



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

# Open Call for Innovation Pathfinders



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## IMOVE Open Call for Innovation Pathfinders

# INTRODUCTION

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This document provides all the necessary information and guidance for any interested organisation to prepare and submit an application to the **IMOVE Open Call for Innovation Pathfinders**.

IMOVE is a Research and Innovation Action part-funded by the European Commission under the H2020 Mobility for Growth program. The overall objective of IMOVE is to accelerate the deployment and unlock the scalability of **Mobility-as-a-Service (MaaS)** schemes and applications in Europe, ultimately paving the way for a “roaming” service for MaaS users at the European level.

Any organisation engaged in MaaS design or development and interested in exploring IMOVE solutions, is invited to submit an application to the IMOVE Open Call for Innovation Pathfinders. Potential applicants are advised to thoroughly read the whole document before beginning their applications, and make sure they:

1. Meet all the necessary eligibility criteria;
2. Fill in each section of the application form, as per the requested information.

This document is divided into four main sections.

**Chapter 1** General Call Information provides a summary of the main aspects of the IMOVE Open Call for Innovation Pathfinders.

**Chapter 2** “Background: project concepts and tools” provides an overview of the main innovation areas investigated by IMOVE.

**Chapter 3** “How to Apply and Procedures to Follow” describes the main steps for submitting an application to the Open Call for Innovation Pathfinders.

**Chapter 4** “Selection” provides an account of the adopted evaluation process, of the assessment criteria and the applicant selection procedure.

All application documents must be submitted by email to [open-call@imove.eu](mailto:open-call@imove.eu).

## 1 GENERAL CALL INFORMATION

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### 1.1 SCOPE AND TERMS OF THE CALL

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#### 1.1.1 AIM AND GENERAL OBJECTIVES

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To support MaaS deployment and enhancement in Europe, IMOVE is investigating and developing innovative solutions in three main research areas:

1. users and stakeholders’ engagement, organisational and business models;
2. enabling ICT solutions for MaaS operation and enhancement,
3. data sharing issues and solutions in MaaS applications.

Real-field validation and assessment of developed solutions is being implemented in the context of Living Labs set up and running in five EU sites: Berlin (DE), Gothenburg (SE), Greater Manchester (UK), Madrid (ES) and Turin (IT). All IMOVE Living Labs are engaged in the implementation, test, validation and evaluation of innovative elements related to the three above areas.

The aim and general objectives of the IMOVE Open Call for Innovation Pathfinders is to ensure an effective EU-wide transferability of IMOVE tested innovations and to support easy uptake of new MaaS initiatives.

## IMOVE Open Call for Innovation Pathfinders

The selected Innovation Pathfinders will benefit from transferability exercises to be delivered online with public webinars, dedicated call conferences and email exchanges in which IMOVE experts will assess the current status of innovation pathfinders and provide tailored suggestions on how to refine and improve aspects of the pathfinders MaaS schemes related to the three abovementioned pillars also leveraging on the IMOVE tested Living Labs.

### 1.1.2 DURATION OF THE ACTIVITIES

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The transferability exercises for the selected Innovation Pathfinders will start in October 2019 and will terminate at end November 2019.

### 1.1.3 LOCATION OF CANDIDATE INNOVATION PATHFINDERS

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The candidate Innovation Pathfinders must be located in one of the EU member states or an H2020 Associated Country.

### 1.1.4 FINANCIAL PROVISIONS AND DUTIES

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**There will not be financial provisions for the selected Innovation Pathfinders nor foreseen costs** for participating in the initiative whose only purpose is to train about MaaS deployment and disseminate the project experiences gained in the IMOVE Living Labs.

The selected Innovation Pathfinders will accept their participation to this initiative on voluntary basis and nothing shall affect intellectual property existing prior or generated within the transferability exercises whose results will be reported by the IMOVE project in the public deliverables.

## 1.2 ELIGIBILITY CRITERIA

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The call is open to public bodies/authorities or private companies aiming at offering an integrated set of transport services in a specific European municipality or region.

## 2 BACKGROUND: PROJECT CONCEPTS AND TOOLS

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IMOVE investigates and validates advanced solutions for improving MaaS deployment and operation and their underlying organisational and business models. Core ITS elements enabling MaaS development are delivered, including enhanced real-time collection of data about user needs, habits and preferences and tools for the (controlled) exchange of information and tools to enhance interoperability among different service components and between different MaaS schemes.

