





Action Plan for Municipality of Thessaloniki







Contents

1.	Part I – Gen	neral information	3
2.	Part II – Pol	icy context	4
3.	Part III – De	etails of the actions envisaged	6
3	3.1 Propose	ed actions	7
		tion 1: Technical Specifications for the elaboration of the "Sustainable Urban Logistics Plan the Municipality of Thessaloniki	8.
		tion 2: Sign of the Memorandum of Understanding (MoU) with Thessaloniki Smart Mobility ThessM@LL) for Real time information services for citizens	2
		tion 3: Pilot installation of micro mobility hubs of electric sharing transport schemes in City's	5
	and the targ	bU sign with at least one of the Universities' administration of the city centre, part of which are geted awareness raise campaigns for University Students' mode choice and information about the environment, the city and the individuals	
4.	Monitoring of	of the action plan implementation in Phase 22	1
5.	Signatures .	2	3



1. Part I - General information

Project: 2050CliMobCity

Partner organisation(s) concerned: Municipality of Thessaloniki

Country: Greece [ΕΛΛΑΔΑ (ELLADA)]

NUTS2 region: Region of Central Macedonia [Κεντρική Μακεδονία (Kentriki

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This is the reformatted web-version of the Action Plan. For the formal version, please contact the indicated contact person.



2. Part II - Policy context

The Action Plan aims to impact:

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Local Development Policy Instrument

Name of the policy instrument(s) addressed:

Operational Plan of the Municipality of Thessaloniki

According to the Application Form of the 2050CliMobCity project, the Municipality of Thessaloniki (MoT) had stated that the Policy instrument that initially aimed to influence was the **Operational Programme of the Region of Central Macedonia 2014 – 2020**, which sets as priority (among others) the promotion of integrated interventions for urban mobility with the ultimate goal of reducing CO₂ emissions in the metropolitan area of Thessaloniki and other urban centres.

However, during the initial formulation of our Action Plan and after in-house discussions among the MoT departments and services, we came to the conclusion that the Municipality does not possess the necessary capacity management to interfere in a such a large scale such as the Regional Operational Programme which is addressed to seven different counties (Thessaloniki Metropolitan Area, Kilkis, Serres, Pieria, Pella, Imathia, Chalkidiki) with an overall population of 1,8 million citizens, when MoT has approximately 330.000 inhabitants.

We transferred our concerns to the Project coordinators of the 2050CliMobClty project about our serious doubts about succeeding our initial aim, enabling them to understand the problem the Thessaloniki attendees in the project face and the solution they propose.

After a meeting during the Mid-term evaluation that took place with the presence of the Project Coordinator, the Lead Partner Delft University of Technology and representatives of the JS, we were notified that the partners have the chance to focus also in local Operational Plans, although they have not mentioned such a thing at the Application Form, but the change requires a good justification from the partners.

Since the 4th Reporting Period (RP), the Municipality of Thessaloniki has suggested (in the iOLF system) an additional policy instrument to address. This instrument refers to the Strategic and Operational Plan of the Municipality, for the years 2020 - 2023 (MoT OP), and is considered a Local Operational Plan (LOP). These types of plans are obligatory, according to Greek legislation, and they are developed in-house, by the appropriate unit; in this case the Dpt. of Operational Planning and Monitoring of Development Programmes, which is already involved in the project (along with the Directorate of Sustainable Mobility and Networks); hence, the transition of the project's results to the MoT OP are almost certain.

It must be noted that, at the current time frame, the initial Policy Instrument (the Operational Plan of the Region of Central Macedonia - OP RCM - 2014-2020) is very difficult to be influenced as it is approaching its end. In addition, the OP RCM of the new programming period (2021-2027) has just begun. Its approval is estimated to be announced during this summer, thus not providing sufficient time for the 2050CliMobCity project's results to be communicated. Our suggestion is that we will try to influence the OP RCM at a later time, via the OP MoT. We feel that, since the Municipality of Thessaloniki is the 2nd largest in Greece, and the largest in Northern Greece (NUTS 1 level), it is very likely that the suggestions included in our Action Plan will provide a stepping stone for MoT to acquire funding from the OP RCM, at a later stage.

Therefore, the policy instrument we want to influence through the 2050CliMobCity project is the Local Operational Plan of the MoT. It is a plan that is prepared in house by the MoT and sets up the social, economic, mobility and environmental priorities of the Municipality and specifies the frame of all the future projects and plans that will be potentially elaborated within the boundaries of the Municipality. It consists of four major classes:



- Environment and life quality
- Social policy, health, education, culture, sport and youth
- Local economy and employment
- Administrative capacity and internal development

Further details on the policy context and the way the action plan should contribute to improve the policy instruments:

The action plan of the 2050CliMobCity project will improve the policy instrument mentioned above by highlighting not only the need to undertake general initiatives to reduce CO₂ emissions from the mobility sector but by specifying specific actions and describing the pathway for the final effective implementation which contributes to:

- The improvement of the efficiency of the Urban Freight and Distribution system of the City
- The citizens encouragement to take more environmentally friendly and data driven decisions regarding the mode choice by providing real time information about the conditions in the road network of the city
- The promotion of alternative transport schemes by installing the appropriate infrastructure in the city's public space
- The awareness raise of citizens regarding sustainable mobility by targeted campaigns and take joint initiatives with specific stakeholders to secure low carbon emissions from transport mode choices



3. Part III - Details of the actions envisaged

As part of 2050CliMobCity project, and leveraging on the city's existing SUMP (2021) strategy and interventions, the project team has developed measure packages for reducing GHG emissions on the basis of:

- Enhancing and further elaborating measures considered by the SUMP of the City which is also the result of a consultation procedure between the Municipality, the local stakeholders and the citizens
- Elaborating accompanying measures, mainly related to Thessaloniki's citizens' behaviour changes

The measures are pillared on the intervention areas defined by the 2050CliMobCity project, namely:

- Modal shift
- Innovation
- · City logistics and
- Energy

The proposed 2050CliMobCity measures are presented per pillar in the Table 1, along with the existing SUMP measures and interventions that are considered under each pillar as already tested and accepted.

