ICT cloud-based platform and mobility services available, universal and safe for all users

Deliverable D8.5.2

Second report on cooperation with other Projects

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Abstract: The deliverable describes the actions and outcomes in Year 2 of Project Task 8.5 aiming at promoting networking, knowledge exchange and coordination activities among MoveUs and other relevant projects running under FP7 in the same timeframe.

HISTORY

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0.1	01/09/2014	Initial draft	Michele Masnata
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List of Abbreviations

API	Application Programming Interface
EC	European Commission
FEV	Fully-Electrical Vehicles
FP7	Seventh Framework Programme
IAM	Identity & Access Management
ICT	Information and Communication Technology
IT	Information Technology
ITS	Intelligent Transport Systems
OSGi	Open Service Gateway initiative
SME	Small-Medium Enterprise

1 Introduction

1.1 About MoveUs

Today, 70% of the energy in Europe is consumed in cities, 40% of petrol is used for finding somewhere to park and 80% of urban trips involve just one person travelling alone. These figures suggest that the Cities have a huge potential for energy saving by improving mobility services thought Smarter use of transport resources and Intelligent technology. Intelligent Transport Systems can help to reduce emissions and save energy thought 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 novel ICT tools for smart mobility in the context of smart cities, directly addressing real users' needs while promoting a habit-change in their daily lives. This goal is pursued with a number of actions and objectives including:

- The integration of scattered and heterogeneous mobility data
- The provision of green, multimodal, personalized, sustainable, safe and private, reliable and extensible services
- Structuring real business cases

Typical users, providers and stakeholders of MoveUs are:

- Citizens and Tourists
- Public and private transit organizations
- Transport/fleet operators
- Cities authorities
- Local business
- Energy operators
- ICT solutions providers
- Non-profit organizations

The main service domains addressed are:

- Travel recommendations
- In-advance traffic information
- Incident warning
- Eco-routing and carbon footprint metering
- Incentives-based methods and criteria for energy saving
- Crowd-sourced information provision

The tools and instruments developed to support the services are:

- A cloud-based mobility management platform
- An API toolkit
- Smart mobility applications for smartphones and control centers

- Energy efficient assessment tools to measure users' energy efficiency gains

The results of MoveUs are validated in three pilot cities: Madrid, Genoa and Tampere. Each city will address key aspects and solutions.

Madrid will provide quick, personalized and "at hand" mobility information to facilitate the user to take the most efficient mobility decisions, foster the use of greener transport modes: public bus, public bike, bike-hiring, walking modes andpromote efficiency in the use of private cars and public bus system. Another important objective is to integrate the user (pedestrians, travellers, drivers, etc.) into the cooperative mobility architecture as a new source of information.

For Genoa the objectives are considered within the more general development as a Smart City with the foreseen reduction of 23% of CO2 emissions by 2020. An interactive process between the planning, development and testing of services in the field of smart mobility and energy efficiency will be established with the support of feedback mechanisms and services. Key tools and methods will be: a) the Multimodal journey planner with feedback from users, b) the integration of crowd-sourced data into the Genoa traffic supervisor and c) the fulfilment of personal mobility needs in an urban environment.

Tampere aims at 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). Looking at MoveUs the objectives are to increase the share of sustainable mobility by a) opening traffic data, both real time and static in standard modes, b) providing mobility information in an integrated and easy-to-use way using mobile devices, c) setting up services that will integrate cycling, public transport and car route information with real-time traffic and weather data and d) provide energy and carbon footprint metering for the different transportation modes.

1.2 Scope of the document

A key activity for MoveUs, considering the objectives and activities summarized above, is the exchange of information and cooperation with other relevant projects running under FP7 in the same timeframe including projects selected under the FP7-SMARTCITIES-2013 call as well as other projects under CIP ICT-PSP and Transport program. The present report describes the networking, knowledge exchange and coordination activities among MoveUs and these projects for the second year of project activities.

The aim of T8.5 is to identify relevant common issues and understand possible commonalities in terms of approaches, lines of investigation and solutions adopted in the different projects which:

(a) May facilitate synergies among MoveUs activities (WP2-WP7) and other projects' developments,

(b) May further support MoveUs exploitation, sustainability and business model development (WP10) and

(c) Can be eventually generalised into cross-project or program level inputs for the Commission.

