SEVENTH FRAMEWORK PROGRAMME

Collaborative project

Mobincity

Smart Mobility in Smart City

FP7-314328

D8.5 Business and Exploitation Plan Update

Release 2

Technomar GmbH

Due Date: 30/06/2014

Actual submission Date: 11/07/2014

The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under Grant Agreement Number 314328

Document Control Page		
Title	Business and Exploitation Plan (Release 2)	
Creator	Zsolt Krémer (TM)	
Description	This task focus on exploiting the project results at industrial level	
Publisher	Technomar GmbH	
Contributors	All	
Language	en-GB	
Creation date	15/05/2013	
Version number	3.0	
Version date	11/07/2014	
Last modified by	Andreas Varesi (TM)	
Rights	Copyright “Mobincity Consortium”	
Audience	☐internal ☒public ☐ restricted	
Review status	☒Draft ☒ WP leader accepted ☒Technical Manager accepted ☒ Quality Manager accepted ☒ Coordinator accepted	Where applicable: ☐ Accepted by the PMB ☐ Accepted by the PMB as public document
Action requested	☐ to be revised by Partners involved in the preparation of the document ☐ to be revised by all Mobincity Partners ☐ for approval by the WP leader ☐ for approval by the Technical Manager ☐ for approval by the Quality Manager ☐ for approval by the Project Coordinator	
Requested deadline	30/06/2014	

Revision history

Version	Date	Modified by	Comments
V0.1	15.5.2013	Zsolt Krémer	First Draft
V0.1	13.6.2013	Goran Ognjanovic	First Draft
V0.2	20.6.2013	Marijan Kotnik	Final input Oprema
V0.3	30.6.2013	Andreas Varesi	Final version
V0.3_TR0	26/07/2013	Raúl Soriano (ITE)	Technical review
V0.3_TR1	26/07/2013	Zsolt Krémer	Technical review process
V0.3_TR2	29/07/2013	Raúl Soriano (ITE)	Technical review approved
V0.3_QR1	31/07/2013	Enrique Mendoza (ZABALA)	Quality review
V1,1	25/10/2013	Andreas Varesi	Reworked after rejection: Typos have been corrected. USP has been explained and discussed in detail (§3.4). A separate section regarding “future/ongoing work” has been added (§3.6). A clear statement has been included informing that this deliverable will have updates in the next years The connection to SMARTV2G has been explained (§3.5.2). A conclusion chapter has been written (§4).
V1.1_TR1	04/11/13	Raúl Soriano (ITE)	Technical review approved
V1.1_QR1	05/11/2013	Enrique Mendoza (ZABALA)	Quality review approved
V1.2	08/11/2013	Sixto Santonja (ITE)	Coordinator review approved
V2.0	07/07/2014	Zsolt Krémer (Technomar)	Periodic update
V2.0_TR1	09/07/2014	Irene Aguado (ITE)	Technical Review
V2.1	10/07/2014	Zsolt Krémer (Technomar)	Changes after Technical Review
V3.0	11/07/2014	Sixto Santonja (ITE)	Coordinator Review Approved

Table of Contents

Index of Figures

Index of Tables

1 Terms and Abbreviations

Acronym	Definition
CSO	Charging Station Operator
DER	Distribution Energy Resources Operator
DSO	Distribution System Operator
EVCC	Electric Vehicle Communication Controller
EVSE	Electric Vehicle Supply Equipment
FEV	Full Electric Vehicle
GLOSA	Green Light Optimized Speed Advisory
USP	Unique Selling Proposition

2 Summary

This deliverable gives an overview of the current situation related to the planned exploitation of the project results and which business models seems to be the most probable. The development of business models will be updated continuously during the remaining project phase and reach the final structure at the end of the project.

First there will be a discussion of the actual state of the business environment, esp. regarding the regulatory framework and the standardization. Also a detailed analysis of the competitive environment has been done by evaluating the already existing proprietary solutions. Based on this information the Unique Selling Propositions (USP) of MOBINCITY have been identified and updated with additional platforms available at the market. Also there has been made a first proposal for the most probable Market Scenarios.

3 Introduction

The general objective of Mobincity is to make urban mobility more environmentally sustainable by means of the wide deployment of Full-Electric Vehicles as mass market product in cities. With this regard, Mobincity aims at the maximization of FEV autonomy range thanks to the development of a complete ICT-based integrated system able to interact between driver, vehicle and transport and energy infrastructures, taking advantage of the information provided from these sources in order to optimise both energy charging and discharging processes and the increase in energy efficiency.

The project Mobincity is divided into nine different work packages. The structure is based on the different interactions that will be developed within the project, as shown in the following figure.

