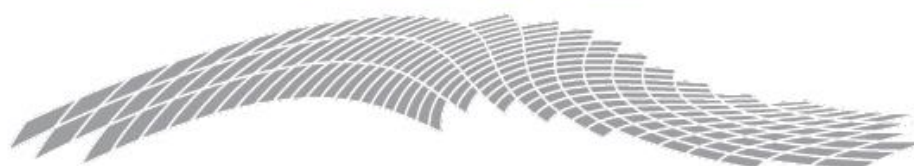
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1. INTRODUCTION

Kicked-off in January 2021 and completed in fall 2023 the strategic project [*inTegRated and Innovative actions for sustainaBle Urban mobiliTy upgradE*](#) (acronym TRIBUTE), supported by the [*ADRION programme*](#), aimed at improving the level of capacity of organizations in the field of transport and mobility to transnationally plan and implement sustainable and multimodal transport and mobility solutions in the cities of the Adriatic-Ionian (AI) region. The initiative specifically focused on the opportunities that digital solutions and ICT technologies are offering for the planning and implementation of innovative, inclusive and participated mobility to tackle the ecological transition and the socio-demographic challenges affecting current societies, towards the cities of tomorrow.

Lead partner (LP) of TRIBUTE was [*LP/PP1 Politecnico di Milano*](#) (IT). The project also involved 8 *city partners* from 7 countries, including 4 European Union Member States and three Western Balkans countries: [*PP2 Municipality of Milan*](#) (IT), [*PP3 City of Ljubljana*](#) and [*PP4 City of Maribor*](#) (SI), [*PP5 City of Zagreb*](#) (HR), [*PP6 Municipality of Patras*](#) (GR), [*PP7 City of Novi Sad-City Administration for Traffic and Roads*](#) (RS), [*PP8 City of Sarajevo*](#) (BiH), [*PP9 Capital City Podgorica*](#) (ME). Associated Partners of the initiative were the Municipality of Igoumenitsa (GR), Public City Transport Enterprise of Novi Sad (RS), Zagreb County, Zagreb County Tourist Board and Zagreb Tourist Board (HR), Regional Development Agency of the Ljubljana Urban Region (SI).

TRIBUTE involved the implementation of three Work Packages (WPs), plus Management and Communication ones, and eighteen activities which resulted in the elaboration of over 50 deliverables. The main project outcomes of the project are:

- **8 Action Plans** for sustainable urban mobility, including 8 Pilot Actions on sustainable mobility;
- **1 Transnational Strategy** for a more Sustainable, Integrated, Accessible and Harmonized Urban Mobility in the Adriatic-Ionian Region;
- **1 Transnational Network** for the implementation of the Strategy in the cities of the Adriatic-Ionian (AI) region.

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The present document specifically relates to the **Transnational Strategy project output (O.T3.1)** of the TRIBUTE initiative. The Strategy aiming at promoting a more Sustainable, Integrated, Accessible and Harmonized Urban Mobility in the Adriatic-Ionian Region, is the final result of an inclusive and participated process that have included different stakeholders in many cities involved in the project with the aim of promoting planning practices transitioning from a traffic-centred, predict & provide approach into people-centred demand management planning.

The Strategy, outlined in this document (see also *deliverable T3.3.1 - TRIBUTE Strategy for innovative and sustainable mobility in the Adriatic-Ionian cities*), represents an outcome of the TRIBUTE initiative and consists of the following sections:

- Urban mobility in the framework of the EU transport policy;
- Findings and outcome of the TRIBUTE activities and Action Plans towards the implementation and transferability of the project Pilot Actions to other cities in the AI region;
- TRIBUTE policy recommendations for future work on innovative and participated urban mobility in the cities of the AI region.

The TRIBUTE Strategy is a top down strategy deriving its long term goals from the overarching EU policies in the field of urban transport and mobility(i.e. reducing car use, active mobility, safety, air quality, transport decarbonization, etc), notably the **Sustainable and Smart Mobility Strategy** adopted by the Commission in 2020. The TRIBUTE Strategy aims at promoting the achievement of the EU policy objectives specifically in the cities of the AI Region. TRIBUTE project partners endorse the above objective and long-terms goal and, by signing this strategy, are committing themselves to translate them into the policies and actions plans for sustainable urban mobility planning of their respective administrations.

Besides, the contribution of the TRIBUTE initiative will be carried out through the well-established **TRIBUTE Transnational Network of Stakeholders** whose outreach will be assessed through the promotion of the TRIBUTE approach and policy recommendations based on the pilot actions carried out, and by maintaining and improving the outreach of the TRIBUTE Living Labs.