Table 1: The SUMP and the 2050CliMobCity measures packages and scenarios for Action Plan validation

Scenario reference	A. Modal shift pillar	B. Innovation pillar	C. City Logistics pillar	D. Energy pillar
SUMP 2018 (base year)	Current (2018) mobility status for comparison before & after	Current (2018) mobility status for comparison before & after	Current (2018) mobility status for comparison before & after	Current (2018) mobility status for comparison before & after
SUMP 2030 intermodal public transport strategy & scenario (BAU scenario for 2050CliMobCity)	 Pedestrianization and public space reallocation in the city METRO operation Bus Network reorganization & redesign Maritime Public transport New Bike infrastructure (total 46 km of bike lanes) West Suburban railway 	Advanced traffic management & Control Park & ride (1500 places)	New supervision to the parking slots for deliveries Development of SULP	
2050CliMobCity scenario for 2030 (Electromobility and awareness raise campaigns)	Shared electric mobility introduction scenario considered from municipality participation to MOMENTUM project) (2030) Triggering behavioural changes through awareness campaigns for citizens' mode choice and the, associated to the choice, impact for the environment, the city and the individuals	use of THESSM@LL services for fact-based and data-driven decision making in sustainable mobility management and planning	Electrification of the Municipal fleet	Energy savings from street lighting
	Final Scenario of 2050CliMobCit	y Project for 2030 (Combinatio	n of 1st and 2nd scenarios)	

All these measures were analysed through modelling tools as part of the evidence-based development of the city's Action Plan for the 2050CliMobCity project. It should be noted that the quantitative modelling results come from the actions and interventions that can be simulated in a traffic simulation model, both individually and in combination. In addition, PIK¹ has analysed the CO₂ reductions by adapting its so-called Euro-Calc to the city level. Its input consists of the predicted change of mobility due to the measure packages. It is

¹ Potsdam Institute for Climate Impact Research



worth mentioning that there are actions that cannot be examined by a traffic simulation model but they contribute to a total final reduction of vehicle kilometres within the MoT, and therefore to a reduction of CO₂ emissions.

The EuCalc is a what-if model: if the mobility changes in a certain way the tool can indicate the reduction of CO₂ emissions. The fact that the mobility impact of the final scenario is calculated and tested using the Hellenic Institute of Transport (HIT) model can be a strong validation for actions of the Action Plan.

Therefore, the Action Plan of 2050CliMobCity is not only directly but also indirectly related to the concept of the final (combined) mobility scenario for the 2030 time horizon for Thessaloniki's Municipality.

However, the action plan should be implemented and monitored during the second phase of the project; therefore there are some time constraints that should be taken into account.

Moreover the Action plan should contain:

- Activities to support the creation or adaptation of a policy, resulting in a process
- Activities to create, improve or strengthen, elaborate or supplement policy plans, resulting in a policy plan
- · Activities to achieve concrete policy implementations of measures in practice

In advance for each action of the 2050CliMobCity Action Plan should be justified:

- the way the action is linked to the project,
- the nature of the activity to be implemented,
- the timeframe.
- the stakeholders involved,
- the costs and the funding sources,

Last but not least the actions that are going to be implemented are <u>aiming to influence policy instruments</u> <u>addressed in the application form of the project</u>, which is actually the Operational Programme of the Region of Central Macedonia and in addition the Operational Programme of the Municipality of Thessaloniki.

3.1 Proposed actions

Taking into consideration the above, a consultation procedure has begun with the participation of Municipal Services (Dpt. of Operational Planning and Development Programmes Monitoring of Thessaloniki Municipality, Dpt. Of Urban Planning, Department of Urban Environment Management and Dpt. of Sustainable Mobility and Networks Sector of Transportation Planning of Thessaloniki Municipality) and the Administration Authority representatives in order to identify attainable activities in the time frame of the 2nd Phase which are also related to 2050CliMobClty content and actually are accompanying measures to the measure packages of the final scenario, calculated and tested using the HIT model, and contain the initial preparation and the initial steps that should be undertaken by the City in order to be ready in the future to actually plan and implement those measures.

