



**UNLOCKING LARGE-SCALE ACCESS TO COMBINED MOBILITY
THROUGH A EUROPEAN MAAS NETWORK.**

Deliverable D4.3 IMOVE Living Labs expansion scoping document



This report is part of a project that has received funding by the European Union's Horizon 2020 research and innovation programme under grant agreement number 723314.

The content of this report reflects only the authors' view. The Innovation and Networks Executive Agency (INEA) is not responsible for any use that may be made of the information it contains.

D4.3 - IMOVE Living Labs expansion scoping document

Due date of deliverable: 30/5/2018
Actual submission date: 28/12/2018

Dissemination Level		
PU	Public	X
CO	Confidential, restricted under conditions set out in Model Grant Agreement	
CI	Classified, information as referred to in Commission Decision 2001/844/EC	

Start date of project: 01/06/2017

Duration: 30 months

Document Control Sheet

Deliverable number:	D4.3
Deliverable responsible:	Mosaic Factor
Work package:	WP4
Main editor:	Josep Freixanet

Editor name	Organisation
Josep Freixanet	Mosaic Factor
Ignacio Ramos	EMT Madrid
Fabio Cartolano	FIT Consulting
Marco Gorini	Softeco Sismat SRL

Document Revision History			
Modifications Introduced			
Version	Date	Reason	Editor
1.0	11/12/2018	Table of contents and first inputs	Josep Freixanet
1.1	21/12/2018	First version of the document	Josep Freixanet
1.2	21/12/2018	Added EMT contribution	Ignacio Ramos
1.3	24/12/2018	Revision and integration	Fabio Cartolano
1.4	28/12/2018	Revision and integration	Marco Gorini

Legal Disclaimer

The information in this document is provided “as is”, and no guarantee or warranty is given that the information is fit for any particular purpose. The above referenced consortium members shall have no liability to third parties for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials subject to any liability which is mandatory due to applicable law. © 2017 by IMOVE Consortium.

Executive Summary

The present document defines the scope of Madrid Living Lab, which emerges from the open call process finalized in November 2018. In detail, the scenario before the beginning of the Living Lab and is presented, together with an explanation of the ambitions and the envisioned developments and objectives.

The document is organized as follows:

Introduction section aims to frame the document in the wider IMOVE Project, providing information on the document purpose.

Chapter 1 enters into Living Lab details, defining the Living Lab ambition, scope, partners and stakeholders and defining its Implementation Plan.

Chapter 2 describes an analysis of the environment where the Living Lab is executed, a detailed analysis of stakeholders involved and an analysis of the IT systems in scope and current business processes.

Chapter 3 maps Madrid Living Lab with the scenarios described and re-assessed in previous WP4 deliverables.

Chapter 4 describes how the Living Lab is being prepared before its execution, giving special attention to the MaaS solution that is currently being developed.

The document is closed with the Conclusions, that summarize the main findings and outcomes of the deliverable, thus paving the way towards the Living Lab activities in the forthcoming project period.

Abbreviations and Acronyms

B2B	Business to Business
EC	European Commission
KPI	Key Performance Indicator
IT	Information Technology
LL	Living Lab
LLIP	Living Lab Implementation Plan
PPP	Public Private partnership
PT	Public Transport
WP	Work Package

Table of Contents

D4.3 - IMOVE Living Labs expansion scoping document	2
Introduction	9
1 Plan – Set-Up	10
1.1 Living Lab Ambition	10
1.2 Living Lab Scope	10
1.3 Living Lab Partners	12
1.4 Living Lab Implementation Plan	13
1.4.1 Preconditions for success, external dependencies and assumptions	13
1.4.2 Risks	13
1.4.3 Deliverables and milestones	14
1.4.4 Approach	14
1.4.5 Timeline and planning	15
1.4.6 Resources and their organization	15
1.4.7 Budget and expected costs	16
1.4.8 Monitoring, control, reporting and communication	16
2 Plan – Environment & System Analysis	17
2.1 Environment Analysis	17
2.2 Legal & Ethical issues	17
2.3 Stakeholder analysis	17
2.4 System analysis	17
3 Plan – Design	21
3.1 Scenarios	21
3.2 Research questions	22
3.3 KPIs	22
4 Do – Preparation	23
4.1 Solution Development	23
4.2 Test Environment Preparation	24
4.3 Site Integration Test	25
4.4 User Recruitment	25
4.5 Workshops and Kick-Off	25
4.6 Baseline KPIs measurement	26
Conclusions	27
References	28

List of Figures

Figure 1. Madrid Regional Transport Authority	11
Figure 2. MaaS levels of integration	12
Figure 3. Madrid LL timeline	15
Figure 4. MaaS Madrid information aggregation	18
Figure 5. MaaS Madrid configurable by user information.....	19
Figure 6. MaaS Madrid PT information.....	19
Figure 7. MaaS Madrid solution.....	24

List of Tables

Table 1. Madrid LL partners	12
Table 2. Risks in Madrid LL	13
Table 3. Official deliverables	14
Table 4. Official milestones.....	14
Table 5. Madrid LL distribution of person/months amongst partners	16
Table 6. Madrid LL distribution of personnel expenses amongst partners.....	16
Table 7. LLs - scenarios matrix	21
Table 8. Research questions and hypotheses for Madrid Living Lab	22

INTRODUCTION

This document defines the scope of Madrid Living Lab, using the Living Lab Handbook as main guideline in order to fill in each section.