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2. URBAN MOBILITY IN THE FRAMEWORK OF EU TRANSPORT POLICY

Urban areas are the centre of economic and societal activity in the European Union (EU). Currently they are the home of 70.9% of the EU population with this number expected to grow to 83.7% by 2050. As a result of the high concentration of people and their important economic role, urban areas are a major source of greenhouse gas (GHG) emissions. Transport contributes to this significantly with cities generating 23% of all EU transport related GHG emissions. While the situation differs across the EU, a large share of cities struggles with poor air quality. Car passenger travel remains the dominant transport mode, accounting for over 70% of total passenger transport in 2018, while there has been a small uptake in public transport use (e.g. tram and subway) in the past decade. Urban freight transport activity increased by nearly 20% between 2010 and 2018. Congestion remains a severe problem in many parts of the EU and more than 100 million people in Europe were exposed to harmful levels of noise.

In 2019 the European Commission recognising the need to take decisive action towards tackling climate change, introduced the **European Green Deal**, which sets out a roadmap for making the EU climate neutral by 2050. This led to the adoption of a set of key actions in the areas of climate, energy, transport, etc., aimed at revising existing or introducing new legislation fit for reducing GHG emissions by at least 55% by 2030, compared to 1990 levels. More specifically, the Green Deal foresaw the implementation of new strategic documents, action plans and an Investment Plan that will mobilise at least EUR 1 trillion of sustainable investments over the next decade. One of the key areas of focus of the Green Deal is accelerating the shift to sustainable and smart mobility. Specifically, it sets out the goal of reducing transport-related emissions by 90% by 2050, boosting multimodal transport, using automated and connected multimodal mobility and increasing production and deployment of sustainable alternative transport fuels. To achieve this goal, the European Commission adopted the **Sustainable and Smart Mobility Strategy** in 2020, which outlines its vision and planned steps for transforming the EU transport system. It includes an action plan

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interlinking 3 objectives of making transport sustainable, smart, and resilient, 10 flagships and 82 initiatives, which will guide the Commission's work in the next years. To deliver on these objectives, the European Commission released a Package for Efficient and Green Mobility in December 2021, which included the new **Urban Mobility Framework**. The latter aims to align the EU urban mobility strategy with the ambitions of the European Green Deal and the Sustainable and Smart Mobility Strategy

The Urban Mobility Framework complements the proposal for revised guidelines for the TEN-T network, according to which the largest 424 EU cities (urban nodes) on the **TEN-T network** should adopt a SUMP by 2025 and collect relevant data covering, at minimum, GHG emissions, **road congestion**, deaths and serious injuries caused by road crashes, modal share for all modes, and access to mobility services as well as data on air and noise pollution in cities. With respect to urban nodes, it also foresees the development of transshipment hubs and **multimodal passenger hubs**, including park and ride facilities, to improve first and last mile connections and enhance long-distance connectivity capacity. This aims to better integrate urban nodes in TEN-T to reach an effective, EU-wide and multimodal transport network across the EU.

To further improve the implementation of SUMPs and to strengthen the involvement of Member States, the Commission will publish a Recommendation to Member States on a national programme to support regions and cities in the roll-out of effective SUMPs and will complement and streamline the current SUMP guidelines. It will place a much stronger emphasis on sustainable solutions including active, collective and public transport and shared mobility. In parallel, the Commission will reinforce its funding and policy support for public transport and will consider the mandatory provision of operators' real-time data. A stronger link between Connecting Europe Facility and Horizon Europe funding and SUMP implementation is also planned with a priority being given to projects, backed by SUMPs and calls to applicants with SUMP, respectively.

Recognising the growing importance of micro mobility and the need to protect vulnerable road users, the Commission published a dedicated SUMP Topic Guide on the safe use of **active and micro mobility** devices to help urban mobility planners and local authorities with the safe deployment of

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new devices and with their support will prepare rules on the safety of micro mobility devices and will also develop guidance on quality infrastructure requirements for vulnerable road users.

Another important objective of the Framework is achieving zero-emission city freight logistics and last-mile delivery by focusing on the deployment of zero-emission solutions, making a proposal to revise the CO₂ emission performance standards for heavy-duty vehicles and integrating sustainable urban logistics plans (SULPs) within the SUMP framework. Moreover, it also places significant emphasis on making urban transport resilient, environmentally friendly, and energy-efficient by introducing obligations to put in place efficient, interoperable and user-friendly recharging and alternative fuels refuelling infrastructure for electric and hydrogen vehicles. To contribute to the Sustainable and Smart Mobility Strategy milestone of having at least 100 EU climate-neutral cities by 2030, the Framework states that the Commission will provide EUR 359.3 million funding under Horizon Europe during the period 2021-2023 for the initial implementation phase of the Climate-neutral and Smart Cities mission.

The Framework also foresees a number of measures aimed at improving the **digitalisation of mobility** services, fostering innovation and raising awareness and supporting capacity building. Importantly, the Expert Group on Urban Mobility will be redesigned to open **participation to local authorities, city networks and social partners**.

