



MoveUs has successfully finished the first year of the project!

Newsletter 2014

Welcome to MoveUs newsletter. The first year of MoveUs project has already passed and during this time, thanks to the hard work of the project partners and the valuable input from the different smart city pilots placed in Madrid, Tampere and Genoa, big and consistent steps were achieved towards the creation of MoveUs platform. One of the main developments during this period was the identification of the main requirements and needs for the three smart cities that are part of the project to support the mobility needs of people and help them to choose more energy efficient travel options. Based on the identified requirements, a set of MoveUs services were defined with the support of main mobility stakeholders of the cities in order to engage them and test the MoveUs platform in real conditions. In addition, the MoveUs architecture was defined, which supports cloud based modality management platform with high performance data

analytic capabilities, as well as smart mobility applications and user's energy efficiency gains.

Close collaboration with other european projects related with mobility services, e.g. CoCities and MyWay, has been active since the beginning of MoveUs project to complement current developments in the domain and extend the dissemination of the project results.

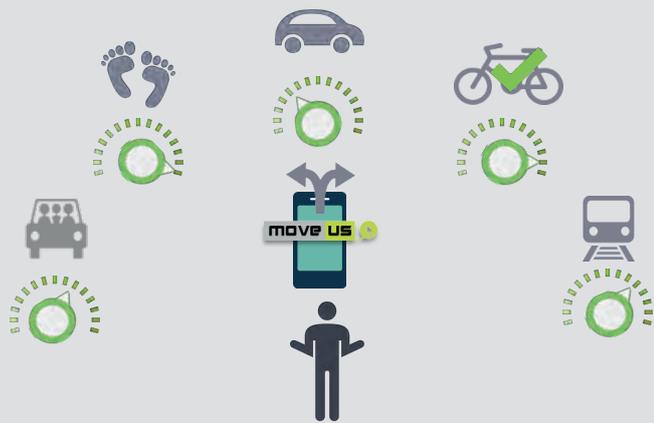
Next steps of the project includes the implementation of the MoveUs platform based on the defined architecture and requirements. MoveUs partners will continue working on the energy efficiency assessment, the identification of the different factors that affect the transport modes and how it can relate to incentives for motivating people on choosing more energy friendly options for moving in the cities.

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MoveUs project - Goals and Objectives

It has been identified that cities have a huge potential for energy savings by improving mobility services with smarter use of transport resources and intelligent technology. In addition, ITS systems can help to reduce emissions and save energy through a better demand management and providing the right information to people for taking more energy efficient decisions when choosing from different transportation modes.



The main goal of MoveUs project is to design, implement, pilot, evaluate, disseminate and exploit a number of ICT tools for smart mobility in smart cities, directly addressing real user's needs while promoting a habit change in their daily lives.

The main objectives are:

- To integrate scattered and heterogeneous mobility data
- To provide green, multimodal, personalized, sustainable, safe and private, reliable and extensible services
- To elicit and structure real business cases

In order to support the development of the MoveUs platform, a set of workshops will be organized in the Living Labs to foster community building and cyclical user-centric innovation and facilitate the engagement of stakeholders and testing, in real conditions, the MoveUs smart mobility applications.

City Services

The specification of MoveUs city services provides the formal and concrete indications for the implementation of the software that will be developed during the second year of the project as part of the tasks related with Personal Services Development and Platform Integration. The design of the city services started from the main objectives of the project, the pilot requirements and the architectural specification of the cloud-based platform as technical background and reference. The city services apply to several transport and traffic domains according to the indications of the Cities' Use Cases and aim at demonstrating the innovation, flexibility and effectiveness of the MoveUs concepts and solutions.

Innovative concepts have been introduced to achieve the objectives of mobile sustainability, transportation offering and reduction of energy consumption, with solutions like services supporting user's

decisions in everyday travels with more customized components integrated in the local traffic infrastructures. The MoveUs Trip Planner, for instance, has been designed from the facilities of the MoveUs platform to create a flexible infomobility solution that extends the more traditional functions by integrating locally available information and services from several domains. Thanks to the platform, the local offering will be automatically and efficiently retrieved and activated on the basis of personal, spatial and temporal criteria.