Those actions are the following:

- 1. Technical Specifications for the elaboration of the "Sustainable Urban Logistics Plan (SULP)" of the Municipality of Thessaloniki
- 2. Sign of the Memorandum of Understanding (MoU) with the Thessaloniki Smart Mobility Living Lab (ThessM@LL) for Real time information services for citizens
- 3. Pilot installation of micro mobility hubs of electric sharing transport schemes in City's public space
- 4. MoU sign with at least one of the Universities' administration of the City Centre, part of which are targeted awareness raise campaigns for University Students' mode choice and information about its impact in the environment, the city and the individuals

It is worth mentioning that the nature and the thematic areas of the activities of Thessaloniki's Action Plan are based on the planning and promotion of mobility sectors that have not been yet covered sufficiently by the City's existing strategy of reducing CO₂ due to the fact that the conditions were not mature enough for their actual implementation. Therefore the proposed thematic areas are:



- electromobility,
- real time information services,
- sharing transport schemes,
- awareness raise,

and not so much on the implementation of bicycle and pedestrian infrastructure and public transport facilities, as all these measures have already been extensively studied in various projects in the past and are already in the planning process of the City.

3.1.1 Action 1: Technical Specifications for the elaboration of the "Sustainable Urban Logistics Plan (SULP)" of the Municipality of Thessaloniki

ACTION 1: Technical Specifications for the elaboration of the "Sustainable Urban Logistics Plan (SULP)" of the Municipality of Thessaloniki 1. Relevance to the project Freight transport has a substantial share in CO₂ emissions, as has been discussed during different project meetings and analysed by PIK. For Thessaloniki already the carbon release of municipal trucks would lead to a substantial reduction of CO₂ emissions. Freight transport should therefore be addressed by measure packages and municipal policies aiming for climate-friendly mobility, and be part of the mobility predictions. Good freight prediction references were Plymouth and Bydgoszcz, distinguishing between heavy and light duty vehicles on different types of roads in the municipality. Thessaloniki and its advisors could adopt such practices. In addition, the analysis of CO₂ reduction by PIK showed that more reduction is required. A relevant option is to specify which innovations in urban freight distribution are promising and to eventually incorporate the findings in municipal policies. In this framework a Sustainable Urban Logistics Plan is of great relevance, as it will organize the Urban Freight Transport and Distribution system of the city and increase its efficiency and effectiveness in terms of sustainability, as it is responsible for an important percentage of the fuel-based vehicle kilometres within the city, congestion and therefore CO₂ emissions and audio and visual annoyance for the citizens. During the Interregional Learning Seminars that took place in the 1st phase of the 2050CliMobCity project, useful information were presented to the project partners about the pathways to Sustainable Urban Mobility Measures implementation and how they can actually be linked to the effective and efficient operation of a City in cooperation with other sustainable planning initiatives. The experts responsible for these seminars, such as the presentations of: the UCL Experts about "Sustainable Urban Mobility Planning: Pathways and Links to Urban System", Delft University expert and Project Coordinator, Ekki Kreutzberger "Do our measure packages provide sufficient CO2 reduction? Reflection on this challenge for freight transport", gave to the 2050CliMobCity partners the chance to expand further their horizons about the kind and the nature of actions that actually contribute to CO₂ emissions reduction and do not directly refer to citizens mode choice and mobility but are related to other activities of a City.



One of those activities for instance is the Urban Freight Transport and Distribution System of a city which is responsible for the distribution of the products and goods in shopping centres, shopping areas and also in individual shops securing both the availability of products for consumers and also the economic growth of the City. However if the system is not organised with appropriate regulations regarding:

- the timetable deliveries (especially prohibiting logistics operation during morning peak hours),
- the heavy duty vehicles access restrictions in shopping areas,
- the carbon-based light duty vehicles access restrictions in many parts of the cities (as these emit very much CO₂ per km),
- the unhindered operation of the parking slots for deliveries,
- the fuel technology of the fleet making the deliveries,

the Urban Freight Transport and Distribution System can be a major factor of traffic congestion especially in city centres causing a significant amount of CO₂ emissions.

Moreover, during the seminars session of the online project meeting 5A on 21 & 22 April 2021 co-hosted by the city of Leipzig, introductions were given by Marcel Michon (Buck International) about the Urban Freight Transport, which significantly contributes to CO₂eq emissions in cities. Mr. Michon first presented supply chain strategies that try to increase resilience of networks and lower costs – all increasing the number of (city) distribution centres. He also discussed EU, national and local measures to reduce CO₂eq emissions and highlighted examples from the Netherlands.

Taking into consideration all the above mentioned and trying to compare them to the existing situation in the city of Thessaloniki, it is noticed that the vast majority of the goods distribution is also performed by heavy vehicles that make use of old technology engines during the morning peak hours, causing a lot of delays in central junctions and road sections of the Thessaloniki's road network. This conclusion also arise from the analysis of the motor traffic load measurements in the city main roads (conducted for the traffic simulation purposes for the City's SUMP and the data are also used from the 2050CliMobCity project) that showed that around 7% of the morning peak hours traffic come from heavy vehicles, not to mention the noise and visual annoyance of the citizens caused by those vehicles.

Moreover, taking into account the fact that at the moment in the City of Thessaloniki the time and access regulations for heavy vehicles do not apply due to lack of appropriate supervision, no initiatives regarding the upgrade of the fleet and the supervision of parking slots have been undertaken and no joint distribution centres for different firms exist, the need of elaborating a SULP in order to investigate all these parameters and formulate the regulation framework is crucial.

Therefore in order the MoT to be able in the future to elaborate a SULP, the technical specifications of the plan is a prerequisite.

