Mobility as a Service in a multimodal European cross-border corridor (MyCorridor)

Deliverable Report

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8	HACON INGENIEURGESELLSCHAFT MBH	HACON	DE
9	MAP TRAFFIC MANAGEMENT BV	MAPtm	NL
10	VIVA WALLET HOLDINGS - SOFTWARE DEVELOPMENT SA	VivaWallet	EL
11	AMCO OLOKLIROMENA SYSTIMATA YPSILIS TECHNOLOGIAS ANONYMI VIOMICHANIKI KAI EMPORIKI ETAIRIA	AMCO	EL
12	TOMTOM DEVELOPMENT GERMANY GMBH	TOMTOM	DE
13	ROMA SERVIZI PER LA MOBILITA SRL	RSM	IT
14	TTS Italia	TTS	IT
15	PANEPISTIMIO PATRON	UPAT	EL
16	IRU PROJECTS ASBL	IRU	BE
17	SALZBURG RESEARCH FORSCHUNGSGESELLSCHAFT M.B.H.	SFRG	AT

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ABBREVIATION LIST

Abbreviation	Definition
A	Activity
AI	Artificial intelligence
API	Application Programming Interface
B2B	Business to Business
B2C	Business to Client
BSI	British Standards Institution
C-ITS	Cooperative Intelligent Transport Systems
CRS	Computer Reservations System
CSS	Cascading Style Sheets
DB	Data Base
DoA	Description of Action
EB	Ethics Board
EC	European Commission
FCD	Floating Car Data
FOT	Field Operational Test
GPII	Global Public Infrastructure Initiative
HTML	HyperText Markup Language
ICT	Intelligent Communication Technologies
IPR	Intellectual Property Rights
IRU	International Road Transport Union
ISO	International Organization for Standardization
IT	Information Technology
ITS	Intelligent Transportation Systems

LTZ	Low Traffic Zone
MaaS	Mobility as a Service
MAMCA	Multi-Actor Multi-Criteria Analysis
OEM	Original Equipment Manufacturer
OS	Operating System
P4All	Prosperity4All
PC	Project Coordinator
PMT	Project Management Team
PSC	Project Steering Committee
POI	Point Of Interest
PT	Public Transportation
QCB	Quality Control Board
QoS	Quality of Service
REST	Representational State Transfer
SAB	Scientific Advisory Board
SET-Plan	Strategic Energy Technology Plan
SME	Small and Medium Enterprises
SP	Stated Preference
TG	Token Generator
TM	Technical & Innovation Manager
TM	Traffic Management
TMC	Traffic Management Centre
TMP	Traffic Management Plans
TRA	Transport Research Arena
TRB	Transport Research Board
UC	Use Case

UCD	User Centred Design
UI	User Interface
UML	Unified Modelling Language
V2X	Vehicle to X (all transportation means)
VAS	Value Added Service
VEC	Vulnerable to Exclusion Citizens
WP	Work Package
WTH	Willingness To Have
WTP	Willingness To Pay

EXECUTIVE SUMMARY

MyCorridor aims to develop the technological and business platform, which will enable technologies, applications, business models, legal and operational schemes and travel behaviour adaptation and promotion strategies to make MaaS a sustainable reality, seamlessly integrating public and private transportation means as needed, into a cross-border travel chain, without owing any of them!

MyCorridor will prove this paradigm change through a number of European sites, which are connected and form a cross-border corridor (from the far South to the far North, crossing Central and Eastern Europe) with road transport and multimodal chains. Those sites will develop Mobility Package tokens, purchased through a single point and will incorporate the following services: **a) Traffic management services** (advanced navigation, adaptive traffic control, traffic status & event detection, dynamic traffic management), **b) Services related to MaaS PT interface (**Multi-modal real time information/planning/booking/ticketing), **c) MaaS vehicle related services** (car sharing, car-pooling, parking, taxi, …), and **d) Horizontal services** (loyalty schemes, Mobility Tokens, clearing).

Moreover, MyCorridor will build and sustain a network of MaaS stakeholders which will be actively involved in evaluation, dissemination and should be considered as early adopters of the proposed solution.

WP9 of MyCorridor project has the objective of coordinating and managing the project. The activities related to the management of the project will ensure the timely execution of the work plan, the proper communication between participants, the data management plan for the project, the creation of reporting and quality control structures and procedures, the representation and communication with external entities, primarily the European Commission and the Advisory Board of the project, and all financial-related activities concerning funds and budget allocation. In particular, A9.1 is devoted to project administrative management, A9.2 to technical & innovation management, A9.3 to quality assurance, while, at last, A9.4 to Advisory Board related activities. Their objectives and respective methodologies to be used in order to reach these, are summarised in the current Deliverable. Following, a second part of the document contains the "MyCorridor Quality Assurance Plan" that defines the procedures to be applied in

MyCorridor project in order to guarantee high quality of project results and smooth monitoring and control of internal project processes and concerns all MyCorridor project beneficiaries that will act as work producers, followers and/or reviewers.

Quality planning is an integral part of management planning. As a pre-requisite to its preparation, the Quality Assurance Manager has reviewed all requirements in order to determine the necessary procedures needed to guarantee the high quality of project results and the proper monitoring of project processes, which are described in the present deliverable. The objective of this work is to demonstrate and provide the Consortium with the assurance that:

- the contract requirements and conditions have been reviewed;
- effective quality planning has taken place;
- the quality system is appropriate.

The Consortium quality policy has been defined as follows:

- to implement and maintain a quality system according to ISO 9001:2015;
- to identify for all involved their responsibilities regarding quality;
- to ensure that all Deliverables and other tangible outcomes comply with the contract;
- to ensure that all processes relevant to the project are organised and monitored with a high level of effectiveness and quality.

Chapter 1 summarises the purpose of the document, the intended audience and the interrelations with other project activities. **Chapter 2** presents in short the goals, intended outcomes, the Consortium, the technical approach and evaluation activities, the overall working methodology, the expected impacts, and key innovation of the project. **Chapter 3** presents the project administration organization covering the organizational structure, the Consortium bodies and their roles, the project internal processes. **Chapter 4** presents the project technical organisation, discussing the project duration, the responsible persons for the WPs and Pilot sites coordination, including the risk management. Following, **Chapter 5** is describing the Quality Assurance plan and **Chapter 6, Chapter 7** and **Chapter 8** go more in depth by describing performance processes, supporting processes and common software and tools. **Chapter 9** concludes the document. Finally, attached to the document there are 7 Annexes including templates related to the Quality

Management process. (N.B. Templates for public documents – e.g. deliverables and presentations – will be included in D8.2 Dissemination Strategy).

1 INTRODUCTION

1.1 Purpose of the document

Deliverable D9.1 includes a short presentation of the MyCorridor project goals, approach and intended outcomes as well as a short project management handbook, that addresses the project administrative, technical and quality organisation.

As such, it should serve as a reference document throughout the project duration as far as project organization is concerned but also regarding the project goals and targets. As it presents all the relevant tools and processes that will take place, it aims to allow the managers and leaders of all levels of MyCorridor to communicate effectively with all their group members upon specifically defined rules.

The overall management plan of the project described in this deliverable is based on MyCorridor Consortium Agreement and on the Description of Action.

The second part of the document is dedicated to the Quality Assurance plan, which is the document setting out the quality assurance procedures for the MyCorridor project. Its aim is to assure that the tangible outcomes of the project are of high quality and delivered according to the time schedule and the specifications set in the project Description of Action. This Quality Assurance plan will constitute an official project document that will govern all partners' and consortium's actions. It has been written in accordance to ISO 9001:2015 guidelines.

1.2 Intended audience

The dissemination level of D9.1 is **public**. Although it is primarily intended to be an internal guideline for the appropriate management of the specific project, it may serve as a reference guide for other European research projects management. In particular, the Quality Assurance Plan is to be used by all

MyCorridor Consortium Partners, responsible for preparing (acting as Authors) or reviewing Deliverables (acting as Reviewers).

1.3 Interrelations

The present manual is applicable and cross-cutting to all project activities. Hence, compliance with the manual is mandatory for all Consortium Partners and during the conduct of all activities.

2 ABOUT MYCORRIDOR

2.1 The challenge

In the context of the Eurobarometer Survey (2014), Commissioner Violeta Bulc said: "Today's survey shows that good infrastructure, better connections, and cheaper tickets are the main concerns of EU citizens. That is why we need to remove technical and administrative barriers to ensure that transport services can really operate across the whole EU, without national boundaries. Also we cannot assume that transport services will always be there, or be safe, unless we maintain them. Transport is about people. That is why in all of my initiatives, the main objective will be to contribute to travellers needs and to set the conditions for the European transport economy to flourish." The survey also revealed that convenience is by far the main reason for choosing a specific means of transportation for everyday and long journeys (both 61%), followed by speed (respectively 31% and 41%) and price (12% and18%). In light of these aspects, MyCorridor will advance the current status by delivering a solution that introduces a brand new concept: 'Mobility as a Service' (MaaS), which realises the vision of seamless mobility services. Most importantly, the MyCorridor solution may hugely support the MaaS concept by providing distinct features such as Mobility Services Aggregator across the whole EU and addressing citizens' concerns. This will be achieved through the innovative platform and novel business schemes that MyCorridor will propose. MyCorridor will enable a paradigm shift for car users, by driving the "vehicle world" towards MaaS. The basis of the MyCorridor project is the TM 2.0 platform (i.e. as an enabler of MaaS), and, therefore, the starting point are those mobility services related to the interactive traffic management vision of the "vehicle world". It aims to extend the current capability of TM 2.0 by integrating in a single platform pan-European data sets, able to offer urban and interurban services that are multimodal, seamless, flexible, reliable, user-friendly, all-inclusive, cost-effective and environmentally sustainable.

2.2 Project Aim & Data

To address the gaps and challenges aforementioned:

MyCorridor aims to develop the technological and business platform, which will enable technologies, applications, business models, legal and operational schemes and travel behaviour adaptation and promotion strategies to make MaaS a sustainable reality, seamlessly integrating public and private transportation means as needed, into a cross-border travel chain, without owing any of them!

Basic info about MyCorridor is summarised in the following table:

Table 1: Summary of project data.

Contract Number	723384
Project acronym	MyCorridor
Project Name	Mobility as a Service in a multimodal European cross-border corridor
Call topic	**MG-6.1-2016:** Innovative concepts, systems and services towards Mobility as a Service of **"Smart, Green and Integrated Transport"** Work Programme 2016-2017
Type of Project	Research and Innovation Action (RIA)
Date of start	01.06.2017
Duration	36 months
Total Cost	**3,491,331.25**€
EC Contribution	**3,491,331.25**€

2.3 Project Mission and Objectives

MyCorridor will prove its aim through a number of European sites, which are connected and form a cross-border corridor (from the far South to the far North, crossing Central and Eastern Europe) with road transport and multimodal chains. Those sites will develop Mobility Package tokens, purchased through a single point and will incorporate the following services: **a) Traffic management services** (advanced navigation, adaptive traffic control, traffic status & event detection, dynamic traffic management), **b) Services related to MaaS PT interface** (Multi-modal real time information/planning/booking/ticketing), **c) MaaS vehicle related services** (car sharing, car-pooling, parking, taxi, …), and **d) Horizontal services** (loyalty schemes, Mobility Tokens, clearing).

Moreover, MyCorridor will build and sustain a network of MaaS stakeholders which will be actively involved in evaluation, dissemination and should be considered as early adopters of the proposed solution.

MyCorridor Mission: To facilitate sustainable travel in urban and interurban areas and across borders by replacing private vehicle ownership by private vehicle use, as just one element in an ***integrated/multi-modal MaaS chain***, through the provision of an innovative platform, based on mature ITS technology, that will combine connected traffic management and multi modal services and thus facilitate modal shift. It will propose a technological and business MaaS solution, which will cater for interoperability, open data sharing, as well as tackling the legislative, business related and travel-behavior adaptation barriers enabling the emergence of a ***new business actor*** across Europe; the one of a ***Mobility Services Aggregator***.

This will be realised through the following objectives:

Objective 1: Integration of MaaS vehicles into a multimodal service chains platform.

Implemented in: WP2, WP3, WP4, WP5

Through the following steps:

- To develop a technological solution that will be comprised of in-vehicle components, business processes and payment platforms, by utilising and enhancing existing mature and robust ITS.
- To extend the scope and capability of TM2.0 to cover multi-modality aspects, as part of an updated sustainability strategy within the platform (e.g. facilitating a modal shift from car to other modes).
- To develop an open Cloud Architecture that is able to support, in a flexible and modular way, all the above technical components, in compliance to Open Data principles.
- To design inclusive, personalised, context-aware and user friendly interfaces for all mobility user required actions, as well as for pushed services and information to the traveler**.**

Outcome: A single MaaS chain, composed of one-stop-shop web services, with tools to easily integrate single services to content and an optimized and adaptable UI for all travelers.

Criteria for success:

- At least 20 services integrated in MyCorridor platform during the project.
- Less than 1 day of development required for integration of any of these services into MyCorridor platform by experienced developers.
- Cloud Architecture scalable and able to support thousands of connected services.
- Platform that allows multiple business principles and schemes to be implemented when integrating a new service (i.e. freely connected/ combined to other services of the same vendor, excluded from combination to rival services, pay per use in combination to certain others, etc.).
- UI adequate for operation by all types of travelers (including those with low IT literacy, elderly, travelers with disabilities, etc.) in an intuitive, personalized and fast way (user acceptance per group over 65%; overall over 75%).

Objective 2: Provision of a new business paradigm, actor and model for pan-European cross-border adoption

Implemented in: WP7, WP8

Through the following steps:

- To develop a one-stop-shop business platform for the purchase of Mobility Tokens for accessing Mobility Services and enabling the sustainable provision of such services across borders, Europe-wide.
- To create a novel business model across Europe: the one of a Mobility Services Aggregator.
- To propose novel financing, pricing and taxation strategies as well as schemes to enhance travelers' socially responsible behavior adaptation and to facilitate the market uptake of these new business models.
- To propose appropriate operational (i.e. on data sharing, service sharing business rules, data protection, etc.) and legal (cross-border) schemes, to enable the realisation of such trips under real life conditions.

Outcome: A new business paradigm and business actor (MaaS aggregator), able to provide holistic MaaS services locally and, through roaming, globally in competitive prices and with flexible business schemes.

Criteria for success:

- To reduce the required by the user time for overall planning/ booking/ticketing by at least 90%.
- To reduce the overall price of the integrated service by at least 20%.
- To develop a sustainable business case for the new role of MaaS Aggregator.
- To agree within the Consortium and with external actors on a common legal and operational scheme for service delivery.

Objective 3: Proof of concept of the new business model and integrated platform by selected UC's and performance of full operational analysis and impact assessment through interconnected Pilots across a European corridor

Implemented in: WP1, WP6,

Through the following steps:

- To assess all relevant technological, technical, behavioural, legal, operational and socio-economic barriers through the application of a real-life multimodal journey across a European corridor and realize demonstration Use Cases to allow proof of concept.
- To perform a full impact assessment and viability analysis of the proposed solutions and develop appropriate dissemination and exploitation plans for their sustainable market take-up.

Outcome: To develop a legally abiding, operationally functional and fully viable MaaS platform as proved through extensive testing across 6 countries and sites, from South to North of Europe and by their overall impact assessment.

Criteria for success:

- To realise successfully at least 10 project Use Cases.
- To realise successfully all 6 Pilots, connecting at least 2/3 of the intended services at node-cities and between them.
- To create interest in the project, achieving to attract at least 15 external service providers to connect their services in MyCorridor platform (already 11 have provided written Letters of Intent – see Annexes of Section 4-5).
- To guarantee that no major barrier to MyCorridor market penetration exists and anticipate adequate mitigation strategies.

2.4 Core Concept

2.4.1 MyCorridor as a ground-breaking technology and a game changer

Figure 1: The MaaS paradigm as approached by the MyCorridor interconnected public and private transportation services.

Panos and Maria are a middle-aged couple, living in Greece. As they are culture lovers, they aim to attend the "Salzburg festival" that will take place in July-August this summer. And on their way there, they decide to visit also Rome. Due to the crisis, but also being environmental conscious, they have abandoned their car and try to plan, book and realize the whole trip using the MaaS concept, i.e. multimodal PT chains and local car/ bike pooling/ sharing services.

Without My Corridor, they need to visit at least 12 websites; namely http://www.trainose.gr/, https://tickets.trainose.gr/dromologia/ and http://www.patrasinfo.com to check the timetables and the connection of train and bus from Athens to Patra, www.greekferries.gr for Patra to Ancona ferries, http://www.raileurope-world.com/ to check the timetables and the availability of the train from Ancona to Rome, www.trainline.eu/ for taking the train from Rome to Salzburg, http://www.carsharing.roma.it/it/tariffe.html to book the RSM car sharing service in Rome and http://www.fahre-emil.at/ to book the EMIL car

sharing service in Salzburg and www.viva.gr to take the flight from Salzburg back to Athens. We did ourselves the calculation, resulting in a total of approximately 2.5 hours to plan/ book the trip (and in some branches of the trip, e-ticketing is not available), as well as a total cost from 320€ to 430€.

With MyCorridor, they'll be able to perform the whole planning, booking and ticketing function (and later also be supported in routing/re-routing through TomTom services) by visiting just one site (the new viva.gr-with roaming connections Europewide) in **just less than 15 minutes** and a potential overall price reduction of at least 20% through mass sales effect and the use of tokens.

2.4.2 The MyCorridor One Stop Shop

The conceptual design of the MyCorridor One Stop Shop is illustrated in Figure 2. In this figure, two major stakeholder categories are foreseen. On the one hand, MyCorridor introduces a gateway for service providers who are willing to register their services and make them available in the MyCorridor ecosystem. On the other hand, end users (both travellers and carpoolers) send a request for MaaS and, as a result, they receive a token that fulfils their request after the MyCorridor Service Delivery Platform performs matchmaking of their preferences with the available services, taking into account a number of other parameters, such as feedback received from other users about the available services, user personal preferences, business models in use, etc.

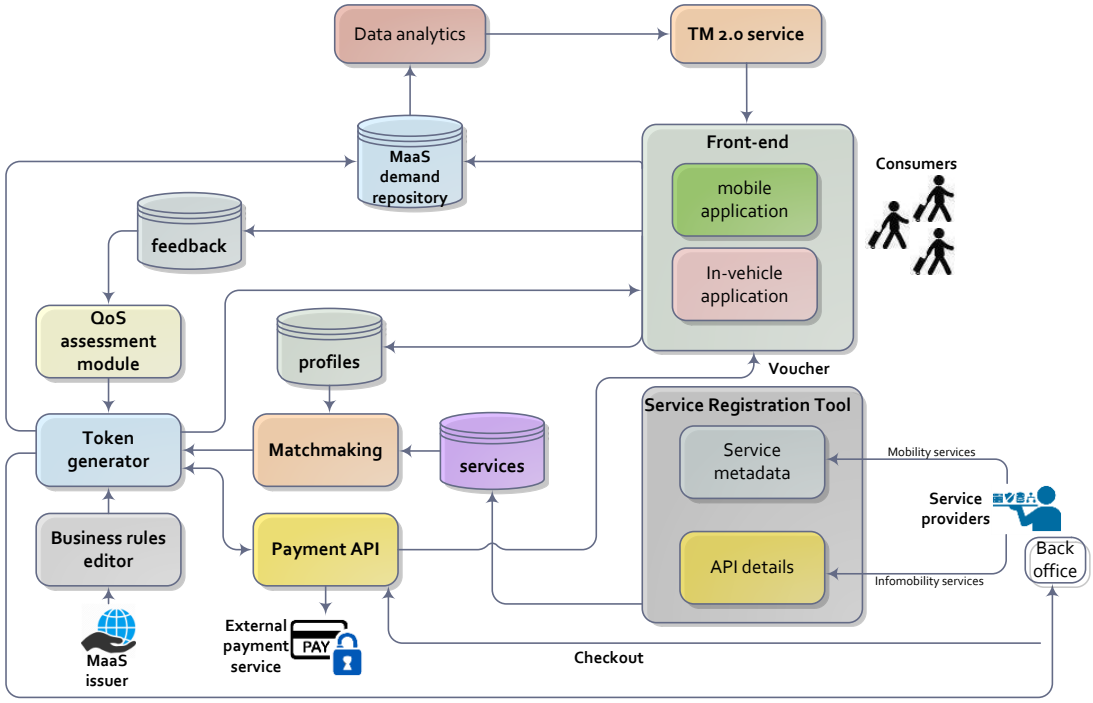


Figure 2: Overall functional architecture of MyCorridor.