During the first year, the activities of the task aimed at ensuring the organisational and networking conditions for an effective cooperation to be achieved especially during key phases of project development. This objective has been addressed by identifying the topics as well as the external projects and partners of relevance for the coordination.

Besides the first exchange of information and concrete cooperation between MoveUs and the projects Co-Cities and MyWay, in Year 2 the central activity was a cooperation workshop with other RTD projects part-funded under FP7 and addressing Smart Cities themes of common interest and prominent within the H2020 work plan: development of integrated personal mobility solutions and enhanced mobile user services, integration of public and private modes and promotion of cleaner means of transport.

The present deliverable reports on the outcomes of the workshop, introduces the projects that participated and outlines the themes of common interest for further dissemination and cooperation in the future.

2 Overall approach

In the period considered for this reporting (year 2) the main activities performed in Task 8.3 were:

a) Start and carry out new cooperation activities with some of the European projects and initiatives identified in the first year as reported in the Project Deliverable D 8.5.1 "First Report on Cooperation" [MoveUs D8.5.1]

b) Continue monitoring the initiatives of interest on personal mobility solutions, integration of public and private modes and promotion of cleaner means of transport.

c) Establish contacts with the initiatives selected in the monitoring phase.

d) Define the plans for the third year of the project (M25-M36).

During the reporting period, the above phases ran in parallel.

Figure 1 - Collaboration Phases

2.1 Monitoring and cooperation background and criteria

The reference background context for the cooperation activities is defined in details in the first year and remains valid for the whole project period. It consist of a scenario where transport and traffic management systems, administrations, and providers operate together at different stages of a *service chain* to capture, store and process relevant and heterogeneous of data on mobility to provide Multimodal smart travel services.

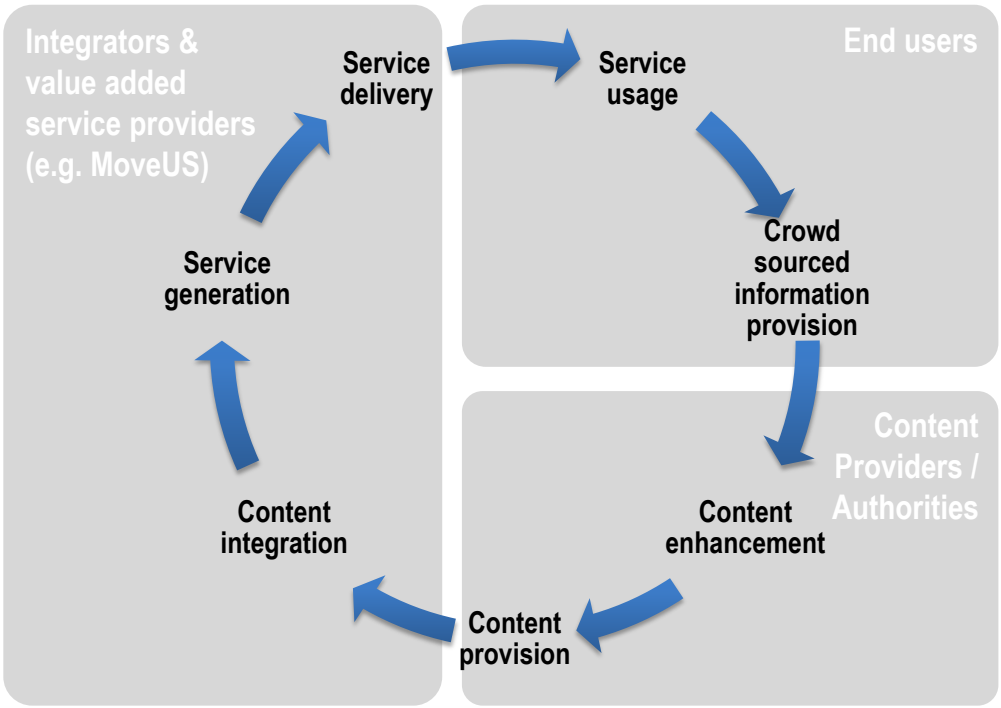

Figure 2 – Service chain of the background scenario

Key relevant stages have already been identified and are summarized here:

a) **Content provision** where data owned by local (origin) transport and mobility organizations and authorities are made available through locally-available interfaces,

b) **Content integration** with local contents retrieved, integrated and processed to generate enhanced information suitable for the purposes of the target system,

c) **Value added Service Generation** with the development of value added services and

d) **Service delivery**.