The main objectives of this document are:

- To define and establish a common understanding of Madrid Living Lab ambition and scope.
- To determine crucial stakeholders already involved in Madrid Living Lab.
- To describe the implementation plan for Madrid Living Lab and specify in more details the necessary preconditions for success (e.g. legal issues), risks assessment, necessary resources, etc.
- To analyse the environment and the systems where this LL will be executed, taking into account any legal or ethical issue that can arise during the LL execution.
- To express interest in the different scenarios already defined in IMOVE project. These scenarios include all the features that are desired to be implemented in IMOVE.
- To provide guidelines and thereby facilitate the establishment and risk-free execution of the Living Lab.
- To describe the preparation phase that should be the last step before the Living Lab execution.

1 PLAN – SET-UP

1.1 LIVING LAB AMBITION

The project ambition is defined below, each specific Living Lab should work on both the Living Lab ambition and individual stakeholders' ambitions.

IMOVE ambition
Accelerate the deployment and unlock the scalability of MaaS schemes in Europe, ultimately paving the way for a “roaming” service for MaaS users at the European level.

Madrid main LL ambition is to provide a solution that helps to change mobility habits based on the improvement of information and management. This objective will be accelerated by participating in IMOVE project getting knowledge to better and easier deploy MaaS Madrid solution and exchanging expertise and experience with other IMOVE project partners.

1.2 LIVING LAB SCOPE

Madrid LL covers Madrid city, an area with 604,45 km² and 3.2 million inhabitants.

EMT is integrated in the “Consortio Regional de Transportes” (Regional transport authority, CRTM) which coordinates, as the transport authority, the transport offer in Madrid City and surroundings. Since 1985 the CRTM is responsible for providing and managing all public passenger transport services, which principal functions are:

- Planning public transport infrastructures.
- Managing an integrated fare system.
- Planning services.
- Controlling the financial management.

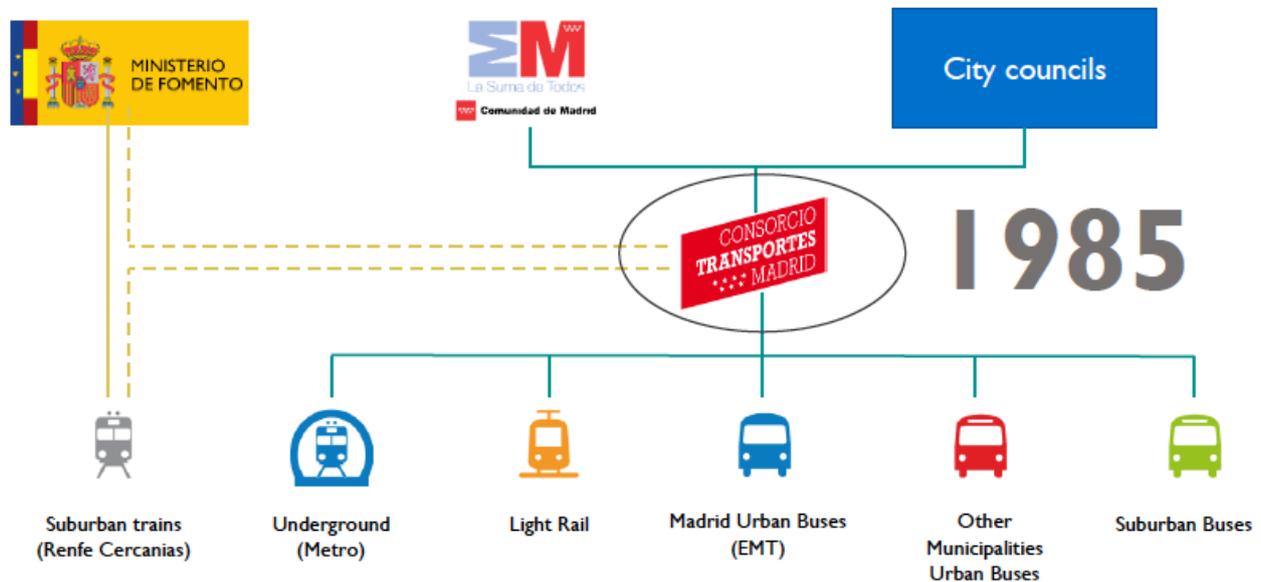


Figure 1. Madrid Regional Transport Authority

There are more than 40 different public transport operators (both public and private ones) providing the railway, underground, tram, and bus services in Madrid Region. The integrated ticketing scheme includes two modalities of payment:

- The **Transport Pass** (monthly or annual) which includes all means of public transport within certain areas of influence in which the Region is divided
- The **Multi Card**, which is a rechargeable card with a duration of ten years, which serves to contain the non-personal titles of the fare system of the public transport service (single tickets for specific means of transport, ten trips ticket, etc).

