# D.T2.1.6- Tribute Action PlanPatras



European Regional Development Fund - Instrument for Pre-Accession II Fund

**TRIBUTE** 



**PP6 – Municipality of Patras** 





# **Document Control Sheet**

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# **0. INTRODUCTION**

The WP T2, called the *Identification of Action Plans supporting the implementation of innovative* and sustainable mobility measures, englobes the Action Plan development (Act.T2.1) and the Pilot Action implementation (Act. T2.2). Regarding the Action Plan development (Act.T2.1), this document accounts specifically for the *Deliverable T2.1.6\_Tribute Action Plan\_PP6-Municipality of Patras*.

Patras action plan has been developed as an "Action plan to improve cycling accessibility, with an emphasis on safety". The Action Plan aims to promote and enhance the use of bicycles in urban areas and to support the cycling accessibility covering multiple urban areas, including challenging and demanding neighborhoods. Action Plan measures have the objectives of identifying the safety constrains for bicycle users as well as users' needs and preferences on cycling. In addition, the action plan measures consider the availability and extensive use of e-bicycles to support accessibility and inclusiveness by green and innovative modes of transport.

This document is based in a documentational state of the art research (Annex 1 Please annex the deliverable of the methodology for the action plan) to understand key projects and plans within the city of Patras that contribute to enhance alternative mobility modes in a national scale with the revision of the PNRR (National Recovery and Resilience Plan), at a local level with the revision of the SUMP (Sustainable Urban Mobility Plans) along with the learnings from the your city name pilot action deployment phase. The following figure illustrates the Action Plan framework and base elements:

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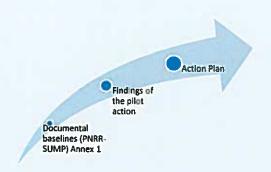


Figure 1: Action plan framework elements

This document describes practical actions and measures to aim at increasing the use of bicycle within Patras and within the Adriatic-Ionian region or elsewhere, that are interested in facing and tackling similar challenges within green mobility enhancement. The action plan, object of this document, is divided into four parts as follows: 1. Measures and actions to enhancecycling mobility and accessibility; 2. Stakeholders and citizens engagement methods useful to implement the action plan; 3. Protocol to assure that could be adopted to assure a sustained implementation of the action plan.

# 1. Measures and actions to enhance cycling mobility and accessibility

Patras action plan has been developed as an "Action plan to improve cycling accessibility, with an emphasis on safety". The Patras action plan aims to promote and enhance the use of bicycles in urban areas and to support the cycling accessibility and inclusiveness. Action plan measures have the objectives of identifying the safety constrains for bicycle users as well as users' needs and

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preferences on cycling and to enhance the use of cycling innovations.

Patras action plan is fully aligned with SUMP as it supports SUMP priorities and municipal mobility strategies toward green mobility and inclusiveness. The existing urban policy and plans are taken into consideration to develop Patras action plan.

The SUMP (Sustainable Urban Mobility Plan) is being developed in the city of Patras and it is anticipated that the City Council will adopt it by November 2023. SUMP provides recommendations and plans for Patras's future urban mobility. Additionally, the Sustainable Urban Regeneration plan (SUR) concentrates on the potential for development at the local level and serves as a strategic tool for putting development plans into action across four geographical modules, including Old Town. In addition, the Municipal Strategy Plan for Sustainable Urban growth highlights the unique characteristics and demands of the community while also identifies opportunities for local growth in the implementation areas. It serves for putting development plans into action across different spatial units. The objectives of each region's spatial plan include enhancing the physical and organized urban environment, as well as the people' socioeconomic status and employment, and day-to-day mobility and living conditions.

In particular, Patras Action Plan aims to support SUMP priorities toward green urban transportation. The objective of SUMP is to develop sustainable urban transportation systems that make mobility and accessibility of urban area, existing infrastructure, and available services. In this framework, SUMP supports green transportation by encouraging gentle modes of transportation, especially non-motorized ones like walking, bicycling, and light personal electric vehicles, ensuring user accessibility, security, and protection of the transportation network, with consideration for those who are obstructed and have disabilities, promoting user and vulnerable road user safety, including that of those who are obstructed and have disabilities; and reducing car traffic, particularly in congested areas.