Many cities in the **Adriatic-Ionian (AI) Region** are characterized by a dominant modal share of automobile, particularly in Western Balkans and Southern-Italy. The density of tram and underground lines is inexistent or lower than the EU average. Public transport services mainly consist of bus lines; green and cycling routes are inexistent, with the exception of some cities of Northern-Italy and Slovenia, where also car-sharing and bike-sharing services have been introduced. Car ownership is very high in the whole AI region and the vast majority of citizens makes use of the private car for displacement, although disparities exist among the different countries. Cities/urban areas in the AI region are polluted and traffic congestion is a widespread phenomenon. Although local administrations have been adopting mitigations measures for many years, the effects of such measures are rather limited. The lack of efficient multimodal networks (road, public transport, cycling)

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as well as low connectivity and mobility of peripheral areas can be addressed by improving strategic transport management, taking advantage of the opportunity offered by transport digitalisation, e-mobility and the sharing-mobility revolution. Countries in the AI region are furthermore undergoing socioeconomic and demographic changes, seeking for more efficient solutions and mobility services tailored to citizens' new travel behaviours and needs.

3. STATE OF PLAY OF THE TRIBUTE ACHIEVEMENTS – THE BASE OF THE STRATEGY

TRIBUTE Transnational Strategy aimed at tackling all such challenges. Mobility solutions have been analysed, designed, tested and implemented as part of the project activities concerning:

1. innovative public transport services, using electric vehicles connected with the infrastructure, and offering on-demand responsive services;
2. development of “green” cycling routes, integrated with the public transportation network and other urban facilities (e.g., touristic attractions);
3. management of highly congested road corridors, by mean of real-time traffic signalization and advanced travellers information systems, aiming at providing alternative sustainable travel solutions.

A specific outcome of the TRIBUTE initiative consisted in the elaboration of 8 Action Plans related to the scope of the Pilot Actions. The purpose of the Action Plans is to propose effective measures to promote public transport, use of active modes (like cycling and walking) and reduction of car ownership and dependency, in a way that solutions could be scalable and transferable to other cities in the AI region.

Action Plans have been elaborated based on a desk research on state of art of practices to enhance innovative and participated mobility to decarbonise urban transport systems either at the national

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scale within the Recovery and Resilience Fund Plans, where applicable, and/or at the local level within the SUMPs (Sustainable Urban Mobility Plans). Evidences from desk research activities have been integrated according to the findings from the implementation of the individual Pilot Actions. Each Action Plan proposes concrete measures aimed at achieving specific objectives in the fields of innovative and participated sustainable mobility.

Action Plans are structured into four sections:

1. Definition of the scope of the Action Plan, outlining the strategies and measures needed to reach the objective of the Action Plan;
2. Description of a bottom-up approach to implement the Action Plan:
 - Exploring citizens willingness to achieve the objective of the Action Plan; and
 - Engagement strategy to involve key stakeholders interested in cooperating towards the design and implementation of the identified and prioritised measures;
3. Definition of a policy or protocol that could be adopted to assure a coordinated implementation of the Action Plan and that could be used as a tool to foster scalability and replicability of the practice in other cities of the same country and AI region (e.g. monitoring impact KPIs in line with the SUMP);
4. Description of an extension element of the pilot action that could enhance the implementation of the action plan.

Building on the experience of the design and implementation of the TRIBUTE Pilot Actions, Action Plans are relevant to the purposes of elaboration of this Strategy as they include a set of recommended measures useful to plan and implement innovative and participated sustainable urban mobility solutions:

- to enhance accessibility of elderly and passengers with disabilities through the implementation of an on-demand public transport;
- to promote the use of cycling, with emphasis on safety;
- to develop integrated public transport system, with emphasis on inclusion of different target groups;
- to promote integration of land use and transport services into “urban mobility island”;

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- to reduce car dependency and decrease traffic congestion, particularly during big events.

TRIBUTE Action Plans cover a wide set of innovative measures, assess future needs for innovative and sustainable mobility and feed into the transnational strategy in the field of environment-friendly and low-carbon transport systems and to raise awareness on the particular needs of vulnerable demand segments. The proposed measures are nevertheless not exhaustive in terms of future looking solutions towards more sustainable transport systems in urban areas. The cities in the AI region are actually at the beginning of the ecological transition, which is characterised by climate change and socio-economic challenges that can only be tackled by reshaping the mobility ecosystem. Further to, or together with, the transition from carbon to decarbonised e-vehicles, travel behaviour and use of mobility and dwelling infrastructure, spaces and services will likely (need to) change. New approaches in the design and management of infrastructure and services need to be defined and adopted.