The **cooperative or crowd-sourced information provision** has also been considered as a key stage of the chain and concretely addressed in year 1.

MoveUs operates according to the above context with the MoveUs *cloud-based platform* acting as content integrator and the *city-services* as key provisioning components on top of the platform.

2.2 Methodology

The initial cooperation was achieved in two main directions: one investigative with a number of projects sharing the same background and the second one very concrete with Co-Cities. The activities for the second year have been focused on more in-depth and wide sharing of knowledge.

Key projects for the cooperation remains those operating in the same background scenario, where commonalities can be found in terms of **Aspects of interest** and **scope of activities.**

The following schema is a reminder of the methodology already adopted in year 1 where the aspects of interest (General Objectives, Technical solutions, Methodological approach, Innovative elements) are identified for a number of scopes and in relation to the same reference background scenario previously introduced.

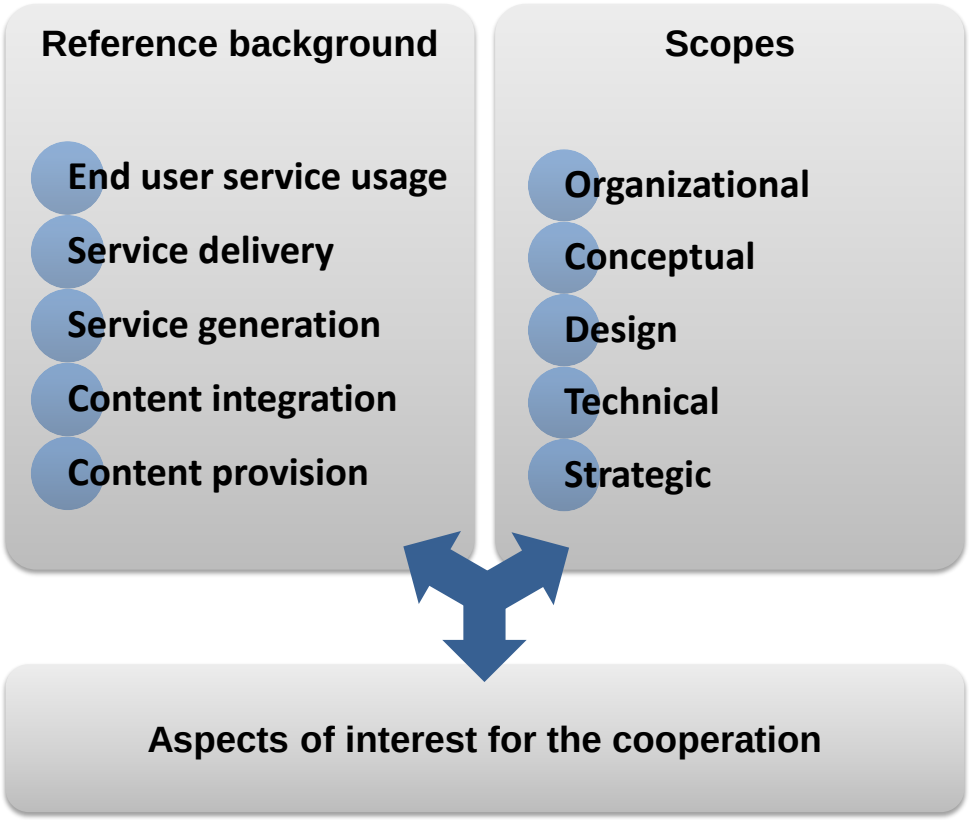

Figure 3 – Methodology for the identification of cooperation themes

2.3 Topics of interest

The ***aspects of interests*** initially identified in year 1 are reviewed and updated in the second year especially in relation to the activities done. The following list summarizes the ***identified topics of interests for year two***.