Both are contactless. There is not a unique single ticket for all means of public transport.

Finally, it is worth to mention that certain mobility services are also integrated with the Transport Pass card, such as the city bike sharing service (it is the user who decides whether to use the transport pass card as the BiciMAD card). And also, two station-based carsharing companies, Bluemove and Respiro.

The whole public transport network in Madrid has an annual demand of 1,600 million passengers.

The project "MaaS Madrid" proposes a mobile application, offered by EMT Madrid (therefore, offered by the public sector), where the user can find all the operators and mobility service providers in a single tool. It provides a combined information of public transport with others means such as taxi, shared mobility like carsharing, motosharing, etc.

The initiative is part of the measure number 21 of the Air Quality Plan of the City of Madrid, which is about supporting shared mobility and multimodality initiatives. It offers, beyond the benefit to citizens, to the city and to the operators, development options and public-private collaboration opportunities for a new model of urban mobility based on mobility as a service.

The project, although based on a technological solution (a mobile application), initially has two other important components:

1. Governance, because it raises a public-private partnership between operators and authorities to explore opportunities, needs and barriers and serve as a framework for the application of measures. Currently, the aim is to get to the integration of payment (step 2, see Figure 2 below). However, we consider that the policy integration (step 4, see Figure 2 below) is also part of the process as policy coordination and integration is key for the success of any initiative as such, and the city and EMT are already establishing PPP to develop the MaaS service, as indicated in the next point.

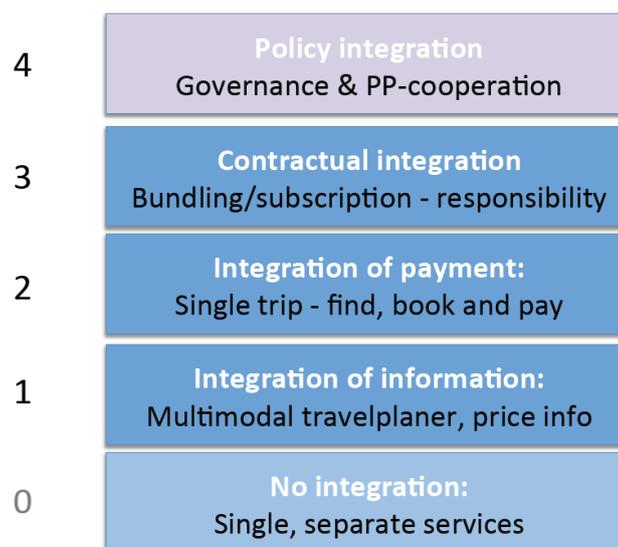


Figure 2. MaaS levels of integration

2. Communication, as it includes, in addition to normal dissemination to the general public, the differentiation of relevant target groups, such as those related to mobility to work or mobility of university students, signing specific agreements to apply MaaS in their areas of interest.

1.3 LIVING LAB PARTNERS

Table 1. Madrid LL partners

Living Lab Partner: EMT Madrid	
Description	EMT Madrid (Empresa Municipal de Transportes de Madrid S.A.) is a public company created in 1947 and 100% owned by Madrid City Council. It manages the bus transport service in the municipality of Madrid, being the only bus operator of the City, and the largest mobility company in Spain in its sector. EMT Madrid also manages 21 underground parking facilities of the city, as well as the tow trucks service (82 cranes), the public bikesharing system (BiciMAD, with 2,028 pedelecs), and the Casa de Campo cable car. EMT also provides technical assistance to Madrid City Council on sustainable urban mobility matters.

Ambition in the LL	To provide a solution that helps to change mobility habits based on the improvement of information and management.
Management commitment (Y/N)?	Yes

1.4 LIVING LAB IMPLEMENTATION PLAN

1.4.1 PRECONDITIONS FOR SUCCESS, EXTERNAL DEPENDENCIES AND ASSUMPTIONS

IMOVE aim is to create business models and business agreements taking legal aspects into account. A precondition for this Living Lab is to reach agreements with transport operators in order to book and pay their services using MaaS Madrid solution.

An assumption is to consider that travellers would like more integration and flexibility in their mobility options using MaaS Madrid solution.

1.4.2 RISKS

The main risks in the Living Lab execution are summarised in the following qualitative table:

Table 2. Risks in Madrid LL

Risk category	Description	Probability	Impact	Preventive Response
Technical	Delays in the technical developments of the LL and the integration with the SW Enablers	Medium	High	The development of the solution will be monitored by the LL leader. Also, communication between technical team of MaaS Madrid solution and IMOVE technical team will be started in the first quarter of 2019.
Societal	Psychological barriers to use the MaaS solution as it is a very innovative concept.	Medium	Medium	Appropriate communication campaign will be prepared in order to involve appropriate customer segments in the LL.
Schedule	Delays in the LL evolution from business and technical perspective. The evolution of the LL must match with the planning defined in this document.	Medium	High	Apply project management practices in order to monitor the progress of the LL and detect potential issues in order to apply mitigation strategies.