2. Nature of the action

The first step for the elaboration of a SULP is the preparation of the Technical Specifications of the project. MoT will prepare a <u>Technical Report</u> that will



	describe the prerequisites, the requirements and the necessary steps for elaborating a Sustainable Urban Logistics Plan such as:			
	 The initial preparation of the Municipality to set up working structures (Municipality's project team, financial and human resources evaluation, time schedule, etc.) 			
	Specification of the minimum skill requirements for the external experts needed for assisting the Municipality			
	Development of the suitable participatory procedure with the local related stakeholders and citizens			
	4. Definition of the study area			
	5. Link with other planning processes (overhead and local) in the field of urban mobility and urban-spatial planning			
	6. Identification of the required data for collection and analysis to evaluate the current situation of the Urban Freight Transport :			
	7. information sources,			
	8. applicable guidelines, regulations and laws			
	9. tools and methods for data collection,			
	10. cooperation with data owners / related freight stakeholders			
	Specification of tools and methods for data analysis and visualization and datasets formulation			
	12. Analysis of the current situation of the Urban Freight Transport System and quantification of operational factors and parameters			
	13. Defining the vision and objectives of the project			
	14. Develop and jointly assess future alternative scenarios for the operation of the future Urban Freight Transport System in different time horizons			
	15. Formulation of the measure packages and the framework for their monitoring and evaluation			
	This report will be sent to the appropriate Stakeholders (see step 3 below), in order to receive comments and be further enriched and verified. In addition a business meeting will take place with the responding stakeholders for the final verification of the Report.			
	By doing this, the Municipality will have set the overall framework for the SULP's future development.			
2b. Estimated impact	The Municipal Services will be able after the report to seek for funding sources for the SULP elaboration and even begin the tender procedure for its elaboration			
2c. Relations	This action is related to action 2, as a lot of data might be already available from the Thessaloniki's Living Lab			
3. Stakeholders involved	The stakeholders involved in the action are:			
	Thessaloniki's trade association: It is the association representing specifically the shop owners and merchants of the			



City. It can give a targeted description of the actual problems that that they are facing daily regarding the product supply of their shops.

- Thessaloniki Chamber of Commerce and Industry: It is the association responsible for the protection and development of professionals and the promotion of their needs in the competent bodies of the state and acts as their advisor. It can make suggestions about the communication strategy of the Plan and how to achieve the engagement of the local merchants, shop owners and logistic companies (participatory procedures). It can give the point of view regarding the logistic chain both from the Shop owners and the logistic companies responsible for the product distribution to the shops.
- Region of Central Macedonia Services: Is the responsible body for the coordination of the initiatives and projects elaborated within the Region of Central Macedonia from different services and bodies. Its participation is needed for the identification of threats for the future elaboration of the Plan in order to secure its applicability and its link with other planning processes (overhead and local) in the field of urban mobility and urban-spatial planning.
- Traffic Police Municipal Police: They are the responsible bodies for the supervision of regulations regarding the road network. They can underline according to their experience the existing problems of the available supervision techniques.
- Hellenic Institute of Transport (HIT): As the HIT is responsible for the operation of Thessaloniki's Living Lab (see action 2) it can give a detailed description of the data needed to be collected and the possible methods and techniques for their collection. It can also specify the analysis needed to be elaborated for the evaluation of the current situation of the Urban Freight Transport System

The involvement of all these stakeholders is mostly related to the Report's enrichment in order to be adjusted to the investigation of the actual needs and problems of the Urban Logistics Chain of Thessaloniki and to secure that it will take into account other initiatives regarding mobility undertaken by other Authorities and Services to secure its compatibility.

3b. Responsible Actor

- Dpt. of Operational Planning and Development Programmes Monitoring of Thessaloniki Municipality
- Dpt. of Sustainable Mobility and Networks Sector of Transportation Planning of Thessaloniki Municipality

4. Timeframe

		Time											
	2022						2023						
		7t	h S	eme	ster		8th Semester						
Actions	7	8	9	10	11	12	1	2	3	4	5	6	
Preliminary procedures													
Consultation procedures													
between the different													
departments													
Assistance of external													
expert													
Consultation procedure													
with appropriate						L							
stakeholders													
Drafting the report													



	Finalization of the document							
5. Costs	The Report is going to be prepared and evaluated by the additional Staff members of the Municipality (i.e. those that have already been hired for the needs of the 2050 CliMobCity project). In addition, external assistance might be needed (i.e., subcontracting or other types of costs, such as a framework programme contract with competent organisations or even stakeholders that assisted the Municipality with its obligations during the phase 1 of the 2050 CliMobCity Project).							
	Taking into consideration that also a short of consultation process should be preceded between the staff members and the different departments and then its final preparation will follow and be evaluated, we can estimate that 3 person-months will be needed.							
	Costs for the preparation and the monitoring of the Technical Specifications for the elaboration of SULP of the report:							
	 two medium level staff members work exclusive for 4 months -> 12.800 € optional external assistance for the documentation: 3.000 € 							
6. Funding sources	The main funding source for the documentation will be:							
	 the Financial Municipal Budget formulated according to the Local Operational Plan (LOP) of the MoT the Policy Instrument of the Region of Central Macedonia (if circumstances allow it) 							
7. Priority	This action is of high priority							

3.1.2 Action 2: Sign of the Memorandum of Understanding (MoU) with Thessaloniki Smart Mobility Living Lab (ThessM@LL) for Real time information services for citizens

