MyCorridor Project: The vision & the approach

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The challenge

*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 travelers' needs and to set the conditions for the European transport economy to flourish."*

Special Eurobarometer Survey (2014), Commissioner Violeta Bulc

"**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%)".

What is MaaS

Mobility as a Service (MaaS) is the ***integration of various forms of transport services into a single mobility service accessible on demand.***

"a ***shift away from personally owned modes of transportation and towards mobility solutions that are consumed as a service.*** *This is enabled by combining transportation services from public and private transportation providers through a unified gateway that creates and manages the trip, which users can pay for with a single account".*

MyCorridor

- **Mobility as a Service in a multimodal European cross-border corridor**
- **Starting 1st of June 2017 to last 3 years**

Newcastle University

Coordinator

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Technical & Innovation Manager

swarco

SWARCO MIZAR S.r.l.

TOMTOM

Industrial Partners

Aggregator

infotrip

chaps

WEGS ICT Solutions

MAP TRAFFIC MANAGEMENT

amco Inspired Technologies

HaCon Traffic • Software • Service

Viva wallet

Mobility Market SME's

mobilità ROMA

Mobility Agency

TTS ITALIA

ITS Association

ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ UNIVERSITY OF PATRAS

salzburgresearch

Research

Osborne Clarke

Legal firm

IRU PROJECTS

Liaison to MaaS Alliance

The 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 ICT 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, while 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.***

The focus & the starting point

- Driving the “vehicle world” towards MaaS
- Starting point is the **TM2.0 platform** – i.e. mobility services related to the interactive traffic management vision of the “vehicle world”.
  - *TM2.0 aims to agree on **common interfaces, principles and business models** which can facilitate the **exchange of data and information from road vehicles and the TMC** (Traffic Management Centre) **and back**, improving the total value chain for consistent traffic management and mobility services as well as avoiding conflicting guidance information on the road and in vehicles.*
- It aims to extend the current capability of TM2.0 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.**

One stop shop

The gap

- Currently, there is a tendency to create local **MaaS communities at city level** with agreements among different mobility providers (PT, bike and car sharing, taxi, train, etc.); integrated in a single local platform or application.
- **Interoperability** among these different "city" platforms that remain silos is often **missing**.
- The aim is to address this gap through the **multi-operator integration of multimodal transport services in a single hub in order to:**
  - **overcome local fragmentation**
  - **to reduce complexity and costs** associated with multiple interfaces
  - to enable **standardisation** of APIs
  - **to offer to all transport operators** (bigger and smaller) **a gate towards more innovative mobility schemes & boost their market**