The IMOVE impact is being tested at five sites (Berlin, Gothenburg, Manchester, Madrid and Turin), all strongly engaged in the MaaS domain and setting specific actions on existing or new MaaS schemes. The sites have been selected according to their complementarity, where success and failure factors for any specific measure and context are being investigated and evaluated. The resulting knowledge and lessons learned will be made available and shared with any interested MaaS operator (while respecting privacy and business constraints).

IMOVE research on MaaS conditions and factors to enable their development addresses three main areas, considered as the three main 'pillars' of IMOVE: (1) the Scalability Unlocks: a sets of measures, organisational frameworks, operational and business models enhancing the users' engagement and the overall framework conditions for MaaS development and operation; (2) the Software Enablers: enabling ICT solutions for MaaS operation and enhancement (the IMOVE Software Enablers); (3) the Data Exchange Framework: data sharing solutions in MaaS applications.

In the reminder of this section, the three IMOVE pillars are outlined.

## IMOVE Open Call for Innovation Pathfinders

### 2.1 IMOVE MAIN PILLARS

#### 2.1.1 SCALABILITY UNLOCKERS SUPPORTING MAAS SCHEMES

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IMOVE is delivering the following MaaS Scalability Unlockers:

1. **Disruptive Business models:** the project is supporting Living Labs to design a MaaS value proposition meeting the current and emerging market conditions. Cost structure, customer segments, recruiting channels, marketing strategies and pricing models are being identified and data-driven assessments elaborated using real data provided by the Living Labs along an iterative process. Expected market penetration is assessed for both conventional and disruptive approaches, considering for the latter the rapid creation of a critical mass of new users, leveraging complete intermodality and the modal shift from private cars usage. In order to validate the sustainability of proposed business models, complementary services are being studied in the Living Labs in order to provide additional revenue streams, such as parcel delivery, long-distance trip booking, mobility management and/or loyalty programs and other services linked to urban travels.
2. **Framework requirements:** several areas are being investigated for ensuring the take-up and long-term sustainability of MaaS schemes:
  - Regulatory MaaS framework: IMOVE is defining guidelines for a regulatory framework that best meets the needs and requirements of MaaS schemes, taking into account the different conditions, specificities and maturity levels in EU member states.
  - Financial MaaS framework: IMOVE is assisting the MaaS Living Labs in identifying and setting up a suitable financial framework meeting the local requirements and objectives.
  - Technological MaaS framework: starting from an analysis of current MaaS enabling technologies, IMOVE is identifying main gaps in the technological support of MaaS operations. Based on that, IMOVE is developing a set of technological components, described in section 2.1.2, that can be used by Living Labs for enhancing their service offer and improving user experience.
3. **Behaviour change strategies:** this Unlocker includes various behaviour change strategies to be validated and assessed in the MaaS Living Labs. The strategies are being designed starting from the conditions and objectives of the current MaaS schemes and will be based on carefully designed incentives models, rewarding schemes and gamification, coupled with suitable product offering/pricing packages.
4. **User engagement schemes:** IMOVE partners are designing a set of user engagement strategies and operational schemes facing cultural barriers and using leading commercial methodologies.

In order to support Living Lab in developing their MaaS schemes, IMOVE already issued guidelines (reported in project deliverables D1.1 and D1.2 at <https://www.imove-project.eu/deliverables/>) summarised in the following steps:

- Step 1: creating a proposed living lab vision for MaaS
- Step 2: identifying and mapping ecosystem actors
- Step 3: developing sustainable MaaS business models
- Step 4: identifying key stakeholders
- Step 5: engaging key stakeholders

This collaborative design and strategy building process is accompanying Living Labs along the project iterations and supports further refinements aiming at better tuning any B2B or B2C offer for transport solutions.

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### 2.1.2 SOFTWARE ENABLERS

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In the context of IMOVE, a suite of targeted ITS components, namely the **IMOVE Software Enablers**, are designed and developed to support and enhance MaaS operation. Instead of providing an integrated platform for MaaS operation, IMOVE is researching individual functional/service ICT components that can be implemented to support specific MaaS-related operations, interacting with and enhancing other available ICT MaaS management systems.