- **Concepts and options for system and service architectures:**
  - Use of cloud and ICT transformative technologies (technical/architectural)
  - Interoperability between systems (technical/architectural)
  - Standards and interoperability technologies (technical/architectural)

    - Mobile services: standards and formats (technical)
- **Innovative concepts:**
    - Incentives (Organizational, technical)
    - Crowd sourcing (Organizational, technical, legal)
- **Energy Consumption awareness**
    - Voluntary behaviour change (organizational)
    - Methods for measuring energy consumption and efficiency gains with the application of the ICT solutions. (technical)
    - Methods for translating energy consumption and savings into different parameters and values (technical)
- **Users involvement:**
    - Living labs organization (organizational, legal)
- **Privacy issues** (legal)

Special emphasis on the cooperation is put on the relationship between Energy efficiency and Voluntary Behavior Change. In MoveUs, like for other projects these aspects are strictly related. In MoveUs, in particular the definition of incentives is the key element between the two aspects as represent the potential trigger for the behavior change and it is tied or defined based on energy efficiency behaviors.

The progress done during the first two years in MoveUs in these themes (energy consumption calculator and incentive model) opens then new perspectives and potential forms of cooperation/discussion among the projects. One key common theme of study seems especially to be the criteria and methodology to evaluate and classify as *more or less "green"* a trip. Here the criteria to be considered may include:

- Distance Walked
- Distance Biked
- Distance in Public Transport
- Distance in Car
- Distance in Shared Vehicle
- CO2 emissions
- KJ of calories burned

Strictly related to this, from a more technical (but also privacy-related) perspective, is the study of a methodology to detect and classify in an automated or non-automated way the mobility behavior of the user which is for example of special interest for the assignment of incentives.

2.4 Organization of the report

The report is structured in two main parts dealing with the activities done in year two:

- The first (section 3) describes the monitoring of European initiatives
- The second (section 4) describes the concrete cooperation activities including the plans for year 3.

3 Monitoring of European Initiatives

During the Monitoring Phase, the European projects and initiatives running in the same timeframe of MoveUs were analyzed. Selected candidates were identified and analyzed based on criteria defined in the previous phase. Some of these project has been concluded in the meanwhile (Co-Cities, Superhub) while others emerged in the continuous analysis of the running initiatives in addition to the ones already considered.

The project of interest identified for year 2 are:

- MyWay [MyWay]
- StreetLife [StreetLife]
- MOVESMART [MoveSmart]
- Team project [TEAM]
- Simpli-city [Simpli-city]
- Superhub [Superhub]
- Co-Cities [Co-Cities]
- PETRA [PETRA]

In addition to the projects an initiative of special interest is the European Innovation Partnership on Smart Cities and Communities [EIP-SCC] that brings together cities, industry and citizens to improve urban life through more sustainable integrated solutions including applied innovation, better planning, a more participatory approach, higher energy efficiency, better transport solutions and intelligent use of Information and Communication Technologies (ICT).

The main areas of interest for the EIP-SCC are: Urban Mobility, Open Data, Business Models, Finance & Procurement, Policy & Regulation, Metrics & Performance Indicators, Integrated Energy, Transport & Communication Networks, Energy Efficiency & Low Carbon Solutions.

Many of these areas are also of interest or directly linked with the main objectives of MoveUs, including:

- Urban Mobility
- Business Models
- Policy & Regulation
- Energy Efficiency & Low Carbon Solutions
- Open data

MoveUs can consider activating a collaboration with the European Innovation Partnership on Smart Cities and Communities in order to maintain a link with the cities, stake-holders and service provider and evolve to adapt in the different contexts analyzed by the different action clusters of the partnership.

4 Cooperation activities

In the second year, the efforts are focused on the concrete start of the cooperation with the existing and running European projects and initiatives identified in the Monitoring phase both in the first and in the second period of the project.

These efforts had its central activity in the participation and preparation in a dedicated Cooperation Workshop held on the 20th May 2015 in Berlin. This workshop addressed the themes of integrated personal mobility solutions, seamless integration of public and private modes and promotion of cleaner means of transport by finding and studying the relationships between them.

The following sections offer more details on the outcomes and emerging next steps for the last period of the project.