Based on the Sustainable Urban Regeneration plan (SUR), Patras Action Plan focuses on the area of interest "Sustainable Mobility - Enhancing Accessibility". Both plans aim to fulfill the various

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mobility requirements of locals, visitors, and citizens, while enhancing physical accessibility to the different urban area and restoring the communal usage of urban public places for all users. Moreover, urban accessibility measures are developed focusing on supporting individuals with disabilities and the elderly. Integrated urban interventions must be made to facilitate connectivity and intermobility to connect the upper and lower portions of the city center for the mobility and accessibility of the disabled and elderly.

Finally, through the Sustainable Urban Development Strategy, Patras Historical Center is prioritized for Integrated Urban Development. Patras Action Plan involves measures that are based on bicycle routes that are designed and implemented based on Sustainable Urban Development Strategy. In particular, Route 2 (in the lower city) and Route 3 (Bicycle path network) aims to provide to citizens and tourist two alternative ways to visit Patras city center: a) a historic archaeological walk in the central urban areas, which crosses a portion of the lower city via the main pedestrian street of Riga Feraiou and features some of the most notable and representative newer monuments of the city; b) a Historical Center bicycle ride which features the construction of a bicycle network that crosses the historic city center (reconstruction of streets and sidewalks with cold materials, creating mild temperatures on the sidewalks and streets). The extension of route 1 in Old Town is decided and designed to cross the main part of the upper town with the integration of the most significant archaeological sites of the city (Castle, Ancient Conservatory, Roman Hippodrome), connecting the lower with the upper town through the Gerokostopoulou street. By making roads with low traffic, ensuring accessibility for the disabled, ttilizing suitable coating materials, planting, and urban equipment, the action attempts to improve the area's bioclimatic, mobility and aesthetic qualities.

# 1.1 Activating Common Bicycle Sharing System

Providing a common bicycle sharing system serves atomic commutes from a point - starting point to another point - destination, with no obligation to return the bicycle to the starting point. A prerequisite for the use of the communal bicycle is the registration of the user in the online service

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and the acquisition of a personal user electronic card, while using the bicycle is for free. A back office software that controls the use, the system management and the pricing procedures of the System Usage has to be used while a protocol should be provided focusing on clarifying the process of storage the shared bicycles and e-bicycles/e-tricycles, their free distribution to citizens and their parking in public or privet parking spots. In addition, the protocol will emphasis on guarantee the safety of the equipment (e-bicycles/e-tricycles) while GDPR issues should be foreseen and tackled in advance regarding data collection, storage and elaboration.

Enhancing bicycle sharing and integrating e-bicycles, creates the potential of promoting the city as a bicycle-friendly destination for sustainable tourism to boost economic growth. In particular, bicycle sharing system can be promoted to tourists through synergies with hotels, museums, cafes, etc.

# 1.2 Expanding bicycle paths network

The construction of bicycle paths leading to an expanded bicycle path network is one of the main Action Plan measures. A cycle path is a much safer route to take than congested main roadways. A cycle track can lower the danger of crashes and the frequency of road traffic problems because bicycles won't have to compete with vehicles for space on the road. This can subsequently make the region safer for both bikers and other road users, saving lifes, time and money.

Whether the cycle lane is being utilized by commuters or people with a hobby. A bicycle will most certainly end up being a less expensive option in the long run when compared to the expense of an initial investment in a car, ongoing gas prices and repairs, or even constant use of public transportation. In addition, less traffic on the roads and more cyclists in the bike lanes can reduce road wear and tear and the all-too-common pothole epidemic that seems to grace roadways. This can lead to lower road maintenance expenses for local authorities and a lower likelihood of having to pay for repairs for damage to personal automobiles resulting from badly maintained roads.

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Moreover, the usage of cycling lanes may certainly shorten the amount of time it takes to get from one location to another, especially in big, congested cities where the notion of being stuck in rush hour traffic makes daily trips difficult. The same journey taken by a car and a bike may take longer in more remote locations, but a cycle lane created properly may offer a more direct path provoding a pleasurable and sustainable way of travel. Even challenging areas of the city should be included in the planning process for active mobility modes, e.g. mountainous Old City, by integrating these areas in bicycle path network.