The services to be part of it

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

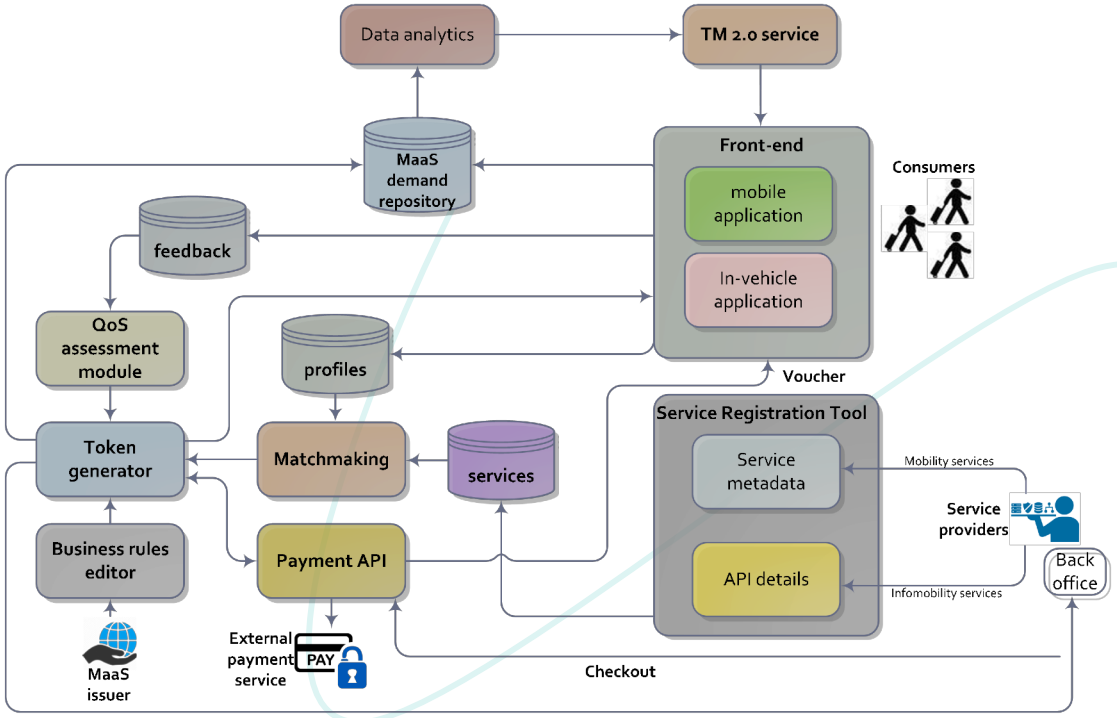
Services to bring in

- EVIS.AT – Real-time Road Traffic Information (2015), Austria
- VAO – Austrian Multimodal Journey Planner (2017)
- DYNAMO, DIMIS and m4guide multimodal journey planning platforms - addressing both public and private transport - funded by the German government
- AMS BUS advance-sale, booking and e-ticketing system for intercity bus transport in Czech Republic
- RSM car sharing system in Italy
- IRU Global Taxi Platform, connecting (as of September 2016) over 500.000 taxis (around 10% of the world's total taxis) through roaming taxi applications in 5 continents
- Socially responsible travel promotion platforms concepts like CityMapper, TimesUpp, GreenYourMove
- ….

- E-purse and mobility tokens existing concepts and applications (e.g. MyCicero)
- Liaison with MaaS Alliance **(**http://maas-alliance.eu/**)** through IRU
- 11 letters from external service providers that will turn to MoU's (Blablacar, etc.)

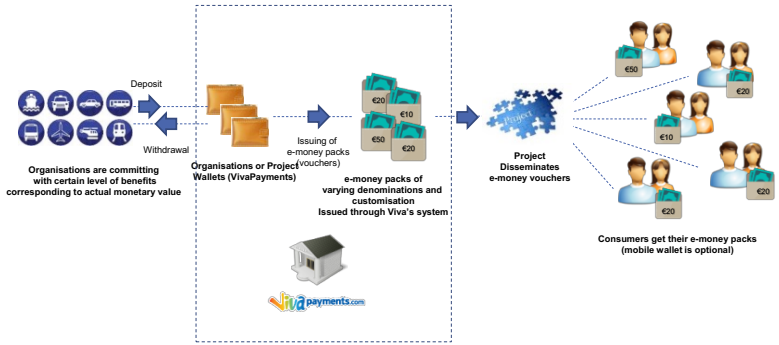
One–stop–shop

- Core is the **Token Generator (TG)** that responds to any user incoming request for MaaS services by producing the MaaS product that best matches the requesting user needs
- **Matchmaking module** responsible for matchmaking between available services and users' requests
- The TG combines the results of **Matchmaking** with the specific **business rules** defined by the MaaS operator, through a business rules editor and the results of the **QoS assessment module**, which performs evaluation of the offered services based on user experiences
- The Token is sent to the user and the service providers' back office
- On user's acceptance, a payment transaction is initiated by an affiliated external payment service
- Bi-directional interaction with TM services