4. POLICY RECOMMENDATIONS/LONG-TERM GOALS

TRIBUTE Strategy is a top down strategy deriving its long term goals from the overarching EU policies in the field of urban transport and mobility. More specifically, the following goals and milestones refer to the **Sustainable and Smart Mobility Strategy** adopted by the Commission in 2020:

- 100 European cities will be climate neutral and all large and medium-sized cities that are urban nodes on the Trans-European Transport (TEN-T) network will have their own sustainable urban mobility plans (SUMP) by 2025;
- At least 30 million zero-emission cars and 80 000 zero-emission lorries should be in operation on European roads by 2030;
- Automated mobility will be deployed at large scale by 2030;

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- Seamless multimodal passenger transport will be facilitated by integrated electronic ticketing and freight transport will be paperless by 2030;
- Nearly all cars, vans, buses as well as new heavy-duty vehicles will be zero-emission by 2050;
- The TEN-T network will be fully operational and multimodal by 2050;
- The death toll for all modes of transport in the EU will be close to zero by 2050;
- The share of active transport modes, such as cycling, should continue to grow. This should be aided by the doubling of the current safe bike infrastructure, which is to reach 5,000 km by 2030.

To deliver on these objectives, the European Commission released a Package for Efficient and Green Mobility in December 2021, which included the new Urban Mobility Framework, whose main provisions are recalled at Chapter 2 above, all of them duly considered in the elaboration of the TRIBUTE Strategy. Among such measures the Urban Mobility Framework foresees a reinforced role for urban nodes within the TEN-T Policy, which has been recently implemented in the proposal for the revision of Regulation (EU) 1315/2013. This proposal sets the subsequent specific requirements for urban nodes, also adopted as long term goals in the TRIBUTE Strategy:

By 2025:

- Adopt a SUMP with measures to integrate the different modes of transport, to promote efficient zero-emission mobility including sustainable and zero-emission urban logistics, to reduce air and noise pollution and that takes long-distance trans-European transport flows into consideration;
- Collect relevant data covering, at minimum, GHG emissions, congestion, number of deaths and serious injuries caused by road crashes, modal share for all modes, and access to mobility services as well as data on air and noise pollution;

By 2030:

- For passenger transport: sustainable, seamless and safe interconnection between rail, road, air, the active modes of transport and, as appropriate, inland waterway and maritime

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infrastructure; and ability for passengers to access information, book, pay their journeys and retrieve their tickets through multimodal digital mobility services;

- For freight transport: sustainable, seamless and safe interconnection between rail, road, and, as appropriate, inland waterway, air and maritime infrastructure as well as appropriate connections with logistics platforms and facilities;
- Development of multimodal passenger hubs to facilitate first and last mile connections which are equipped with at least one recharging station as defined in Article 2, point (43), of the AFI Regulation;

By 2040:

- The development of at least one multimodal freight terminal allowing for sufficient transshipment capacity within or in the vicinity of the urban node.

The adoption of the above goals from EU overarching strategies and policies makes the TRIBUTE Strategy very concrete and in line with the SMART approach (Specific, Measurable, Achievable, Realistic, and Time-based). The goals are specific to the topic and of relevance for the whole European Union, and the AI Region given that they are not only in line with the EU policies, but also with the EUSAIR Action Plan, which will be including a new specific topic on “Urban Nodes” under Pillar 2 -Connecting the Region. The level of achievement within the AI Region will be measurable and time-based provided that within EUSAIR, the methodological aspects will be defined, and a systematic monitoring will be carried out and made available.

The timelines and targets aspects are not only common to the AI Region but they apply to the entire EU. This situation makes the goals and the Strategy achievable and realistic. Achievable because the identified targets and policies are more likely to be supported by the EU funds (CEF, Horizon, Interreg..., as well as by regional and national funds). Realistic because the EU overarching policies benefit from the commitment of the European Commission, national and regional governments, making the strategy more acceptable by the cities, and thus also more transferable and replicable. In this respect it is also worth noticing that TRIBUTE Action Plans and the related Pilot Actions have been designed and implemented in such a way so as to ensure that the identified practices and

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recommended measures are both applicable and replicable in other contexts in the countries of the PPs and in the AI region.

4.1. Governance recommendations towards an integrated mobility

- Adopt SUMPs as basic tools to govern participated mobility in Functional Urban Areas and Functional Macro-regional Areas in the frame of the development of the TEN-T network and Urban Mobility Framework;
- Include the elaboration of Sustainable Urban Logistics Plans in the framework of SUMPs development;
- Implement place-based strategy planning approach coupling land-use/space with network/mobility developments, considering socio-demographic, economic (e.g. tourism, Industry, ports), and other characteristics of the cities/regions where SUMPs are developed;
- Adopt living labs co-creation approach for specific projects/initiatives development and implementation.