ACTION 2:	Sign of the Memorandum of Understanding (MoU) with the Thessaloniki Smart Mobility Living Lab (ThessM@LL) for Real time information services for citizens
1. Relevance to the project	At different project meetings there was the message that CO ₂ emissions of mobility in the city will only decline if one or more of the following changes of mobility will occur: 1) Modal shift to more sustainable modes, 2) Decline of the average trip distances, 3) Increase of the average vehicle occupation, 4) substitution of carbon engines by clean ones (often this will mean electrifying road transport), and 5) making the traffic flow more climate friendly (e.g. lower maximal speeds, homogenising traffic, reducing the amounts of accelerating and braking, less congestion). Thessaloniki Smart Mobility Living Lab (ThessM@LL), one of Europe's largest Living Labs, can contribute to some of these mobility changes, in particular 1, 2 and 5. The entire city of Thessaloniki is a platform for testing technological and innovative solutions for mobility, cooperative and autonomous vehicles and will soon be extended to freight transport. ThessM@LL is operated by the Hellenic Institute of Transport (HIT).
	Thessaloniki is now in the list of smart cities in the mobility sector, and this would not have been possible without the involvement of stakeholders that make up the transport ecosystem of the city, which has been created over the last decade and is constantly growing. In this ecosystem, various stakeholders, such as local institutes, businesses and public transport



operators are involved in providing data or expertise to create the right conditions for the exploitation of this infrastructure for the benefit of citizens.

Thessaloniki Smart Mobility Living Lab includes, among others:

- Real time traffic data in Thessaloniki
- Short-term predictions of traffic conditions from multiple sources
- Exporting and formulating mobility and activity patterns
- Extended Internet of Things (IoT) equipment

During the project meeting in Thessaloniki on 7th and 8th of April and specifically on the 1st day of the meeting, <u>the Smart Mobility Living Lab facilities of Hellenic Institute of Transport – HIT were presented to the project partners.</u>

Dr. Georgia Ayfantopoulou informed the partners about the operation of the Lab, the traffic data that are being collected with equipment installed in various spots in the city's network and ecosystem (e.g. traffic lights, public taxi fleet etc.) and which are then being analysed with advanced mathematical algorithms. The main outputs are visualized constantly in maps, graphs and tables that help data driven decision making for stakeholders that are part of the ThessM@LL ecosystem (e.g. dynamic rooting of public fleet) or decision making of mode choice for the citizens, or data-driven influencing of traffic lights.

For instance, by all this information citizens will be encouraged to use alternative means of transport (bicycle, public transport) when there is congestion in the road network to avoid traffic or when CO₂-ceilings per day are likely to be exceeded, allocate their trips in other timetables when there is less traffic or even choose road sections that are less congested. All these data driven decisions will result to significant reduction of CO₂ emissions, as the transport system is not further burdened by additional trips of private vehicles and therefore more vehicle kilometres during peak hours.

The 2050CliMobCity project team of the Municipality of Thessaloniki realized that all these facilities and services can support Thessaloniki's strategy about reducing CO₂ emissions of the Transport Sector by encouraging citizens to make the most efficient mode choices in terms of sustainability, fact that will contribute to the increase of the effectiveness and efficiency of the new infrastructures designed by the City (e.g. new bike infrastructure, redesign of the bus network, operation of the METRO etc.).

2. Nature of the action

Apart from citizens' information, the services of the Living Lab will be exploited constantly by the competent departments of MoT in order to plan targeted future mobility measures and interventions that actually solve the existing problems of the network and fit citizens mobility needs. These will result in a more effective use of the financial resources available for mobility projects.

Municipality of Thessaloniki is willing to be part of ThessM@LL ecosystem which means exchanging data, directly or indirectly related to mobility, with the involved stakeholders and also exploiting the services that are being developed by the Living Lab. By doing these Municipality will be able to develop real time information services about the traffic conditions in the city's network to encourage citizens to take anytime the most sustainable choice about mobility. This service will result in the reduction of private



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	cars share in the modal split and as result the reduction of the fuel based vehicle kilometres within the city's network.												
	Prerequisite for the Municipality to be part of the ThessM@LL is the sign of Memorandum of Understanding (MoU) .												
	Municipality in order to rais	To achieve that a consultation procedure should initially begin within the Municipality in order to raise awareness of the Administrative Authority about the necessity of that action and commit them to take action.											
	After the political commitments will communicate with the Transport who are responsarrange the necessary metallicity will become processed.	e r nsib etin	epre le fo gs to	sen r th dis	tative e op cuss	es or eration the p	f the on o oathv	Ho f th vay	ellei e L that	nic ab,	Inst in c	itute orde	e of r to
	The final output of the 2 nd between Municipality of 7									_			loU
2b. Estimated impact	Municipality of Thessaloniki aims to be part of that ecosystem in order to supply the living lab with data and make use of the services being developed by the living lab to encourage environmental friendly mode choices of the citizens and increase the effectiveness of the future planning of mobility projects as they will based to date driven decisions.												
2c. Relations													
3. Stakeholders involved	 Hellenic Institute of Transport: As it is the Institute responsible for the operation (data collection – analysis – visualization) of the Living Lab Stakeholders that are already part of The ThessM@LL Living Lab ecosystem 												
3b. Responsible Actor	 Dpt. of Sustainable Mobility and Networks Sector of Transportation Planning of Thessaloniki Municipality the Dpt. of Operational Planning and Development Programmes Monitoring of Thessaloniki Municipality 												
4 Time from a							Time	e					
4. Timeframe					022						23		
	Actions	7		h S	emes 10	ster 11	12	1	8th	Sei			6
	Preliminary procedures	7	8	9	10	11	12	1	2	3	4	5	6
	for the staff members	L											
	Consultation procedures between the staff members and the administrative authority												
	to succeed political commitment												
	Consultation procedure with Hellenic Institute of Transport representatives					_							
	Sign of the MoU												