This table will be refined, updated and maintained during the whole course of the Living Lab, in order to share potential risks at both local and project level and insure timely detection as well as mitigation actions.

1.4.3 DELIVERABLES AND MILESTONES

The official deliverables of the Living Lab are the following:

Table 3. Official deliverables

Number	Title	Month
D4.3	IMOVE Living Labs expansion scoping document	12
Document defining the scope and the current status of Madrid LL and the interactions with the technical WPs.		
D4.8	IMOVE Living Labs progress report – 2nd iteration	22
Execution report of IMOVE LLs, based on 2 nd iteration activities and achievements. Contains a section for each LL detailing the local developments and progress, produced by the relevant LL responsible partner.		
D4.9	IMOVE Living Labs progress report – 3rd iteration	28
Execution report of IMOVE LLs, based on 3 rd iteration activities and achievements. Contains a section for each LL detailing the local developments and progress, produced by the relevant LL responsible partner.		

The official milestones of the Living Lab are the following:

Table 4. Official milestones

Number	Title	Month	Description
MS13	Living Labs iteration 1 performed	14	Efficient working structures for LLs are implemented
MS14	Living Labs iteration 2 performed	22	Iteration on LLs testing of Prototypes and feedback
MS15	Living Labs iteration 3 performed	30	LLs validation of prototypes, documentation and conclusions

1.4.4 APPROACH

The first phase of the application, completed in Spring 2018 and being tested at the moment, is an aggregator of mobility services with georeferenced information. The added value in this first phase is to be able to know all the mobility services available for the user. And therefore, helping citizens to start being conscious that using a car may not be needed anymore.

Besides public transport information, it includes also the taxi and the public bike sharing system, and also the information from the shared mobility companies that operate in Madrid: Car2Go, Emov, Bluemove, Muving, eCooltra, Ioscoot, Movo, Acciona Mobility, Tier and Bird, and others that will be added shortly.

The second phase will be completed in the 2nd quarter of 2019 and will mean the gradual incorporation of different features such as calculation and comparison of routes, travel planning, personalization of options or booking, payment of trips and ticketing.

Also, during the 2nd quarter of 2019 the integration with IMOVE Software Enablers will be studied in order to be applied by the 3rd quarter of 2019.

1.4.5 TIMELINE AND PLANNING

The timeline of the Living Lab can be summarized in the following figure. The activities of the LL start in the middle of the 2nd iteration of the overall IMOVE planning, the deployment of MaaS within the Living Lab is planned by the beginning-mid of the 3rd iteration.