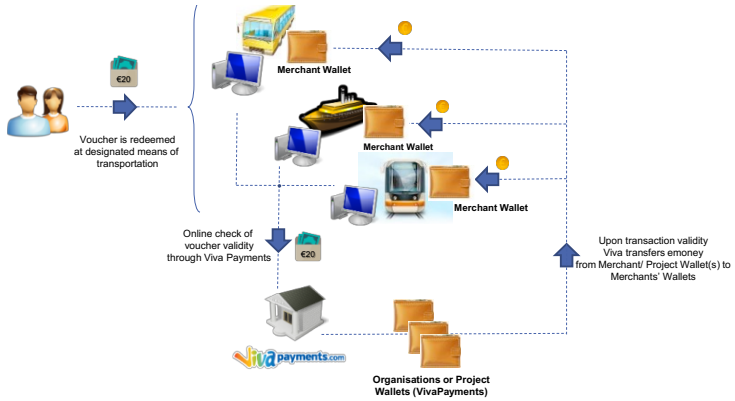


Issue & consumption of Mobility Tokens

Step 1: e-money packs (Mobility tokens) Issuing and Dissemination



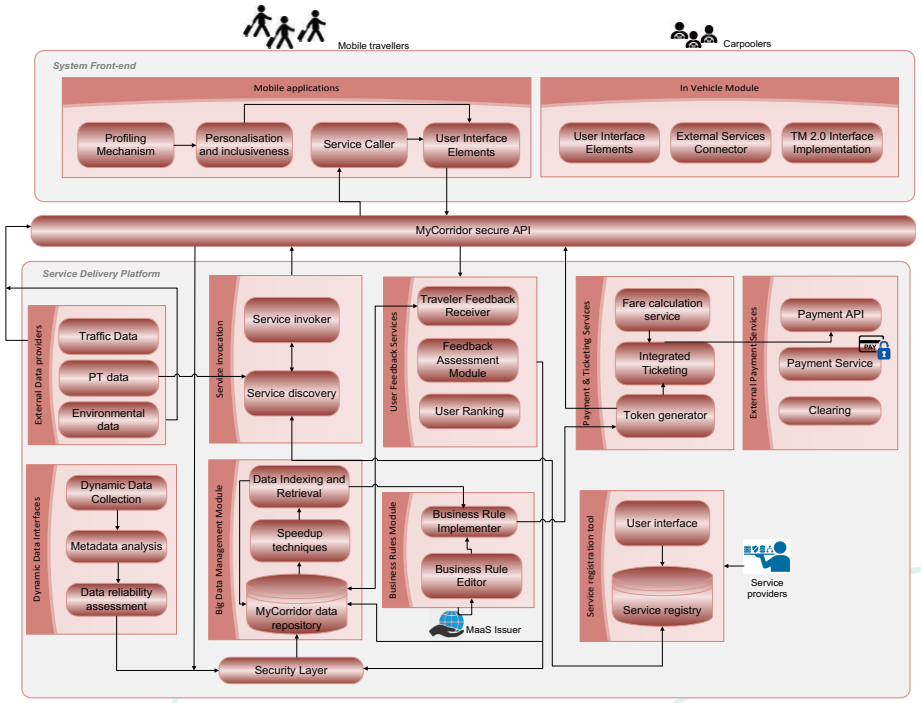
Step 2: e-money packs (Mobility tokens) redemption



In more detail

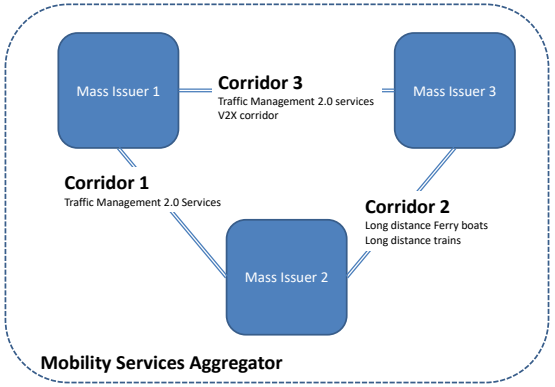
- **Cloud-based backend** that implements the service delivery platform & a **lightweight frontend** that delivers the end user applications
- Communication through a secure Rest API
- Functionalities delivered by the backend are implemented as Restful web services

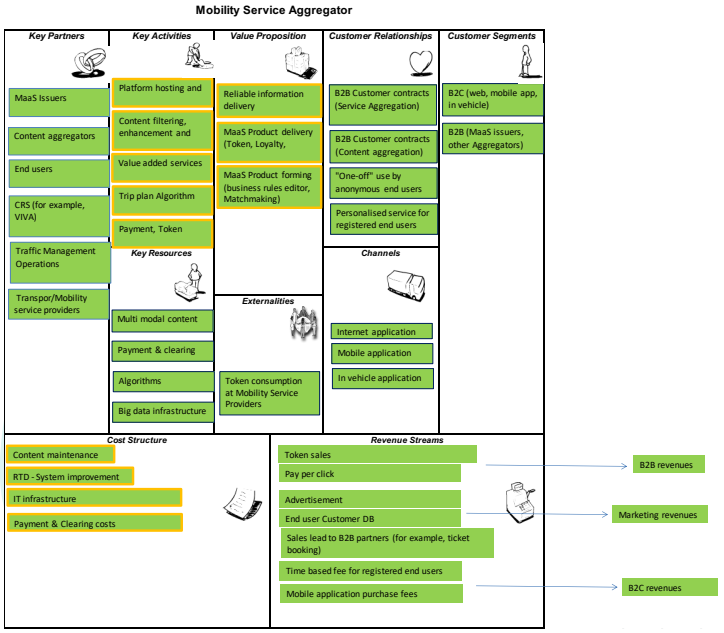
- **Backend**: Service matchmaking, communication and processing of external data, info-mobility service composition and invocation, collection and evaluation of user feedback, definition of appropriate business rules, big data analytics, speed-up techniques, fare calculation & payment
- **Frontend**: Profiling & personalisation
  - For smartphone and in-vehicle devices



Business Logic

- **Inclusion of (Interactive) Traffic management into the MaaS value proposition** - Traffic Management services are and should be perceived as a "car related mobility service" by the drivers. MyCorridor focuses on TM2.0 & V2X (i.e. traffic light assistance)
- **"Corridor" view**, supporting commuters and regular visitors
  - A certain Maas business entity – the **MaaS issuer** - can operate at any region, but, additionally, the total business scheme envisages the connection of the MaaS issuers' Regions through Transport Corridors.
  - Simulating "roaming"
- **The Mobility Service Aggregator could be a new corporation or an alliance of MaaS Issuers!**