5. Costs	Taking into consideration the consultation process that should be preceded and supervised by the additional Staff members of the Municipality (i.e those that have already been hired for the needs of the 2050 CliMobCity project) and the Administrative Authority and then with the Hellenic Institute of Transport representatives we can estimate that 3 person-months will be needed.
	Costs for the consultation and the evaluation procedures with the Hellenic Institute of Transport representatives for Real time information services for citizens using Thessaloniki Smart Mobility Living Lab (ThessM@LL):
	 two medium level staff members work exclusive for 2 months -> 6.400 €
6. Funding sources	 The main funding source for the documentation will be: the Financial Municipal Budget formulated according to the Local Operational Plan (LOP) of the MoT the Policy Instrument of the Region of Central Macedonia (if circumstances allow it)
7. Priority	This action is of high priority

3.1.3 Action 3: Pilot installation of micro mobility hubs of electric sharing transport schemes in City's public space

ACTION 3:	Pilot installation of two (2) micro mobility hubs of electric sharing transport schemes in City's public space
1. Relevance to the project	Electric sharing transport schemes are considered a new and emerging transport solution for all modern cities offering a valuable alternative to citizens in daily mode choices. Those kind of solutions have been an issue of discussion among project partners during all meetings of interregional learning and more specifically on the online project meeting 5A on 21 & 22 April 2021 co-hosted by the city of Leipzig
	The project partner Leipzig, as mentioned in progress report 4, gave a very insightful overview of the current mobility patterns, the historical development and the future plans and prognoses of the city. In the presentation among other things was presented the operation of Mobility Stations and Mobility Hubs.
	The 'Mobility stations' are focused on information provision and provide a small scale hub function (shared bicycles) whereas 'Mobility hubs' are larger facilities to be used for intermodal transport or in neighbourhoods. Both concepts are proposed for Leipzig, and will be systems that are open for different (private, commercial) parties.
	The 2050CliMobCity project team of Thessaloniki was inspired by this presentation and decided that these kinds of (sharing) transport schemes are also suitable for Thessaloniki. This is the main reason that shared electric mobility is a measure package of the 2050CliMobCity scenario for 2030 (Electromobility and awareness raise campaigns) and therefore also for the final scenario (see Table 1).
2. Nature of the action	In the city's public space and more specifically near important points of interests or work spaces, which are actually the common destinations of



	daily trips of the citizens and in areas with high population density, which are simultaneously the origin of those trips, will be installed infrastructure where the citizens can find sharing electric bicycles or scooters and even park their private ones. The hubs will be operated by the Municipality with the cooperation of bike - scooter sharing companies. In order for the Municipality to be able to implement those hubs the initial planning of the system is required in order to identify the more suitable locations for the implementation of the system and the specification of the required public space regulations that are needed for the operation of the system. Finally, the preparation of the tender notice for the procurement of the bicycle – scooters is needed.								
2b. Estimated impact	This action will contribute to the promotion of alternative means of transport as it gives to the citizens the chance to easily find and use sharing bicycles and scooters or even to park their private bicycles/scooters safely at the public space.								
2c. Relations	This action is related to action 2, as its effective operation depends also on the real time information of the citizens about the available alternative mobility solutions								
3. Stakeholders involved	 Bike and Scooter Sharing companies: MoT will begin a market research and ask for providers of transport sharing schemes to give technical specifications and the cost (implementation and operation) of their system. By doing this MoT will choose the most affordable and suitable solution. Thessaloniki Transport Authority: It is the responsible body for the overall operation of the Public Transport System of the City. Therefore it will participate in the planning process of the Hubs and more specifically in the identification of the more suitable locations for their implementation in order to support the efficiency of the overall Public Transport System. 								
3b. Responsible Actor	 Dpt. of Sustainable Mobility and Networks Sector of Transportation Planning of Thessaloniki Municipality Dpt. of Operational Planning and Development Programmes Monitoring of Thessaloniki Municipality Dpt. Of Urban Planning and Architectural Design 								
4. Timeframe	Time 2022 2023 7th Semester 8th Semester								
	Actions 7 8 9 10 11 12 1 2 3 4 5 6 Preliminary procedures for the staff members Planning procedures for the identification of the best locations for the installation of 2 micro mobility hubs. Public spaces regulations								



	Tender notice for the procurement of the bicycle - scooters Procurement of the fleet and installation of the hubs Operation of the hubs						
5. Costs	The preliminary procedures and the planning procedures of the abovementioned system are going to be prepared and supervised by the additional Staff members of the Municipality (i.e. those that have already been hired for the needs of the 2050 CliMobCity project) Costs for the preliminary, planning and evaluation procedures of the Pilot installation of the micro mobility hubs of electric sharing transport schemes: • two medium level staff members work exclusive for 3 months -> 9.600 € • other expenses might be needed						
6. Funding sources	The main funding source for the documentation will be: the Financial Municipal Budget formulated according to the Local Operational Plan (LOP) of the MoT the Policy Instrument of the Region of Central Macedonia (if circumstances allow it)						
7. Priority	This action is of high priority						