MyCorridor is equipped with a service registration tool that allows any affiliated service provider to provide semantically annotated metadata for describing their services, thus making them visible in a searchable context. More specifically, in the case of info-mobility services, a dedicated utility allows for the registration of the info-mobility service API details into the MyCorridor registry, thus enabling its seamless integration into the MyCorridor service space. All service metadata along with the available API details are stored in the MyCorridor service registry.

The Token Generator (TG) resides at the core of the MyCorridor functional architecture. Its role is to respond to any user incoming request for MaaS services by producing the MaaS product that best matches the requesting user needs. The real matchmaking between available services and users' requests is carried out by the Matchmaking module. This looks up the requesting user profiles and the services registry and produces as an output a workflow of services that fulfil the user requests, after applying appropriate machine learning techniques (e.g. collaborative filtering). The TG combines the results of Matchmaking with the specific business rules that impose the business model in use for the provision of the MaaS services, defined by the MaaS operator, through the means of a business rules editor. TG also takes into account the results of the QoS assessment module, which performs evaluation of the offered services based on

user experiences. Once a token is generated, it is sent to the user, through the front-end applications, both mobile and in-vehicle ones. It is also sent to the involved service providers' back office so that they record any MaaS activity pertaining their service. On user's acceptance, a payment transaction is initiated by an affiliated external payment service, to which the MyCorridor architecture is connected through an appropriate secure API.

Another important aspect of the MyCorridor functional architecture is the capability it provides for interfacing with available traffic management (e.g. TM2.0) services. MyCorridor manages a bi-directional interaction with TM services. In one direction it sends analytics information to TM services for enabling their live updates, by the means of the Big Data Analytics facility applied on the MaaS demand data repository that MyCorridor maintains. In the other direction, TM services are integrated into the MyCorridor front-end applications, enhancing the overall service experience for users.

From a technical point of view, MyCorridor can be seen as comprising a cloud-based backend that implements the service delivery platform, and a lightweight frontend that delivers the end user applications. The communication between the frontend and the backend is handled through a secure Rest API. All functionalities delivered by the backend are implemented as Restful web services, accessible in a secure way by the frontend applications. The backed handles all computational intensive processes that are appropriate for realizing the envisaged MyCorridor concept, such as service matchmaking, communication and processing of external data, info-mobility service composition and invocation, collection and evaluation of user feedback, definition of appropriate business rules, big data analytics, speed up techniques, fare calculation & payment. On the frontend a set of additional functionalities are implemented, such as profiling, personalization, but also the appropriate mechanisms for enabling invocation of backend services. The frontend applications will be built for smartphone and in-vehicle devices.

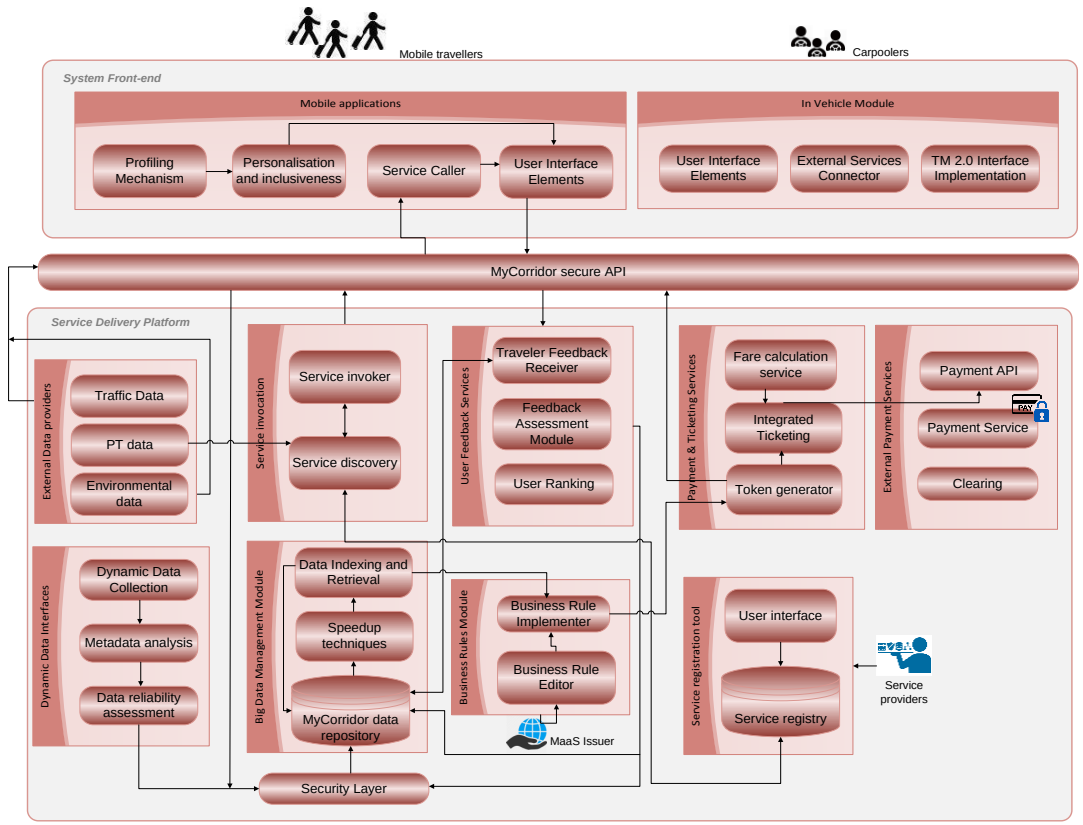


Figure 3: MyCorridor low level system architecture.

2.5 The Consortium

MyCorridor tasks will be undertaken by a balanced consortium that encompasses all key actors, namely 2 key industrial Partners (SWARCO / MIZAR, Tom-Tom), 7 dynamic SME's in the mobility market (INFOTRIP, CHAPS, WINGS, MAPtm, AMCO, VivaWallet, HaCon), 1 mobility agency (RSM), 1 ITS association (TTS), 4 Research performers (UNEW, CERTH, UPAT, SRFG), 1 multinational Legal Firm with specialisation in novel mobility scheme structuring (OC) and IRU Projects, which is the "innovation arm" of the IRU (International Road Transport Union) with 170 members in more than 100 countries globally, constituting also the liaison to MaaS Alliance. This truly multidisciplinary and fully complementary team covers the whole of Europe through local, long distance and cross border Pilots in a corridor of 6 European countries; from the South (Greece, Italy) through to Central (Austria, Germany, the Netherlands) and Eastern Europe (Czech Republic). In addition to the above, **11 Letter of Supports** have been signed by external to MyCorridor service providers, that commit to allow their services integration in MyCorridor one-stop-shop and actively support the project proof of concept. Those Letter of Supports will turn to Non-Disclosure Agreement with the

respective service providers (when required) in the project and their number will increase.

List of participants

Participant No*	Participant full organisation name	Participant short organisation name	Country
1	UNIVERSITY OF NEWCASTLE UPON TYNE	UNEW	UK
2	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS CERTH	CERTH	EL
3	OSBORNE CLARKE SCRL/CVBA	OC	UK
4	WINGS ICT SOLUTIONS INFORMATION & COMMUNICATION TECHNOLOGIES EPE	WINGS	EL
5	SWARCO MIZAR SRL	SWARCO	IT
6	EFARMOGES EXYPNOU LOGISMIKOU KYKLOFORIAS & METAFORON AE	INFOTRIP	EL
7	CHAPS spol. s r.o.	CHAPS	CZ
8	HACON INGENIEURGESELLSCHAFT MBH	HACON	DE
9	MAP Traffic Management B.V.	MAPtm	NL
10	VivaWallet SA Holding and Software Development Services	VivaWallet	EL
11	AMCO OLOKLIROMENA SYSTIMATA YPSILIS TECHNOLOGIAS ANONYMI VIOMICHANIKI KAI EMPORIKI ETAIRIA	AMCO	EL
12	TomTom INTERNATIONAL BV	TomTom	DE
13	ROMA SERVIZI PER LA MOBILITA SRL	RSM	IT
14	TTS Italia Association	TTS	IT
15	PANEPISTIMIO PATRON	UPAT	EL
16	IRU Projects ASBL	IRU	BE
17	SALZBURG RESEARCH FORSCHUNGSGESELLSCHAFT M.B.H.	SRFG	AT

2.6 Target Stakeholders categories

The scope of the project includes business models, deployment steps, public-private cooperation concepts, organisational architecture, and data exchange principles related to the interaction of the various mobility services, and the vehicle world that is extended towards the multi-modal/ integrated MaaS chain. When looking at the proposed solution viability, it is important to consider the different stakeholders perspectives, in order to find synergies among their interests and identify win-win strategies that will determine their actual involvement. A preliminary overview of the system operation reflects in the following ***indicative business stakeholders*** examples.

- ***Stakeholder category 1: The MaaS Issuer and the mobility services aggregator***

Before MyCorridor: A business entity (most likely an SME) wishes to establish a multimodal mobility service (integrating information, routing, ticketing and potentially interfaces to other services; such as car/bike sharing/pooling, taxi, touristic or recreation services) within a city/region/country or across regions. Currently, it has to identify each content/service provider, in every one of these geographic regions, make contracts for content use and/or service interface. Significant effort is needed (particularly as content/service formats are usually incompatible) and delays occur. This is why most relevant businesses operate currently at local level and for only a few of the service types and functionalities. This is all made even more complex by the need for clearing house services for cross border payments.

After MyCorridor: The business entity uses the MyCorridor platform to access many connected services. It uses its business alignment tool to negotiate and interface with them. Then, when a service is established in a region, it becomes a MaaS Issuer. An alliance of MaaS issuers or an entity that aggregates many regions can become a Mobility Services Aggregator and may offer corresponding services in other regions by roaming agreements to relevant MaaS Issuers established there. By mutual recognition of payment, it will perform cross-border payments without the extra cost and bureaucracy of big clearing house mechanisms. The time and cost of setting up a Europe-wide service is reduced significantly.

- ***Stakeholder category 2: The socially responsible traveller***

Before MyCorridor: The traveller wants to travel from A to B within his/her city/country across borders. Depending on the origin location A and destination B, s/he may be fortunate enough to find multimodal information and/or routing advice from A to B through a single portal, but the likelihood is s/he will need to connect to different service providers within a region/country or across borders. S/he can't perform multimodal ticketing across borders either, nor access personalised services; adapting content and payment methods to his/her own user-needs and preferences. This either restricts his/her mobility, wastes his/her time in organising the trip or – in many cases – will result in the traveller using his/her car instead.

After MyCorridor: Utilising the MyCorridor platform, the traveller will obtain, via an e-stop-shop, all relevant information, routing guidance and payment options. Instead of travelling by his/her own car, s/he can easily book, pay and follow a city-based or cross-border trip; using, in-between, a bike or car sharing/pooling and other MaaS services as first/last mile options or for maximising his/her own comfort and leisure/tourist activities. Registering with the services of a trusted Mobility Token, instead of specific tickets, will allow him/her to flexibly change his/her departure and travel data and will provide discounts through exchange of tokens gained through own services (i.e. acting as a float car node while driving his/her own or pooled vehicle) for services. The ease of use, personalised options (as the Mobility Services Aggregator will know its client and provide static and dynamic/history based filters to its services) and economic gains will gradually lead the traveller to become **socially responsible** and use combined MaaS and multimodal services, without even consciously changing his/her behavioural habits.

- ***Stakeholder category 3: The expanding transport mode operator and the emerging mobility-as-a-service market***

Before MyCorridor: A transport mode operator (i.e. train operator) supports integrated ticketing across services between two neighbouring countries and may also give information on PT schedules, or arrange for taxi booking upon arrival. In a few cases (i.e. Lufthansa) a complete air-taxi-bus travel combination may be booked and paid for within a certain region. However, beyond the borders of the region/country, multimodal services are limited to, at best, two modes.

After MyCorridor: The transport single-mode operator may accompany his/her mobility product with travel planning and ticketing for the entire multimodal trip. In addition, and most importantly, the sales network increases to include pan-European MaaS network of Aggregators. This can lead to an increase in sales revenue.

- ***Stakeholder category 4: The Traffic Management world***

Before MyCorridor: Todays' road users rely more on their navigation device/service than they do on the traditional means of traffic management (e.g. road signage). This presents a challenge to both the traffic management service providers, which have to find ways to communicate their TMC (Traffic Management Centre) measures to road network users and the navigation service providers, who need to be TM-aware and, as such, more effective.

After MyCorridor: The proposed solution offers the possibility for new measures for traffic management, which will be able to reach/address road users individually. One example is load-balancing routing, which takes into account dynamic demand patterns in the network and distributes traffic to minimise the traffic breakdown risk. Another could be the routing of one group of cars via a side road, so as to reach destination B, known to the TMC, when the latter has taken action to close route A for users with destination X.

- ***Stakeholder category 5: The Content service providers***

Before MyCorridor: Todays' Transport Content market still faces challenges to have access to wide audiences across Europe. Most importantly, and despite a series of commercial and research initiatives, there are still barriers and obstacles for widely adopted B2B alliances.

After MyCorridor: The proposed solution offers the possibility for the development of a Europe wide content market place through the Mobility Services Aggregation mechanism. The content of a single content provider will be complemented by other sources including the user-made content such as FCD. Thus, the result will be a rich experience for the traveler and benefits for all involved in the content business.

- ***Stakeholder category 6: The mobile society***

Before MyCorridor: Younger people are likely to be experienced web users, so they often know how to find and use generic multimodal planners. They also possess the cognitive endurance and multi-language capacity to use such services to plan a long journey and have the physical capacity to cope with delays,

adverse circumstances and some extra walking/waiting between legs of a journey. More senior travellers, business travellers or those with disabilities may be more inclined to use taxis between transportation hubs, have the whole trip organised and paid for through a tourist operator or, in the worst case scenario, be forced to stay at home. For short distance travel (i.e. within the city) they would rather use their own vehicle or that of a family member to transfer them, which reduces mobility and maximises car use.

After MyCorridor: Any citizen (including older people, people with disabilities, with language barriers, etc.) will find a whole journey (information, planning, routing, ticketing) on their user interface, using their preferred device (Microsoft, Android, iOS, etc.), whilst knowing that the MyCorridor system took into account their specific limitations (mobility or other) and needs/preferences. Adequate first/last mile transportation opportunities (i.e. through vehicle sharing/pooling) are offered to take them from one mode to another on long journeys or to allow own vehicle substitution in local ones. This translates to at least a 10% enhancement in mobility for all citizens (over a 25% enhancement for the elderly and people with disabilities) and at least a 15% improvement in green mobility habits.

2.7 MyCorridor Services

MyCorridor intended applications cover **four basic operational fields**, which are namely **1) Traffic management applications**, **2) MaaS Multi-modal PT applications interfaces** concerning the planning, booking, ticketing and the use of the mobility multi-modal services, **3) MaaS vehicle related applications**, and **4) Horizontal (non-mobility) services** concerning the purchase and consumption of the mobility tokens. Key services in each operational field are as follows:

Table 2: MyCorridor application fields services types.

Traffic Management Services	MaaS vehicle related services
TM01: Interactive traffic management	**VE01:** Advanced navigation services -
TM02: Event management	**VE02:** Parking
TM03: Advanced Traffic Forecasting based on FCD	**VE03:** Park and Ride
	VE04: Car sharing/Pooling
	VE05: Electric vehicle sharing

(provided by the driver in return of mobility tokens) **TM04:** Urban charging **C ITS** (in-vehicle information with regards to Traffic Lights Status, Traffic Events) **TM05:** Zone access control	**VE06:** Taxi service **VE07:** Bike sharing **VE08:** Pay as you go insurance
Services related to MaaS PT interface **PT01:** Multi-modal real time information **PT02:** Multi-modal trip planning/ booking/ticketing **PT03:** Single mode PT services (i.e. ferry boat use by car)	**Horizontal non Mobility services** **HO01:** Loyalty schemes **HO02:** Eco behaviour schemes based on AVATAR concept **HO03:** Mobility Tokens **HO04:** Clearing (*settlement between partners shall be carried out by a licensed Payment Service Provider, operating under the provisions of the European Payment Services Directive. Partner VivaWallet, an emoney Insitution with license passported across the European Economic Area region, will assume this role, by providing payments functionality*) **HO05:** Integrated payment

Other than the above key applications, there are additional supporting ones, such as **user registration and profiling**, **user rating and feedback**, **service provider registration and profiling** and **service registration and data/metadata submission.**

2.8 MyCorridor Proof of Concept

Pilot demonstration of MyCorridor involves an eco-system of interoperable MaaS Issuers, covering together a cross-border Pan-European Corridor going through Greece, Italy, Austria, Germany, Czech Republic and the Netherlands. Each MaaS Issuer can operate one or more local or cross-border corridors that involve various typologies of mobile users.

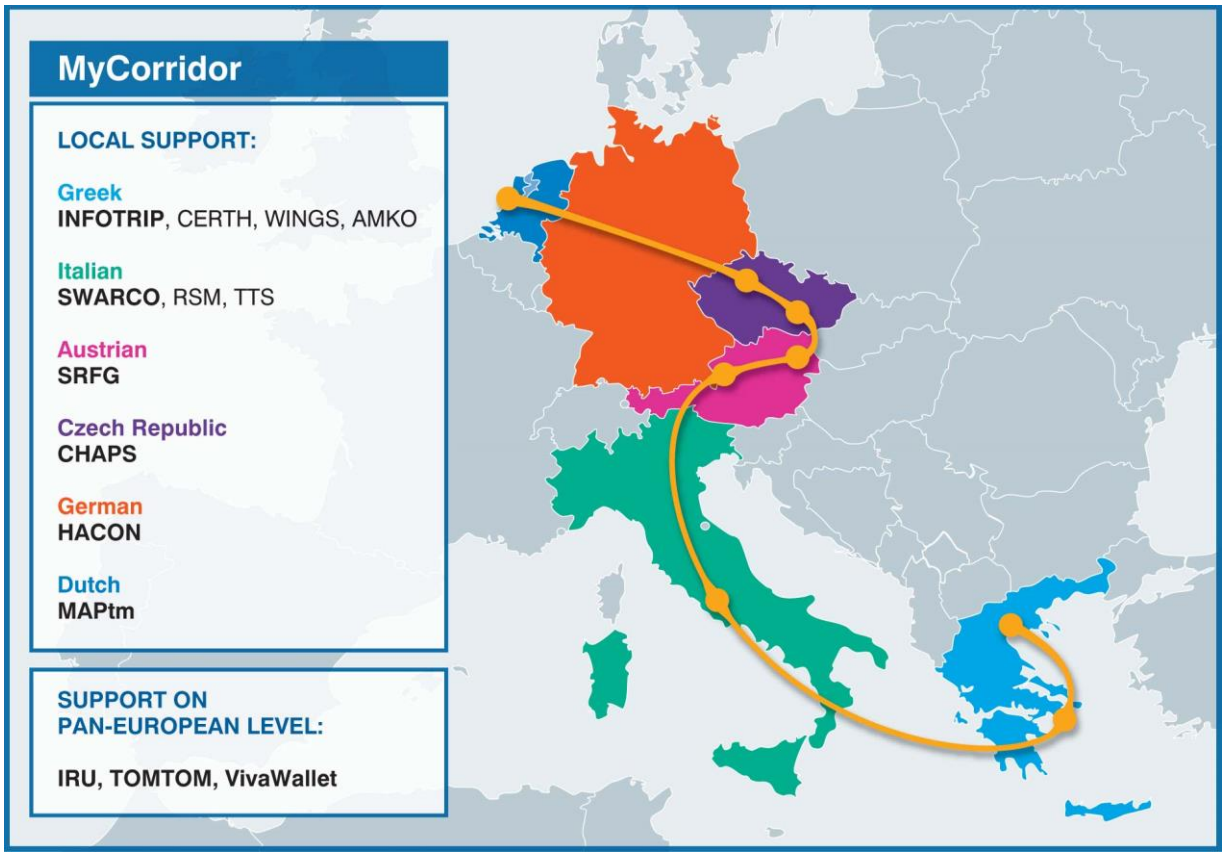


Figure 4: MyCorridor Pilot-routes and city nodes.