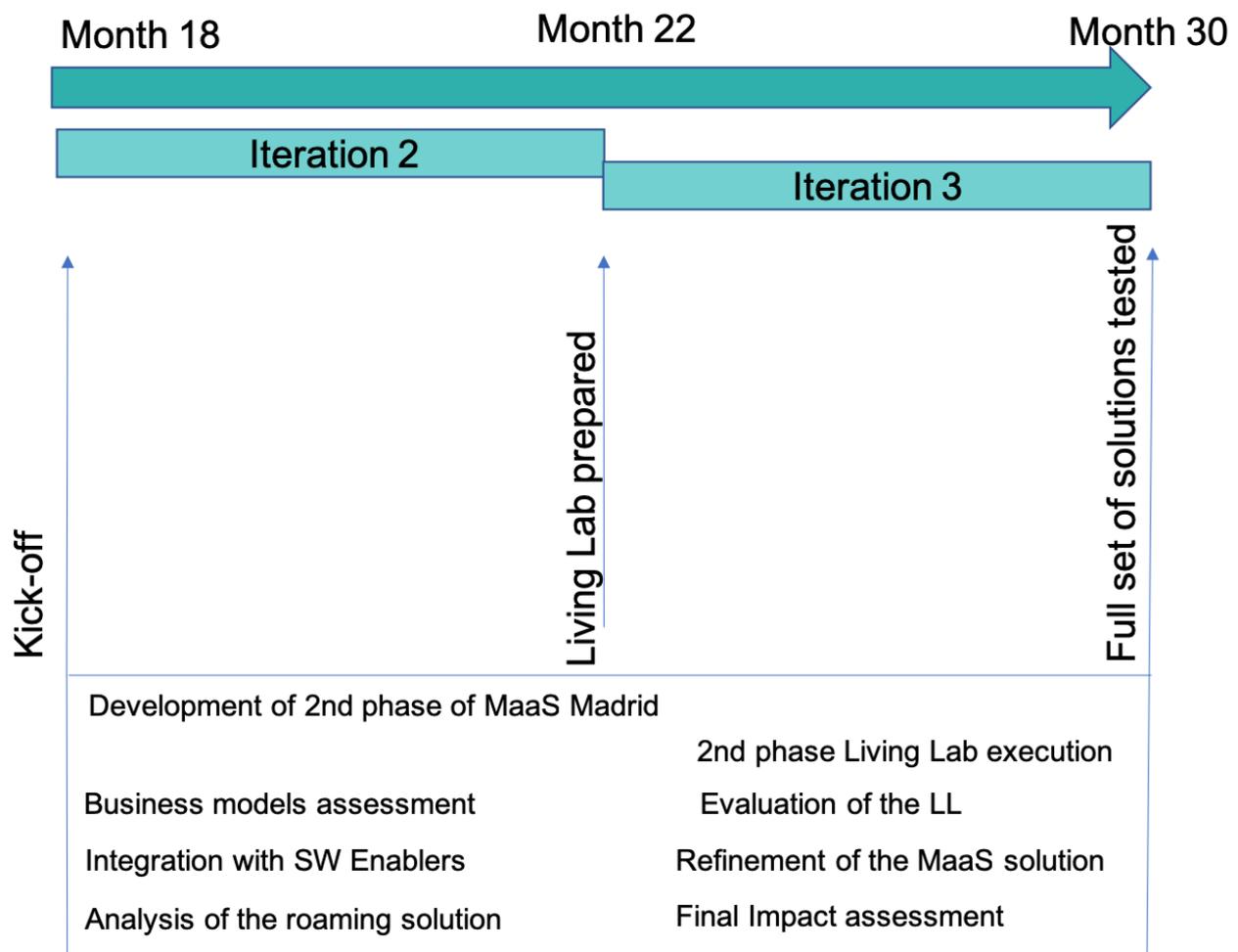


Figure 3. Madrid LL timeline

1.4.6 RESOURCES AND THEIR ORGANIZATION

A total of 11 person/months have been assigned to this Living Lab. The person/months are divided in the following manner in the partnership:

Table 5. Madrid LL distribution of person/months amongst partners

Partner	Person / Months
MOSAIC	4
EMT Madrid	7
TOTAL	11

1.4.7 BUDGET AND EXPECTED COSTS

The total personnel costs of this Living Lab are 90.800 €, divided in the following manner amongst the partners:

Table 6. Madrid LL distribution of personnel expenses amongst partners

Partner	Person / Months	Personnel costs
MOSAIC	4	20.800 €
EMT Madrid	7	70.000 €
TOTAL		90.800 €

1.4.8 MONITORING, CONTROL, REPORTING AND COMMUNICATION

People of the core Madrid LL team is formed by EMT resources and is fully committed with the project and is in continuous communication with the Living Labs' coordinator.

Additionally, Madrid Living Lab team will participate, starting in January 2019, in periodic conference calls with the other Living Labs in order to share and discuss common issues and detect synergies between Living Labs.

2 PLAN – ENVIRONMENT & SYSTEM ANALYSIS

2.1 ENVIRONMENT ANALYSIS

As reported in

Table 1, Madrid City Council fully owns EMT Madrid, which manages the bus transport service in the municipality, parking facilities tow trucks service, public bike sharing system and a cable car.

More specifically, the EMT fleet accounts 2,045 buses (with 3,725 km network), 10,024 bus stops and are available to travel in 210 routes across Madrid. Its fleet includes a wide variety of alternative fuels (including 100% electric, CNG-hybrid, diesel-hybrids and CNG).

Yearly, the EMT's buses are travelling more than 90 million kilometres and carrying 430 million passengers, 365 days a year, and 24 hours a day, becoming a critical infrastructure of the urban ecosystem and therefore, playing an important role on the normal functioning of the city.

2.2 LEGAL & ETHICAL ISSUES

Regulations implemented by Madrid municipality that should be taken into consideration in the Living Lab are described below:

- Plan A: Air quality and climate change plan, active from September 21st of 2017, that includes a measure for enforcement of MaaS services.
- New protocol on air pollution episodes: more strict regulation has been applied in October 8th, 2018.
- New sustainable mobility bylaw: this regulation has been applied from October 24th, 2018 in order to favour the sustainability in the mobility in the city centre and includes specific regulation for sharing mobility services.

2.3 STAKEHOLDER ANALYSIS

For a Living Lab to be successful it is essential that all stakeholders being able to directly influence the success are involved or at least consulted in the Living Lab. The stakeholders included in Madrid MaaS solution are:

- Car-sharing: Car2Go, EMOV and Bluemove
- Scooter-sharing: Muving, eCooltra, loscoot, Movo and Acciona Mobility
- Bike-sharing: Bicimad
- PMV: TIER, Bird

All the stakeholders are committed in the progress and success of Madrid MaaS solution.

2.4 SYSTEM ANALYSIS

Currently EMT is running a service that includes the features that are specified in this section.

This report is part of a project that has received funding by the European Union's Horizon 2020 research and innovation programme under grant agreement number 723314.

Aggregation of information, specifically:

- Vehicle location / Public Transport stop
- Vehicle general data (availability, model, capacity, autonomy)
- Public Transport information: lines, next arrivals, frequency



Figure 4. MaaS Madrid information aggregation

The information displayed is configurable by the user:

- Preferred transport modes
- Selected transport operators
- Additional information options can be selected such as air quality information, traffic status, EMT charging infrastructure status or Points of Interest.