3.1.4 MoU sign with at least one of the Universities' administration of the city centre, part of which are and the targeted awareness raise campaigns for University Students' mode choice and information about its impact in the environment, the city and the individuals

ACTION 4:	MoU sign with at least one of the Universities' administration of the city centre, part of which are and the targeted awareness raise campaigns for University Students' mode choice and information about its impact in the environment, the city and the individuals
1. Relevance to the project	The climate and mobility transition depends on and many measures addressing behavioural change of residents, like the shift to sustainable modes or the substitution of private car use by shared car use. A challenge is to make this behavioural change happen. Numerous impedances (like being afraid of risks and uncertainty, or having wrong perceptions about the change and future or lacking a sense of urgency) could hamper the behavioural change, especially if the impedances are not proactively dealt with by means of communication, campaigns, awareness raising, the application of marketing techniques, or the implementation of municipal communication and information systems. The response of residents to municipal policies was repeatedly discussed during project meetings. With this background some project partners attended the webinar "Behavioural change for sustainable mobility" of the Policy learning platform (1-12-2020), and the project for the seminar of PM 6a invited Maria Chatziathanasiou. She talked about "Engaging stakeholders and citizens in sustainable mobility planning with the use of marketing techniques «and presented to project partners strategies about awareness raise and mobilizing of citizens in order



to trigger behavioural changes into more environmentally friendly transport modes.

The project team of 2050CliMobCity of Municipality of Thessaloniki came to the conclusion that despite the fact that the City has applied various participation procedures during the Sustainable Urban Mobility Plan (SUMP) elaboration, little effort was given to the actual information of the citizens, regarding the benefits which arise, both for individuals and for the society, after the incorporation of alternative transport modes in the urban transport system of the City.

By presenting not only a list of benefits and operational characteristics of each new transport mode but additionally by developing a comparative assessment of the new modes with the existing ones (e.g. private cars) with examples from citizens everyday life (such as the cost and the delays) the possibility of triggering actual behavioural changes is significantly increased.

2. Nature of the action

This activity of the Action Plan refers to the organization and implementation of a campaign entitled "The citizens part of the solutions for sustainable mobility".

In this context, the following are foreseen:

- a campaign, comparing the real cost (out-of-the-pocket money, duration trip, delays, etc.) for the citizens performing trips with private cars among city areas with the one for making the same trip with available (sustainable) modal alternatives
- the Focus group of that campaign will be the Students of Aristotle University and University of Macedonia.

The Aristotle University of Thessaloniki is located at the Center of Thessaloniki with a student population of 40.000 active students. Nearby is the University of Macedonia with approximately 20.000 active students.

All these students move daily from different areas of the City to the Universities Facilities occupying a significant share of the daily trips performed within the City.

Taking into consideration that the Students are one of the most active, environmentally aware and open minded groups of the society, the effort to trigger behavioural changes for mode choice through awareness campaigns is of high priority, together with the fact that this group of citizens will be the policy makers of tomorrow.

Also, the collaboration with the Dean of Aristotle University of Thessaloniki and University of Macedonia sealed with a Memorandum of Understanding would add an institutional value to the activity and increase further its impact to University students and therefore to Thessaloniki's citizens

The main components of the campaign are:

- Newsletters sent to the students
- Consultation events in the City Hall
- Collaboration with the Dean of the University

Newsletter

The Staff members of the Municipality will organise useful material regarding the internal and the external costs of trips performed by various transport modes in order to be able to present to the public (Students) a qualitative and quantitative comparison assessment between them. By underlining both the out of the pocket money needed to perform a trip by private car in compare with other modal alternatives (e.g. bicycle, public transport, electric sharing schemes) and more importantly their environmental (CO₂ emissions)



	and social (road safety, noise, additional delays to the road network),can be achieved the encouragement of the mode choice changes of the Students.					
	All this information is going to be the content of a newsletter that is going to be prepared and sent with the support of the Communication Services of Aristotle University and University of Macedonia to the University Students' emails.					
	Consultation Event					
	Apart from the Newsletter, another component of the Awareness Raise Campaign will be a consultation event in the City Hall organized by the Municipality of Thessaloniki, where presentations from experts will take place about the promotion of sustainable mobility transport schemes (bicycle, public transport and shared electric solutions).					
	The content of the dissemination material presented in the event will be the presentation of examples of good practices of such transport schemes in various Cities and how they can operate in an efficient way in order to emerge as the main transport mode for the City of Thessaloniki at the expense of private cars. The most important session of the presentations is going to be (as in the Newsletters) the comparison of the real costs of trips performed by different transport modes.					
	MoU The final part of that activity is going to be the sign of the MoU between the MoT and the Deans of the Universities to take joint initiatives to secure low carbon emission transport modes for students.					
2h Estimated impact	·					
2b. Estimated impact	Awareness raise campaigns will become an important part of the mobility planning processes of the Municipality, as they are a very effective accompanying measure which supports the social acceptance of the implementation of new mobility projects.					
2c. Relations						
3. Stakeholders involved	Aristotle University of ThessalonikiUniversity of Macedonia					
	The communication offices of the Universities offices for the promotion of the educational material and the consultation event. The Deans of the Universities for the MoU signing with the MoT.					
3b. Responsible Actor	 Dpt. of Sustainable Mobility and Networks Sector of Transportation Planning of Thessaloniki Municipality the Dpt. of Operational Planning and Development Programmes Monitoring of Thessaloniki Municipality 					