Pilots in MyCorridor will run in 2 iterations, with different key objectives in each case:

Table 3: Pilot iterations in MyCorridor.

Participants type & number	Evaluation objective	Success Criteria
1st Iteration [M18-M22]		
6 internal developers/service providers (transport operators, mobility service providers, content providers, etc.)	Functionality of MyCorridor front-end & back-end modules	• At least 6 services integrated in MyCorridor One-Stop-Shop.
20 users (from each MyCorridor site) - a total of 120 users, addressing all MyCorridor profiles encompassing VEC citizens (respecting also gender equality)	UI and key functionalities aspects	• Usefulness and usability rated positively as a mean by over 50% of users per site and 60% overall.

Participants type & number	Evaluation objective	Success Criteria
2nd Iteration Round [M28-M33]		
• All project internal developers/service providers • At least 15 external developers/service providers	• Functionality of optimised MyCorridor front-end & back-end modules • Benefit from added value services (enhanced services) • Attraction of external service providers	• At least 2/3 of the intended services at node-cities integrated in MyCorridor platform. • At least 15 external service providers will connect their services in MyCorridor platform. • On average, less than 1 day of development required for integration of any of these services into MyCorridor platform by experienced developers. • Cloud Architecture scalable and able to support all connected support services. • Multiple business principles and schemes of all connected service providers supported by MyCorridor platform.
• 50 users (from each MyCorridor site) - a total of 300 users, addressing all MyCorridor profiles including Vulnerable to Exclusion Citizens (VEC) (respecting also gender equality)	• Impact of MyCorridor in: cross-border interoperability, time, comfort, environmental outcome • UI aspects, with focus on personalisation	• UI adequate for operation by all types of travellers (including those with low IT literacy, elderly, travellers with disabilities, etc.) in an intuitive, personalized and fast way (user acceptance per group over 65%; overall over

Participants type & number	Evaluation objective	Success Criteria
	• Benefit from added value services (enhanced services)	75%). • Time of use faster by at least 90% (on average) over the without MyCorridor options.

MyCorridor aims to be all-inclusive, and, as such, cover the needs of all types of travelers with varying profiles (needs and preferences). Basic user profiles – representing a significant share of the population - that will be supported during the Pilots of the project through the MyCorridor system are namely (to be revisited within WP1 of the project):

1. The **"Commuter"**
2. The **"Tourist"**
3. The **"Businessman"**
4. The **"Spontaneous user"**
5. The **"Mobility-restricted" user (i.e. user with disabilities)**
6. The **"Low IT literacy user" (i.e. elderly user)**

MyCorridor must be in position to support all variations of mobility corridors that will be requested by users with varying user profiles. These may be **local** - within the borders of one country – and range in the rural, cross-urban or interurban context or **cross-border**, requiring the travel from one country to another across Europe. Also, all possible travel modes available in corridor should be provided as an option to the user. It will validate key scenarios that may arise as a mobility need of the aforementioned clusters of users.

The MyCorridor proof of concept will be enabled through a series of services that will be provided by MyCorridor Partners and be integrated in the MyCorridor One-Stop-Shop. In addition to MyCorridor owned/provided by the beneficiaries services, there are more – external to MyCorridor – interface to which access has been assured by their providers, through **signed Letters of Support** (*provided in Annexes of DoA*). Moreover, there is a series of Public Services that will be also interfaced to MyCorridor through open API's. All types of these services, along with some key info about them, are listed in respective tables in the DoA,

following the cluster of section 2.7 and are going to be revisited during the project lifespan.

2.9 Working methodology

Work starts (**WP1**) with a broad survey of traveler behavior and preferences (analyzing the user demand), as well as of emerging MaaS schemes and multimodal platforms (analyzing the market offer). Furthermore, key success and failure factors, as well as framework transition steps towards MaaS are identified, to cover the key business and market obstacles and enablers. All data are then combined, to result in the priority Use Cases of the project and the connected service scenarios to test at the pilot sites.

WP2 develops the enabling system Architecture and technical specifications, with emphasis on extension of TM2.0 standard to satisfy MyCloud Architecture (towards TM2.1), interoperability and cross-border security issues, data management, reliability and QoS considerations. An a priori and a posteriori risk assessment is also performed, to identify major technical, behavioural, legal and operational risks to the project and plan mitigation strategies for the most critical of them.

WP3 develops the required tools to realize the MyCorridor concept and is at the heart of its innovation. It defines the service delivery platform to integrate single services, together with its two major submodules; namely the big data management module for metadata analysis and the business rules implementer module. It also delivers a traveler feedback integration module, to make the overall system fully dynamic and responsive to user/client feedback (thus making traveler active service nodes). The necessary mobility tokens and e-payment services are also developed here; all together resulting in a "Euro-Mobility Ticket" concept that connects to the platform whole families of MaaS schemes.

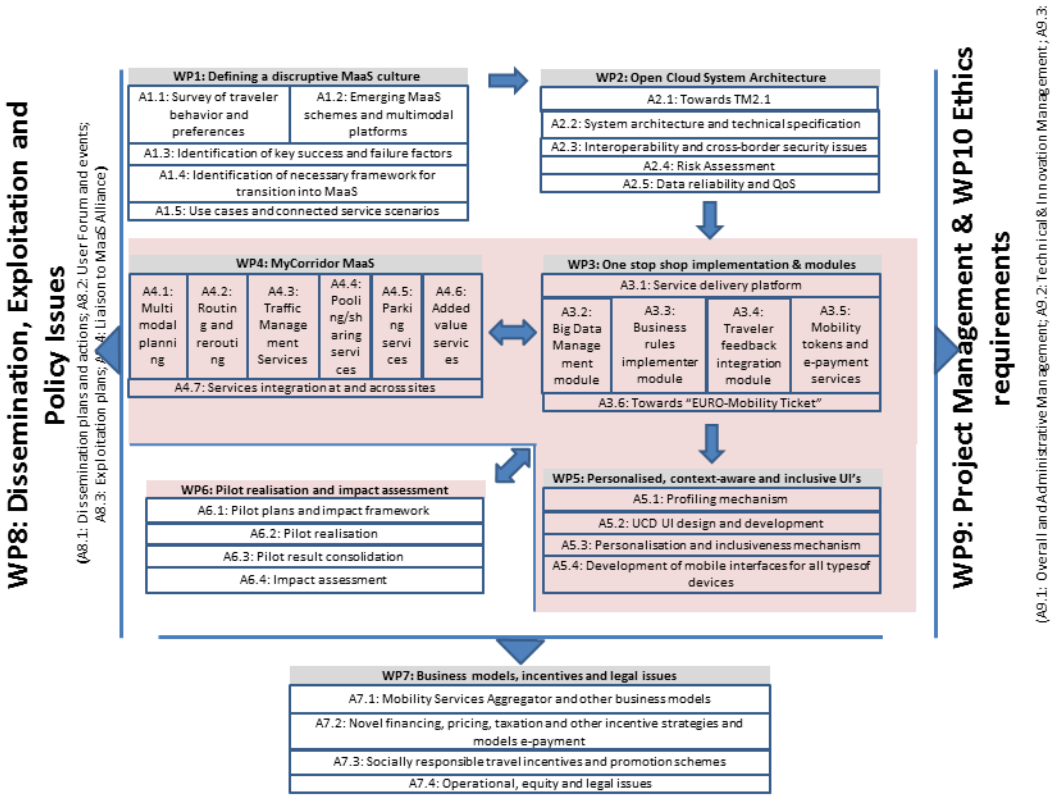
WP4 gathers the connected applications/services to be integrated into the MyCorridor platform (using the WP3 tools) per area (namely for Traffic Management services, services related to MaaS PT interface, MaaS vehicle related

services and added value services). Actual services integration to the platform and interconnection is also performed here; both at and across sites.

WP5 develops the front-end of the MyCorridor platform, developing UI components and software; to provide a unique look and feel to the integrated service, as well as profiling and personalization mechanism that allows service individualization and inclusiveness. The relevant mobile apps for service delivery are finally realized here, for all types of mobile devices. Iterative pilots are then planned and realized in **WP6** across 6 countries/sites Europewide, leading to a full impact assessment. Pilots involve hundreds of travelers and over 25 stakeholder representatives in two subsequent iterations.

WP7 is devoted to build the relevant business schemes and modules, refined and validated through project development and pilots' results. It is the other key innovation pillow of the project (together with WP3) that develops the novel Mobility Services Aggregator and other business models, proposes innovative financing, pricing, taxation and other incentive strategies and models; as well as incentives and promotion schemes to support socially responsive travel by the new service delivery platform. Finally, operational, equity and legal issues across the application sites, as well as Europewide are thoroughly analysed within this WP.

WP8 provides the dissemination and exploitation plans of the project, utilizes and maintains a User Forum, (with representatives from all stakeholder groups), realizes an official liaison to MaaS Alliance initiative and initiates a dialogue and actions towards establishing a unique and sustainable Mobility Token driven MaaS. Finally, **WP9** is the Management scheme that governs the project realization from an Administrative, Technical, Innovation and Quality point of view; including due consideration to Ethical issues and the support of the project through an Advisory Board of 3 renowned experts. Finally, **WP10** manages Ethics requirements.



The successful performance of the Consortium will be internally controlled through the success criteria that have been defined on WP level. Those should not be mixed with the Key Performance Indicators of the project that will be defined in the context of evaluation and impact assessment framework and that will aim to measure if the project achieved to reach its primary goals and vision, but, should be seen, as intermediate controlling measures for the project progress. The success criteria per WP are indicated in the table below:

WP	Success criteria
WP1	**Year 1** • At least 60 stakeholders to participate in 6 focus group discussions across project pilot sites. • At least 30 relevant literature sources thoroughly surveyed. • At least 10 use cases agreed for implementation. • At least 15 different MaaS schemes and multimodal platforms will be thoroughly analysed. **Contingency Planning** The conclusion of the work of this WP in time is crucial, as any delay will be carried forward to all WPs. Therefore, the time will be strictly kept. The

<table>
<tr><td></td><td>UC's draft will be ready at M6, to allow other project Activities to start, based upon them. In case the targeted numbers of analyses are not reached by then, the work will continue anyway, to avoid delay of the whole project Partners' experience in MaaS services guarantees that a good knowledge base exists for the realisation of the use cases, even in case of more limited sources of input.
Foreseen Innovation
• The work does not perform a simple SoA or user needs analysis (they all pre-exist and relevant knowledge is at the hands of the Consortium). It rather focuses on identifying key existing and emerging deployments/initiatives and benchmarking their characteristics, success and failure factors, as well as relevant B2C/B2B operational models and emerging MaaS schemes, so as to guide MyCorridor platform and ecosystem towards interfacing and/or adopting the most promising ones.
• The focus on this WP will not only be on the "average" traveller, but also the most "Vulnerable to Exclusion" (VEC) ones, so the concept is innovative and will lead to an ethical and all-inclusive system. In addition, not only travellers, but all MaaS value chain stakeholders that may benefit from the new paradigm will be objective of the project Use Cases and proof of concept.</td></tr>
<tr><td>WP2</td><td>
<table>
<tr><th>Issue</th><th>Criterion</th><th>Year 1</th><th>Year 2</th><th>Year 3</th></tr>
<tr><td rowspan="2">System Architecture</td><td>Ability to integrate individual services</td><td>All service types supported</td><td>All application and services at pilot sites able to be successfully integrated</td><td>-</td></tr>
<tr><td>TM2.1 interface inclusion</td><td>Compatible to TM2.0</td><td>Fully compatible to TM2.1</td><td></td></tr>
<tr><td>Risk analysis</td><td>Potential risks identified for all risk categories</td><td>Mitigation strategies identified for all critical risks</td><td>-</td><td>Mitigation strategies positively evaluated or appropriately revised</td></tr>
</table>
</td></tr>
</table>

Contingency Planning

Risks related to the overall architecture design mainly concern the potential lack of some features discovered during the development phase. In order to tackle this, the project will provide a first version of the architecture on M12, iteratively being optimised until Month 24, when the development phase will already be well in progress. Also another risk is related to the performance of the Cloud Delivery platform, which may become poor as the volume of requests scales to large numbers. In order to efficiency deal with this situation, we will set the appropriate set of system parameter configurations before the development phase, in order to precisely specify the operational constraints for efficiently dealing with scalability issues. An appropriate cloud computing infrastructure will be selected, that will carefully take into account those constraints. Another risk is related to the potential leakage of user personal information. A clear data protection strategy will be defined from the beginning on this matter by the project's Ethics Board (A9.3). Moreover, the Cloud inherent characteristics of scalability, security and reliability are expected to contribute towards further avoiding these risks. The risk analysis in A2.4 will identify potential risks in various levels and will ensure that mitigation strategies exist for the critical ones.

Foreseen Innovation

- Open interoperable reference architecture for enabling integrated MaaS mobility services, supporting the most prominent European standards (such as TM2.1).
- Iterative and integrative risk assessment, allowing technological, behavioural, legal and business related risks to be recognised early and effective mitigation strategies to be explored.

WP3

Issue	Criterion	Year 1	Year 2	Year 3 (to be checked through WP6 Pilots)
Interoper-ability of Architecture and Cloud	Number of site services seamlessly integrated into	N/A (finalisation of architecture)	≤ 50% of all site services	≤ 90% of all site services

delivery platform	the common architecture			
	External content/ services connected	-	At least 5	At least 15
Traveller profile module	Ability to use	-	By all connected travellers	By all connected travellers, with a usability rating>7 in a 0-10 scale (through WP6 feedback)
Mobility Token	Applicability for MyCorridor services	-	Mobility Token scheme integrated in at least half of the connected private vehicle services as well as in the integrated scheme.	-
EURO Mobility Ticket	Applicability for MyCorridor services		EURO Mobility Ticket covering at least all private MaaS services included.	

Contingency Planning

The system delivery platform and the business rules implementer are based upon previous successful multi-service implementation (within ASK-IT, OASIS, UniversAAL and Cloud4All projects). Thus, there is a very good starting point the feasibility of integration. The very high expertise of the included partners in multi-service delivery platforms realisation in real-life conditions (i.e. Hacon services covering multimodal PT across Germany and Viva Wallet services covering all possible single services in Transport and Tourism in several European countries) further guarantees their ability to achieve the very ambitious goals of this WP.

<table>
<tr><td></td><td>Foreseen Innovation
Open semantics-enabled web service registration tool to allow seamless integration of third-party web services in any format (SOAP or RESTful) from everywhere.
Innovative semantic distance minimisation approaches based on feature selection techniques.
Automatic semantic annotation of RESTful web services, with no structured representation available.
Ability to satisfy alternative business rules implementation for each integrated service.
Single EURO-Mobility Ticket for several key services integration.
Mobility Tokens development, covering all connected services.</td></tr>
<tr><td>WP4</td><td>At least 75% of intended services integrated at each pilot site.
At least 5 out of 6 sites fully operable.
Contingency Planning
If integration requirements cannot be satisfied then alternative services or information sources will be sought at sites' level. The two phased integration provides adequate time to implement such changes.
Foreseen Innovation
Open interface to external/third party services.
Ability to interconnect added value services from other areas (i.e. tourism, health) and allow moderate exchange between them and the MaaS schemes integrated.</td></tr>
<tr><td>WP5</td><td>Year 3
<table>
<tr><th>Issue</th><th>Criterion</th><th>Year 1</th><th>Year 2</th><th>Year 3
(to be checked through the WP6 Pilots)</th></tr>
<tr><td rowspan="2">Affective and persuasive UI</td><td>Travellers liking and wanting to use MyCorridor</td><td>-</td><td>Users at A6.2 1st iteration rating MyCorridor over 7 in a 0-10 likability and usefulness scales</td><td>Users at A6.2 2nd iteration rating MyCorridor over 7 in a 0-10 likability and usefulness scales</td></tr>
<tr><td>Developers</td><td>-</td><td>At least 5</td><td>At least 15 external</td></tr>
</table></td></tr>
</table>

		wanting to use MyCorridor		external service providers wanting to link their services with MyCorridor	service providers wanting to link their services with MyCorridor
	Gateway to mobile devices	Types of devices able to be connected	-	At least for 2 platforms from Android, iOS and Microsoft ones	No problems at WP6 pilot tests for at least 90% of the function
	Personalised UI generator	UI personalisation supported	-	At least screen and letters size and resolution automatically adapted per device type and user profile	-

Contingency Planning

Mobile gateways and personalised UI interfaces as well as interfaced social networks will be facilitated through relevant work and profound experience, stemming from ASK-IT, OASIS, REMOTE, Cloud4All, and P4All projects.

Foreseen Innovation

- Use of affective and persuasive UI principles, to convince travellers use and adopt MyCorridor MaaS services and transform MyCorridor into a trend-setter.
- Flexible integration solution onto mobile platforms, with respect to device variability.
- Semi-automated to fully automated personalisation of UI to device type and traveller profile.
- Adaptable and personalised interfaces, satisfying the needs of all user groups.

WP6	**Issue**	**Criterion**	**Year 1**	**Year 2**	**Year 3**
	Pilot plans	Timeliness and inclusion	Available, covering subjective and objective data	Fully adequate for A6.2 pilots	Fully adequate for A6.3 pilots

			gateway from in vitro & in situ pilots		
	Pilots conduct	Sites covered	-	At least 5 out of 6	Easily extendable to other sites in the future
		Number of users /travelers	-	120	300
		System performance, to move to the next pilot phase	-	Over 75% of local services running smoothly and integrated at each site; Average traveller usability & usefulness rating over 6 in a 0-10 scale; Pilot site manager and key stakeholders acceptance at local workshops	-
	Impact assessment	Mobility enhancement	-	-	From 10% to 25%, depending upon citizen category, as stated and/or calculated by enhanced number of trips
		Time gains for trip planning by travellers		Over 50% (on average)	Over 90% (on average)
		Environmental impact	-	-	Over 15% CO_2 reduction by simulation over all sites

		Cost efficiency	-	-	WTP/WTH by travellers and developers/ stakeholders sustainable for WP7 business model
	Demo events	Number		One local at each pilot site	One with optimised full system

Contingency Planning

Through the participation of 11 multimodal transport and/or MaaS schemes providers from 6 sites in the project; the agreed coordination (through Letter of Supports – See Annex A of Section 4-5) by another 11 service/content providers and the interface to several more open API services, the project is able to offer a rich bouquet of interconnected services of all MaaS service types at each site and across sites. Nevertheless, in case of non-availability of some services and/or gaps in services identified in A1.4; there is ample time to find and interconnect others; either at the development phase or during the 1st Pilot iterations and before the 2nd (and final one). Anyway, the project intends to connect many external (to the project Consortium) services across sites – over 15 in total. The 2 Pilot iterations scheme operates also as buffer and contingency plan for the appropriate conduct of the final evaluation (at the 2nd iteration).

Foreseen Innovation

- Good combination of local (urban), interurban and cross-border Pilots along a pan-European route/corridor.
- Use of Multi-Actor Multi-Criteria Analysis for coordinated Impact Assessment.

WP7

Year 3

- At least 2/3 of stakeholders in 2nd project workshop judge the proposed Mobility Services Aggregator model as viable.
- No major legal, operational, equity, security or privacy barriers to the proposed model real world applicability.

Contingency Planning

	Alternative business models, policy and legal recommendations will be assessed and if necessary will be adopted. The legal, security and privacy consideration within A7.4 will safeguard the MyCorridor platform realisation at the pilot sites within the project and beyond. **Foreseen Innovation** • Mobility Services Aggregator model. • Novel pricing and taxation methods. • Incentives and promotion schemes for social responsible travel uptake within a MaaS scheme.
WP8	1st Year: Leaflets and posters printed in good quality and web site functioning. User Forum encompassing all key stakeholder representatives and with 20 (by Month 6) and 40 (by Month 12) external members. 2nd Year: At least 3 publications in journals and 5 project papers in Conferences. Draft exploitation agreement available. Detailed exploitation plans for at least half of the MyCorridor end-products/ services. Project web site with at least 50 hits per month. 3rd Year: At least 6 publications in journals and 12 project papers in Conferences. Project web site with at least 100 hits per month. Viable exploitation plans for all MyCorridor main products. **Contingency Planning** Dissemination actions will follow a concise plan by Month 6 and will be annually reviewed. In case the targeted figures and achievements are not researched, the plan will be reviewed and revised. The contacts and market status of the Consortium partners however, guarantees the success potential of both Dissemination and Exploitation plans of the project. **Foreseen Innovation** • Close link and official liaison to MaaS Alliance. • Establishment of the Token concept as an integrated past of cross-border MaaS.
WP9	Each Year: • Deliverables and Milestones reached according to plan. • No remarkable deviations on use of resources.