4.1 Cooperation workshop

4.1.1 Background and objectives

Organized by the MyWay project and held in the context of the Smart City international event "Metropolitan Solutions", the Collaboration Workshop took place at the Fraunhofer Forum Berlin on May 20, 2015. The co-location with the main event, hosting a number of parallel conferences on smart mobility allowed the participation of a high number of projects and Advisory Boards. More than thirty people from different country and projects took part in the event. In addition to MoveUs other six FP7 projects took part in the workshop: MyWay (G.A. n. 609023), STREETLIFE (608991), MoveSmart (609026), PETRA (609042), Simpli-City (318201) and TEAM (318621).

Before the event a preparatory phase allowed the projects' consortiums to converge towards a consolidated structure and to a number of topics of special interest to be discussed more in depth.

The main sections of the workshop are:

1. A session to introduce the participating projects, where an overview of the main topics and themes addressed by each project has been presented. This also included a final wrap-up session to highlight and identify the main common aspects of interests as well as the differences in the presented approaches.

2. Four dedicated sessions where core common themes (those previously agreed among the projects) have been presented and discussed.

3. A final wrap-up session where the main findings from the thematic sessions have been discussed. Here also the next steps for further exchanges and cooperation among the projects have been decided.

4.1.2 Outcomes

This section describes the main findings of the workshop according to its structure.

4.1.2.1 Project Presentations

The project presentations were held by representatives of the project consortiums.

MyWay Project Presentation

Started on 1st September 2013, ending on 29 February 2016 (30 months) and funded under the Smart Cities call (DG CNECT) MyWay addresses the following main objectives:

- Improve the balance between public and private mobility offerings with a seamless integration of mobility schemes and resource-aware journey planning.
- Stimulate the cooperation between services and the development of market by improving interoperability and lowering market barriers.
- Enhance the aspects of personalization of services. Empower the role of the user with the concept of crowd sourced data provision.
- Promote open architectures and interoperability by using standards and API and SDK to develop smart interfaces.

The MyWay architecture is presented and comprises the layers of standardized access to local data / services, standardized access to existing journey planning systems, the MyWay Business layer composed by three main Core Components and an API layer that enable third party actors to take advantage of the services.

There is a number of innovation aspects that are prominent and are contained in the following Core components:

- The MyWay Trip Composer. This component is able to integrate existing planners and mobility services by offering on top a meta planner with personalized and context-aware functionalities
- The MyWay Trip Memory module that support the improvement of the user mobility experience with a learning while using approach
- The MyWay Trip Follower that support the provision of real-time alerts and re-planning in case of external events (traffic / disruptions / delay) affecting the trip of the user, monitored by the system.

The project is evaluated in three phases (the first two already completed at the time of the event was held) and in three living labs (Barcelona/Catalonia, Berlin and Trikala) that have different characteristics in terms of size and mobility offerings.

The improvement of Registration, Evaluation process as well as the user application and platform are part of the Phase 2 starting in September 2015.

MoveUs Project Presentation

MoveUs focused the presentation on providing first an overview of the main objectives of the project:

- Integration of mobility data from heterogeneous sources and delivering in a coherent and useful way
- Provision of green, multimodal, personalized, sustainable, safe and private, reliable and extensible services
- Provision of business cases and incentives recommendations for smart mobility services in urban environments.

The MoveUs architecture has been also presented by highlighting the cloud-based approach where data and services are accessible in Local Data Service Server (LDSS) providing Cloud API to develop mobile apps, web-based tools and administration platform.

The Technical Coordinator of the project introduced the MoveUs cloud platform by describing the support to different deployment and usage scenarios and by specifying that it can re-use existing services (both at local or external level) or provide the necessary business logic to support a particular use case. The aspect of common interest of standardized access layer used to translate the heterogeneous format into internal one has been also highlighted.

Other key aspects of the architecture have been presented including:

- The user-centric approach of the services with context-aware capabilities
- Data analytics methods to support the decision makers.
- Design principles with a Privacy by Design approach (applied through the IAM and PI Hub components).