4.2. Research & data recommendations towards an evidence-based and managed mobility

- Collect data related to sustainable urban mobility indicators (SUMI), including at minimum: greenhouse gas emissions, congestion, deaths and serious injuries caused by road crashes, modal share for all modes, access to mobility services, air pollution in cities and noise pollution in cities;
- Promote the use of big data, open-source database development and data sharing agreements within and across supply chains for freight transport and along multimodal corridors for passenger transport and more generally for MaaS, aimed at an improved use, management and monitoring of integrated infrastructure and services;

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- Facilitate the development and evolution of mobility management programs and solutions for commuters in Functional Urban Areas and Functional Macro-regional Areas;
- Promote research and development projects in the field of innovative mobility – such as automated driving, advanced air mobility..., involving local universities and industries;
- Develop resilient transport systems by identifying rescue and alternative corridors/lanes within and between transport modes and promoting/supporting the design of transport infrastructure and services to mitigate their vulnerability to climate change adverse and extreme weather events;
- Develop skills and knowledge on intermodality and integrated services by stimulating active capacity building;
- Promote further research on the interfaces of passengers/freight, intra-/inter-urban, last-mile/long-distance transport and on spatial-economic analysis of Functional Urban Areas and Functional Macroregional Areas, integrated assessment and business-cases as well as related multi-level governance approaches.

4.3. Technical recommendations towards a physical and digital interconnected mobility

- Ensure coordinated development and implementation of interoperable infrastructure and digital systems along corridors and across borders as well as between corridors and transport nodes within Functional Urban Areas and Functional Macro-regional Areas;
- Invest in infrastructure interfaces, equipment and transport digitalisation within and between transport and urban nodes, with a focus on corridors interconnecting ports and tourism areas with main cities and airports;
- Support and invest in the integration of active transport (like pedestrian and bicycle), electric micro mobility, and any shared/collective form of transport at multimodal interconnecting hubs in urban areas, and between such nodes by means of green cycle/pedestrian lanes and

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highways. This is aimed at facilitating accessibility to intermodal centres further increasing attractiveness of greener and more sustainable transport solutions;

- Develop road and rail infrastructure, including urban bypasses and last mile connections/interconnections to main transport nodes, to adequately manage the mix of long-distance and regional/local traffic in urban areas, reducing the negative impact of the effects of long-distance traffic on the local territory.

4.4. Innovative and digital solutions towards an efficient, safe and secure mobility

- Develop guidelines and solutions for ITS, C-ITS and telematic applications at the interface between long-distance and last-mile transportation and the use of traffic management tools for information and navigation services towards MaaS;
- Develop intermodal transport hubs as mixed-use places, where commercial and leisure activities can be located, to increase attractiveness of intermodal transport solutions and potentially increase revenues from patronage, as well as from other activities such as advertisement, concession fees etc...;
- Facilitate scaling up of alternative clean fuels, cooperating with the private sector also accompanying initiatives at the national and international level to regulate diffusion of innovative solutions;
- Implement programs to increase road safety, with a focus on active and electric micro-mobility and vulnerable users;
- Develop cybersecurity solutions to support the digitalization of integrated supply chains and MaaS solutions.

The following key considerations and recommendations can be formulated with reference to the main implementation elements of the TRIBUTE Pilot Actions:

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- **Action implementation areas.** Innovative solutions in the field of urban transport and mobility are clearly multimodal, public transport representing the backbone of cities sustainable urban transport systems, being increasingly integrated with active and electric shared mobility infrastructure and solutions, towards Mobility as a Service;
- **Action implemented solutions.** Proposed measures cover a wide range of innovative solutions, showing that the mobility systems of the cities of tomorrow need to be more integrated, flexible and shared;
- **Action implementation tools.** Participated and multimodal urban mobility requires the organization of workshops and Living Labs to design and implement effective solutions. Information and communication technologies in the wider framework of transport digitalisation are also essential tools that enable the provision and use of integrated services and the possibility to exchange real time information between infrastructure and vehicles, and operators and users. Procurement of special equipment and vehicles, and hire of specialised experts, are also fundamental to tailor infrastructure and services to the needs of special users and tackle the challenges imposed by ecologic transition;
- **Action implementation target users.** Innovative mobility is targeted to special categories rather than to general users. Accessibility is not only place-based, but also person-centred, with a need to tailor services to vulnerable users such as elderly, or sensory impaired users, but also to tourists, women, students...
- **Action implementation governance.** Integrated, shared and participated mobility, and place and context-based solutions involve multi-level governance at both the development and implementation stages. This is not just limited to the public sector and administration departments responsible for transport, energy, environment and land use development, and/or public transport operators. Ride-hailing and shared mobility operators, and associations of users or dwellers, as well as NGOs etc. need to be involved in the design and implementation of mobility infrastructure and services in functional urban areas towards a more effective and efficient urban sustainable transport system.