By creating cycling paths that are well-maintained and safe for cyclists to use even at night, the number of people using the more ecologically friendly mode of transportation can be increased significally. If used widely, this might have significant advantages for areas where smog and pollution are issues and have a favorable effect on the environment.

Finally, a smooth bicycle path can offer a safer route for persons who have trouble navigating kerbs, steps, and other obstacles, despite the misconception that it is only intended for bicycles. This may include people who use wheelchairs and mobility aids, as well as parents pushing strollers and cradling babies.

# 1.3 Supporting actions enhancing bicycle safety

To promote cycling as a popular and relevant transportation choice, it is important to consider the importance of a cyclist's safety. To improve the cycling experience in the city centers, the following supporting actions are to enhance safety in the future and existing network of cycle routes:

- A system with intelligent sensors and LED diodes can be added aiming to reduce the risk of bicycle-vehicle collisions at dangerous intersections. The flashing lights are placed on the asphalt in close proximity to the junction and when a cyclist passes a sensor, they start flashing to warn drivers that a bicycle is about to pass the junction.
- · A similar case is the integration of a tiny R-fid chip and a battery mounted on the

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handlebars of a bicycle. When the cyclist approaches the intersection then the R-fid triggers a warning signal to a device mounted at the intersection traffic light.

- The creation of a bike box at the road intersections provides the opportunity for cyclists to
  move in front of stopped vehicles during the red signal safely and with greater visibility. The
  bicycle parking frame gives priority to cyclists and minimises obstacles to traffic by avoiding
  collisions between vehicles and bicycles.
- Traffic lights designed specifically to prioritize cyclists present an invaluable solution to the
  dilemma of modern-day cyclists sharing the roads with automotive traffic. Bicycle signals
  make it easier for cyclists to cross roads. By indicating when to enter an intersection and
  limiting competing vehicle movements, bicycle signals make crossing intersections safer for
  cyclists. The light usually features a bicycle symbol and is smaller than the main signal.
  Bicyclists can enter the intersection first and are therefore more visible to other motorized
  road users when given the green light before autos, buses, and trucks.

# 1.4 Establishing e-charging stations

Urban sustainability goals include e-bicycles adoption targetscan only be achieved by lowering EV ownership barriers for cyclists. Local authorities has to provide access to affordable and convenient charging, which seems to be the third most cited barrier to purchase, after price and range. This is where city governments have a large part to play. Local authorities should work to overcome this barrier by installing commercial chargers in places like public spaces and buildings or parking areas.

In addition, commercial chargers are an excellent way to attract visitors choosing between urban areas offering similar points of interest while they can serve as an especially valuable economic development tool. A network of charging stations should be regulated to be ensured in popular places as a crucial component of the system.

To assist decision making on the deployment of public charging infrastructure in urban areas,

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various approaches proposed in the literature can be applied. One typical approach is to apply clustering techniques to point recharging demands and then deploy stations to the cluster centers (e.g., Ip et al., 2010, Momtazpour, 2014). The flow-capturing approach aims at locating charging stations to maximize the amount of traffic flow that travels along a path with at least one station (Hodgson, 1990, Berman et al., 1992, Berman et al., 1995, Hodgson and Berman, 1997, Shukla et al., 2011). In any case, one of the goals of electric mobility is to stabilize the electric grid, transferring electricity consumption from high demand periods to low demand periods, the nights being

the preferred moment to recharging batteries. This means that home charging is a key stone of supporting e-cycling.

In this framework, smart cities worldwide are installing commercial EV charging stations in a variety of places, such as retail plazas, public parking lots, parks, transportation stations while smart city initiatives also include partnering with multi-family building owners to ensure charging stations are being built in high-density residential areas.