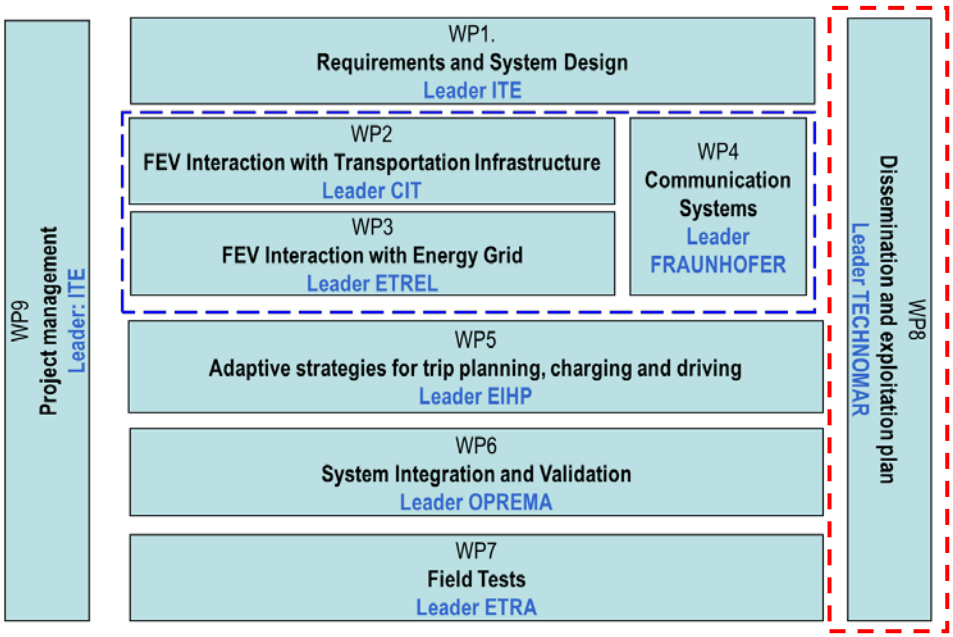

Figure 1. Structure of Mobincity project.

This deliverables is part of WP8 Dissemination and Exploitation plan.

The main objective of WP8.4 *Business and exploitation plan* is to prove the economical relevance of the MOBINCITY offer, and to identify promising business models. The major tasks are describing the possible business including the business model, analysing the competitive situation and developing a market prediction model and the financial plan.

The output of the Task 8.4 *Business and exploitation plan* shall give an overview, how the project results can enhance the project partners to generate valuable business.

TECHNOMAR had some phone conferences and face to face meetings in order to prepare the business and exploitation plan. In addition also the findings of the management workshop held at 17th of June 2014 have been taken into account.

4 Business Environment

4.1 Regulatory Framework

Up to now the regulatory framework regarding the use cases which are covered by MOBINCITY is very poor within Europe.

Only few cities have regulations regarding the limitation of vehicles with combustion engines in inner cities (zero emission zones). If the number of zero emission zones increases, this will also push the demand for EV specific and intermodal navigation systems like MOBINCITY.

Also the possibility to reserve public parking spaces only for EVs is not part of most European traffic regulation laws up to now. Thus the automatic reservation of a charging station by MOBINCITY is limited to private parking lots.

Therefore it can be recommended to identify all missing regulations that are necessary for the success of electro mobility and specific for MOBINCITY. To increase the success of MOBINCITY on the long term suggestions to overcome these regulatory gaps should be made and handed over to the European Commission.

4.2 Standardization

For the MOBINCITY project there are several standards of importance:

- ISO 15118 specifies the bi-directional communication between Electric Vehicles (EV), including Battery Electric Vehicles and Plug-In Hybrid Electric Vehicles, and the Electric Vehicle Supply Equipment (EVSE). It allows the full communication between the Electric Vehicle Communication Controller (EVCC) and the Supply Equipment Communication Controller (SECC). The vehicle internal communication between battery and charging equipment and the communication of the SECC to other actors and equipment is NOT part of ISO 15118.
- IEC 61851 defines a pilot signal that is transmitted via the signal pin of the charging plug. In contrary to the ISO 15118 it only allows a limited communication, like transmitting the correct connection of the vehicle to the charging station, the appropriate charging current and the transmission of the identity of the driver/EV. Whilst the active charging process the transmission of other parameters like the battery charging state is very restricted.
- ETSI ITS Transport and Networking communication layer protocols is an important basis for the Green Light Optimized Speed Advisory (GLOSA).

All these standards will be implemented within the MOBINCITY system. As the ISO 15118 and ETSI ITS standards are still in an early stage, the MOBINCITY consortium (esp. Fraunhofer ESK) is actively contributing to the standardization process. So there is a very deep insight to this standards and their implementation within the consortium. This enables the MOBINCITY consortium to offer additional development services to municipalities and other actors who want to create own intermodal services and Apps or to integrate parts of MOBINCITY to their already existing solutions.

Although the smart grid communications standard IEC 61850 is not directly used by MOBINCITY it is used by intelligent charging stations which are the basis for many features offered by MOBINCITY. As the MOBINCITY consortium partners who are responsible for the implementation of standards are also involved to the Smart Vehicle to Grid Interface project (SMARTV2G) which has a strong focus on IEC 61850 communications, there is also great expertise on this standard which helps the consortium partners to offer end-to-end development services for all EV related infrastructure applications.