	• Successful annual reviews of the project (for all years). **Contingency Planning** The quarterly reporting ensures continuous monitoring of work progress, resource usage and partner anticipation, and makes it possible to take needed actions in case of any discrepancies are noticed. Potential risks and contingency planning will be monitored and handled through the Quality Control Board. **Foreseen Innovation** • Central management of Administrative, Technical, Innovation, Quality, Ethics and Advisory Board management task by a very experienced and complementary management team (involving 3 partners; UNEW, CERTH and SWARCO).

2.10Core Innovation

MyCorridor focuses on novel trends in the mobility industry, and successful project results will contribute to the advancement of the market. This will be achieved through the following main innovations:

1. **Innovation in MaaS implementation:** MyCorridor is developing the necessary mechanisms to support the driver getting out of the car and participating in a multi modal trip chain - integrating traffic management, use of multimodal PT chains, use of private MaaS solutions - such as car or bike sharing/pooling and an integrated Europewide "EURO-Mobility Ticket"; supported through mobility tokens for purchase of flexible and integrated travel services.
2. **Innovation in the market place and business models:** MyCorridor aims further to connect those multimodal services to MaaS, through a mechanism that will be produced to enable service providers to cooperate in providing a seamless result to the traveller. This will lead to the modernisation of the mobility market, by introducing new payment schemes (Mobility Token) and business roles (that of the Mobility Services Aggregator).
3. **Innovation in policy:** MyCorridor supports the ITS Directive (40/2010) priorities, and the project results could become trailblazers for successful policy guidelines in this area; expanding TM2.0 to multimodal trips and MaaS (towards TM2.1).

4. **Innovation in citizen QoL:** MyCorridor one-stop-shop and integrated business scheme will allow ALL citizens (accessible, with equity) to realise MaaS-based travel around Europe in a much cheaper (at least 20% less), comfortable (at least 10 times faster) and environmental friendly way (with at least 75% reduction in CO_2 and NO_x emissions due to shift away from private car).

2.11 Expected Impacts

N.B. This section contains the Impact Assessment performed by the project team in proposal phase. Nevertheless, final **Key Performance Indicators** will be defined from the early beginning of the project as part of the evaluation and impact assessment framework as part of activity A6.1 of the work plan.

2.11.1 Strategic and Social impact

MyCorridor aims to:

- Reduce cost: infomobility planning and ticketing services developers, service and MaaS delivery vendors, travellers, operators, municipalities and governments of all levels will cooperate in achieving more cost-efficient solutions. Where appropriate (e.g. availability of information) the planned pilots will make an estimate of the cost savings introduced on a typical journey before and after the implementation of the MyCorridor framework.
- Reduce travel time and improve safety/security/convenience: though introducing one-stop-shop planning, booking and epayment of integrated MaaS chains of services. Similarly to the previous goal, the planned pilots will make, where possible, an estimate of the improvements in travel time and convenience introduced on a typical journey before and after the implementation of the MyCorridor framework.
- Address the full range of users: through service auto-configuration and personalisation included in mainstream services, needs of travellers with disabilities, literacy or digital literacy problems, older people, etc. will be fully met.

- Address all MaaS types: connection to all MaaS types from PT to shared use of cars and bikes, not only existing services, but also those that travellers may encounter in 5, 10 or 15 years' time.
- Provide a mechanism for promoting a vibrant, profitable, MaaS mobility market (with emphasis on SMEs): open plug-ins to platforms and services, to allow innovative SMEs to exploit emerging services and content opportunities; by becoming Mobility Service Aggregators themselves or connecting their services to such an entity (a single MaaS issues).
- Transfer research and development results to market: integration of the developed solutions, architectures and tools to existing services and mature products Europe-wide, to guarantee that MyCorridor platform will outlive the project duration and will find its way to the real market after the project end; providing due emphasis to B2C/B2B MaaS roaming Europewide.
- Involve travellers in service delivery: enabling of traveller involvement into service delivery through TMC interconnection and being incentivised through mobility tokens.
- Integrate interfaces with content, media and devices: there is no gain if citizens can use the services interface but do not find useful content, nor if services and content exist, but cannot be reached due to non-appropriate or not supported by their device interfaces. The project will strive to bridge all these areas. This will be measured as part of the pilots as part of the end user feedback and acceptability assessment.
- Work across all transport mode domains: the system will interface content from urban PT, train, car, bike, pedestrian and multimodal navigators and will support interfaces to other modes whenever relevant and available (i.e. maritime, inland waterways, aviation).
- Promote MaaS: the integration of multimodal travel services with MaaS will make the transition from car ownership to car usership sustainable and promote the vision of an integrated and interconnected mobility ecosystem, where travellers' door-to-door mobility needs and preferences are met through one interface and in a seamless way.
- Promote paperless payment: the mobility tokens introduced will result in a totally new era of paperless and flexible payment schemes.

- Be environmental friendly: the mobility agent module is expected to contribute towards an average of 15% reduction to overall travel induced emissions and CO2 footprint across the project's sites.
- Contribute to global leadership of the European industry: the developed services, architectures and tools will effectively support cross-border applications and will – through roaming – open to the industry of one country, the whole European mobility market.

2.11.2 Economic impact

The introduction of My Corridor platform will have a positive impact for all stakeholders involved (mobility operators, content/service providers and most importantly the MaaS integrator), explained below.

MaaS integrator

There will be significant revenue generated for the integrator of the novel MaaS services, namely the MaaS aggregator; through both direct sales and roaming agreements. As an analogy, VivaWallet sells today stand-alone mobility services that exceed a value of €20 mil (ferry tickets, flight tickets, buses etc.). The combination of those services is expected to create over 10% more sales; (as at least this percentage of users may combine stand-alone services into new, integrated travel opportunities). This percentage of travellers WTH/WTP will be assessed during the project Pilots. In addition, following the mobile phone operator's paradigm, the roaming agreements with other aggregators is expected to bring them an additional 20%-30% sales revenue (typical average revenue from roaming for Telco's). Thus, the overall gain in economic terms will be 30% or higher.

Mobility operators

Single service mobility operators, such as parking and bus operators, can expect to have additional revenues from sales as their "product" becomes more attractive to travellers and most importantly more visible and accessible for international travellers.

Connected content and service developers/providers will equally enhance their sales by an equivalent percentage (≈ 30%), through integration of their services, into holistic traveller packages as well as service roaming.

Individual travellers will have significant gains in the overall travel cost, for two reasons:

- The aggregator will offer them a better overall price, since it will be able to negotiate better prices, through volume sales, with the individual service providers. At least 10% overall price gain is expected by this "package" acquisition overall the sum of single services purchase.
- The use of tokens by users (for data sharing, feedback to TMC, through loyalty schemes, etc.) is expected to bring at least another 10% in price gain for the end user/traveller.

Thus, an overall price gain of at least 20% for the traveller is to be anticipated; let alone the cost reduction gained from not having the need to maintain an own car.

For the society, car-sharing changes the entire economics of driving, by converting fixed costs into usage fees Carsharing leads to shifts in environmental values, awareness of costs, and trip-making decisions. The first-year evaluation of CarSharing Portland found that members estimated they saved $154 per month in transportation costs. According to surveys of PhillyCar- Share members, 40% say that car-sharing has saved them money, while about 16% are choosing to spend more. Average savings, for those who could quantify the amount, were $2,059 annually. Zipcar claims an average of $435 in monthly savings from replacing vehicle ownership with car-sharing, for those members that report a saving

2.11.3Mobility impact

Car-sharing, according to its proponents, can have a major impact on the travel behavior of its members by reducing the number and length of trips. Carsharing has the potential to **increase mobility** and access to goods, services, and opportunities for carless and low income households Even if carsharing might **increase auto driving when first introduced**, because predominantly carless

households gain affordable access to cars; it tends to **decrease auto driving in the long term**. Evidence indicates that people who belong to the European car-sharing organizations drive considerably less than they did before they had become members. In Switzerland, a nationwide carsharing study showed a **72% reduction in vehicle kilometers** travelled (VKT) among former car owners, with large increases in bicycling and transit use, and only modest increases in driving among carless households Similarly, ten impact studies in North America (Canada and United States) showed an average **VKT reduction of 44%** among users.

In established carsharing markets, carsharing is associated with less auto driving and higher use of walk, bike, and transit modes and shift driving toward cleaner cars.

Reduced vehicle travel translates into a range of other benefits – some straightforward, such as reduced emissions, and some more speculative, such as increased physical activity and support for local shops and services.

Furthermore, carsharing would increase non-carowners' access to auto mobility and therefore possibly **increase access to jobs, education, shopping, and leisure**.

At the workplace, car-sharing may help employees avoid driving to work, and allow businesses and cities to reduce the size of their vehicle fleets. Study realized in Bremen and Stockholm, showed that business car-sharing may lead to a slight increase in total car mileage for work-related purposes, given easier access to vehicles. However, nearly 30% of employees report that car-sharing has helped them drive to work less often.

The use of single ticket OPUS card in Montreal increased ridership of public transport by 12%.

In addition to the above, the **integrated travel packages** that will be offered **through the MaaS aggregator**, are expected to have a disruptive effect to traveler comfort and citizen mobility, since **the time needed to plan a multimodal crossborder travel throughout Europe**) is expected **to be reduced from several hours to less than few minutes!** (to be assessed in project Pilots). This will also bring significant **equity effects,** promoting the mobility of the less privileged, that do not own a car and can't afford the services of travel agent.

2.11.4Environmental impact

According to WRI report on Carsharing, it has the potential to **delay or replace car purchase** plans. A survey of potential carsharing users in Beijing revealed that, if carsharing were available, 31% of participants would cancel or postpone plans to purchase a new car. A survey of Zazcar members in São Paulo, found that 24% had sold their cars after using the car-sharing service, and 73% thought less about purchasing a car after using the system.

Lower car ownership may also lead to lower parking demand. This means that fewer parking spaces are needed, thus cost savings and urban design benefits occur. A 2004 study of the market potential in Baltimore, suggests that **car-sharing could replace at least 4% of private vehicles**. Additionally, Each North American shared vehicle also displaced 9 to 13 privately-owned vehicles, yielding substantial cost savings.

The project concept, bridging and integrating multimodal PT with carsharing (and even bike sharing, car pooling, etc.) is thus expected to result in extremely high environmental impact. Since car ownership is closely associated with car usage, and reducing car ownership could help mitigate vehicle-kilometers traveled, it could also mitigate associated negative **externalities**. These externalities are related to the environment, like lower emissions and also to community/ society like less congestion, better urban design, more compact development and reduced impacts of vehicle manufacturing.

Carsharing members tend to own disproportionately older, more polluting vehicles. To the extent that these are given up as members join the program, car-sharing will bring further emissions benefits.

Finally, hybrids and electric vehicles have been used by many car-sharing operators, and some automobile manufacturers have seen this as a way to meet mandates for the introduction of low-emission vehicles. It is proved that after City CarShare program implementation gasoline consumption and emissions have been reduced in San Francisco, partly because of reduced automobile travel, but also because car-sharing vehicles tend to be small, fuel-efficient and carry several people. Additionally, carsharing vehicles consume 11% less fuel on average, compared to the vehicles given up by members. It is worth-mentioning that MyCorridor integrates also the EMIL electric vehicle car sharing scheme in Salzburg, within its platform.

2.11.5Impact to competitiveness of the European Industry

The carsharing industry in emerging markets is small but expanding quickly in 2015, with at least 22 start-ups operating more than 9,200 vehicles in Brazil, China, India, Malaysia, Mexico, South Africa, and Turkey, serving nearly 898,000 members. As of October 2014, there were about 4.8 million members, sharing nearly 104,000 vehicles in organized carsharing systems worldwide. Frost & Sullivan (2010) project that global carsharing systems will see membership soar to 20 million by 2020.

The project will foster the relevant positioning of European car sharing/pooling companies/providers (such as RSM, Blablacar), service aggregators (such as VivaWallet) and other key stakeholders (such as TomTom and several SMEs).

2.11.6Barriers/Obstacles

The key barriers and the preliminary SWOT identified so far are summarised below & will be closely monitored/revisited upon a structured mechanism to be defined within A2.4: "Risk Assessment" of the project workplan.

Table 4: MyCorridor main Barriers (to be further analysed in A2.4).

MyCorridor Barriers		
Barrier/Obstacle	**Description**	**Mitigation actions**
Legal / Regulatory	MyCorridor will traverse several countries (from the far South to the far North, crossing Central and Eastern Europe) and legal-related issues are expected (e.g. competition and liability issues, payment/data flows, financial issues such as variations in taxes, geo-blocking issues).	MyCorridor will deal carefully with all legislative issues both during the testing phase and in view of a future commercialisation, including EU law and National related provisions applying to use cases. MyCorridor will propose standard B2B and B2C contracts to operate the platform, assuring their compliance with all applicable legislation, and make of this corridor a reality. A7.4 specifically deals with such issues during the project and beyond.

MyCorridor Barriers		
Barrier/Obstacle	**Description**	**Mitigation actions**
Willingness / Acceptance	MyCorridor success depends on the willingness of the main actors to be involved in the innovative MaaS solution that is proposed. For example, transport service providers may be reluctant to establish new partnerships, while end-users (customers) may exhibit unexpected behavioural issues (irrational market response).	MyCorridor will consider the different stakeholders perspectives, in order to find synergies among their interests and identify win-win strategies that will determine their actual involvement. Moreover, the pilot realisation will demonstrate the effectiveness and added value of the proposed innovation, while a thorough impact assessment will provide specific benefits for the main actors in the ecosystem. Therefore, MyCorridor will assure the interested parties about the worthiness of the proposed solution, facilitating its acceptance and their willingness to participate. A8.2, A8.4 and A8.5 work towards achieving this.
Experience / Readiness	Both public and commercial actors have minimum experience in multimodal MaaS chains (none in some cases) therefore their readiness for the adoption of MyCorridor cannot be taken for granted.	MyCorridor pilot will be a great opportunity for the derivation of valuable knowledge about the operation of an innovative MaaS solution. This experience will demystify all critical aspects around MyCorridor and will improve the readiness of the main actors for its adoption.
Business models of local transport operators	Local transport operators are building on closed systems or best case scenarios on integrated management. In all known cases the mobility services are running in a	Local transport operators have to be convinced that participating in a MaaS chain will provide benefits to them. This objective involves two actions, namely one of wide dissemination through development of network of

MyCorridor Barriers		
Barrier/Obstacle	**Description**	**Mitigation actions**
	rather competitive mode between them and within certain boundaries (within City or region). My Corridor introduces cooperation between mobility services as well as traffic management; moreover introduces a new concept of "corridor' in the same manner for long distance transportation works.	stakeholders (performed in the User Forum of A8.2, as well as detailed and in depth analysis of business requirements and definition of win-win models (performed at A7.1).
Responsibilities of stakeholders	New business roles are introduced (Service aggregator, local MaaS issuer). Who is responsible for the MaaS product? What has the responsibility of the different stakeholders involved?	Clear strategies how to deal with responsibilities on different levels have to be delivered (MaaS issuer, transport operator, etc.). Again it is a matter of clear definition of the business models as well as of the legal analysis that will be the focus of WP7 and WP8 of the project.
Technical standards	The system should interact with a series of legacy systems of individual mobility service providers. There are no standard solutions.	The project will develop APIs for the communication with both the front ends as well as the backoffices of the individual service providers. A variety of well-established technical solutions will be used and assessed. This constitutes the main innovation of WP2 Architecture.

SWOT Analysis

STRENGTHS

- Open flexible, modular standards abiding (i.e. TM2.0) architecture, allowing one-stop-shop service delivery of all MaaS service types.
- Integrating both public and private urban and interurban MaaS services in a single platform.
- Integrating multiple service vendor business rules and schemes.
- Empowering and attracting the traveller, using gamification and loyalty based tokens.
- Cross border roaming services.
- Credibility of the involved actors – very high standards of services.
- Enhancements of existing services (advantage of know-how).
- Game changer in terms of business schemes and a disruptive technology/Architecture.

WEAKNESSES

- Need for critical mass of services, and sites to be integrated to become viable in the market.
- Cost (even small) of connecting each service to the overall platform.
- Security consideration of connecting service providers vis a vis access to their data/ info by rivals.
- Need for strong incentives (for customers to remain with MyCorridor).
- Political conditions (different policy approaches, different cultures across Europe; even regionally).

OPPORTUNITIES

- Emerging MaaS market.
- Current trend of multi-services by one stop shop web sites (i.e. viva.gr).
- Emergence of multi-country vendors of carsharing/ pooling schemes (i.e. BlabLA car, MoveIt).
- MaaS Alliance momentum and EU/ National Governments support.
- ITS directive fostering pan European multi modal information.
- Customers dissatisfaction with traditional mobility approaches.
- Social media acting as sources of information.
- Market adaptability (a shift to emerging markets is supported).

THREATS

- "Old habits die hard" based resistance of car drivers.
- National data/ content services handling regulations and operational schemes.
- Trend of the citizens to expect additional functionality and enabling applications for free.
- Competition by big multinationals (i.e. Google) that will seize the opportunity when it is apparent.
- Slowdown in EU economy – intense price competition.
- New non-traditional competitors (e.g. telecommunications companies).
- Transport monopolies.

3 MYCORRIDOR OVERALL AND ADMINISTRATIVE MANAGEMENT

3.1 Organisational Structure

MyCorridor project encompasses **17 Partners** and **9 interdependent Work Packages**. Hence, it is important to establish a governance and management structure (Figure 5.) that is able to meet the challenges of the successful project implementation. As such, it is designed to achieve the following goals:

- Lean structures and procedures for agile and cost-effective project management.
- Equitable distribution of activities & responsibilities among all 17 partners.
- Efficient vertical and horizontal information flow, especially between Work Packages.
- Proactive conflict resolution mechanisms.
- Thorough assessment of potential risks involved.
- Optimal assignment of experienced personnel to the scientific, technical and managerial tasks.

In addition to the procedures described herein, all partners have already signed a Consortium Agreement. The project structure is defined to allow reliable overall coordination, efficient communication, clear decision procedures, work flow giving rise to Deliverables meeting time and quality requirements, all done in accordance to the European Commission Grant Agreement and the project Consortium Agreement. The project management structure and procedures described below should be read in conjunction with the description of WP9 of DoA.

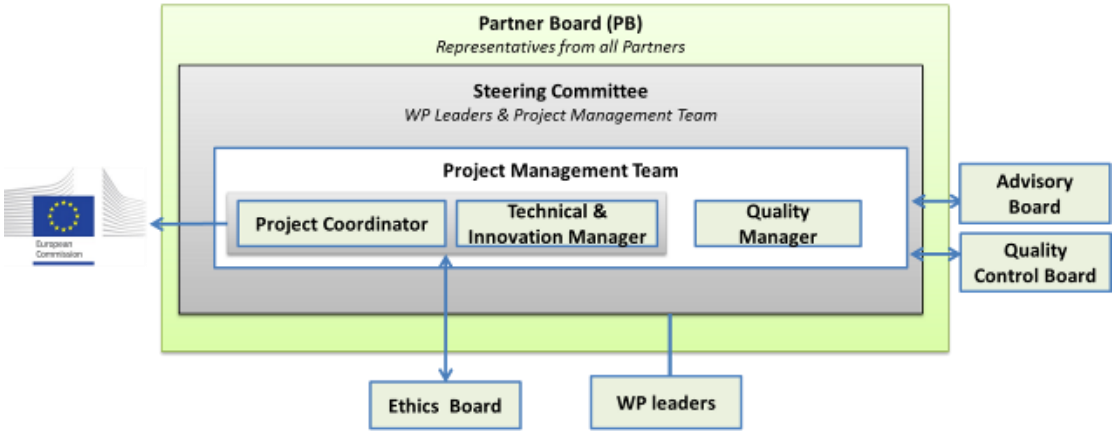


Figure 5: MyCorridor project governance and management structure.