Figure 5. MaaS Madrid configurable by user information

Information about Public Transport:

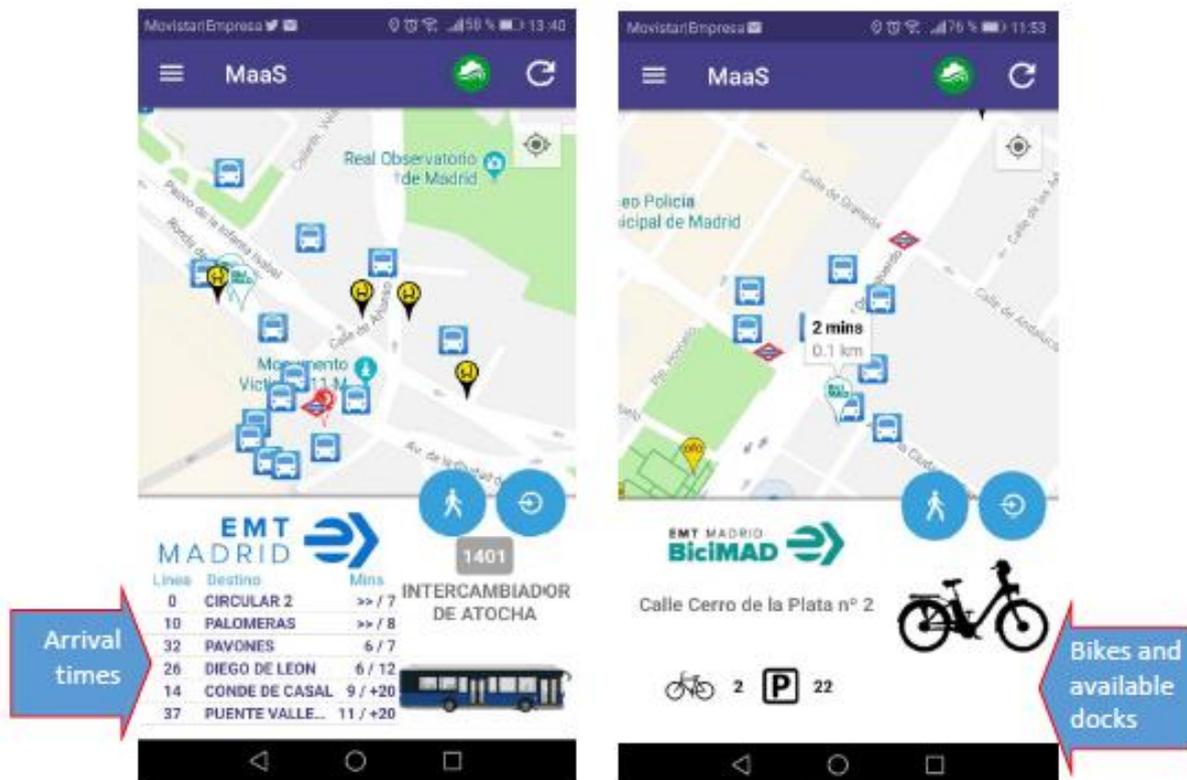


Figure 6. MaaS Madrid PT information

It also includes information about the shared mobility services:

- Operator information
- Location of the vehicle
- Vehicle type and plate number
- Status (Available or Not available)

By now, it redirects to the operator application in order to do the booking and, in case of taxis, it allows to call the taxi service provider.

3 PLAN – DESIGN

3.1 SCENARIOS

The scenarios exemplify how IMOVE may be used. Scenarios are presented as narrative stories and have been named according to the characters and IMOVE functionalities they showcase.

Originally in D4.2, in Month 6, 10 scenarios were described. During the course of the 1st iteration (until Month 14) the scenarios were refined and now they have evolved to 8 scenarios. Description of these scenarios can be found in D4.2 and D4.7.

Each LL will implement some of the above scenarios. Here is the current mapping of scenarios – Living Labs after adding Madrid LL expression of interest.

Table 7. LLs - scenarios matrix

Scenario	Turin	Greater Manchester	Berlin	Gothenburg	Madrid	Roaming
1: Office worker business man	YES	YES	YES	YES	YES	
3: Millennial worker	YES		YES		YES	
4: Family routine		YES		YES	YES	
5: Business woman	YES	YES		YES		
6: Roaming		YES	YES		To be studied	YES
8: B2B between MaaS and a private company	YES			YES		
9: Cooperation between Private operator / Public Authority	YES	YES		YES	YES	
10: Cooperation between MaaS operator & Transport operators		YES		YES		

This expression of interest will be finally assessed during the 1st quarter of 2019.

3.2 RESEARCH QUESTIONS

Table 8. Research questions and hypotheses for Madrid Living Lab

Research questions and hypotheses for Living Lab	
Research questions	Will the users be engaged to use the MaaS solution? Will the integration of IMOVE Software Enablers be easy? Will a roaming solution be attractive enough for Madrid?
Expected impact areas	Reduction of pollution Increased customer satisfaction Increase of Public Transport tickets selling Reduction of private car usage
Hypotheses for the impact	Users want to use a more sustainable solution. Users will have a clear benefit by using the MaaS solution. A high skilled technical team is cooperating with IMOVE technical team for smooth integration.