Overall, the IMOVE Software Enablers provide a number of MaaS supporting functionalities and services:

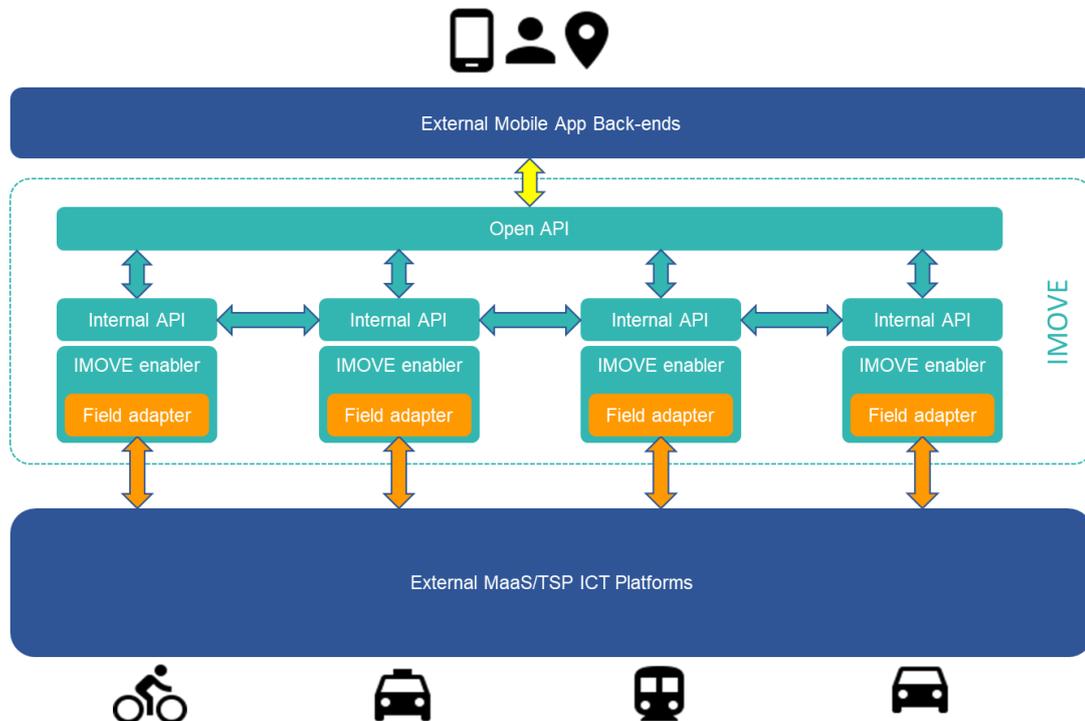
- At the transport supply side, services that can be empowered range from the combined offer of mobility options to advanced pricing and subscription management.
- At the demand side IMOVE envisages effective customer-centric features as a MaaS-enabled mobility solution organizer and components to centralize users' credentials storage and validation.
- Other Software Enablers are devoted to collect data and apply analytics to user mobility and transportation business data, deriving information about users' mobility pattern and choices in terms of services preferences and locations.
- MaaS interconnection is addressed by IMOVE Roaming Manager, allowing users abroad from their subscription area to access mobility services and providing flexible degrees of interoperability with cooperating transport providers and MaaS organisations.
- Furthermore, user engagement and strategies to encourage modal shifts and behavioural change can be implemented by the MaaS operator through an incentivisation engine.

Specifically, the IMOVE Software Enablers framework provide interested users the following set of software modules:

1. **Identity Manager:** is the single point of interface where the user is authenticated, the credentials to access all the interconnected systems are stored and the services he can receive through IMOVE are assessed.
2. **User Tariffs Manager:** manages the user's subscriptions, credit and quotas related to transportation services
3. **Mobility Tracker:** an enabler responsible for collecting the mobility-related information about the users and providing this information to other software enablers.
4. **Preferences Manager:** provides the information about the user's preferences, habits, needs etc.
5. **Notification Manager:** is the repository for the messages generated by other enablers and underlying external systems to be delivered to end users via their mobile apps.
6. **Roaming Manager:** ensures the interconnection of multiple MaaS operators enabling for inter-roaming and cross border roaming services.
7. **Price Manager:** is responsible for collecting and storing the information about the prices of all the services provided by local transport providers.
8. **Mobility Organizer:** provides to end users a tailored transportation offer according to their location, preferred choices and subscription profile
9. **Booking Manager:** takes care of performing service bookings and purchases on behalf of the user, according to his mobility choices.
10. **Incentives & Gamification Manager:** implements the incentivization mechanisms, designed to influence user's behavior in a desirable way (via rewards, achievements, etc.).