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5. TRANSFERABILITY ISSUES

A country-based implementation and transferability matrix has been used to support the elaboration of the Strategy aimed at collecting relevant information on the main elements characterising the implementation of the Pilot Actions, and identifying the main determinants/enabling factors and potential barriers associated with the feasibility of the TRIBUTE Pilot Actions. **The overall purpose of this exercise was to provide useful information and recommendations on the possible implementation of the Pilot Actions in other cities in the AI region, and make considerations about turning Pilot Actions into permanent operations, and extend them to the whole city/metropolitan area/functional urban area where they have been designed and implemented** (see *deliverable T3.3.2 - Identification and implementation of measures devoted to TRIBUTE Strategy transferring*).

Together with information on the main implementing elements of the TRIBUTE Pilot Actions, the country-based implementation and transferability matrix also allowed identifying determinants/enabling factors and potential barriers associated with the design and implementation of the TRIBUTE Pilot Actions. Considering the innovative character of the Pilot Actions and the multi-level governance required for their design and implementation, this exercise was performed with reference to five key aspects of project feasibility, and namely: legal and regulatory aspects, technical aspects, financial/commercial aspects, social/ environmental aspects, and organisational aspects.

The main recommendations from the design and implementation of the TRIBUTE Pilot Actions concerning their transferability to other cities in the countries of the PPs and in the AI region are summarised as follows:

- **Legal and Regulatory Aspects:** The establishment of a national framework including legislation, regulations, and guidelines pertaining to electric, shared, and flexible mobility is essential. Innovative solutions may involve adoption of new technologies, tariff schemes, use of shared spaces and vehicles, new traffic rules and traffic signs, flexible/temporary changes

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in the use of infrastructure, variations in the provision of public transport services... The absence of such legislative and regulatory framework may result in the impossibility to procure special equipment and vehicles, possible changes in the design of innovative measures to allow for their implementation – thus reducing their potential effects, delays in the implementation of the measures in the event special approvals are required to implement the Pilot Action in absence of the required regulatory framework. The absence of such enabling factors of innovative mobility is also likely to hinder the possibility to turn Pilot Actions into permanent operations and extend them to other areas of the city or other cities in a same country. The PP2-Milan Pilot Action involved the implementation of shared-taxi services, which was possible thanks to the inclusion in the regional legislation on public transport of a special provision on the adoption of shared-taxi tariffs. The absence in the Montenegrin regulatory framework of provisions to combine in a single place – mobility island – the instalment and use by multiple operators infrastructure for active and shared electric mobility resulted in delays in the implementation of the PP9-Podgorica Pilot Action.

The availability of national guidelines/strategies and of Sustainable Urban Mobility Plans (SUMP) or local strategies, including in their objectives and implementing actions the measures to be implemented as part of the Pilot Actions also represents a key enabling factor for the smooth implementation of the proposed solutions. Such a condition avoids or facilitates approval procedures by either national, regional or local governments concerning the implementation of the proposed measure, which proved to be particularly relevant for TRIBUTE Pilot Actions as in several countries changes in urban transport infrastructure systems also require approval by central administrations and or foreseen in overarching legislation/regulations/guidelines (e.g. PP3-Ljubljana, PP4-Maribor, and PP5-Zagreb Pilot Actions).

- **Technical Aspects:** Innovative actions imply the need to acquire new skills to handle and manage new equipment and technology. TRIBUTE Pilot Actions generally demonstrated that the adoption of a “learning by doing” approach is a key success factor for the implementation of the actions and especially to turn them into permanent operations. To be effective learning

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by doing shall be assisted by the involvement of external experts and requires training initiatives to transfer know-how and skills. In this regard, the direct involvement in the design and implementation of innovative solutions, of the operators and agencies responsible for the operation of special equipment, vehicles and software/tools is a key enabling factor to implement effectively the actions and increases the possibility to turn pilot projects into permanent operations (e.g. PP2-Milan, PP3-Ljubljana, PP4-Maribor, and PP9-Podgorica Pilot Actions).

Under the technical point of view experience also proves that procurement processes of innovative equipment and services not available within national markets, might result in delays in the implementation of innovative measures, which should be taken into consideration when defining the implementation time-schedule of pilot actions.

- **Financial/ Commercial Aspects:** The engagement of operators in the development and implementation of Pilot Actions is also beneficial under the financial and commercial point of view. Indeed operators can provide personnel to use and maintain the equipment, vehicles, infrastructure and software developed and/or acquired as part of the Pilot Action, financially contributing to the implementation of the adopted solutions (e.g. PP2-Milan, PP3-Ljubljana, PP4-Maribor Pilot Actions). In the event services are provided as part of the Pilot Actions, revenues may also be directly collected by operators/service providers, which could be better and more effectively integrated in the existing framework of mobility services and in some cases could also turn the Pilot Action financially sustainable (PP2-Milan Pilot Action). Further to contributing to a more effective implementation of innovative measures, the engagement of operators in the development and implementation of Pilot Actions also increases the possibility to extend them to other areas in the city and turn them into permanent solutions.
- **Social/ Environmental Aspects:** The solutions implemented as part of the TRIBUTE Pilot Actions did not require significant construction of hard infrastructure. Accordingly environmental aspects did not represent a barrier for their development. Appropriate consideration of socio-demographic aspects and characteristics of users/capacity of operators proved to be critical for the design and implementation of all Pilot Actions.