Business Logic

B2C Roles & Relations

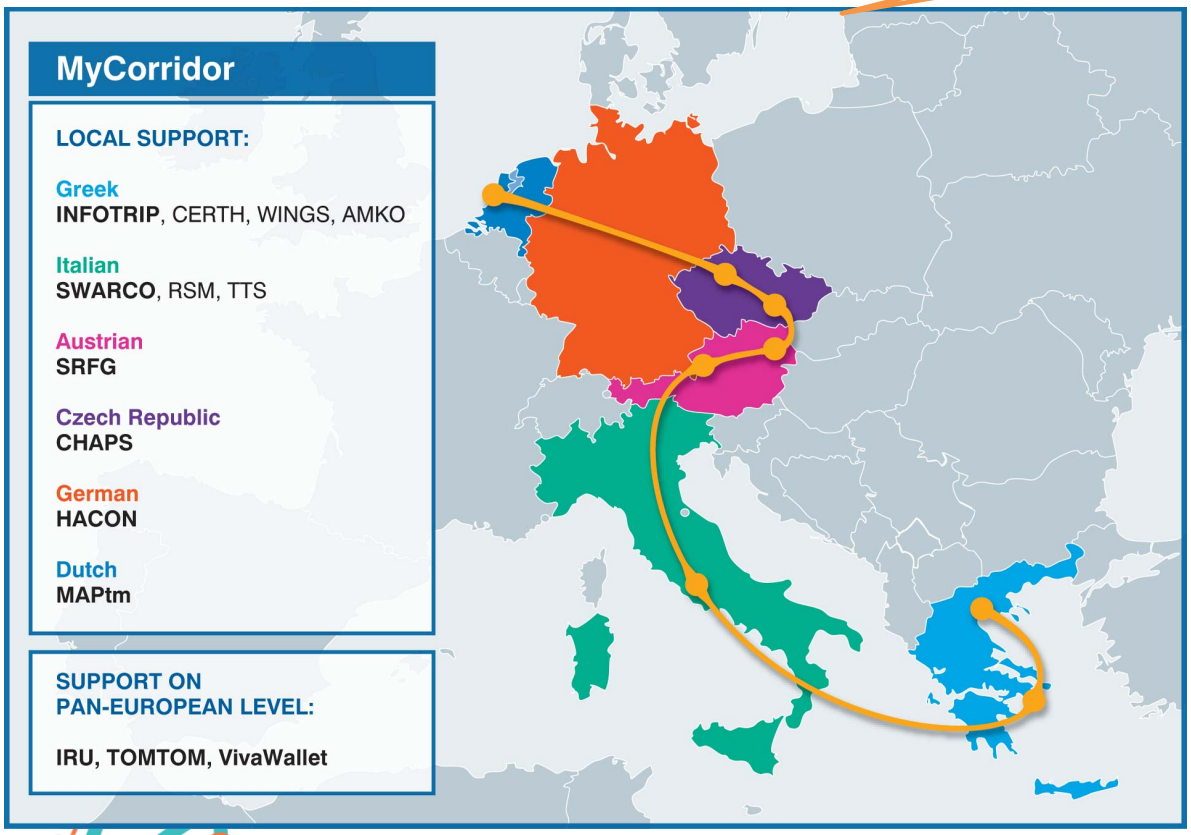
- Creation of a mobile Wallet with mobility tokens
- Rewarding schemes
- Plan a trip
- Mobility services use
- Quality of service (QoS) monitoring

B2B Roles & Relations

- Between aggregator and connected mobility service providers/Traffic Management Operators
- Between aggregator and infomobilty service providers
- Between aggregators

MyCorridor "Corridor"

"EURO-Mobility Ticket"



- 2 phases of evaluation/demonstration
- Developers/service providers & travelers
- 2nd phase – real life conditions!
  - Incentives to use the platform
  - the **"Commuter"** - the **"Tourist"** - the **"Businessman"** - the **"Spontaneous user"** - the **"Mobility-restricted" user** - the **"Low IT literacy user" – EVERYBODY!**

Innovation & Impact

- **MaaS implementation**
- **Market place and business models**
- **Policy**
- **Traveler Quality of Life**

- ✓ Travel **cheaper** (at least 20% less)
- ✓ More **comfortable** (at least 10 times faster)
- ✓ Respecting the **environment** (with at least 75% reduction in CO_2 and NO_x emissions due to shift away from private car)