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The IMOVE Software Enablers expose an **Open Application Programming Interface (API)** to be consumed by external applications (like e.g. mobile app back-ends), in order to provide end users a smooth interaction with advanced mobility services through their preferred mobile apps. On the other hand, the interoperability with underlying MaaS/Transport Service Provider ICT platforms is ensured by a set of dedicated field adapters. The following diagram summarizes the overall layout of IMOVE Software Enablers.



**Figure 1 - Overview of IMOVE Software Enablers**

Depending on the maturity of its MaaS offer, the complexity of the underlying ICT platform and the degree of control over its development, a new MaaS provider may use IMOVE at different integration levels, connecting the Software Enablers of interest to its operational infrastructure (booking, ticketing, etc.) and thus achieving a wider ecosystem of services that complements and expands its technological portfolio.

Overall, the integration options are shown in Figure 2 (left to right):

1. A given IMOVE Software Enabler does not need to access any MaaS platform data: no field adapter is required.
2. A given IMOVE Software Enabler only needs to access data (or to invoke services) that are exposed by the native API of the underlying MaaS platform: the enabler will implement a simple field adapter that performs all required data translation and functional abstraction (i.e. mapping internal functionalities to the proper calls on the underlying API). No changes required at the MaaS platform side.
3. A given IMOVE Software Enabler needs to access additional data that are not exposed by the native MaaS platform API: like for the case before, the enabler must implement a field adapter that performs all required data translation and functional abstraction; on the other hand, the provider of the MaaS platform shall modify the native API to expose additional data.
4. A given IMOVE Software Enabler needs to invoke additional services that are not exposed by the native MaaS platform API: like for the two cases before, the enabler must implement a field adapter that performs all required data translation and functional abstraction; on the other hand, the provider of the MaaS platform shall modify the native API (and what else is needed in the MaaS platform) to implement and expose additional services.

## IMOVE Open Call for Innovation Pathfinders

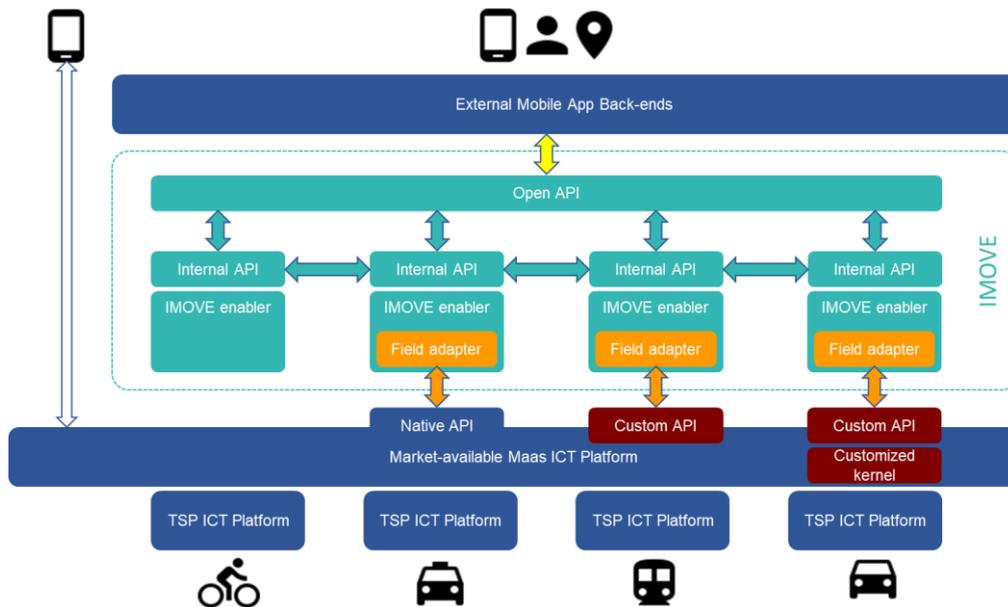


Figure 2 - Integration Schemes between existing MaaS ICT platform and IMOVE Software Enablers

### 2.1.3 DATA SHARING

A crucial aspect of IMOVE is the collection and analysis of data, in order to gain a deep and supported understanding of the actual effectiveness of actions and business models on specific and different profiles and environment, as well as the identification of technical and non-technical issues concerning data collection processing and sharing (such as data privacy, security, visibility of internal business, “fears”, trust, regulatory frameworks, etc.). In a first stage, the high priority is to:

- Define a common data model inspired by current MaaS initiatives beyond IMOVE scope, supporting the creation of a cross-border MaaS ecosystem, ultimately paving the way for a “roaming” service for MaaS across Europe.
- Identify which are the possible motivation, barriers and triggers for data sharing, and which are the possible data of interest for IMOVE and what can help unlocking the data sharing.
- Learn which incentives, business models and measures have a positive or negative influence on user behaviour, depending on the user habits, needs and preferences and on the specific context.