	5						Time						
4. Timeframe				2	022		1 11111			20	23		
		7th Semester 8th Semes				ster							
	Actions	7	8	9	10	11	12	1	2	3	4	5	6
	Development of the												
	appropriate educational												
	material												
	Consultation procedure												
	with the Aristotle's												
	University Communication												
	Services												
	Preparation of the												
	newsletters												
	Sending of the												
	newsletters via email to												
	the students (YES/NO)												
	Preparation of the												
	educational material for												
	the consultation event organized by the												
	Municipality of												
	Thessaloniki with the												
	participation of												
	University Student												
	Consultation event												
	organized by the												
	Municipality of												
	Thessaloniki with the												
	participation of University Students												
	Sign of a MoU												
		<u> </u>					<u> </u>			l			
5. Costs	The organizational proced												
	educational material, the presentations and the newsletters are going to be												
	prepared and supervised by the additional Staff members of the Municipality												
	(i.e those that have already been hired for the needs of the 2050 CliMobCity project)												
	Costs for the organizational procedures of the campaign and the preparation of the educational material, the presentations and the newsletters that are												
	 going to be prepared and the evaluation of the implementation of this Action: two medium level staff members work exclusive for 3,0 months>9.600 € 												
6. Funding sources	The main funding source for the documentation will be:												
	the Financial Municipal Budget formulated according to the Local												
	Operational Plan (-			
	, , ,		•										



	 the Policy Instrument of the Region of Central Macedonia (if circumstances allow it)
7. Priority	This action is of high priority

4. Monitoring of the action plan implementation in Phase 2

Monitoring procedures consist of the usage of Performance Indicators to evaluate the implementation of the proposed actions so it can be easier to identify whether their progress is in line with the timetable and moreover until what percentage they have been fulfilled.

For each of the actions described above it has been developed a specific monitoring procedure:

ACTION 1: Technical Specifications for the elaboration of the "Sustainable Urban Logistics Plan (SULP)" of the Municipality of Thessaloniki

For the best monitoring of action 1 it is necessary to establish a communication protocol between the staff members of the Municipality (2050CliMobCity project team).

The coordinator of that action should be in constant communication with all the staff responsible for the preparation of the Report and also with the external assistant.

The performance indicator could be the percentage (%) of the Report written.

Important milestones:

- Consultation procedures between the different departments (YES/NO)
- Assistance of external expert (YES/NO)
- Consultation procedure with appropriate stakeholders (YES/NO)
- Drafting the report (YES/NO)
- The final Publication of the Technical Specifications. (YES/NO)

ACTION 2: Sign of the Memorandum of Understanding (MoU) with the Thessaloniki Smart Mobility Living Lab (ThessM@LL) for Real time information services for citizens

To monitor the progress of the sign of the MoU a consultation procedure must begin between the Staff members and the Administrative authority in order to inform them about the necessity of the project. After that the coordinator of the action must communicate with the Hellenic Institute of Transport in order to arrange the meetings to discuss the pathway that Municipality will have to follow to become part of ThessM@LL ecosystem.

The performance indicator could be the sign of the MoU (YES/NO).

Important milestones:

- Political commitment of the Municipality's Administration (YES/NO)
- Meeting arrangement between the Staff member and the Administration of the Municipality and the Hellenic Institute of Transport representatives (YES/NO)

ACTION 3: Pilot installation of two (2) micro mobility hubs of electric sharing transport schemes in City's public space

The performance indicator could be the number of micro mobility hubs operated in Thessaloniki:

• Number of pilot micro mobility hubs installed in the City (X/2)

To monitor the progress of the installation of the micro mobility hubs the following milestones could be used:



- Planning procedures for the identification of the best locations for the installation of 2 micro mobility hubs (YES/NO)
- Public spaces regulations (YES/NO)
- Tender notice for the procurement of the bicycle scooters and the appropriate infrastructure (YES/NO)
- Procurement of the fleet and installation of the hubs (YES/NO)
- Operation of the hubs (YES/NO)

ACTION 4: Targeted awareness raises campaigns for Aristotle University Students' mode choice and information about its impact in the environment, the city and the individuals

The performance indicator could be:

- The sign of the MoU (YES/NO)
- Sending of the newsletters via email to the students (YES/NO)
- Consultation events organized by the Municipality of Thessaloniki with the participation of University Students (YES/NO)
- Sign of a MoU with at least one of the Universities' administration of the city centre (YES/NO)

To monitor the progress of the awareness raise campaigns the following milestones could be used:

- Commitment and collaboration of the Aristotle University of Thessaloniki
- Development of the appropriate educational material (YES/NO)
- Preparation of the newsletters (YES/NO)
- Sending of the newsletters via email to the students (YES/NO)
- Preparation of the educational material for the consultation event organized by the Municipality of Thessaloniki with the participation of University Students (YES/NO)



5. Signatures

Action Plan for the region of the Municipality of Thessaloniki

Date:	
Name of the organisation(s)::	
Signatures of the relevant organisation(s):	
Signatures of the relevant organisation(s).	