Finally, the dedicated components to support "incentives" and "carbon footprint reduction" use cases have been described as part of the functionalities delivered directly by the MoveUs platform

Streetlife Project Presentation

Streetlife is composed by 12 partners around the three pilot sites: Tampere, Berlin and Rovereto. Started in October 2013, it will end in September 2016. Streetlife has the main goal to bring ICT solutions to foster user modal changes. The approach is to reuse the existing mobility resources by exploiting new ICT techniques and try to obtain enthusiasm and consensus from citizens and enterprises with the so called ENHANCE-ENJOY-EXPLOIT circle.

After the first year, created a complete Data Model and Mobility Data Correlation engine which uses a Mobility Management and Emission Control Dashboard and End-User applications different for every pilot site. Also a Blue Print architecture, summarizing the use cases and requirements collected in the 3 Living Labs has been developed.

The first results have been evaluated in the three living labs with a specific use case in each pilot: safe bicycle routing in Berlin, real time journey planner in Tampere and Park&Ride and Bike Sharing in Rovereto. Aspects of gamification have been introduced in the Rovereto pilot in order to increase the use of the proposed solutions. These aspects will be further improved in the next phases of the project. Again, in Rovereto a mobile application, named ViaggiaRovereto, distributed on the Google Play, has been enhanced using the information coming from the Streetlife platform.

MOVESMART Project Presentation

Started in November 2013 and with a duration of 36 months the Movesmart consortium includes 11 partners with local authorities, research institutes/universities, SMEs and one non profit private organization. The project will be validated in the two pilot cities of Pula-Pola in Croatia and Vitoria-Gasteiz in Spain.

The project aims at providing a route planner featuring a time-dependent route determined with a set of crowd-sourcing tools that support the collection of real-time information by travellers. The crowd-sourced information is used to improve the services (for example in terms of traffic prediction) and to provide context-aware journey planning capabilities.

In Vitoria-Gasteiz a special use case is related to efficiently plan route for FEV in order to maximize the operational range of the vehicles and to offer the most eco-friendly route (reduction of the CO2 emissions).

The project has released a first version of the "Movesmart Live Traffic Reporter" for both the Android and iOS systems. With these apps the user can provide traffic information (e.g. related to problems on the road). Users of the same app located near the place of the reported problem are requested to give a feedback in order to validate the information among the user community itself.

PETRA Project Presentation

Petra is founded under the SmartCities call. It started in February 2014 with a total duration of 36 months. The consortium includes 7 partners from local authorities, enterprises and research institutes.

The main objective of PETRA is to develop a service platform that connects the providers, the controllers and the travelers in a City.

The travers are expected to contribute on solving the trip planning problem by providing better average travel time and information on better integration of private and public mobility schemes as well as on re-planning capabilities under uncertainty with some specific use cases like drive-park-ride.

The Cities, on the other hand are expected to provide a centralized data management platform to allow a "system-wide" optimization and avoid the process or the same procedures applied to the several data sources owned today by the local authorities.

This scenario has some implications and challenges:

- technical (city awareness, mobility pattern mining, context aware planning),
- data (combination of existing sources extended by real time smart algorithms)
- deployment challenges (ownership of data, governance aspects).

The data management platform is expected to be developed with a gaming approach suitable to detect possible control strategies and operations to be applied by the decision makers.

The results will be evaluated in the three pilot cities: Rome, Venice and Tel-Aviv.

SIMPLI-CITY Project Presentation

Started in October 2012 and ending in September 2015 (36 months), the SIMPLI-CITY project aims at delivering the specification of a platform whose purpose is to facilitate data integration, service development and end user interaction.

The objective is to seamlessly integrate data from different sources, building services on top of it and providing a unified user interface to help users consuming the information.

The project has developed a framework that offer a European-wide service platform supporting the creation of mobility-related solutions and offering data-as-a-service. The project runs in the same context (EWSP) of MobiNet.

TEAM Project Presentation

The project started in November 2012 and will end in October 2016 (48 months). The consortium includes a total of 35 partners (28 in Consortium + 7 supporting partners).

TEAM is an IP project addressing the aspects of:

- users
- infrastructure
- communication technologies

The objective of TEAM is to shift from static into elastic mobility by enforcing the cooperation between travelers, drivers, vehicles and infrastructure that should act as a TEAM through adaptation.