## 3 HOW TO APPLY AND PROCEDURES TO FOLLOW

This section outlines the procedures for the submission of the application to the IMOVE Open Call for Innovation Pathfinders and the relevant Application Form and submission rules.

### 3.1 APPLICATION FORM

The applicant shall complete and submit to IMOVE the **Application Form** available for download at the following [link](#).

Application Forms must be:

1. Compiled following the indications and using the formatting conventions of the provided template.
2. Printed to PDF format for delivery by email (see sect. 3.2).

The Application Form consists of four main sections:

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1. **General information about the applicant**
2. **Description of the candidate Innovation Pathfinder**
3. **Ambitions and development plans**
4. **Learning by IMOVE**

### 3.2 WHERE AND HOW TO SEND THE APPLICATION

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The compiled Application Form shall be sent as an attachment to an email sent to [open-call@imove-project.eu](mailto:open-call@imove-project.eu).

### 3.3 DEADLINE FOR SUBMISSION OF APPLICATIONS

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Compiled Application Forms can be submitted **until 30-Sept-2019 17:00 CEST**. All the mails received after such deadline (mail sending time rules) will be silently discarded.

### 3.4 FURTHER INFORMATION FOR THE APPLICANTS

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In case of outstanding queries on the IMOVE Open Call for Innovation Pathfinders, applicants are invited to:

1. Visit the IMOVE website (<https://www.imove-project.eu/>) and consult public deliverables.
2. Write an e-mail to [open-call-info@imove-project.eu](mailto:open-call-info@imove-project.eu) with subject "support" for help from the IMOVE Applicant Helpdesk team on specific questions related to the Open Call for Innovation Pathfinders. The helpdesk will remain active for the whole duration of submission period

### 3.5 GENERAL TIMING: FROM APPLICATION TO CONTRACTING

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After closing the application phase (**30-Sept-2019**), all applications will undergo a technical evaluation process, aiming to determine their ranking and select the new Innovation Pathfinders to be supported with IMOVE Transferability exercises.

The technical evaluation will be concluded early October. By then, the evaluation committee will consolidate the final ranking and will select the winning applications, according to the criteria described in section 4.1. On **10-October-2019** all applicants will be notified via email about the results of the evaluation phase.

Once officially included in the IMOVE Innovation Pathfinders group, the selected applicant will start the training programme.

## 4 SELECTION

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### 4.1 EVALUATION PROCESS

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The evaluation process of eligible proposals will be carried out by IMOVE evaluation committee, in respect of principles of fairness and transparency, with the overall goal to transfer knowledge to more mature subjects willing to explore and demonstrate MaaS potentialities.

The final ranking of applicants and related scores will be published in the IMOVE website.

**Up to 4 proposals** will be granted with the right to be part of the IMOVE Innovation Pathfinder group; the other proposals evaluated will have access to the public documentation elaborated by the project but will not have the possibility to profit from individual training programmes.

### 4.2 ASSESSMENT CRITERIA, SCORING THRESHOLDS AND WEIGHTS

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Proposal will be evaluated according to the following criteria that will be assessed upon the received applications:

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- Assessment Criterion 1: **technical and organisational feasibility** of the proposed developed plan, moving from the current MaaS scheme and presenting ambitions, advancements and a concrete value chain analysis.
- Assessment Criterion 2: **maturity level and innovation potential** of the current mobility solutions that could take advantage from the IMOVE MaaS experience

Each evaluation criterion will accord scores reflecting feasibility, innovation, integration and conformity to the project ideas. Designed evaluators will provide scores on each criterion as per the following table:

Evaluation	Score
The proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.	0
<b>Poor.</b> The criterion is inadequately addressed, or there are serious inherent weaknesses.	1
<b>Fair.</b> The proposal broadly addresses the criterion, but there are significant weaknesses.	2
<b>Good.</b> The proposal addresses the criterion well, but a number of shortcomings are present.	3
<b>Very Good.</b> The proposal addresses the criterion very well, but a small number of shortcomings are present.	4
<b>Excellent.</b> The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.	5