# 2. Bottom up approach to implement this action plan

The process in which cities could define the actions and measures need to be aligned with the local context of each city. In order to define the measures that best suits each context is important to select and complement from the list of measures from the previous section (1 Action plan to -) the ones that could suit best the local context and then discuss with the citizenship about their willingness to use those proposed measures. After that process is done is paramount to involve and engage key stakeholders that are interested in cooperating for the definition in more detail of the prioritized measures. The following sections explore how to explore citizens willingness to use the proposed measures and the way in which key stakeholders could be engaged by using a bottom-up approach.

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# 2.1. Exploring the citizens willingness to achieve the objective of this action plan

This section focuses on end users' community involvement in order to inform and ensure Action Plan acceptance and effectiveness before the implementation of the plan. Any feedback to the different citizens' organizations and cyslists which provided useful input and data for the Action Plan development is strongly encouraged to maximize their engagement in future similar activities.

To analyze citizens' needs and preferences to use bicycle in the daily trips, a survey based on a questionnaire has been developed and distributed to citizens aiming to engage citizens in Patrasaction plan measures. The questionnaire cover all aspects of the issue and all areas of the city by involving respondents. The results provide a better understanding of the citizens and lead to meaningful data for analysis toward their willingness to accept and adopt Patras Action Plan. The most relative and important are presented below.

Citizens are willing to use bicycle in the city center even if the majority select as the main modes of transport in the center, private vehicles (e.g. car – taxi) or prefers to walk. The 12% of responders uses bicycles within the city center revealing an critical base of citizens interested in sustainable mobility and cycling.

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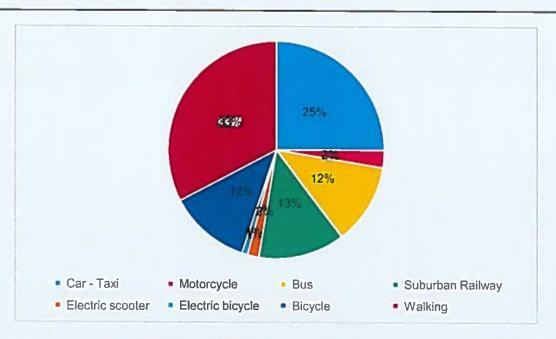


Figure 2: Results of Q1- How do you mainly move within the city center?

In addition, citizens are Citizens are very positive and support the expansion of the cycling and paths in urban areas leading to a bigger network and enhancing cycling acessibility.

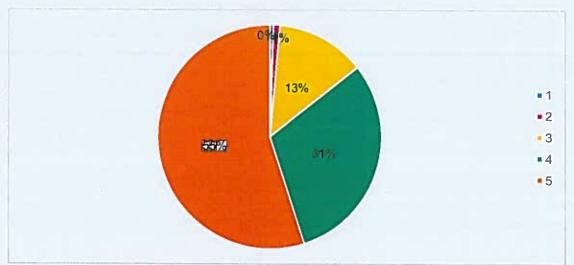


Figure 3: Results of Q2- How much do you agree with the possibility of expanding cycling paths?

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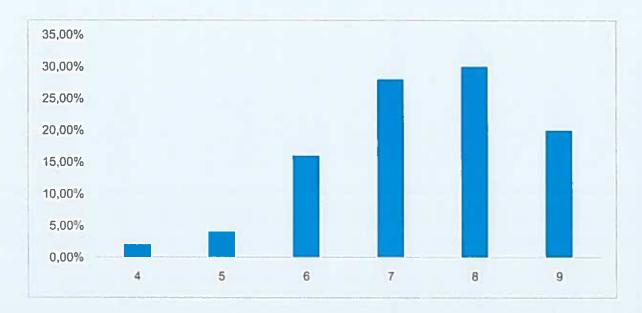








Finally, citizens are willing to use electric bicycles for their daily trips, compared to conventional bikes, indicating the citizens' positiveness in adopting cycling innovations.



**Figure 3:** Results of Q3-How much <u>more</u> are you willing to use electric bikes for your travels, <u>compared to</u> conventional bikes? (1=10% more...to...9=90% more)

Finally, Increased visibility of bicycles in the city streets can lead to familiarization of citizens with this eco-friendly transport mode towards influencing their behavior and increasing their use.