3.3 KPIs

Performance indicators should be considered when planning the Living Lab design and before the “Do” phase. The selected KPIs must reflect the Living Labs objectives, they must be measurable and are key elements for their success. The definition of the KPIs, led by WP5, will be performed during the first quarter of 2019 and reported in D5.3 IMOVE Second Evaluation Report, intermediate impact assessment to be released at month 23.

4 Do – PREPARATION

The main objective of this activity block is to complete all necessary preparations to make the Living Lab operational. This building block needs a high cooperation with technical work packages in order to develop the solution, prepare the test environment and conduct the site integration test.

This activity block should reflect the preparation for the Living Lab in following sections:

- Solution development
- Test environment preparation
- Site Integration Test
- Issues and events preparation
- User recruitment
- Workshops for user instruction and kick-off
- Baseline KPIs measurement

4.1 SOLUTION DEVELOPMENT

This section describes the developments that have been performed in the frame of the project. The evolution of the LL can be looked at from 2 perspectives:

1. From the business perspective, where the LL is working jointly with WP1 in order to define sustainable business models.
2. From the technical perspective, LLs develop its own MaaS solution deeply cooperating with WP2 in order to integrate some of the Software Enablers developed in the frame of IMOVE.

The first phase of the application, recently completed and being tested at the moment, is an aggregator of mobility services with georeferenced information. The added value in this first phase is to be able to know all the mobility services available for the user. And therefore, helping citizens to start being conscious that using a car may not be needed anymore.

Besides public transport information, it includes also the taxi and the public bike sharing system, and also the information from the shared mobility companies that operate in Madrid: Car2Go, Emov, Bluemove, Muving, eCooltra, loscoot, Movo, Acciona Mobility, Tier and Bird, and others that will be added shortly.

The second phase will be completed in the upcoming months and will encompass the gradual incorporation of different features such as calculation and comparison of routes, travel planning, personalization of options or booking and payment of trips.

The user will select an origin and destination, and the application will return the best options according to the preferences (the fastest trip, the cheapest, the least polluting or the healthiest). The user will be able to complete all the reservation process, including access to the vehicle if needed and payment of the trip, or alternatively, will be redirected to the provider's app, depending on the agreements reached with each mobility services provider.

The application is provided for free to the user and will be linked to the air quality of the city, providing information in real time, and setting priorities according to the pollution index of each day. However, the (disruptive) business model includes the payment of a 3% commission which would be used for providing, for instance, incentives or even free public transport or free rides whenever the high pollution episode protocol of the city is activated.

Among the Scalability Unlockers we may consider also some regarding “disruptive business models” such as mobility management or loyalty/reward programs (for instance, getting points if the user accepts voluntarily to be tracked), something which is also related to the Scalability Unlockers “behaviour change strategies” and the “user engagement schemes”, as EMT is also willing to use gamification for both purposes, especially when addressing specific group’s mobility, such as that linked to labour or students.

EMT is looking forward the adoption of IMOVE Scalability Unlockers to ensure the competitiveness and success of Madrid Mobility as a Service scheme, and testing them via a Living Lab.

From the technical perspective, Madrid is highly interested in the integration of most of the Software Enablers developed in the frame of IMOVE project. In the next period the technical teams will cooperate in order to integrate the desired Software Enablers in Madrid solution.