The city services feature innovative elements like the use of incentives and the integration of crowd-sourced data at various levels of the service chain. Incentives relate to the well-known problem of obtaining a substantial change in users' habits in terms of travel choices and modal preferences and have been addressed with the assignment of "virtual money" on the basis of the user's behaviour,

usable to obtain awards. In addition, a set of tools has been specified for the management of the entire process of incentives definition, provision, and assignment from the different stakeholders involved in the operations. On the other hand, the provision of crowd-sourced information aims at demonstrating the possibility of using feedback data sent by the user to enhance the quality of local offerings in terms of mobility data and services. The feedback will be acquired, stored and processed by the cities and eventually used to improve the existing information offering. A management tool (the feedback processing console) was designed to help city authorities to manage users feedbacks and to demonstrate the effectiveness of this approach in the future. Another interesting aspect of the application of MoveUs-enabled city services can be found in the scenarios, developed especially for the Madrid-specific services, where the traffic infrastructure and management operations are closely involved and interested. Priority request and Smart Crossing services are examples of innovative city services and

solutions where the existing infrastructural aspects are crucial and will benefit from the facilities offered by the MoveUs infrastructure. As MoveUs project aims to change the habits of users into more energy efficient choices when selecting modes of transport, Tampere-specific service will help to motivate users on improving their performance over time. This service will keep track of the user choices and based on this information and the user habits a set of suggestion will be provided. The technical specification was produced with a neutral technological approach: the MoveUs cloud does not impose, per se, specific technological constraints and enables the development of software products for the cities, even different in functionalities, features and concept, in the present and future stages. The city services that were defined during the last year, in fact, will be considered just as one of the many possible software implementations enabled thanks to the concept, facilities, modularity and flexibility of the MoveUs architecture.

MoveUs Smart-City pilots

Genoa

Genoa city will have two main services. The first service is an application expected to allow users to fulfill all personal mobility needs in an urban environment; “Personal mobility needs” are to be understood in a broad sense, and include not only aspects related to the travels themselves but also to personal needs such as point of interests, shops, hobbies, etc.

The service will provide results in terms of criteria chosen such as time of travel, cost, energy consumption, carbon footprint, incentives, personal needs, etc.

The second service is built over the integration of crowd-sourced information provided by users through mobile devices (smartphone, phablet, tablet) with Traffic Supervisor. Thanks to MoveUs this service will make users to become both consumers and producers of data, a mixed role, referred to as

prosumer. Additionally, managers of Mobility Department, being part of the platform, will receive data generated by the citizens so they can be involved quickly in addressing the city’ demands. The Municipality of Genoa involved thirteen heterogeneous groups of stakeholders during the living labs activities.



Madrid

The city of Madrid will implement MoveUs platform and four specific services will be tested by the Living Lab community of the city, composed of, among others, representatives of the city council, the urban public bus operator, local technology experts in ICT and transport solutions, user associations and citizens.

Madrid city will be piloting four different mobility services; Service 1 Prioritization of vehicles that supports the urban public bus fleet to overcome delays in its service Services 2a Smart routing and 2b Smart crossing aimed at: fostering and facilitating pedestrians the use of alternative transport

modes and safe walking; and Service 3 Eco-efficient routing and traffic prediction mainly to reward environmentally friendly drivers.



Tampere

The Tampere pilot will contribute to Tampere's sustainable mobility goals. These include increasing the share of walking, cycling and public transport by developing for example cycling paths, public transport routes and bicycle parking spaces (Tampere City Strategy 2025) and increasing the share of sustainable transport modes.

The MoveUs services in Tampere will provide mobility information in an integrated and easy-to-use way in mobile devices. The multimodal journey planner will integrate cycling, public transport and car route information complemented with the energy and carbon footprint metering for the

different transportation modes in order to motivate the selection of more energy efficient mobility choices.



MoveUs Architecture

MoveUs Platform is a cloud-based mobility management platform, which will collect input data from distributed heterogeneous sources and process this data to infer valuable information on the transport status and users' mobility patterns, ensuring data privacy and security all along the handling process. Specific functionality like multi-modal planning or traffic management add new challenges such as the highly demanding real-time operation requirements, ITS equipment control and continuous user tracking, making the architecture concept evolve towards a desegregated approach.

Hence, specific platform features and capabilities will be required such as the following:

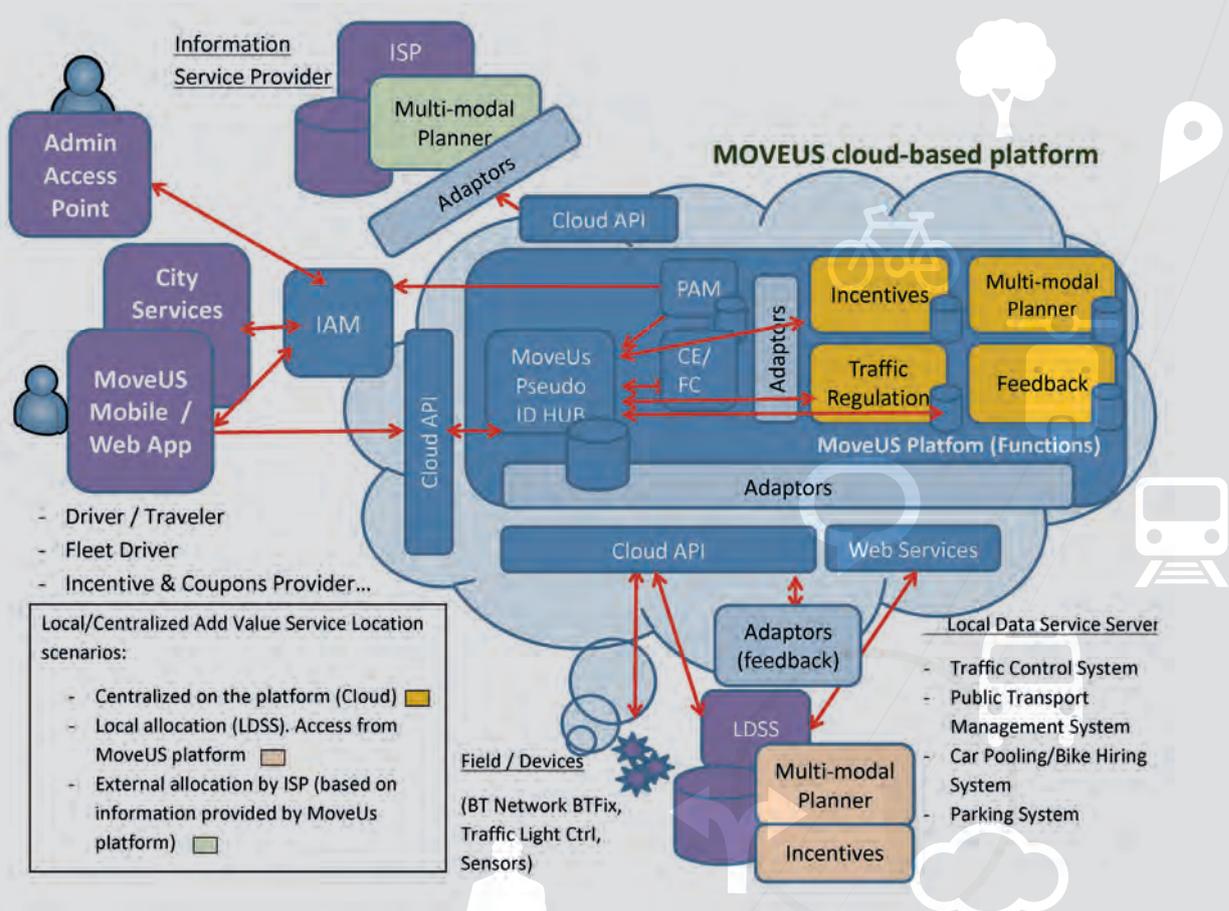
- Massive data handling
- Real-time processing and actuation
- Scalability and high-availability
- Data and services access provision to 3rd parties

This is precisely the field in which cloud-based solutions can provide their differential value, specifically targeting the Platform as a

Service (PaaS) concept.

The MoveUs platform architecture has been conceived searching for flexibility on the allocation of functionalities, aiming to cover the most possible implementation scenarios and use-cases not only in the pilots but also in other adopting cities. These functionalities may be local (provided by existing LDSS and used internally by the platform), fully supported by the MoveUs platform (cloud located) and/or external (UISP or specific MoveUs City Services). As a consequence, the component/service specifications will be abstract enough to allow their deployment in different locations and technical implementations (e.g. communication protocols).

The adopted approach covers the current reality and scope of MoveUs, but also opens the potential exploitation of the results beyond the project lifetime and use-cases not only in the pilots but also in other adopting cities.



Collaboration with other projects

MoveUs dissemination and cooperation activities include networking, knowledge exchange and coordination with other relevant projects running under FP7 in the same timeframe. The objective of this task is to identify, understand and discuss on elements of interest, innovative concepts, solutions and commonalities in order to facilitate synergies among MoveUs activities and other projects' developments, further support MoveUs exploitation, sustainability and business model development and generate cross-project or program level inputs for the Commission.