# 2.2. Stakeholders engagement processthrough a living lab

This section gives some guidance about stakeholders engagement which is critical to implemented action plan measures. These action plan measures should be selected through a participative process and through agreements among all stakeholders. This ensures successful implementation and lessens resistance.

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Stakeholder identification and involvement ensures the whole project effectiveness. Stakeholders can be subdivided in three groups: local and regional authorities, NGOs and private enterprises-companies, citizens and users. Round table discussions are more suitable for decision-makers, forums are more suitable for both decision-makers and end-users. Finally, interviews, exhibitions, information activities thought media (e.g. web) and alternative form of involvement are suitable only for end-users. It might be highlighted that the kick-off meetings are organised in order to collect stakeholders will, availability, opinions and habits (these two last aspects are more linked to end- users) and to inform them about the intention to create an urban sustainable mobility plan.

<u>Stakeholders' engagement process through Patras living lab</u>: Stakeholders participating in the living lab could be involved actively through periodical meetings. In these meetings, key stakeholders could participate in the co-design, co-implementation and co-monitoring of mobility actions and exchange experience and best practices on cycling activities in the city.

In particular, focusing to solve the door-to-door accessibility issues, a systemic approach that requires greater collaboration across urban planning, transport planning, social services, and education systems should be adopted. Social inclusion should be ensured before and during the implementation of the actions, in order to achieve co-ownership and address all target groups, e.g., elderly, disabled.

Engaging stakeholders in open dialogue may be challenging but their involvement is very important and should be sought through focus groups, workshops, living labs, etc.

Through Living Lbas, policy-making should:

- Enable persons with disabilities to own smart technologies and smart assistive technologies to enable them to interact with smart mobility systems.
- Raise the digital competence and confidence in the use of smart technologies of persons with disabilities.

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- Ensure greater collaboration between urban with transport planning to design accessible routes to modes of transport.
- Prioritize the accessibility of all vehicles in 'green' fleets to minimize time delays due to inability to board or overcrowding.
- Invest in the accessibility of cities and transport infrastructure.
- Invest in public campaigns to improve social attitudes and transport etiquette towards citizens with all types of disabilities and access needs.
- Make mandatory the participation of disability/accessibility experts in standards developments for vehicles, mobility systems and transport services.

# 3. Policy or protocol that could be adopted to assure a sustained implementation of this action plan

A protocol to assure a consisting implementation of Patras Action Plan should be developed. The proposed protocl is a strategic guide with a sequence of steps that planners are encouraged to follow

in order to create and implement a sustainable mobility plan. It should be noted that this plan take into consideration both urban and sub-urban areas.

The protocol template follows four main steps which start with (i) Study, (ii) Plan, (iii) Do, and (iv) Act and Check. Each of the steps then leads to a number of sections which help to define the context, operationalize the development of the plan, implement the measures and monitor. This section describes all the steps and actions in detail. The proposed template is defined with a circular approach to foster the continuous improvement of the developed Action Plan. Indeed, once the final Act and Check step is completed, the city mobility manager should proceed with the adoption of a second Action Plan round to further improve the developed sustainable mobility solutions, including bicycle use.

A. Study

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The first step focuses on the context analysis, a part that is fundamental to understand which are the main features and characteristics of the study area, its situation and its history. It includes the following subsections which are further presented below.

### Decarbonization and air quality

The aim is to analyse the overarching European, national and local legislation and regulatory framework and the current policy and operative actions (i.e. experiences and good practices) to mitigate climate change at local level in urban areas. Following this analysis, the mobility planner should study the local air quality through a list of preselected KPIs determined during the first phase of the analysis. This concerns primarily the air quality surrounding the urban areas.

### Local geographical area dynamics

As a first step it is important to contextualize the urban area by relating it to the surrounding environment, establishing links to the urban and suburban Master Plans already in place and the suburban development context. Furthermore, the overall plan has to relate with the projected future suburban demographic and residential patterns (related also to zoning and building management) and service/infrastructural dynamics (locations of public transport stations, commercial activities, and so on) should be taken into consideration. Secondly, it is important to determinate which are the urban current dynamics and future projections. Such information about the regulatory local framework, zoning and building management is critical. Finally, the third step of studying is to analyse the public transport offers, and possible future plans, the existing bicycle infrastructures and others mobility measures already implemented.