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Innovative mobility solutions involve multiple stakeholders in the design, management, monitoring and use of infrastructure, vehicles and services. Provision of innovative services also requires integrating landscape and mobility infrastructure and equipment and adapt vehicles and technology to users' skills and capabilities, increasing travel comfort, security and safety. Addressing these factors requires the adoption of a place-based planning approach, as well as pilot-testing practice and intensive organisation of living labs, during project design and implementation. In fact the implementation of TRIBUTE Pilot Actions involved the organisation of over 40 living labs and 120 stakeholders to co-design, co-monitor and co-validate the proposed solutions (see also *Deliverable T3.3.2 / Identification and implementation of measures devoted to TRIBUTE Strategy transferring*).

- **Organisational Aspects:** Multi-level governance, open-source databases and tools, as well as use of new technologies for real time surveying/monitoring and provision/collection of services and information from users (e.g. use of drones and on-board vehicles GPS devices), lie at the core of innovative and participated mobility. The intensified use of connected vehicles and technologies and open-source databases increases the risk of cybersecurity and privacy violation, which requires implementing solutions and measures to reduce vulnerability and increase resilience of IT systems and adopt GDPR protocols (PP9-Podgorica, and PP6-Patras Pilot Actions).

Flexible and customer/users' or event tailored services also require marketing/raising awareness actions, as well as involvement of civil society, such as users' associations, event's organisers and NGOs, to increase effectiveness and performance/impact of the proposed solutions (e.g. PP2-Milan, PP3-Ljubljana, PP4-Maribor, and PP6-Patras Pilot Actions).

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6. TRIBUTE STRATEGY DURATION

The Transnational Strategy will have initial duration of five (5) years – until September 2028.

The duration of the Strategy can be extended after the first five (5) years, for another five (5) years' period, based on the willingness of the TRIBUTE Project Partners.

During this period, all Project Partners commit themselves to adopt the recommendations listed in the Strategy (when relevant) in order to improve the urban mobility conditions and transport services in the city they represent.

On the other hand, during the period in which the Strategy will be in force, all Project Partners commit themselves in disseminating this document among the other cities/metropolitan areas of the country in which they are located.

7. TRIBUTE STRATEGY PUBLICITY

The Transnational Strategy will be uploaded in the TRIBUTE project website as well as in the institutional website of each TRIBUTE project Partner and in the EUSAIR Stakeholder Platform (ESP) for the entire period in which the Strategy will be kept in force.

Doing so, the Strategy will be made available to all interested parties (Local or Regional public authorities, Research Organizations, Transport service providers, etc...).

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LP - POLITECNICO di Milano (Italy)

Name and Surname: Donatella Sciuto

Position: Rector

Place: Milan

Date: 30/09/2023

Signature:



Stamp



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Ljubljana



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Grad Sarajevo
City of Sarajevo



CITY OF ZAGREB
CROATIA



CAPITAL CITY PODGORICA



PP2 – Municipality of Milan (Italy)

Name and Surname: Giuseppe Sala

Position: Mayor

Place: Milan

Date: 30th September 2023

Signature:

Stamp



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City of Sarajevo



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CROATIA



CAPITAL CITY PODGORICA



PP3 – City of Ljubljana (Slovenia)

Name and Surname: Zoran Janković

Position: Mayor

Place: Ljubljana

Date: 30th September 2023

Signature:



Stamp



O.T3.1 - Transnational strategy for sustainable and innovative mobility in the cities of the AI region



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CROATIA



CAPITAL CITY PODGORICA



PP4 – City of Maribor (Slovenia)

Name and Surname: Barbara Mikuš Marzidovšek

Position: Head of Development Projects and Investments Service -Project Office:

Place: Maribor

Date: 30th September 2023

Signature: Under the authority of the Mayor

Head of Development Projects and Investments Service -Project Office:

Stamp

mag. Barbara MIKUŠ MARZIDOVŠEK,
Po pooblastilu



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Ljubljana



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Novi Sad



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Grad Sarajevo
City of Sarajevo



CITY OF ZAGREB
CROATIA



CAPITAL CITY PODGORICA



MESTNA OBČINA MARIBOR
ŽUPAN

Ulica heroja Staneta 1, SI-2000 Maribor
T: +386.2.2201 000, E: mestna.obcina@maribor.si
S: <http://www.maribor.si>
Davčna številka: SI12709590, Matična številka: 5883369

Številka: 10001-1/2019-21

Datum: 14.04.2022



Na podlagi 35. člena Statuta Mestne občine Maribor (MUV, št. 10/11, 8/14 in 12/19), izdajam