3.2 Consortium bodies and roles

3.2.1 Project Management Team (PMT)

The Project Management Team (PMT) consists of the **Coordinator** and the **Technical and Innovation Manager**. It acts as the main consensus-building body on overall project coordination and, as such, it provides a link between the WP leaders and the Partner Board. Through regular meetings, such as bi-weekly management team telcos, it can identify problems and delays early and proactively prevent conflict situations and anticipate deviations from the project plan. The tasks of the PMT are as follows: convenes virtually with bi-weekly telcos, and physically when needed; closely monitors progress in the project WPs; nominates and instructs task forces as needed; prepares the meetings of the Partner Board; discusses and decides on issues that affect multiple WPs or the project as a whole; acts as intermediary in cases of conflicts that cannot be resolved on WP level.

Administrative & Overall Coordinator

The coordinator is the executive officer of the MyCorridor project and is responsible for the overall project coordination, including monitoring, reporting, conflict resolution, financial accounting and delivery of the project results to the EC. The coordinator is responsible for the execution of H2020 rules. In order to fulfil these tasks, the coordinator chairs all governing and management bodies and convenes them as needed. The coordinator acts as liaison with the EC and other outside stakeholders and, in coordination with the PMT, identifies adjacent research projects for interaction and exchange of results, resources and activities.

The Coordinator undertakes the following responsibilities: manages and supervises overall and administrative project coordination; is responsible for overall project quality and professional management; decides on operational issues affecting more than one WP; is responsible for all financial transactions, concerning the Community's financial contribution; has a veto right in proposed re-allocations (among partners) of distributions (within a single partner) of budget; supervises the scientific quality of all deliverables, legal issues, IPR issues and Consortium matters; fulfils the obligations under the Grand Agreement with the EC; represents the project towards the EC and external stakeholders; and ensures that conflicts are resolved with mutual agreement.

MyCorridor ***Coordinator is Dr. Roberto Palacin (UNEW),*** *acting as link between the EC and MyCorridor as well as leading the administrative and scientific activities of the project together with Dr. Maria Gemou (CERTH).*

Roberto is a senior researcher at Newcastle University leading the Rail Systems Research Group at NewRail. Roberto has a background in mechanical engineering, design and rail systems engineering. He has over 18 years' experience in academia including being research coordinator and principal investigator (PI) of research grants worth in excess of €5.5m involving over 200 partners and collaborators from industry, academia and government. Research expertise includes the role of railways in providing mass-capacity as part of the mobility chain and network performance optimisation, particularly in the trade-off between energy consumption, capacity and service provision. Roberto has participated in FP4, FP5, FP6, FP7 and H2020 framework collaborative initiatives having acted both as partner and coordinator.

Technical & Innovation Manager

The Technical and Innovation Manager supports the Coordinator in the monitoring of the quality and pace of the work, to guarantee the timely achievement of the technical activities of the project, as well as the compatibility and complementarily of the followed approach, to preside over technical meetings and propose mitigation strategies to technical problems.

The **Innovation Manager** will continuously explore ways to exploit new innovation to its fullest possibility, such as the emergence of new MaaS with the potential to be embedded in the MyCorridor one-stop-shop, newly arising business models for MaaS aggregators and other actors of the value chain, etc.

The **Technical Manager's** key responsibilities will be as follows:

- Constant monitoring & evaluation of the technical results over the technological objectives of the project.
- Definition of the qualitative and quantitative aims of each WP, monitoring and control of the proposed methodology and work pace.
- Assuring compatibility between different systems, modules and demonstrators and their compliance with the overall MyCorridor architecture.
- Coordinating the technical work and compilation of the technical project progress reports & demos for EC;
- Supervision of the project demonstrations in exhibitions and key events;
- Training and guidance of the project participants on how to produce the planned innovation.
- Critical coordination and monitoring of the documentation produced in all stages of development, identifying all components with potential for patenting and/or other IPR protection.
- Identification of various potential uses and exploitation purposes for developed new components as well as innovation as a whole – trying to find profitable applications for use of the newly developed technology.
- Constant focusing on identifying areas where customers' need are not met, and then focusing development efforts to find solutions for them.
- Ensuring on-time protection of ownership of key exploitable components of the innovation, as well as innovation as a whole.
- Organisation of technical meetings, whenever needed, to resolve technical issues and encourage synergies between the various WPs and work fields.

*The MyCorridor **Technical & Innovation Manager is Dr. Maria Gkemou from CERTH**. She is a Mechanical and Aeronautical Engineer and works as Senior Researcher in CERTH/HIT. Her relevant fields of expertise are namely: C-ITS, IST, sustainable mobility solutions, clean vehicles and technologies, experimental pilot trials design and impact assessment. She has participated on administration and technical level in more than 15 research projects and authored over 50*

publications in refereed journals, books, and conferences. She is the Head of two labs in CERTH/HIT, namely the Lab for Clean Vehicles and Technologies and the Lab for Intelligent Materials and Manufacturing in Transport. CERTH/HIT has for more than a decade demonstrated, excellence as well as research and technological innovation in transport research, with a dedicate Sector on Driver & Vehicle research (Sector A). CERTH/HIT has been involved in the coordination team of more than 50 European research projects, specifically in the area of ITS applications in transport, leading relevant European research projects.

3.2.2 The Steering Committee

The Steering Committee consists of the Coordinator (chair), the Technical and Innovation Manager, and all WP leaders. In addition, the Steering Committee may include additional members ad hoc, to ensure that all major project perspectives will be covered. It will make executive decisions on strategic issues and will have a major impact on the overall outcomes and success of the partnership. Major decisions concerning overall technological direction of the project will be taken here. The Steering Committee will make recommendations for amendments of the EC Grant Agreement for GA ratification. Overall, the Steering Committee is subject to the decisions made by the PB.

3.2.3 The Partner Board (PB)

The Partner Board (PB) is the superior governing body of MyCorridor. It represents every partner in the Consortium and is empowered to review compliance of members with the Consortium Agreement and with the stated goals of the project. It is comprised of one delegate per partner organization.

The Partner Board takes final decisions on policy and contractual issues and conflicts as requested by the Coordinator. Each delegate has one vote; decisions are made by consensus whenever possible. Only in cases where consensus is not possible, decisions are made by majority voting. The majority rule is detailed in the Consortium Agreement. The Partner Board: 1) reviews general project progress with regard to its goals, 2) decides on actions in case of major deviations from the plan, 3) discusses and decides on changes in the structure of

the Consortium, 4) decides on re-allocation of the budget, 5) approves planned contract amendments to the Grant Agreement, 6) approves changes to Consortium Agreement, 7) decides on collaborations, if large strategic impacts are expected by the coordinator.

3.2.4 Quality Control Board (QCB)

The **Quality Control Board (QCB)** is responsible for compiling, co-ordinating and supervising the implementation of the MyCorridor workplan. The QCB consists of the following members: The Quality Manager (SWARCO - MIZAR), the Coordinator (UNEW), the Technical & Innovation Manager (CERTH), one internal expert assigned by each Partner and one expert external to the project (nominated by SWARCO - MIZAR). *The **MyCorridor Quality Manager will be Ing. Laura Coconea, PhD (SWARCO)** who has significant experience in European project' coordination and quality assessment.*

The internal expert assigned by each partner will be at least a Senior Researcher or Project Manager, with extensive expertise in the topic of the specific deliverable, excluding of course its authors. In addition, an external evaluator will be appointed by the Quality Manager and may change according to the nature and contents of each deliverable. Members of the different forums of the project will be considered as potential reviewers especially for the public deliverables.

The QCB will ensure the conformity of all project Deliverables with their respective requirements (against the MyCorridor Description of Work, the program objectives and against the MyCorridor Quality Plan). The Quality Manager will assist the Project Coordinator and the Technical and Innovation manager in the overall monitoring and control of the project. Together with the rest members of the QCB, they will identify important deviations from the work plan in terms of quality, timing and resources consumed. All details related to the quality processes of the project will be included in the second part of this document that is dedicated to Quality Assurance (from Chapter 5).

3.2.5 Ethics Board (EB)

The **MyCorridor Ethics Board (EB)** is led by the Quality Manager and is in charge of preparing the Ethics Manual (First version: D10.1 for M3 and D9.2 for M6). The purpose of the Ethics Board is to ensure that the planned evaluations and tests are following respective national regulations. Evaluations will take place in 6 countries across Europe, all with different regulations for ethical approval. All evaluations taking part in a country have a responsible person nominated for following the project's Ethics Board recommendation, keeping the names of participants hidden and ensuring that identities of test subjects are kept properly confidential and anonymised before use.

MyCorridor will confirm that the ethical standards and guidelines of Horizon2020 will be rigorously applied, regardless of the country in which the research will be carried out. Detailed information must be provided on the procedures that will be implemented for data collection, storage, protection, retention and destruction and confirmation that they comply with national and EU legislation.

The Ethics Manual will address among other details on the procedures and criteria that will be used to identify/recruit research participants as well as on the informed consent procedures that will be implemented for the participation of humans will be provided. Templates of the informed consent forms and information sheet as well as copies of ethics approvals for the research with humans will be also attached.

In addition, gender issues will be monitored, to guarantee equal (to the maximum extent) representation of both genders in the research groups and, especially, the evaluations activities. If any significant gender or age differences in relevant behaviour emanate from the results of the analysis, they will be reported and due care will be given to the final system design to represent (or be easily adaptable to) preferences, needs and habits.

Copies of opinion or confirmation by the competent Institutional Data Protection Officer and/or authorization or notification by the National Data Protection Authority will be submitted (which ever applies according to the Data Protection

Directive (EC Directive 95/46, currently under revision, and the national law). If the position of a Data Protection Officer is established, their opinion/confirmation that all data collection and processing will be carried according to EU and national legislation, will be submitted. MyCorridor will provide details on the material which will be imported to/exported from EU and provide the adequate authorisations.

3.2.6 Advisory Board

The MyCorridor Advisory Board consists of high level experts. The relevant action is coordinated in A9.4 of the workplan. The preliminary synthesis of the Advisory Group is presented below.

Table 5: MyCorridor Advisory Board.

Advisory Board Member	**Short Profile – Key Expertise**	**Advisory role assigned in MyCorridor**
Christopher Irwin Chairman of European Passengers' Federation (**EPF**), http://www.epf.eu/, Belgium 	Christopher Irwin is recognised in the EU as a specialist in transport policy, particularly concerning passenger issues and on research and innovation in the transport sector. Since 2012 he has been the UK's co-chair of the Franco-British Intergovernmental Commission overseeing the Channel Tunnel (the IGC). The IGC was established by the Treaty of Canterbury to supervise all matters relating to the construction and operation of the Channel Tunnel concession in the name and on behalf of the two Governments. He is also in his second term as a member of the European Commission's *Horizon 2020* Transport Advisory Group, he sits on the board the European Rail Research Advisory Council and on the Strategic	He will represent the end users/ passengers and travellers "voice" in the project. In this role, he will also be able to provide links to relevant traveller/ passenger Associations to participate in the Pilot iterations at the sites and between them.

Advisory Board Member	Short Profile – Key Expertise	Advisory role assigned in MyCorridor
	Board overseeing *Shift2Rail*, the EU's public-private research and innovation investment undertaking for projects in the rail sector. He represents Transport Focus in the European Passengers' Federation – which links passenger organisations throughout Europe and of which he was a founder. He is director and founding chair of TravelWatch SouthWest, the social enterprise that links passengers' organisations throughout south west England. He represented transport users for eight years and became Deputy Chair on the South West Regional Assembly - the English regional spatial planning body. He was also transport adviser to the South West Regional Development Agency. In 2012 Plymouth University awarded him an honorary doctorate 'for his contribution to the life of citizens and business in the south west of England'. He held senior positions in the media between 1975-2001 as the founding chief executive of BBC World television, director of the BBC World Service responsible for engineering and resources, Head of Radio, BBC Scotland, selling Pearson plc the concept for what is now BSkyB and leading the Guinness World Records group globally. His career originated in European policy research; he became Executive Director of the Federal Trust for Education & Research, a Senior Visiting	

Advisory Board Member	Short Profile – Key Expertise	Advisory role assigned in MyCorridor
	Fellow at the Centre for Contemporary European Studies & at the Institute for the Study of International Organisation, both at the Uni of Sussex, and Senior Research Associate of the globally influential International Institute of Strategic Studies in London.	
Jean Grébert R&I, Corporate Expert in transportation, mobility & urban systems, **Renault**, France 	Jean Grébert is developing an urban ecosystem oriented approach based on a comprehensive way of tackling both sustainable urban development and mobility issues, and environmental concerns. He founded www.catchcityvision.com in 2015. He is also Corporate Expert in transportation, mobility & urban systems at Renault, Research & innovation Dir. He has been working at Renault for 15 years. He is piloting the research topic about "electric mobility systems" of the Renault Foundation Institute for Sustainable mobility. He lead many prospective studies about the foresight of mobility and transport condition within megacities and towns of emerging countries such as China, Iran, India, Indonesia, Brazil,… and takes part to actions of Global Research with Nissan. His main focus deals with a comprehensive approach of the economical, technical, institutional changes, especially looking for new mobility services and share used mobility of cars. He was previously Deputy Director	He will represent the OEM/vehicle related MaaS schemes stakeholders; that are innovatively integrated with multimodal PT within the MyCorridor platform.

Advisory Board Member	Short Profile – Key Expertise	Advisory role assigned in MyCorridor
	of an urban planning organization of a medium size city in France, lead researches for the Ministry of Transportation, studies for the French railway Company. Jean Grébert is Architect, town planner, and transport engineer.	
Gabriel Plassat Expert advisor for EC, **ADEME** (French Agency for Environment & Energy) 	Gabriel Plassat is a connector in the ecosystem of mobility, between corporate firms, startups, labs and cities. Expert advisor for European Commission, ADEME and several corporate firms, Gabriel leads la Fabrique des Mobilités (http:// lafabriquedesmobilitesfr/en/home-2/), the first public accelerator for creating a new common culture. Writer, speaker and lecturer, he aims to inspire major transitions in the field of mobility. Gabriel has an in depth knowledge of the mobility field & an ability to understand its driving forces and evolution. His analyses are a must read to anyone wanting to get an insight into the future of mobility.	He will advise upon the business and policy aspects of the project; including the mobility and environmental impact issues.

The Advisory Board ensures that MyCorridor is aligned and up-to-date with the other related activities and projects internationally. The Advisory Board has scheduled to convene three (3) times during the project duration, at key project milestones; 1) to select and define the use cases at the first year (Month 9), 2) to review and provide expert feedback on the project mid-term results and development of the systems (Month 20) and 3) validate the final project results against the original targets at the final demonstration event of the project (Month 36).

3.2.7 WP & Activity leaders

The table below presents the Work Package leaders, as agreed among the Consortium, on entity level, during the preparation of the project proposal, and, on physical person level, at the early beginning of the project.

Table 6: Work Package Leaders.

WP No	Lead beneficiary	Responsible Person
WP1	CERTH	Maria Gkemou
WP2	SWARCO MIZAR	Laura Coconea
WP3	CERTH	Dionysios Kehagias
WP4	CHAPS	Filip Kvacek
WP5	CERTH	Maria Gkemou
WP6	TTS	Maurizio Tomassini
WP7	INFO TRIP	Vassilios Mizaras
WP8	IRU	Monica Giannini
WP9	UNEW	Roberto Palacin

Activity leaders, on the other hand, are responsible for the coordination of the work at Activity level. They are the first responsible for the coordination, preparation, quality control and submission of Deliverables. They are also in charge of the actual execution and coordination of the work inside the Activity, and of reporting the progress of work to the WP Leaders.

3.2.8 Dissemination Management

Dissemination of MyCorridor results is a key activity for all the partners. The creation and implementation of a strong dissemination plan, starting from the first month of the project aiming to maximize MyCorridor visibility, awareness, and impact of its results is an activity of great importance. The main objectives that will be addressed are the following:

- to ensure the maximum impact of MyCorridor results in and outside of the project Consortium targeting the largest possible concerned audience

including stakeholders such as mobility related service providers, users, policy makers, researchers, society as well as public institutes;

- to encourage the adoption of MyCorridor solution. This will engage the stakeholders and drive them to adopt and implement the results of the project;
- to encourage users to experience MyCorridor way of finding and exploring combined MaaS travel chains;
- to propose best practices to operators, policy makers and users community in order to achieve the impacts stated in the previous paragraph;

The overall dissemination strategy will be elaborated when developing the Plan for the exploitation and dissemination of the results. A tentative schedule for the dissemination activities is i) to organize three workshops during the 3-year period of the project; ii) to attend at least 12 international conferences, in order to raise the awareness of the audience and iii) to publish results in at least 6 peer review journal papers of high impact. Still, the specific dissemination Key Performance Indicators and their annual targets will be specified in the successive version of *Dissemination strategy and actions* Deliverables (D8.2 for M6, D8.3 for M18 and D8.4 for M30).

The target audience for dissemination includes European mobility service providers (public and private operators), aggregators and MaaS like platform providers, policy makers, research community, society, standardization bodies, as well as women. In the table below benefits for each target group are presented:

Table 7: MyCorridor Target Audience of Dissemination.

Target Audience	**Benefits from MyCorridor**
Authorities	Use cases and best practices, new governance models tested, developed guidelines for incentives and promotion schemes.
Combine sharing/pooling vendors	Opportunity to integrate their services in wider service chains.
Mobility & infomobility service providers	New market and chances through MyCorridor platform, enrich portfolio of services and widen geographical scope.

Target Audience	Benefits from MyCorridor
E-ticketing and e-payment service providers	New market and chances through MyCorridor platform, easiness to integrate services across different systems.
Research community	Advance in research of MaaS schemes, enrich portfolio of use cases, collect data and results from pilots for further research.
MaaS aggregators and local nodes	Enrich portfolio of services and widen geographical scope (through expansion and/or roaming).
End users (all types of travellers)	Easier access to travel solutions, booking and ticketing. Wider offer of travel solutions at reduced cost and with enhanced usability (visiting a single web site instead of 10 of them).

The online dissemination material will remain accessible after the end of the project and it will continue to be updated after the end of the project; at least for a three years' period. ***Open access publishing ('gold' open access) will be granted to all scientific publications resulting from the project***. MyCorridor will organise own demo events, but will also participate in other key relevant events, to diffuse its results. The key events identified so far (the list will be updated/ extended throughout the project lifespan) are as follows:

Table 8: Key events relevant to MyCorridor (indicative, to be revised within A8.1 of the workplan).

Key relevant event	MyCorridor target groups present
ITS World and Europe Congresses	Aggregators, service providers, ITS industry
UITP world congress, IT-TRANS	Public transport operators, policy makers
IRU world congress	Road passenger private operators
Busworld Kortrijk	Intercity bus and tourist coach operators
Taxiworld and Taxi Fair Cologne	Taxi industry
POLIS Annual Conference	Cities, Policy makers, ITS community
TRA, TRB	Research community

3.3 Project Internal Processes

3.3.1 Activity and Resource Management

In order to manage and document the project's results in the most efficient way, activity execution and management will be organised in a distributed way, following the project structure defined in the DoA, by the leaders of activity management at each level as seen below:

- **1st level:** Activity
- **2nd level:** WP
- **3rd level:** Project Management Team (PMT)
- **4th level:** Steering Committee
- **5th level:** Partner Board (PB)

Progress, activity execution, use of resources and risk management involved in the preparation of each Deliverable is followed by Activity and WP leaders. Each Partner involved in a given Activity will be required to report to the Activity leader on progress and achievement of targeted outcomes in which they are involved according to the work programme and of the DoA. These targeted outcomes shall include, but not be limited to, the following:

- Deliverable and Activity objectives for the period.
- Work progress towards objectives over the time period covered (including meetings and teleconferences).
- Key Milestones and Deliverables achieved in the period.
- Explanation of the gaps and their impact on other tasks.
- Reasons for failing to achieve critical objectives and/or not being on schedule, and impact on other tasks as well as on available resources and planning.
- Level of Success Criteria and foreseen Innovation (defined on WP level in DoA) fulfilment.
- Corrective actions planned or taken. As a starting point, the Contingency Planning defined in DoA on WP level will be taken into account.