Vehicle-2-x technology is already defined and should be extended in order to include the user in the loop and create a highly interactive network.

The solution will be evaluated by eleven applications in various Living Labs (Berlin, Turin, Trento province, Gotheborg, Athens, Trikala, Tampere and Helsinki).

4.1.2.2 Break-out Sessions

Pilot Implementation / User Engagement

All the projects of the workshops have on-the-field experiments with end-users. The seven projects have more than 20 cities involved in pilot implementation and some are common between projects (Berlin, Tampere and Trikala).

During the Pilot Implementation / User Engagement session, moderated by Fondazione Bruno Kessler, partner of STREETLIFE, the participants shared success stories and lesson learned on pilot implementation and evaluation. Some common topics were discussed among the participants and some interesting points were highlighted. The topics includes

- User engagement (recruitment, active participation),
- Promotion of behavioral change / low carbon mobility (incentive models),
- Evaluation and impact assessment (how to effectively measure the impact of the solution).

The main aspects discussed in relation to these topics have been:

- Questionnaires, they are necessary but it should be identified a way to design them so that they don't bother the user too much
- Recruitment. Here the strategies are different from one project to another and also the difficulties are relevant. It was given the example of cities where trip planners are already present and consolidated and then it is difficult to convince the travelers to use another service.
- A common approach for Gamification / statistics for example on CO2 saved etc.

These topics are of high interest for all the projects and are candidate for further investigated in the next Collaboration Workshops.

Crowd Sourcing of Mobility Information

Crowd Sourced data on mobility can be collected through different channels in order to increase the cooperation between Users, Transport operators and local authorities. In particular, users can benefit from the integration of this information in the process of searching, planning and executing the trip because this contributes to the enhancement of the final service. On the other hand, the decision makers or the operators have a benefit because they can increase the use of their mobility services.

The session on Crowd Sourcing of Mobility Information moderated Softeco Sismat formulated three questions:

- How to get crowd sourced information
- How to handle trust of crowd sourced information
- How to use this kind of data

It was pointed out by some participants that mobility information should be gathered automatically without the need for a real interaction of the user from workshop participants. In general, it seems that structured information are the best way to collect crowd-sourced information on mobility of the user (e.g. feedbacks). A key aspect is to reach a critical mass of feedbacks, and handle their trust. The engagement (e.g. by means of gamification techniques) of the final users is probably the way to reach this goal.

Another aspect pointed out was the privacy issues to understand who the owner of the information is and what can be done. Here the EU normative applies (e.g. anonymization of data, get consent of the user, possibility for the user to opt-out, etc.) and privacy by design has been taken into consideration in this context by different project including MoveUs.

It has been highlighted that this kind of information are also very interesting for Mobility Service Provider and Mobility City Planners because it offer a view how people perceives the mobility offering and which are the mobility habits of the travellers/citizens.

European Mobility Service Platform

Simpli-City moderated the session on the European Mobility/Wide Service platform.

The idea behind this theme is to have an EWSP aiming at energy efficiency, mobility, comfort and safety. MOBINET (focusing on marketplace) and SIMPLI-CITY (more technical approach) are currently working on it. The Current implementation in Simpli-City is based on OSGi base software.

The interested projects have been recently requested to collaborate and to concentrate also on exploitation aspects to ease the process of bringing the EWSP to life.

This theme seems of interest for further discussion in the future.

Private and Public modes Integration

CVUT, partner of MyWay project, introduced the session on Private and Public transport modes integration.

The traditional transport modes (car, train, bus, tram, taxi) are being complemented by more "flexible" transport modes including demand-responsive transport, real-time car-pooling, vehicle / ride sharing. A seamless integration of all these mobility schemes seems to be of high importance to enhance the mobility experience of the users and is an objective of many projects. The road towards this integration requires supporting a full multimodality and the resource awareness.

The full multimodality is a requirement for journey planners that have to be implemented together with the geographical coverage. There are existing planners that only cover one of the two dimensions. In order to support multimodality two possible approaches were discussed:

- SUPERPLANNER (getting all the possible data and build a complete new journey planner)

- METAPLANNER (leveraging existing journey planners and build a smaller journey planner combining the existing ones).