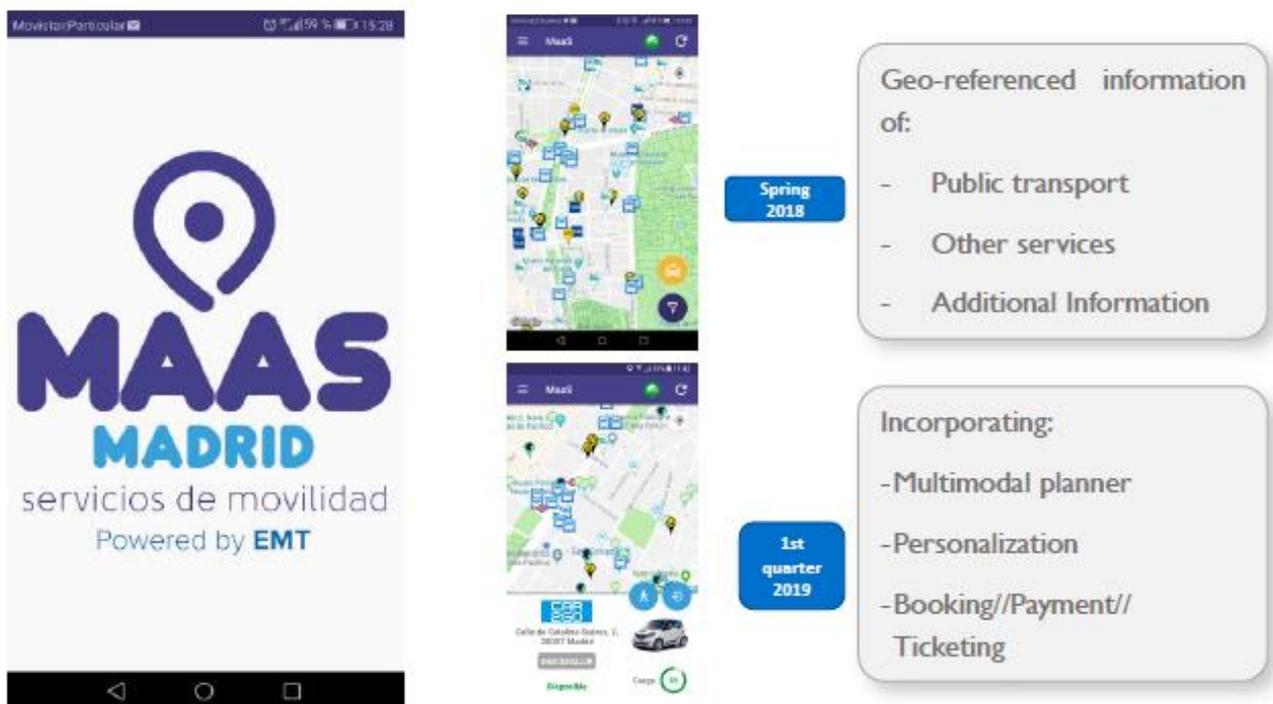


Figure 7. MaaS Madrid solution

4.2 TEST ENVIRONMENT PREPARATION

In this section the technical Work Packages provide the **Living Lab Integration Tasks**, describing in detail the integration task which will be performed in the Living Lab in order to load the needed mobility information within IMOVE. More precisely, the purpose is to describe in general terms:

- How the outcomes of technical WPs will be instantiated, integrated and further developed in Living Lab considering the overall and specific Living Labs requirements.
- How the Implementation phase will support the preparation of the Living Lab.
- Which activities and tasks will be performed in order to generate a “feedback loop” between the work packages to quickly address issues in terms of integration, performance and usability. This information

is a part, already available in the preparation phase, of the final complete chain needed to correctly address the monitoring work scheduled during the execution phase. To this purpose, a strong collaboration between technical WPs and this WP is foreseen.

Test environment preparation process will be assessed during the second quarter of 2019 before the execution of the Living Lab.

4.3 SITE INTEGRATION TEST

The objective of site integration test is:

- All the requested infrastructural components (operating system, database, other system components) are up and running.
- The application to be executed is deployed correctly and its basic functions are running without errors.
- All the integration interfaces are working properly with local data.
- The main processes in the application are running smoothly.

Site integration testing process will be assessed during the second quarter of 2019 before the execution of the Living Lab.

4.4 USER RECRUITMENT

The quality of IMOVE systems and solutions being realized within the project plays the most important role for user acceptance. In parallel the success of each Living Lab depends on the user awareness of the project.

Madrid user recruitment strategy will try to involve around 400 users.

Potential users are the below 2 segments:

1. University students: partners are ITD (UPM) and MIT. The message for this segment of users is to share, cooperate and try to have a more efficient and sustainable city.
2. Mobility to work: partner is “Foro de Empresas de Madrid”. The message for this segment of users is that mobility should ease your daily work trips. Some workshops with organization have been done in order to analyse how MaaS can help in the mobility to work. Dissemination actions are already in place in order to engage this user segment.

4.5 WORKSHOPS AND KICK-OFF

Users can be trained by providing them with a user manual only or by offering them a session where the system is properly explained and where they practice with the system in small groups. The choice for one of these options depends on the complexity of the functionality and the IT maturity level of the users. In any case, a good user manual is very important to train the users but also to support them in daily work in the Living Lab.

This content will be provided during the second quarter of 2019.

4.6 BASELINE KPIS MEASUREMENT

After setting up Madrid Living Lab, the definition of the KPIs, led by WP5, will be performed during the first quarter of 2019. The baseline measurement, of these KPIs will be assessed also during this period.

CONCLUSIONS

This document provides an overview of Madrid Living Lab, that emerges after closing the IMOVE open call.

The document is based in the work already performed in Madrid, already having mobilized stakeholders participating in the MaaS solution. The description of the LL scope, ambition, targeted goals, stakeholders / users, risks and challenges are presented in the document.

The document also involves Madrid Living Lab in the frame of IMOVE project, checking the scenarios described during the first period of the project and mapping the Living Lab with the ones that fit the local vision and expectations about MaaS.

The next months will be spent on the finalization of preparation phase of the Living Lab, developing the local MaaS solution and integrating the work done in IMOVE in order to start the Living Labs.

The next WP4 deliverable that is related to this one is called '*IMOVE Living Labs progress report – 2nd iteration*' and will build further on this document. As the Living Lab process is iterative, it might be that changes are needed to the input already provided in this document. If this is the case, these new inputs will be added to this WP4 deliverable.

REFERENCES

- [1] Freixanet, Josep, *D4.1 Handbook for LL coordination and Business Cases implementation-v2.0*, IMOVE project deliverable, released 30/09/2017.
- [2] Freixanet, Josep, *D4.2 IMOVE Living Labs scoping document-v2.0*, IMOVE project deliverable, released 15/12/2017.
- [3] Estivo, Giuseppe, *D4.7 IMOVE Living Labs progress report – 1st iteration-v2.0*, IMOVE project deliverable, released 31/10/2018.