Work Package leaders will oversee the Activities' progress and use of resources, and report the advancement to the Technical and Innovation Manager. The Technical and Innovation Manager will liaise with the Coordinator and bring to his attention the progress, risks and issues that need to be managed at that Project

Management Team level. Key strategic and critical issues will be also brought in the attention of the Steering Committee as well by the Project Management Team. Finally, management of Consortium level issues is done at the level of the Partner Board.

Regarding resource management, Activity leaders are also responsible of reporting an estimated use of resources per Partner, as well as any deviation, for active Activities and Deliverables. The resources defined in the DoA are the initial reference, but can be adjusted if needed in order to accommodate in the most effective way the realization of the project targets.

3.3.2 Communication Tools and Procedures

In order to avoid an excessive use of email that would result in a potential loss of information, while keeping the whole Consortium well informed of the project progress, communication will reflect the structure of the project, and be targeted as much as possible to the smallest group of members. Project communication will be clearly divided, in project activity execution, and in communication related to administrative matters.

Therefore, several dedicated mailing lists have been created at project level, based on specific involvement of project personnel in various activities:

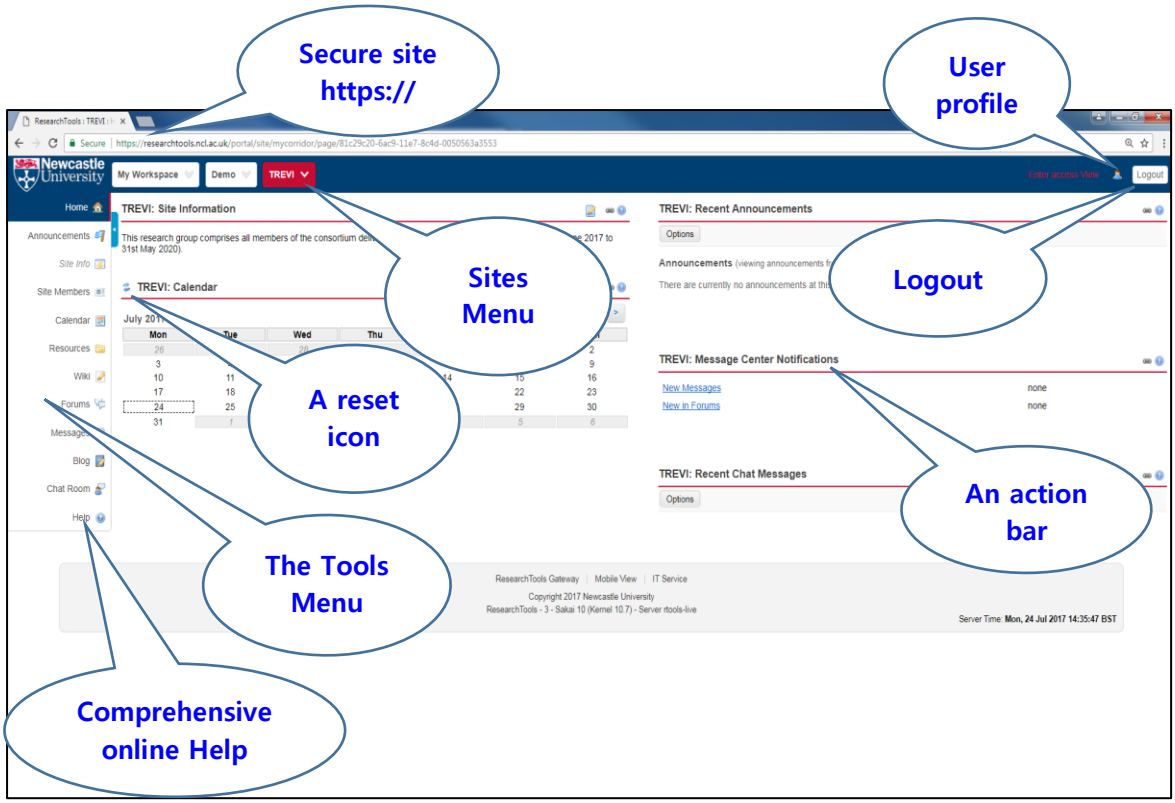
- **MyCorridor full consortium: MyC-All@iti.gr**
- **MyCorridor WP leaders: MyC-WPleaders@iti.gr**
- **WP1-WP10 lists: MyC-WP1@iti.gr; MyC-WP2@iti.gr; .....**
- **Admin&Legal: MyC – Admin@iti.gr**
- **MyCorridor Pilots: MyC – Pilots@iti.gr**
- **MyCorridor Pilot site leaders: MyC – Pilotleaders@iti.gr**

Shared project information: TREVI tool

To assist project management and delivery, MyCorridor will use a virtual research environment (VRE), hosted through Project Coordinator UNEW. It is a secure, online framework for collaboration and communication, accessible from anywhere in the world with a connection to the web.

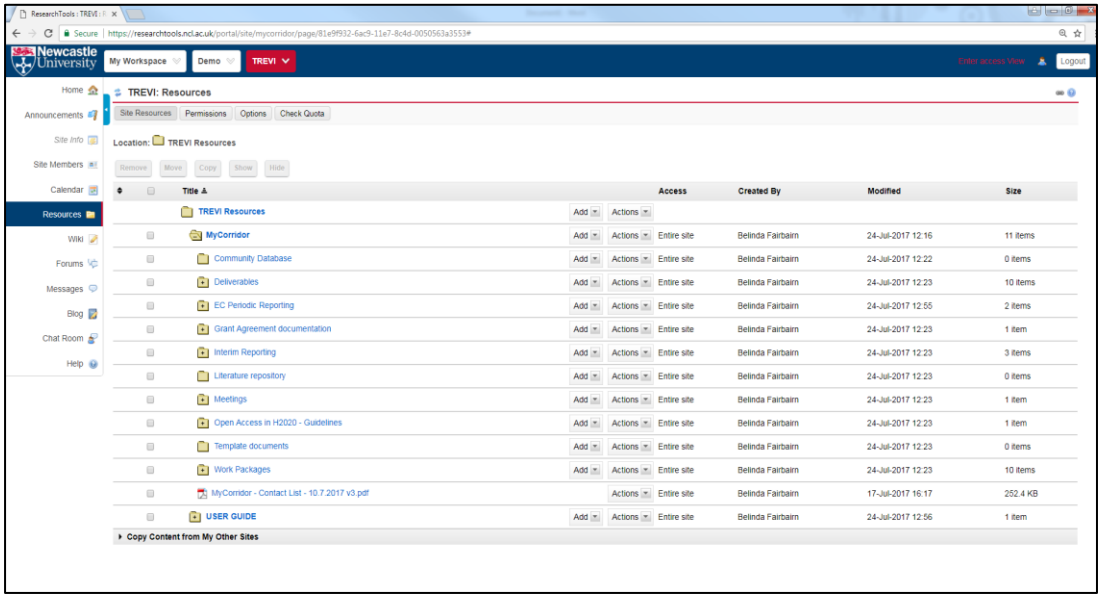
The MyCorridor element set up within this VRE has been named TREVI. As partners of the MyCorridor project are widely geographically dispersed, TREVI is ideally suited for all partners' personnel to use throughout the project duration. TREVI will enable ease-of-access to project administrative documentation within a repository structure whilst also providing a general shared working area to collaborate and progress the delivery of MyCorridor.

All personnel working on MyCorridor will register and then be given access to TREVI by the project coordinator UNEW. TREVI is the MyCorridor project internal management and collaboration tool for day to day project business. This will be completed by a wiki that will be created for the development tasks of the project as well as a TRELLO account for the project (www.trello.com), that will be integrated in TREVI (see below) and will assist daily management of specific tasks (i.e. integration tasks or pilot organisation tasks). The following illustrates the appearance of TREVI. Upon logging-in to the VRE and navigating to TREVI the user is directed a home page that looks like this; shown here are the basic components of the VRE:

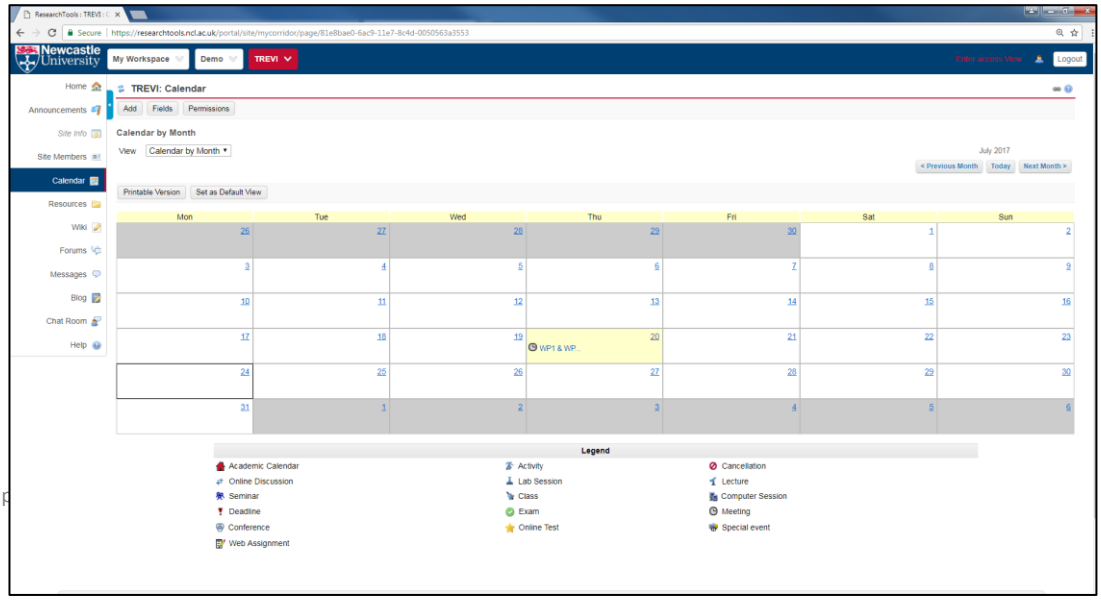


By then clicking on the different tools in the Tools Menu on the left side of the screen, the user can access and use, for example:

- **Resources** – this provides an area to share files with the other members of TREVI. Files saved here are accessible by all TREVI members, but not by anyone who is not a member of the site. All members can upload to (or download from) any shared Resources area that they have permissions to. The TREVI Resources page looks like this at the point of its creation (it will evolve throughout the project lifetime):



- **Calendar** – this displays events that are be of interest to all members of TREVI. It is a shared calendar facility where all meetings, workshops, events and such like that directly relate to MyCorridor can be entered, so as to keep all partners' personnel up to date with up-coming activity and also provide input for project reporting to the European Commission, when it is due.



There is a short User Guide and a comprehensive online Help Tool which all users can access. UNEW MyCorridor personnel are also be available to assist Users, if and when needed.
https://researchtools.ncl.ac.uk/access/content/public/ResearchTools_User_Guide.pdf

Shared project activity process: TRELLO tool

In order to complement the TREVI instrument, especially dedicated to the shared management of technical activities, project partners will also make use of a commercial tool called Trello.
Trello is a collaboration tool that organizes your projects into boards. In one glance, Trello tells you what's being worked on, who's working on what, and where something is in a process.

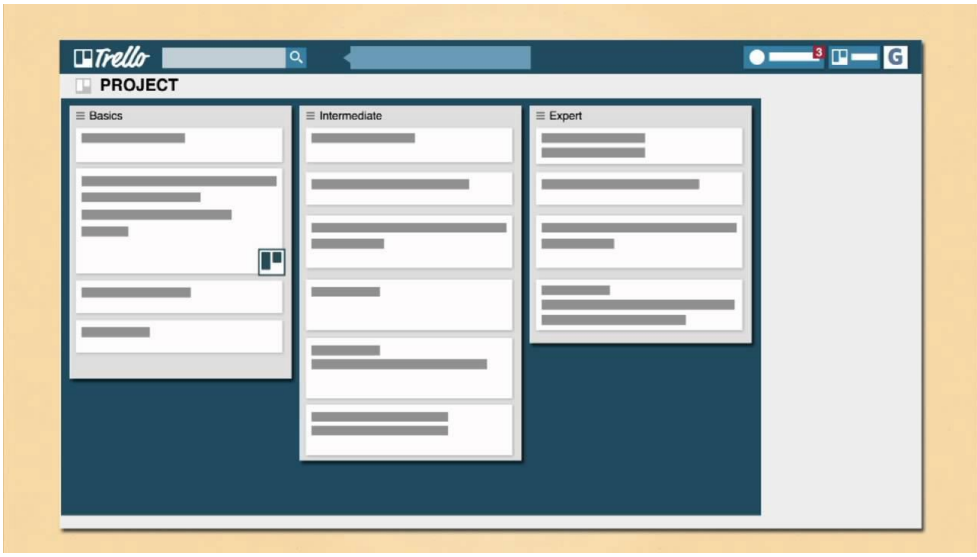


Figure 6: Generic example of Trello board management.

3.3.3 Knowledge management and protection

In accordance with the H2020 rules for participation, the Consortium Agreement that has already been signed, governs dissemination, access rights and use of knowledge and intellectual property.

In order to make sure that these terms are followed, and to avoid disputes and to facilitate business planning, the Management Team will maintain an **IPR Directory**

throughout the lifetime of the project (will be also part of the TREVI). This document will list all items of knowledge relating to the work of the project (both pre-existing know-how and results developed in the project), and make the following explicit for each item: The owner(s); the nature of the knowledge, and its perceived potential for exploitation; the nature of the support; the currently agreed status of the item concerning plans to use the knowledge in exploitation, or plans to disseminate it outside the consortium; measures required, or in place, to ensure protection of IPR for the item.

The directory will be regularly updated, and available to all Partners. It will form a key tool to enable knowledge management. The project Coordinator is responsible for the use of IPR within the Consortium, according to the terms laid out in the Consortium Agreement.

In general, tools, methodology documents, benchmarks and case studies will be available to all; while proprietary tools and algorithms developed by the Partners may be made available at the discretion and terms of their respective owners. In spite of the latter restriction, all the partners intend to pursue publications of the underlying principles of the technologies embodied in their tools in the appropriate academic conferences and industrial events/user groups.

Finally, all knowledge will be managed in accordance with the H2020 Grant Agreement and the Consortium Agreement.

3.3.4 Meeting procedures

As described in section 3.3.2, TREVI is the tool to be used for meeting management and record keeping.

To ensure the project maintains rhythm and a team dynamic, the project will be oriented around team meetings. A provisional list of different types of meetings is provided below.

Table 9: Periodicity of governance meetings in MyCorridor.

Consortium body	Ordinary meeting (time & type)	Extraordinary meeting (of any type)
Partner Board	▪ At least 3 face to face meetings on annual basis. ▪ Telcos upon request of the PMT.	Any time upon written request of the Project Management Team, the Steering Committee or 1/3 of the Members of the Partner Board.
Steering Committee	▪ At least twice per Year: o Every 2 meetings alongside with the Partner Board meetings o Telcos upon request of the PMT.	Any time upon written request of any Member of the Steering Committee.
Project Management Team	▪ At least every 3 months: o Alongside with the Partner Board and the Steering Committee meetings o Biweekly telcos.	Any time upon written request of any Member of the Project Management Team.
WP meeting	▪ Biweekly telcos (as soon as the WP starts).	Any time upon written request of the Technical & Innovation Manager or upon approved request of the WP leader to the Technical & Innovation Manager. At most 2 times a Year for physical meetings and, as a prerequisite, the WP must be running in the period of the meeting realization.

In addition to the above, please see section 3.2.6 for the scheduled meetings of the Advisory Board. The meetings and conference calls will be used to track technical and financial progress against plan, identify and assess issues and risks, and remind of forthcoming deadlines and milestones. The agreed team meetings

setting along with fluent email, telephone and GoToMeeting communications has proven satisfactory and it is intended to be maintained until the end of the project.

Also, apart from the above meeting, targeted Technical & Innovation meetings and workshops with selected (different each time) project members may be held at any time of the project duration that a respective need is arisen. The realisation of those meetings will be mostly initiated and in all cases approved by the Technical & Innovation Manager of the project. Nevertheless, it will be tried to hold such meetings along with Partner Board meetings, in order to save resources as much as possible. A similar approach will be attempted for other project events that require the participation of the majority of project participants (workshops, public demonstrations, etc.).

The Coordinator announces the Partner Board meetings at least two months in advance, except for extraordinary cases in which meetings may be called at short notice. Meeting minutes have to be produced by the meeting's Chairperson, and distributed to attendees for review within 15 days. In case of comments within the 15 days limit, the meeting's Chairperson will send a reviewed version of the meeting minutes. If there are no more comments, the minutes will be deemed accepted and will be sent to the members of the consortium or project body and to the Coordinator.

Meetings' documentation of Consortium level bodies meetings (Partner Board, Steering Committee, Advisory Board and Project Management Team) will be stored in the "Meetings and Events" folder located in the root of the "Documents" section of TREVI. WP and Task level meetings will be stored in the "Meetings and Events" folder of each WP in TREVI. All the meetings' documentation (invitation, agenda, draft and final minutes) will use the templates provided by the project (in annexes and shared in a TREVI folder using the appropriate naming convention (defined in section 7.2).

3.3.5 Reporting

Interim internal reports regarding the progress of the MyCorridor project will be prepared every four months (in M4, M8, M12, M16, M20, M24, M28, M32 and

M36) by the PMT, from the regular reports provided by the Work Package leaders. These reports will serve as input to prepare the Periodic Technical and financial reports due by the Coordinator to the European Commission set out in art. 20.3 of the Grant Agreement, as well as the Final report that corresponds to D9.3. The Periodic Reports to be submitted to the European Commission cover two so-called "reporting periods" (RP):

- RP1: from Month 1 to Month 18
- RP2: From Month 19 to Month 36

The official Periodic Reports for each period (including the final one) are due within 60 days following the end of each reporting period, and shall address the technical, administrative and financial aspects of the project. It shall consist of a periodic **technical report** and a periodic **financial report**. The periodic technical report includes:

- an explanation of the work carried out by the beneficiaries;
- an overview of the progress towards the objectives of the action;
- a summary for publication by the Commission;
- the answers to a 'questionnaire' provided by the European Commission, covering issues and the impact of the project.

In case of differences between the work expected and effectively carried out, this report must explain the reasons for these differences.

The periodic financial report includes:

- individual Financial statements;
- explanation of the use of the resources.
- certificates on financial statements (drawn up in accordance with Annex 5 of the Grant Agreement) for each beneficiary and for each linked third party, if it requests a total contribution of EUR 325 000 or more.

A Final Technical Report will be submitted within 60 days after the end of the project. It is anticipated in the project schedule as Deliverable 9.3 for M36. The final report will include:

- A final publishable summary report which includes an overview of the results and their exploitation and dissemination, the conclusions on the action, and the socio-economic impact of the action
- A 'final summary financial statement' (created automatically on the basis of each partners' financial statement), and an individual 'certificate on the financial statements' for each beneficiary and for each linked third party

4 MYCORRIDOR OVERALL AND ADMINISTRATIVE MANAGEMENT

4.1 Introduction

This section presents MyCorridor project's technical organisation, as it is reflected in the Description of Action (DoA) of the Grant Agreement.

4.2 Duration and Gantt

MyCorridor will run for 36 months and will encompass 10 closely linked WPs, as shown in the following Gantt Chart.