POOBLASTILO

Mag. Barbara MIKUŠ MARZIDOVŠEK, ki opravlja delo na delovnem mestu »sekretar-vodja službe«
v Službi za razvojne projekte in investicije-projektne pisarni mestne uprave

je pooblaščen

za podpisovanje:

- zahtevkov za sofinanciranje,
- vlog – prijav na razpise za nepovratna sredstva,
- prijav gradbišč pri Upravni enoti in pristojnem inšpektoratu,
- vloge oz. soglasja za prikllope na infrastrukturo (elektrika, vodovod, kanalizacija, priklopi na začasne in gradbiščne priključke ter soglasja lastnika za plačilo stroškov),
- pooblastil za pripravo in podpisovanje evidenčnih listov v sistemu IS odpadki, za oddajo gradbenih odpadkov zbiralcu oz. obdelovalcu gradbenih odpadkov,
- poročil iz naslova sklenjenih pogodb o sofinanciranju projektov,
- pooblastil projektantu za pridobivanje projektnih pogojev, mnenj, gradbenih dovoljenj.

Pooblastilo velja z dnem izdaje do preklica.

Z dnem uveljavitve tega pooblastila preneha veljati pooblastilo št. 10001-1/2019-20 z dne 3. 3. 2020.



Aleksander Saša ARSENOVIČ
ŽUPAN

Vročiti:

- ✓ – Mag. Barbara Mikuš Marzidovšek, osebna vročitev.



MESTNA OBČINA MARIBOR
ŽUPAN

**SLUŽBA ZA RAZVOJNE PROJEKTE IN
INVESTICIJE - PROJEKTNÁ PISARNA**

Ulica heroja Staneta 1, SI-2000 Maribor
T: +386.2.2201 000, E: mestna.obcina@maribor.si

S: <http://www.maribor.si>

Davčna številka: SI12709590, Matična številka: 5883369

Številka: 10001-1/2019-21

Datum: 14.04.2022

UNOFFICIAL TRANSLATION!

On the basis of Article 35. of the Statue of the Municipality of Maribor (MUV, št.10/11, 8/14 and 12/19) I issue the following

AUTHORIZATION

Mag. Barbara MIKUŠ MARZIDOVŠEK, who works in the position as: Secretary-Head of office" in the Department for Development Projects and Investments-Project Office of the City Administration

Is authorized

For signing:

- requests for co-financing
- applications for tenders for grants
- registration of construction sites to the Administrative Unit and the competent Inspectorate
- applications or approvals for connections to infrastructure (electricity, water supply, sewerage, connections to temporary and construction site connections and owner's approvals for payment of costs)
- authorizations for preparing and signing record sheets in the IS waste system, for submitting construction waste to the collector or construction waste processor
- reports/outputs from the concluded contracts on the co-financing of projects
- authorization for the construction designer to obtain project conditions, opinions, building permits

The authorization is valid from the date of issue until cancelled.

With the effective date of this authorization, the previous authorization number 10001-1/2019-20 from 3.3.2020 ceases to be valid.

Aleksander Saša ARSENOVIČ
Mayor

- Handed to:
Mag. Barbara Mikuš Marzidovšek,



PP5 – City of Zagreb (Croatia)

Name and Surname: Tomislav Tomašević

Position: Mayor

Place: Zagreb

Date: 30th September 2023

Signature

Stamp



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MESTNA OBČINA MARIBOR



CAPITAL CITY PODGORICA



CITY OF ZAGREB
 CROATIA

PP6 – Municipality of Patras (Greece)

Name and Surname: Kostas Peletidis

Position: Mayor

Place: Patras

Date: 30th September 2023

Signature:



O.T3.1 - Transnational strategy for sustainable and innovative mobility in the cities of the AI region



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2024/2025



MESTNA OBČINA MARIBOR



Municipality of
Maribor



CITY OF ZAGREB
Grad Zagreb



City of Zagreb

PP7 – City of Novi Sad – City Administration for Traffic and Roads (Serbia)

Name and Surname: Suzana Savić

Position: Head

Place: Novi Sad

Date: 30th September 2023

Signature:



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 City of Sarajevo



CITY OF ZAGREB
 CROATIA



CAPITAL CITY PODGORICA

PP8 – City of Sarajevo (Bosnia-Herzegovina)

Name and Surname: **Benjamina Karić**

Position: **Mayor**

Place: **Sarajevo**

Date: **30th September 2023**

Signature:

Stamp



O.T3.1 - Transnational strategy for sustainable and innovative mobility in the cities of the AI region





PP9 – Capital City Podgorica (Montenegro)

Name and Surname: Olivera Injac - PhD

Position: Mayor

Place: Podgorica

Date: 30th September 2023

Signature:

Olivera Injac

Stamp



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