### Demographic challenges

The demographic context in which the study area is crucial, both with reference to present and future scenarios. This information would contribute significantly to the understanding of future suburban and territorial development. It is also important to determinate urban areas' socio-demographical features in order to better adapt future cycling measures. The final action aims to

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understand mobility habits of citizens and workers such as time scheduling and mobility preferences (with a particular focus on cycling preferences).

### **Digital society**

The objective of this priority is to guide the planner to better understand the impact of technologies on the urban sustainable mobility, in order to integrate its choices with current and future technological trends. The willingness of the citizens to use on daily basis mobile applications for transportation purpose is of major important to lead the future decisions for the development of adoptable mobility solutions. A major driver of this analysis is the population segmentation considering its age.

#### B. Plan

This phase describes mainly the planning process and the development of an impact assessment procedure to monitor the impact of the selected measures on the short and long term. It is likely that the presence of contrasting interests among different stakeholders will result in long discussions. However, this is what determines the projects acceptance and feasibility. The following steps are proposed as critical steps of the protocol.

### Definition of goals, KPIs, Action Priorities

At the same time as the analysis of the context and stakeholder engagement, the goals, key performance indicators (KPIs) and Action Plan priorities should be identified. Firstly, goals and targets have to be strategically selected in order to mainstream the plan's process into specific planning choices. Once goals are defined, corresponding KPIs are selected in order to evaluate the plan's effectiveness. KPIs should be measurable, quantitative and comparable to foster as much as possible an objective evaluation of the monitored process.

The following table (table no.1) gives an indication of the KPIs that could be monitored:

Table No.1 KPIs that could be monitored during the implementation of the measures within this action plan

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Indicators or KPIs	Baseline	Target
MOBILTY	V-u-	
Bicycle users per month		
E-bicycles per citizen		
Annual trips by bicycle per citizen		
Shared bicycle per citizen		
ENVIRONMENT		
Congestion (Number of double parked vehicles per month		
Air pollution (relevant pollutant identification		
that is monitored within your city: Carbon		
monoxide, PM10 etc.)		
SAFETY		
Bicycle accidents per month		
SOCIAL		
Children biking daily to school per month		
Disabled bicycle users per month		
Elderly bicycle users per month		
DECARBONIZATION OF TRANSPORT		
Bicycle paths lenght	GARAN	
Offered shared mobility services per		
neighborhood		
Low and green mobility zones		
Transport infrastructure for e-mobility modes (priority corridors/lanes, safe and secure parking etc.)		

C. Do

This step is fundamental for the execution of the Action Plan, since it assigns roles and responsibilities to anyone who collaborates with themeasures and each action is divided in each operative task. More specifically, this action determines a deadline for each actionand measure in order to avoid any postponement and delay. Furthermore, this action assigns roles and responsibilities to anyone who collaborates on the measure and each action is divided in operative tasks. Moreover, communication activities have to be run in order to inform the involvedstakeholders. Finally, the plan's future improvements have to be considered in order to improve its effectiveness and potential corrective activities. The way of proceeding in this step

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### consists of the following activities

- (Relevant to 1st Step) Deadlines: the mobility planner with its collaborators determines a
  deadline for each action in order to avoid any postponement and delay.
- (Relevant to 2nd Step) Roles and responsibilities: the mobility planner with its collaborators assigns roles and responsibilities.
- (Relevant to 3rd Step) Operative action and tools definition: each action defined in Action
  Plan of sustainable mobility improve and cycling accessibility divided in tasks. Moreover,
  mobility planner and its collaborators have to define proper tools, which have to be used
  during the measures execution in order to ease the implementation of certain actions.ICTs
  and mobile-based applications represent valuable tools to facilitate the communication
  amongst thedecision makers and the end-users.
- (Relevant to 4th Step) Communication: communication activities have to be run in order to inform theinvolved Stakeholders.
- (Relevant to 4th Step) Finally, future plan improvements have to be considered in order toimprove itseffectiveness and potential corrective activities.