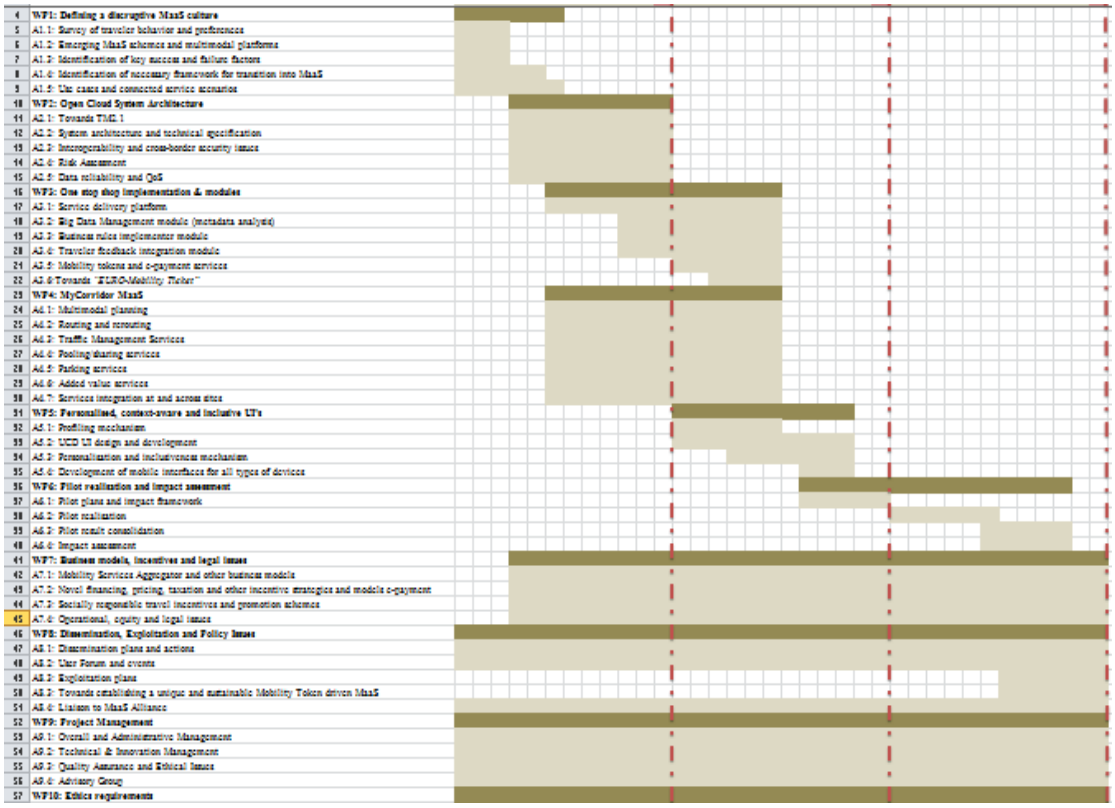


Figure 7: MyCorridor Gantt Chart.

4.3 Work Packages and Activities

There are 10 Work Packages in MyCorridor. The Table below presents the list of Work Packages, their leaders and their overall schedule (start and end month) in the framework of the project.

Table 10: List of Work Packages.

WP No	WP Title	Lead beneficiary	Start month	End month
WP1	Defining a disruptive MaaS culture	CERTH/HIT	1	9
WP2	Open Cloud System Architecture	SWARCO	3	30
WP3	One stop shop implementation & modules	CERTH/ITI	9	24
WP4	MyCorridor MaaS	TomTom	10	28
WP5	Personalised, context-aware and inclusive UI's	CERTH/HIT	1	24
WP6	Pilot realisation and impact assessment	TTS	1	36
WP7	Business models, incentives and legal issues	INFOTRIP	1	36
WP8	Dissemination, Exploitation and Policy Issues	IRU	1	36
WP9	Project Management	UNEW	1	36
WP10	Ethics requirements	UNEW	1	36

Each WP consists of a series of Activities, across which the work is organised. Each scheduled Milestone and Deliverable is related to the work held under one or more Activities. Each Activity has a leader, as it is shown in the DoA, who is responsible for the organization of the respective work, the in-time delivery of the outcomes related to the Activity, the transfer of outcomes and overall liaison to other Activities in cooperation with the corresponding WP leader and, finally, the reporting of the progress to the WP leader.

4.4 Pilot sites

MyCorridor Proof of Concept is illustrated in section 2.8.

Pilot site leaders will be responsible for all the operational issues related to their site in view and during the evaluation activities, with or without users' involvement. The upper level responsibility of all project evaluation activities in all levels rests with CERTH/HIT, the Technical and Innovation Manager of the project, and TTS, the leader of the corresponding WP (WP6: Pilot realisation and Impact Assessment). MyCorridor pilot sites, their type and location, the leading entity per each as well as the specific physical person per entity, are presented in the following table.

Table 11: MyCorridor Pilot Sites and their leaders:

No	Country	Leading entity	Contact Person
1.	Greece	INFOTRIP	Vassilis Mizaras
2.	Italy	SWARCO	Laura Coconea
3.	Austria	SRFG	Cornelia Zankl
4.	Czech Republic	CHAPS	Filip Kvacek
5.	Germany	HACON	Daniel Schmid
6.	Netherlands	MAPtm	Ruud van den Dries
7.	Cross - site	TOMTOM	Alexander Kroller
8.	Cross - site	IRU	Monica Giannini

4.5 Critical Risks and Risk Management

Risk management will take place in A2.4 of the project and follow the project evolution from the beginning till the end of its lifespan, tackling with all types of risks (technical, market, organisational, operational, legal). While in the DoA, under each WP, a contingency planning has been already provided (relevant to the scope of each WP), the following table identifies some key risks that will be further revisited in the project.

Table 12: Critical risks in MyCorridor.

Description of risk	Level of likelihood	Work package(s) involved	Proposed risk-mitigation measures
Conflicts among partners in the	Low	WP9	All partners have been chosen carefully, considering their excellence

Description of risk	Level of likelihood	Work package(s) involved	Proposed risk-mitigation measures
MyCorridor consortium			as well as their reliability in former collaborations. The clear management structures established in WP9 should allow smooth resolution of issues. The Consortium Agreement (CA) will establish the responsibilities of the partners, including procedures and conditions to resolve problems or disputes.
Delay on defining a MaaS culture	Low	WP1	Planning of frequent virtual meetings/conferences to draft a stable MaaS landscape (e.g. traveler behavior and preferences, multimodal platforms, key success/failure factors, transition framework, prominent use cases and scenarios) early in the project.
Incompatibility of user requirements and mobility service providers requirements in different countries	High	WP1	Consolidate user requirements and develop most preferable "global" approach to MaaS operations.
Delayed feedback from other WPs to the open cloud system architecture	Low	WP2/3/4/5/6	Close coordination (extra cross WP activities/synchronization).
MyCorridor system components do not integrate successful (or are delayed) for the pilot realisation	Medium	WP6	The consortium includes companies with the technical expertise to implement the technology components required for the pilot. Moreover, the partners of the consortium have extensive

Description of risk	Level of likelihood	Work package(s) involved	Proposed risk-mitigation measures
			experience in software development and integration so that moderate delays can be accommodated and recovered without much trouble.
Delayed feedback from pilot activities to the technical WPs	Low	WP3/4/5/6	Close coordination (extra cross WP activities/synchronization).
Low participation of users for cross border activities	High	WP6	Identify test users on voluntary basis; budget and cover relevant costs; define realistic test scenarios
Misalignment of modules and solutions proposed for MyCorridor	Medium	WP2, WP3, WP4, WP5, WP6	Align design efforts among the WPs through joint meetings and exploit integration activities to identify the problems in concepts and interfaces
Missing access to in-vehicle platforms	Medium	WP6 and WP7	Use of mobile in-vehicle devices such as smartphones
Technical incompatibility for accessing mobility systems	Medium	WP3 and WP4	Involving a variety of technological solutions and defining APIs based on global standards
Discrepancies in the technical visions: Lack of common understanding of project objectives	Medium	WP9	Frequent communication within WPs and at overall technical level will solve any raised issues.
Delay or poor quality of project deliverable/ milestone	Low	WP9	The project management and quality assurance plan of MyCorridor (available in M2 of the project) will ensure the timely detection and proper corrective actions for any relevant deviations. The Quality Board will coordinate closely the on-

Description of risk	Level of likelihood	Work package(s) involved	Proposed risk-mitigation measures
			time and high quality implementation of project tasks.
Consortium partner withdrawal	Low	WP9	MyCorridor includes seven research partners, each one incorporating several departments thus complementarity of research is feasible and research activities can be transferred to another research partner in such a case; For core business MyCorridor includes SWARCO, CERTH and VivaWallet which are initiators of the concept, therefore supporting its ambition implementation and therefore there is no actual risk that those partners will withdraw.
Technical work diverge from project initial goals: Core technical items not adequately addressed to meet the project objectives	Low	WP2 – WP9	WP2 will issue concise specifications, whereas WP9 Technical & Innovation Management will monitor the core development throughout its implementation.
Pilot trials are not successful; data cannot be used for evaluation	Low	WP6	An iterative process with evaluation methodology and pilot site adaptation (WP6) is implemented to ensure the data collected is according to expectations.
Integrated system performance not as expected.	Medium	WP6	MyCorridor includes an iterative testing plan in WP6 in order to mitigate any system performance

Description of risk	Level of likelihood	Work package(s) involved	Proposed risk-mitigation measures
			and reliability issues. Data collection and system optimisation tests will safeguard the initial goal achievement.
Realistic testing not feasible or delay in obtaining approval for carrying out pilot evaluations	Low	WP9	WP9 (A9.3) will monitor the ethics process for all WP6 tests. An Ethics manual will be available early in the project (M6) and will support all the pilot sites in obtaining all required approvals at an early project stage.
Dissemination and exploitation has limited impact	Medium	WP8	Special effort during the marketing and dissemination tasks will be carried out. Project dedicated demo events and final demonstration challenge are planned with the active participation of all value chain stakeholders.
Conflicts of interest between partners on commercial model	High	WP9	All partners involved in MyCorridor are complementary; there are no overlaps in the core business activities of the consortium partners, reducing the risk of conflicts of interest.
User involvement in pilots does not reach a critical mass	Medium	WP6	All participants in the pilot have already access to a significant number of users and are versed in capturing data. If no critical mass of end users is achieved, fitting statistical methods will be used to extrapolate meaningful results of the samples available, whichever the size this might be.

5 MYCORRIDOR QUALITY MANAGEMENT PROCESSES AND PRINCIPLES

5.1 MyCorridor Quality Control Board

The MyCorridor management structure is presented in section 3.1.

As presented in the description, in order to address quality assurance, MyCorridor has assembled a **Quality Control Board** (QCB) as a horizontal management element that oversees the project's outcomes. The QCB is responsible for compiling, co-ordinating - in collaboration with the Management team (which is part of its synthesis) - and supervising the implementation of the MyCorridor workplan. The QCB consists of the following members:

- The **Quality Manager**: The position is held by **Ing. Laura Coconea** (SWARCO), who has significant experience in European project' coordination and quality assessment. *She holds a PhD degree in Electronics and Telecommunications Engineering from Politecnico di Torino and her main interest area is what today is being called ITS (Intelligent Transportation Systems). In time I have been working in different fields, from Software Engineering to CAD Design. Since 2011 she joined the innovation unit of SWARCO Mizar where she mainly had to do with Management of Commercial and R&D projects (National and EU level), development of research projects proposals, business development activities, support to product development activities and involvement in standardization process at EU level, while research activities are currently focused on Cooperative ITS (V2X). From the beginning of 2017, in addition to mentioned activities, she is also tackling the challenge of guiding this unit.*
- The **Coordinator**, **Roberto Palacin** (UNEW) – his CV can be seen in section 3.2.1.
- The **Technical & Innovation Manager**, **Maria Gkemou** (CERTH/HIT) – her CV can be seen in section 3.2.1.
- The **Quality experts** assigned by each Consortium Partner for the peer review of project Deliverables. For each project Deliverable, 2 representatives from Consortium Members are assigned, not involved in the production of the Deliverable under review (and not even coming from the same entity), acting

as internal inspectors. Allocation of peer reviews has been done (and approved by all Consortium members) according to which are the most appropriate Partners (technically wise) with the deliverable under peer review. **Annex 1** includes the list of the Consortium members who are responsible to review each Project Deliverable (in addition to the QAM and the external expert who are obliged to review all the Deliverables).

- An **expert external** to the project that was set (in the DoA) to be nominated by the Quality Manager and its main role will be to peer review the project Deliverables. SWARCO Mizar nominated for this position **Ing. Gino Franco.** *Gino Franco is the Chief Innovation Officer of the Swarco Group, with the role of coordinating the research activities and managing the Group product portfolio innovation. He has more than 20 years of experience in the field of ITS, he has been working for Swarco Mizar with the role of Head of Innovation and with the responsibility of Business and Sales development. He has specific skills and experiences in project management, implementation of pilot demonstrations and deployment of traffic management and control systems. For several years has been playing an active role in both European and National projects for the research, development and deployment of innovative solutions for the road transport safety, efficiency and sustainability.*

Members of the Scientific Advisory Board will be considered as potential additional reviewers of some Deliverables, especially those ones that are related to key implementation and demonstration results of the project (and will be produced in the third year of the project).

5.2 Procedure Description

Quality planning is an integral part of management planning. As a pre-requisite to its preparation, the Quality Manager has reviewed all requirements in order to determine the necessary activities that need to be planned. This Quality Assurance Plan has been prepared early in the project, in order to demonstrate and provide the Consortium with the assurance that:

a) the contract requirements and conditions have been reviewed;
b) effective quality planning has taken place;
c) the quality system is appropriate.

The Consortium quality policy is as follows:

- To implement and maintain a quality system according to ISO 9001:2015.
- To identify for all involved their responsibilities regarding quality.
- To ensure that all Deliverables and other tangible outcomes comply with the contract.

To ensure relevance of the quality plan during the project lifespan, the Quality Manager will conduct quality reviews, throughout the duration of the contract and when contractual changes occur. The Quality Manager shall ensure that the quality plan is available to all concerned and that its requirements are met.

5.3 Quality within the Project

The quality assurance activities to be implemented in order to ensure that the project and its outcomes conform to the project requirements are the ones listed below. The responsible Partners for ensuring that the required activities are carried out are identified within the subsequent chapters of this document.

- Responsibilities of the Quality Assurance Manager
- Quality system review and control of quality records
- Main performance processes, including:
  - Process for initiation/planning of WPs and Activities
  - Process for WPs and Activities performance
  - Process for meetings organisation
  - Process for project reporting (internal and to the EC; interim and final)
  - Communication tools and procedures
- Supporting processes, including:
  - Deliverables production, peer review and submission processes
  - Document naming contention and layout
  - Corrective and preventive actions
  - Project reporting and monitoring in general

5.4 Responsibilities of the Quality Assurance Manager

The Quality Assurance Manager (Ing. Laura Coconea – SWARCO) is the person who has the authority to manage all quality processes taking place in the project. This encompasses the following aspects:

a. Quality control of all tangible outcomes of the project (i.e. Deliverables, public reports, scheduled demonstrations), according to specifications and time schedule defined in the DoA. In addition, management of all the relevant quality processes in this context (i.e. peer review of Deliverables);
b. Initiation of action to prevent the occurrence of any non-conformity to quality control processes;
c. Early recognition of non-conformity, recommendation of solutions, monitoring until problems' resolution and verification of solutions' implementation;

5.5 Quality System Review

The Quality System is to be reviewed within the Project Steering Committee meetings. In subsequent reviews the following will be taken into account:

- the results from project audits;
- the results from internal audits;
- the official project Deliverables (reports and prototypes);
- the corrective action requests;
- the preventive actions taken/proposed;
- any project prototype deficiencies and subsystems/parts problems;
- project participants' staff training and adequacy for the tasks undertaken;
- the level of used resources per category and adequacy of spent resources for the particular task/activity.

Decisions on the above shall be discussed at Project Steering Committee meetings will be minuted and will encompass:

- Level of satisfaction with the audits, corrective actions and the results of complaints;
- Requirements for further auditing or more corrective actions;

An agenda of such a meeting may include indicatively the following topics:

1. Results of Internal Audits
2. Corrective actions requests received
3. Equipment deficiencies
4. Defects in prototypes / deliverables
5. Complaints
6. Results of external audits
7. Supplier problems
8. Health and Safety
9. Training including needs and resources
10. Preventive actions
11. Review of quality policy and objectives
12. Introduction of new quality plans

Records to be kept are the minutes of the meeting which are to record those attending and the summary of the points raised/resolved. The records are to be produced and archived by the Quality Assurance Manager.

6 MAIN PERFORMANCE PROCESSES

6.1 Introduction

The MyCorridor project is divided in 10 Work Packages (WP). Each WP has a WP leader and a planned start and end date. Each WP is divided into Activities. Each Activity has an Activity leader and a planned start and end date as well. The above are defined in the MyCorridor "Description of Action".

6.2 Process for initiation / planning of WPs and tasks

1. WP leaders request Activity leaders to initiate task.
2. Activity leaders come back with working document/detailed plans.

6.3 Process for WPs and tasks performance

1. Each partner responsible for performing part of a task prepares an internal report with the results obtained as soon as the task finishes. This internal report is sent to WP partners.
2. WP partners send comments, if any, on this report within 5 days. The author revises the report and submits the final one to the WP leader with copy to all partners.
3. If one or more activities result into a Deliverable, the Deliverable main author synthesises the tasks internal reports into the expected Deliverable.
4. The Deliverable main author submits the Deliverable for peer review with a notification to the Quality Assurance Manager, the respective WP leader and the Technical & Innovation Manager.
5. The Quality Assurance Manager follows the process as defined in section 7.1.
6. The Deliverable Author sends the Deliverable for submission, after conforming to the Peer Review process outcomes, with notification to the Quality Assurance Manager, the respective WP leader, the Technical & Innovation Manager and the Coordinator.

7. The Coordinator submits the Deliverable to the European Commission, with notification to the Author, the Quality Manager and the Technical & Innovation Manager.
8. As soon as all Deliverables in a WP are submitted to the European Commission through the Coordinator (after having been peer reviewed), the WP is terminated.

6.4 Process for meetings organisation

1. The Project Management Team (PMT) meetings (physical or otherwise) are initiated by the project Coordinator.
2. The Work Package (WP) meetings (physical or otherwise) are initiated by the respective WP leaders with notification to the Technical and Innovation Manager.
3. The Steering Committee meetings are initiated either by the Coordinator or the Technical Innovation Manager, upon a request of a member or not.
4. Extraordinary technical meetings/workshops are initiated by the Technical and Innovation Manager, upon a Consortium member request or not.
5. The project meetings overall schedule and organisation is presented in **Annex 7.**
6. Before each scheduled meeting (of any type), the initiator prepares a draft agenda (using the format of **Annex 3**) and sends it to expected participants for revision and finalisation.
7. During the meeting, the initiator/chair of the meeting (of any type) is responsible for keeping minutes, which are following the template of **Annex 4**. Minutes are sent within 7 calendar days after the meeting end and comments from participants are accepted within 14 calendar days.
8. The meeting initiator/chair sends the final revised meeting minutes to the whole Consortium within another 2 calendar days.

6.5 Process for project reporting

The templates for project documents and project internal reports are to be defined as part of D8.2 Dissemination Strategy.

7 Supporting processes

7.1 Deliverables production, peer review and submission

7.1.1 Peer Review

Each project's Deliverable is reviewed by 4 reviewers as follows:

- The Quality Assurance Manager (QAM)
- 2 representatives of Consortium Members, not involved in the production of the Deliverable under review, acting as internal inspectors, according to the plan provided in **Annex 1**.
- The external expert nominated by the Quality Manager, namely Ing. Gino Franco.

In special occasions, additional reviews (i.e. from a beneficiary the expertise of whom will be considered valuable or from a SAB member) may also considered. Also, the Technical and Innovation Manager will closely monitor the overall process and give directions/propose corrective actions if needed.

All peer reviewers have to review each Deliverable (they are assigned with) with respect to the following matters as stated below, concluding, finally, whether the Deliverable is accepted or not.

General comments

- Deliverable contents thoroughness
- Innovation level
- Correspondence to project and programme objectives

Specific comments

- Relevance
- Response to user needs/requirements/specifications
- Methodological framework soundness
- Quality of achievements
- Quality of presentation of achievements
- Deliverable layout, format, syntax, spelling, etc.

The final rating of the Deliverable draft will be marked as:

- Fully accepted
- Accepted with reservation
- Rejected unless modified as suggested
- Rejected

Each reviewer will include his/her comments in a Deliverable **Peer Review Report (Annex 2).** The Quality Assurance Manager will be responsible for critically synthesizing the individual peer review reports (using the same template as in Annex 2).

MyCorridor Consortium has to reach a common understanding that the Deliverables are the tangible outcomes of the project and, as such, they have to be of the highest quality possible. This is upon the responsibility of the Quality Assurance Manager and the Project Management Team to convey this message to all beneficiaries and assure that this will be indeed the case in the project duration. The quality processes defined in this document is a control measure towards the achievement of this goal. In this context, Deliverable Author(s) but also peer reviewers have to respect some basic rules and avoid frequent mistakes, as listed in section 7.3.