Both of the approaches have implications and aspects to be investigated and discussed. It seems anyway that all the project dealing with mode integration are using the Metaplanner approach.

4.1.2.3 Wrap-up Session and conclusions

Softeco Sismat presented the results of the work through the day during the wrap-up session. A number of common topics emerged both during the presentation of the projects and during the discussion in the thematic sessions.

The common aspects were summarized and reported together with the interested projects, between the ones participating in the workshop. This outcome is in the following table.

Table 1. Extraction of Topics from workshop discussion

Topics	Focus Point For Project
Multi Modal journey planning	MyWay, MoveUs, MoveSmart (FEVs), PETRA, TEAM, STREETLIFE
Incentives, rewards management, gamification	MoveUs, STREETLIFE, MoveSmart, TEAM
Energy/carbon-aware services	MoveUs, STREETLIFE, MoveSmart, TEAM
Services deployment model (cloud-based, PaaS, …)	MyWay, MoveUs, MoveSmart, TEAM
Standardised access to local data/services	MyWay, MoveUs
Security/trust management	MoveUs, MyWay
“Open” APIs (data/services)	MyWay, MoveUs, Simpli-City
Advanced mobile user interfaces (A/R, 3D, m-m, …)	STREETLIFE, Simpli-City
Mobility data integration, data models, data platforms, DaaS	MyWay, MoveUs, STREETLIFE, PETRA, Simpli-City, TEAM
Crowd-sourced information (user tracking, users feedbacks, user-generated info, …)	MyWay, MoveUs, MoveSmart, TEAM, STREETLIFE, PETRA

MoD models (MaaS)	MoveSmart
Mobility patterns mining	PETRA, MoveUs
User profiling (user-adapted services)	MyWay, PETRA
Active travel support services	MyWay, MoveUs, PETRA, TEAM

This list of topics and interested projects is the basis for the next steps and especially to extract some key arguments to be discussed among "task forces". Experts, identified among the participants of the workshop and partners of the projects.

This will be done in dedicated conference calls, meetings or workshops. In relation to this, possible dates for dedicated workshops and joint dissemination for the future were discussed in order to collocate them with international events.

The dates identified are:

- IAA 2015, Frankfurt from 19 to 27 September 2015
- ITS World Congress 2015, Bourdeaux from 5 to 9 October 2015
- A date in October for a 2nd cooperation workshop.

In addition, MoveUs will invite all the projects that attended to the workshop to the MoveUs conference that should be organized by Summer 2016. This was already announced during the workshop in Berlin and it was considered as a good option to create academic dissemination.

4.2 Plans for year 3

Many of the themes already identified and investigated in the first two periods will be further analysed in the last year of the project. Special attention will be given to the "Cooperation phase" but also the monitoring phase will continue by analysing further subjects of cooperation and by investigating further existing initiatives and projects addressing the subjects found in the analysis phase. New projects financed in the H2020 calls and dealing with mobility / ITS themes will be also analysed and added to the list of projects of interest for cooperation.

The first Cooperation Workshop held in Berlin was the first concrete step to strengthen the information sharing and facilitating possible cooperation on specific identified topics.

The **second cooperation workshop** has already been organized by the STREETLIFE project consortium in Trento (Host: FBK) on the 14. October 2015 with focus on experience exchange about: User engagement, Participation issues, tracking of the user itinerary with detection of mode of transport and adjustment. At the time of writing of this deliverable the participation of MoveUs, MyWay and

the Streetlife-Pilot leaders was confirmed. The outcomes of this event will be reported in the report of the next period.

MoveUs was also invited to the 1st MOVESMART workshop on October 15, in Bilbao, hosted by Univ. of Deusto. Tecnalia will join the workshop.

In addition, dedicated "one-topic" workshops can also be planned and task forces will work on dedicated themes.

5 Conclusions

In the second year MoveUs actively participated in the cooperation activities that started concretely with the "1st Collaboration Workshop" held in Berlin where seven projects presented the main objectives approaches and vision on common themes of interest. This group of projects is expected to enforce even more the cooperation with a second workshop on October 2015, more events in the future, task forces discussing specific themes of interest and joint dissemination activities.

6 References

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