#### D. Check and act

This step gives specific guidelines to the mobility planner for monitoring measureswhich wouldhave been implemented and reporting on their progress. If the mobility planner finds out somedeviation with predicted goals and targets (in others words the plan's impacts), the mobility planner would be in a position to provide suitable corrective actions and maintaining constant communication with the relevantstakeholders. Moreover, in order to promote the diffusion of project results dissemination activities are implemented. It includes the following subsections which are further presented below.

### KPIs evaluation

The goal of these actions is the action plan implementation and the assessment of results. KPIs

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are evaluated bycomparing forecasted values with those resulting from the effective implementation of the measures, in order tocompare the plan's objectives and obtained results based on technical, economic, social and environmental performances.

### Corrective actions

After the evaluation of KPIs, the mobility planner decides the most suitable countermeasure. In order to select the proper corrective action a four-step procedure should be followed:

- · Identification of major drawbacks and weaknesses
- Prioritisation of future actions
- · Implementation of most relevant corrective actions
- Feedback loop for further improvement

Prioritization step is of major importance since the mobility planner typically has a limited budget forthe implementation of mobility actions, e.g. financial, infrastructure, human and competences resources. Thus, anaccurate evaluation of those actions with the highest expected impact – invested resources ratio is of major importanceto maximize the efficacy of the implemented corrective actions.

#### Results dissemination

The last activity of the Action Plan is the dissemination of the achieved results. The aim here is tosuggest aprocedure that maximises the impact of the actions aimed at urban sustainable mobility and cycling acessibility. At the end of the plan'simplementation this phase collects the best practices developed. Furthermore, appropriate round tables, seminars and events have to be organized to appropriately communicate to the differentstakeholders the measures outcomes most relevant for each of them.

4. Describe an extension element of your pilot action that could enhance the implementation of the action plan

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Planning of societal trends, mobility ans cycling scenarios go in parallel with the development of the sharing economy, and specifically on the sharing mobility solutions. For this reason, the development of shared systems-tools that support the implementation of the action plan measures to provide mobility as a service. Upon the behavioral aspect, this analysis should consider the willingness to shared mobility solutions considering the typical user habits.

In this frameork, a Municipal Mobility Card can be provided to citizens enabling local governments to drive local spending while helping residents adopt means of green mobility. The use of Mobility Card will offer residents rewards that can be applied directly towards local SMEs.

The Mobility Cardcan support municipality, its local businesses, and its citizens to interact in a mutually beneficial way. The card can be designed to engage mobility users and convey a new vision where they can perceive a clear service strategy aimed to offer a seamless experience during their transit and travel across the cities. A personalized service which will improve over and over again with each travel, collecting datas and detailing profiles.

### 5. Conclusion

Although Sustainable Urban Mobility Plans are considered useful and important tools to define the necessary setof interrelated measures designed to satisfy the mobility of citizens, a very important gap can be identified and consists of the lack of a standardized plan that local authorities should follow to develop anefficient and effective sustainable urban mobility plan tailored to the citizens' needs and characteristics.

Based on this gap, an Action Plan including a comprehensive methodology and guidelines to simplify the adoption of sustainable urban mobility and cycling accessibility measures by the decision makeror urban mobility planners. The proposed action plan is a strategic guide with a sequence of steps that local authorities are encouraged to follow in order to create a sustainable mobility plan and increase cycling accessibility and safety.

The proposed action plan offers suggestions to satisfy, particularly the needs of citizens and

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cyclists considering the technical, economic, social and environmental sustainability of the proposed measures. Moreover, the action plan considers the fact that cycling is embedded into the overarchingmobility context that see other end-users of the mobility services sharing with the urban end-user's infrastructures and services.

Further action includes the development of a road map to act as a ready-to-use guide for decision makers who intend to implement a plan for enhancing cycling acessibility and safetyby applying the appropriate measures. This road map should take into account the steps and tools required and guarantee the commitment of those responsible for the social, economic and environmental sustainability of the proposed action plan.

MUNICIPALITY OF PATRAS

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