7.1.2 Process

1. The Deliverable main Author issues the ***Purpose*** and the ***Intended Audience*** of the Deliverables and uploads them in the respective Deliverable folder of the TREVI, **6 months before the final deadline** of the Deliverable, notifying the PMT.
2. The Deliverable Main Author issues the provisional ToC of the Deliverable and uploads in the same folder of the TREVI, **4 months before the final deadline**, notifying the Technical and Innovation Manager.
3. As soon as the ToC is agreed, the Deliverable main Author shares responsibilities among participants/Co-Authors and monitors progress of contributions along with the respective Activity and WP leaders, with a notification to the Technical and Innovation Manager.

4. The Deliverable Main Author, in agreement and collaboration with the other Co-Authors, iteratively and progressively updates purpose, audience and ToC as well as content.
5. **2 months before the final deadline of the Deliverable**, a complete draft is sent out by the Deliverable main Author for internal (to the WP) comments and revision with a notification to the Technical and Innovation Manager.
6. The Deliverable responsible informs the PMT and the QAM about the expected delivery date of the Deliverable for review, **15 calendar days** before the expected delivery date for peer review.
7. Immediately after that, the QAM informs (confirms in reality as the plan is already set in Annex 1) the reviewers about the expected delivery date, so that they can make the necessary schedule. Until the delivery of the Deliverable, the QAM checks that the reviewers have responded and accepted the timing.
8. The Deliverable main Author submits the final draft of the Deliverable in the TREVI with a notification to the WP leader, PMT and the QAM. This is to happen a maximum **three (3) weeks before** its expected official publication.
9. The QAM notifies the corresponding peer reviewers immediately through the TREVI.
10. The peer reviewers. within five (5) working days, study and revise the Deliverable and prepare the «Peer Review Report» (**Annex 2**), which they upload in the TREVI, sending a notification to the QAM. If the reviewers are delayed in sending the report, the QAM sends them weekly reminders. If after three weeks, there is only one review report received, then the QAM proceeds with this report only.
11. The QAM makes a synthesis of the individual reports and integrates his own comments into the consolidated «Peer Review Report» (using the same template of Annex 2). The consolidated «Peer Review Report» is uploaded in the TREVI with a notification to the Deliverable Main Author, the PMT and the corresponding WP leader.
12. The Deliverable author revises the Deliverable, as required, and submits the final one in the TREVI with a notification to the QAM, the PMT and the respective WP leader. S/he also uploads the consolidated «Peer Review Report» completed with the Authors' response. Within this, proper explanation should be given about each action taken as a result of the comments in the Consolidated Peer Review Report. Similarly, justification

should be given for any type of non-conformity to the peer review comments.

13. The Coordinator submits the final Deliverable and the consolidated «Peer Review Report» with the response of the Deliverable's Author(s) to the European Commission with notification to the Authors, the QAM and the Technical & Innovation Manager. The final file is stored in the respective folder of the TREVI.
14. In case the Commission requests a revision of the submitted Deliverable, the internal review will be only repeated if the changes to the Deliverable are significant. The PMT will decide if the revised Deliverable has to be reviewed again.

As it is obvious from the above sequence, the key communication means to be used for the Deliverables production and peer review up to their submission will be the TREVI account set for MyCorridor.

7.2 Document naming convention

The objective of the naming convention is to simplify and to make the identification of a document produced by the project self-explanatory. This naming convention is applicable to the official documents defined in the Grant Agreement and in the DoA (Deliverables, Periodic and Final reports to the European Commission), as well as to documents related to project meetings (Agenda and minutes). The document naming convention is formed by the following elements, separated by "_":

- The project's name, "MyCorridor"
- The document type:
  - "D" for deliverable, together with its ID number (e.g. D1.1) followed by a coded name referring to the objective of the report (i.e. "_Use Cases")
  - "Periodic report" for interim reports to the European Commission
  - "Final report" for the final report to the European Commission
  - "Agenda" and the meeting name followed by "meeting"
  - "Minutes" and the meeting name followed by "meeting"

- "IR" for the internal reports, with a coded name referring to the objective of the report (i.e. "_Specs") and the respective task in the context of which it has been produced (i.e. A1.2).
- "PR" for the peer review reports of Deliverables, follows by the ID of the Deliverable (i.e. _D1.1)

- The document's version, starting with "_v" followed by the documents preparation stage:
  - Initial draft version numbering starts with 0. (zero dot) followed a sequential number starting with 01 and the word "_draft"
  - Version for peer review starts with 1. (one dot) followed a sequential number starting with 01 and the word "_p.rev"
  - Version for submission to the European Commission includes only the word "_Final".

Example: The naming convention for the peer review of Deliverable 1.2 is the following:

- ***MyCorridor_PR_D1.2_v1.02***

As seen in Annex 1, a series of Deliverables (i.e. the managerial Deliverables including D9.1 and D9.2) are excluded from peer review.

7.3 Documents layout

The templates to be used for Deliverables and other types of reports that are going to be produced in the project (as part of Dissemination Strategy) will be provided within the weeks following the issue of this document and further integrated in D8.2. In specific, the template to be followed by all Partners for the production of a Deliverable is provided in the MyCorridor Dissemination Strategy (D8.2). All sections therein have to be addressed in each case by the Author(s), apart from some specific occasions that some of them are not applicable (i.e. the Annexes).

Deliverables should follow the rules and avoid some frequent mistakes, as listed below:

- Deliverables should have the quality of a book.

- Deliverables should include all the outcomes of all associated tasks to them. It is upon the responsibility of the Main Author (as assigned in the DoA) to collect from other beneficiaries their input, evaluate their quality and, if needed, ask for revised versions and critically synthesize them in order to reach the expected goal.
- There is no rule in size of Deliverables; still, excessive verbalism should be avoided. Analytical information that go in depth in one topic should be put in an Annex and only a summary of them should be included in the main body text.
- UK English is the official language of the European Union and, as such, the working language of the Deliverables.
- The standard format to be followed is the one provided in the Dissemination Strategy (D8.2).
- The standard font to be used is Calibri 12, fully justified.
- Header and footer and headings should follow the pattern of the current Deliverable.
- Acknowledgement to the EC should be included in the cover page, as in the current Deliverable and as follows:

The MyCorridor project has received funding from the European Union's Horizon2020 research and innovation programme under grant agreement number 723384

- Frequent mistakes that will be avoided in MyCorridor are as follows:
  - Start with content without purpose nor initial ToC.
  - Executive summary looking like introduction or conclusion.
  - Purpose looking like introduction.
  - Conclusion looking like Executive Summary.
  - No logic in the document structure – no methodological sequence - no relevance to the project.
  - Not reflecting a global vision but aggregating different visions from different beneficiaries, without logic.
  - Copy / paste – plagiarism - poor English - wrong usage of style.

7.4 Corrective and preventive actions

The formal description of the procedure is given below.

1. The PMT identifies need for corrective actions (i.e. could be originated from a beneficiary/PSC request).

2. The Coordinator notifies the WP leader. The relevant request is documented in the appropriate form of **Annex 5**.
3. The WP leader discusses the issue with the Activity leader and comes up with the proposed solution. The proposal on corrective action also uses **Annex 5** form.
4. The solution is forwarded to the PSC via the Coordinator.
5. The PSC decides on the matter. The decision shall be documented according to the template of **Annex 6**. The Coordinator sends this to all involved and checks that the actions decided are implemented.

8 COMMON SOFTWARE AND TOOLS

The main software standards have been defined as follows for the project:

- Operating Systems: Windows 7, 8, 10, Mac OS X 10.10 or later, Linux stable distros
- MS Office 2007 or later for
  - Textual Deliverable (MS-Word)
  - Textual Deliverable support, cost statements (MS-EXCEL)
  - Transparencies, Slides, Posters (MS-POWERPOINT)
- All operating systems and tools compliable with the aforementioned

CONCLUSIONS

The current document includes a short presentation of MyCorridor project goals, technical approach and targeted outcomes and a project handbook for the project administrative and technical organization.

Some of the sections in this document will be updated throughout the lifetime of the project, as previously indicated, in order to appropriately coordinate internal project communication, meetings and workshops, undertake corrective actions if needed in order to meet the project plan (and its amendments, if any), identify and manage revisited technical risks. Still, the core of the Deliverable will remain valid throughout the project duration.

The second part of the document represents the Quality Assurance Manual of the project that defines all the internal quality processes of the project that will take place, upon specific principles and rules, in order to high quality of project results and easy monitoring of project process. In the context of them, all associated responsibilities and schedules have been defined. In this sense, this document should serve as a reference document for all Partners and all activities of the project.

Whereas the key principles and rules are not subject to change, slight changes may occur with regard to assigned responsibilities (or even schedules) as described herein that will be acknowledged to all project Consortium, after approval by the Quality Assurance Manager and the Project Management Team before application.

REFERENCES

1. MyCorridor Grant Agreement, 723384, H2020-MG-2016-2017/H2020-MG-2016-Two-Stages, Research & Innovation Action, Innovation and Networks Executive Agency, European Commission

ANNEX 1: DELIVERABLES REVIEW PLAN

Del. (No)	Deliverable name	WP number	Lead Author	Type	Dissemination level	Delivery month	1st Reviewer	2nd Reviewer
D1.1	MyCorridor Use Cases	WP1	CERTH/HIT	R	PU	9	IRU	SRFG
D2.1	Data management plan	WP2	WINGS	ORDP	PU	6	CERTH/ITI	OC
D2.2	MyCorridor interoperable, open and seamless architecture and MyCorridor subsystems and modules specifications	WP2	CERTH/ITI	OTHER	PU	24	VivaWallet	TTS
D2.3	Risk analysis	WP2	CERTH/HIT	R	CO	30	SWARCO MIZAR	UPAT
D3.1	MyCorridor cloud service delivery platform, service gateway, big data management module and business rules implementer module	WP3	CERTH/ITI	DEM	CO	24	VivaWallet	MAPtm
D3.2	MyCorridor traveller feedback integration module	WP3	HACON	OTHER	CO	18	CERTH/ITI	AMCO
D3.3	Mobility tokens and e-payment services – the "EURO Mobility Ticket"	WP3	VivaWallet	OTHER	CO	24	MAPtm	INFOTRIP
D4.1	Individual services integration into MyCorridor platform	WP4	INFOTRIP	R	CO	26	CERTH/HIT	IRU
D4.2	Aggregated service delivery across MyCorridor MaaS	WP4	CHAPS	R	CO	28	CERTH/ITI	TOMTOM
D5.1	Profiling mechanism and personalisation algorithms	WP5	UPAT	R	CO	20	CERTH/HIT	WINGS
D5.2	Mobile applications and interfaces	WP5	CERTH/HIT	R	CO	24	UPAT	TOMTOM
D6.1	Pilot plans framework and tools	WP6	CERTH/HIT	R	PU	12	TTS	IRU
D6.2	Pilot results consolidation	WP6	SRFG	R	PU	33	RSM	CHAPS

Del. (No)	Deliverable name	WP number	Lead Author	Type	Dissemination level	Delivery month	1st Reviewer	2nd Reviewer
D6.3	MyCorridor impact assessment	WP6	TTS	R	PU	36	CERTH/HIT	UNEW
D7.1	Mobility Services Aggregator business model	WP7	INFOTRIP	R	PU	36	AMCO	CHAPS
D7.2	Socially responsible travel incentives and promotion schemes	WP7	IRU	R	PU	30	RSM	HACON
D7.3	B2B master contract, B2C terms of use, privacy and cookie policy	WP7	VivaWallet	R	CO	36	OC	INFOTRIP
D8.1	Project logo and website	WP8	IRU	DEC	PU	4	Not applicable – Upon feedback & agreement by all Partners.	
D8.2	Dissemination strategy and actions (1)	WP8	TTS	R	PU	6	IRU	HACON
D8.3	Dissemination strategy and actions (2)	WP8	TTS	R	PU	18	SWARCO	UNEW
D8.4	Dissemination strategy and actions (3)	WP8	TTS	R	PU	30	UNEW	CERTH/HIT
D8.5	Project leaflet	WP8	TTS	DEC	PU	6	Not applicable – Upon feedback & agreement by all Partners.	
D8.6	Project brochure (1)	WP8	TTS	DEC	PU	12	Not applicable – Upon feedback & agreement by all Partners.	
D8.7	Project brochure (2)	WP8	TTS	DEC	PU	24	Not applicable – Upon feedback & agreement by all Partners.	

Del. (No)	Deliverable name	WP number	Lead Author	Type	Dissemination level	Delivery month	1st Reviewer	2nd Reviewer
D8.8	Project Video	WP8	IRU	DEC	PU	30	Not applicable – Upon feedback & agreement by all Partners.	
D8.9	Exploitation plans	WP8	VivaWallet	R	CO	36	INFOTRIP	SWARCO
D8.10	Towards a unique and sustainable Mobility Token driven MaaS	WP8	IRU	R	PU	36	CERTH/HIT	UNEW
D8.11	Report on activities of liaison with MaaS Alliance	WP8	IRU	R	PU	36	TTS	OC
D9.1	MyCorridor Quality Assurance Plan	WP9	SWARCO MIZAR	R	PU	2	Not applicable.	
D9.2	MyCorridor Ethics Manual	WP9	SWARCO MIZAR	ETHICS (R)	PU	6	WINGS	SRFG
D9.3	Project Final Report	WP9	UNEW	R	PU	36	Not applicable – Upon feedback & agreement by all Partners.	
D10.1	POPD – Requirement No. 1	WP10	UNEW	ETHICS (R)	CO	3	Not applicable – Upon feedback & agreement by all Partners.	

The total number of reviews per MyCorridor Partner is shown in the following table:

Partner	Number of Peer Reviews
UNEW	4
CERTH/HIT	5
CERTH/ITI	3
OC	3
WINGS	2
SWARCO MIZAR	3
INFOTRIP	3
CHAPS	2
HACON	2
MAPtm	2
VivaWallet	2
AMCO	2
TOMTOM	2
RSM	2
TTS	3
UPAT	2
IRU	4
SRFG	2

ANNEX 2: PEER REVIEW REPORT TEMPLATE

Mobility as a Service in a
multimodal European cross-border corridor
(MyCorridor)

Consolidated Peer Review Report

Document identifier:	**MyCorridor - DPlease insert the deliverable identification number according to the DoA**
Date Due to EC:	**Month Please, insert the due Month (e.g M6 – 30th November 2017)**
Date of Delivery to EC:	**--/--/201-**
Deliverable Title:	Please insert the Deliverable title
Dissemination level:	Please insert **PU, CO, RE, PP** according to the DoA
Work Package:	**WP xxx**
Lead Beneficiary:	Please insert the lead beneficiary (short name)
Other beneficiaries involved:	Please insert the beneficiaries (short name) that have contributed to the realization of the Deliverable
Document Status:	Draft/Final
Document Link:	Please insert the link where the document is available (if any)

REVIEWERS

Name/Surname	Partner
George Dimitrakopoulos (External expert)	-
Prof. Emmanuel Protonotarios (Quality Assurance Manager)	ICCS
Mr/Ms Y (Quality expert)	Company name
Mr/Ms Y (Quality expert)	Company name

OVERALL PEER REVIEW RESULT

Deliverable is:

☐ Fully accepted	☐ Accepted with reservation	☐ Rejected unless modified as suggested	☐ Fully rejected

Please provide an overall rating of this deliverable in a scale from 1 (very poor) to 10 (excellent): _____

SUMMARY OF SUGGESTED ACTIONS TO AUTHOR(S)

(Please note that they will be transmitted to the Author(s) and the European Commission)

1. The following changes should be implemented: .....

2. Specify missing chapters / subjects: .....

3. Required changes on deliverable essence and contents: .....

4. Further relevant required improvements: .....

COMMENTS OF PEER REVIEWERS

General comment *Referring to any issue not covered by the particular topics below.*
Specific comments
Topic A: Relevance. **Please answer the question: "Is this Deliverable relevant to MyCorridor and to the particular Activities / WP it covers?"** ***Reviewer comment*** ***Author response***
Topic B: Response to user needs/requirements/specifications (if applicable) **Please examine the correlation of this Deliverable with the relevant user needs/requirements/specifications identified in MyCorridor, if relevant. "Does the Deliverable cover the prioritised User Needs or is it technology-driven?"** ***Reviewer comment*** ***Author response***
Topic C: Methodological framework soundness **Please comment on the soundness of the methodology followed and how it is explained. "Are the results arbitrary or based upon a clear methodology, involving user tests, expert opinions, etc.?"** ***Reviewer comment*** ***Author response***

Topic D: Quality of achievements **Please comment on the essence of the results. "Are they of high value? Are they what one should expect?"** ***Reviewer comment*** ***Author response***
Topic E: Quality of presentation of achievements **Please comment on the results presentation. "Are the results adequately explained and commented or just listed? Is there a clear and established link between methodology and results?"** ***Reviewer comment*** ***Author response***
Topic F: Deliverable Layout / Spelling / Syntax/ Format **Please comment on the Deliverables layout. "Does it include all necessary Chapters, is it readable, in comprehensive language, etc.?"** ***Reviewer comment*** ***Author response***

ANNEX 3: PROJECT MEETINGS' AGENDA

Mobility as a Service in a
multimodal European cross-border corridor
(MyCorridor)

Meeting Agenda

Meeting Date

Meeting Address

Day 1 - Date

Topic	Presenter(s)	Time
Slot Title and description		
Slot		
Slot		
Slot		
Slot		

Day 2 – Date

Topic	Presenter(s)	Time
Slot Title and description		
Slot		
Slot		
Slot		
Slot		

Notes

Contacts

Logistic Information

Venue, Directions, nearby hotel

ANNEX 4: PROJECT MEETING MINUTES

Mobility as a Service in a
multimodal European cross-border corridor
(MyCorridor)

Meeting Minutes

Meeting ID

Meeting Date

Meeting Agenda

List of Participants

No	Name/Surname	Partner

Meeting – Day 1

Meeting – Day 2

List of Actions

Action	Date	Who	Status

ANNEX 5: REQUEST FOR CORRECTIVE ACTION

Mobility as a Service in a
multimodal European cross-border corridor
(MyCorridor)

Request for Corrective Action

WP	Activity:
Requesting Participant	
Number of request:	

No	Issue	Reasoning	Proposal for remedy	Deadline for remedy implementation

ANNEX 6: DECISION FOR CORRECTIVE ACTION REQUEST

Mobility as a Service in a
multimodal European cross-border corridor
(MyCorridor)

Decision for Corrective Action

CORRECTIVE ACTION DECISION	**Number:**
Title:	**Date:**
SECTION 1: Description of issue Relevant WP / Activity:	
SECTION 2: Reasoning / Cause	
SECTION 3: Immediate corrective action to be taken To be implemented by ..... Date	

SECTION 4: Follow Up Action and Effectiveness Monitor

List of Changes to be made:

1.

2.

3.

4.

5.

8.

The Corrective/Preventive Action has been completed and has/has not effectively cured the problem.

Further action has been requested on Corrective Action Request No.....

ANNEX 7: PROJECT MEETINGS SCHEDULE

Project meetings shall be organised by the responsible party. The provisional schedule of project meetings are as follows:

Table 13: MyCorridor Project Periodic Meetings.

Body	Ordinary meeting
PB	▪ At least 3 face to face meetings on annual basis. ▪ Telcos upon request of the PMT.
SC	▪ At least twice per Year: ▪ Every 2 meetings alongside with the Partner Board meetings ▪ Telcos upon request of the PMT.
PMT	▪ At least every 3 months: ▪ Alongside with the Partner Board and the Steering Committee meetings ▪ Biweekly telcos.
WP	▪ Biweekly telcos (as soon as the WP starts).

Notice for each meeting shall adhere to the following timeline

	Ordinary meeting	Extraordinary
PB	45 calendar days	15 calendar days
PSC	14 calendar days	7 calendar days
PMT	14 calendar days	7 calendar days

While notice of the agenda items shall adhere to the following:

Table 14: MyCorridor Distribution of Agenda timetable.

	Ordinary meeting	Extraordinary
PB	21 calendar days	10 calendar days
PSC	7 calendar days	7 calendar days
PMT	7 calendar days	7 calendar days

Table 15: Addition of items in the agenda timetable.

	Ordinary meeting	Extraordinary
PB	14 calendar days	7 calendar days
PSC	2 calendar days	2 calendar days
PMT	2 calendar days	2 calendar days