The cooperation activities during the first year have been focused on establishing a methodological approach to achieve the knowledge exchange in the most effective way. First, a high level reference context has been defined from the common principles and targets of the candidate projects. This facilitates the identification of the main scopes, themes and level of discussion for the cooperation. The group of projects that have been investigated and identified as candidates for the cooperation includes: Co-Cities (www.co-cities.eu), Streetlife (www.streetlife-project.eu), MyWay (www.myway-project.eu), Opti-Trans (<http://www.optitrans-fp7.eu/>), Open-Cities (<http://www.opencities.net/>), all operating in the same background scenario. Two of them, MyWay and Co-Cities, have been especially addressed by the knowledge exchange of MoveUs particularly for the aspects of:

- approach and methodology for setting up the spatial infrastructure for information provision in the domain of traffic and mobility
- possibilities and options offered by the crowd-sourced information provision
- application and effectiveness of the incentive-based concepts

MoveUs evaluated the work done in Co-Cities and started a knowledge exchange on aspects of content provision and integration achieved following a standard-based, model-driven architecture design methodology. The domain of cooperative services and information exchange has been also in the

focus of the cooperation with Co-Cities. Here, an interesting aspect is the combination of different innovative aspects like the application of the incentives concepts, promoted by MoveUs within the scope of crowd-sourced information provision, in the focus of Co-Cities.

MoveUs has also been exploring possible collaboration ways with CoCities Forum a group of cities/regions, public bodies, and research organisations, information service providers and technology providers which work together on the topic Europe wide multimodal Real Time Traveller Information (RTTI). Open to further interested parties, the forum promotes and supports the implementation of the Commonly Agreed Interface (CAI) for data exchange between cities/regions and traffic information service providers and proposes best practices in the deployment of cooperative traffic management conforming to the existing EC regulations (e.g. ITS directive, open data activities, INSPIRE, and others).



CoCities

The cooperation with MyWay, on the other hand, is regarded as highly relevant for both the similar timeframe that make the two projects running almost "in parallel" and for various commonalities that can be found in the two projects. The preliminary investigation on the themes of collaboration has been achieved jointly as initial work for a more detailed and deep knowledge exchange to be achieved in year two. For the second years, the plan is to enlarge the group of projects not yet included in the collaboration network and to carry out more focussed knowledge exchanges according to the progress of MoveUs.



MyWay

Next events

15th & 16th October

Second General Assembly, Genoa

MoveUs will have its second General Assembly in Genoa to review the status of the different WPs and set the plan for the next period.

12th-16th November

Smart Mobility World Conference & Expo, Turin

Softeco will participate in the event for disseminating MoveUs project in the expo of smart mobility.

18th-20th November

Smart City Expo World Congress, Barcelona

ATOS will attend to the event for promoting MoveUs project in the scope of smart cities.

20th November

First review meeting, Brussels

The first review meeting for MoveUs will be organized in Brussels to review the activities that were performed during the first year of the project.

27th-28th November

POLIS Annual Conference, Madrid

POLIS is a network of European cities and regions working together to deploy innovative technologies and policies for a more sustainable mobility. MoveUs will be presented at this conference by EMT Madrid.

Past events

7th-11th September

21st ITS World Congress, Detroit

SICE showed the latest technology advances and developments of the company as well as the scope and objectives of MoveUs project.

16th & 17th June

10th ITS European Congress, Helsinki

MoveUs partners from the City of Tampere attended to the 10th ITS European Congress in Helsinki, Finland. The City of Tampere had a booth to present the ITS Factory and a technical visit to Tampere was organized on 18th of June with the theme Smart Parking by Finnpark and the ITS Factory in the city of Tampere.

11th & 12th June

MoveUs F2F technical meeting in Bilbao

A fruitful workshop was organized in Bilbao for discussing topics related with MoveUs architecture, MoveUs services and KoM of the tasks for the development of the energy efficiency methodology and platform implementation.

9th-11th June

CIT 2014: XI Congress on Transport Engineering, Santander

SICE participated with a presentation in the Intelligent Transport Systems session focused on Smart Cities and analyzed the MoveUs platform and architectures, explaining the general objectives of the project and expected results.

22nd April

Spring 2014 Workshop Event, Tampere

FAST-lab organized a workshop during Spring 2014 for research-based business opportunities for SMEs related with the theme "Future Smart Factories and Cities".

27th March

3i plus - Final Conference, Florence

The Municipality of Genoa, during the final conference of 3iPlus presented the MoveUS project and the future synergies in the mobility field.



MoveUs at a glance

Full Name: ICT Cloud-based Platform and Mobility Services:
Available, Universal and Safe for all Users

Call: FP7-SMARTCITIES-2013

Duration: 36 months (Oct. 2013 - Sept. 2016).

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