4.3 Existing proprietary Solutions

In this section there is an overview of the most important proprietary solutions which already cover parts of the MOBINCITY use cases. Especially big car manufacturers like BMW are offering Apps to improve the utilization of their EVs but also municipalities like London and big engineering companies like Siemens are offering solutions for EV and intermodal routing.

4.3.1 BMW i intermodal route planner[1]

Figure 2: BMW i intermodal route planner (source BMW)

Functionality: Intermodal route planner which links road transport with public transport as smart as possible. Also takes the actual parking situation into account. The BMW navigation system will include support for changing to public transport and using Park & Ride when there is congestion on the planned route. It will also consider the EV internal charging status for route planning.

Status: Research project

Business model: Still unknown

Furthermore BMW is active in other traffic management projects, like "arrive", "ParkInfo" or "Mobility Assistant". "arrive" is a research project in the City of Munich covering the entire traffic management spectrum. Here the focus of BMW activities was on quality assurance of the traffic management and the improvement of Green Light Optimized Speed Advisory (GLOSA). "ParkInfo" is a telematic service that helps to find the next available parking space directly from the vehicle. "Mobility Assistant" is a combination of the results of these projects and considers all different means of transport for reaching the requested destination. It also covers the search for a parking space, EV charging points as well as public transportation in order to offer the best possible route.

4.3.2 Nissan LEAF mobile App[2]

Figure 3: Nissan LEAF mobile App (Source: Nissan)

Functionality: Monitoring of the Nissan LEAF charging process on Android smart phones and iPhone. It offers also a remote control for the LEAF's air condition. The latest version has a charging station finder.

Status: Already introduced to the market

Business model: App is used as a sales support for Nissan LEAF.

4.3.3 myFORD mobile[3]

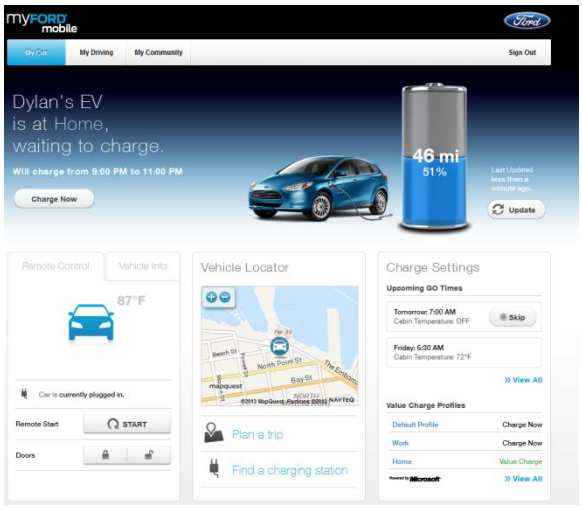

Figure 4: myFord mobile (Source: Ford)

Functionality: Offers a "Personalized Vehicle Status" with access to the most important information about the Ford EV. The menu item "My Achievements/Driving Style" shows how much money and CO2 emissions are saved by the actual driving style on this Ford EV. The menu item "Remote Charging Staules" supplies information about the actual charging status, the remaining range and the charge schedule. The menu item "Charging Stations" shows the nearest charging stations. The "Trip Planner"

is a tool for planning the most efficient route to any target destination and the next charging station. The menu item “Preheat and cool your electric vehicle” helps to maximize the range by remotely controlling the preconditioning of the plug-in EV. The option “Charge Settings” allows to charge at the lowest utility rate.

Status: Already introduced to the US market

Business model: App is used as a sales support for Ford Focus Electric.

4.3.4 HondaLink[4]

Figure 5: HondaLink EV App (Source: Honda)

Functionality: HondaLink EV allows owners of Honda EVs (e.g. Fit EV) to monitor the vehicle’s state of charge, initiate and monitor the charging process, and visualize the actual range on a map. A charge timer helps to use off-peak charging rates and also the air condition can be remotely started when the vehicle is still connected to the grid. Nearby charging stations can be located as well as Honda EV dealers.

Status: Already introduced to the US market

Business model: App is used as a sales support for Honda Fit EV.

4.3.5 Moovel[5]

Figure 6: Intermodal App "Moovel" (Source: Daimler)

Functionality: The mobility platform "moovel" shows its users how to get optimally from A to B. Therefore it bundles different mobility services and presents suitable travel options via app and mobile website across various providers. It is an intelligent combination of public and individual transport. Users can search for public trains and buses, for a suitable car-sharing or rideshare offer and even has a call-a-taxi feature. It is in principle open to all providers of urban mobility. Buying tickets and all booking activities will be handled by “moovel”. The routing is visualized by description or as a map.

Status: Pilot project

Business model: Still unknown

4.3.6 Siemens Integrated Mobility Platform IMP [6]

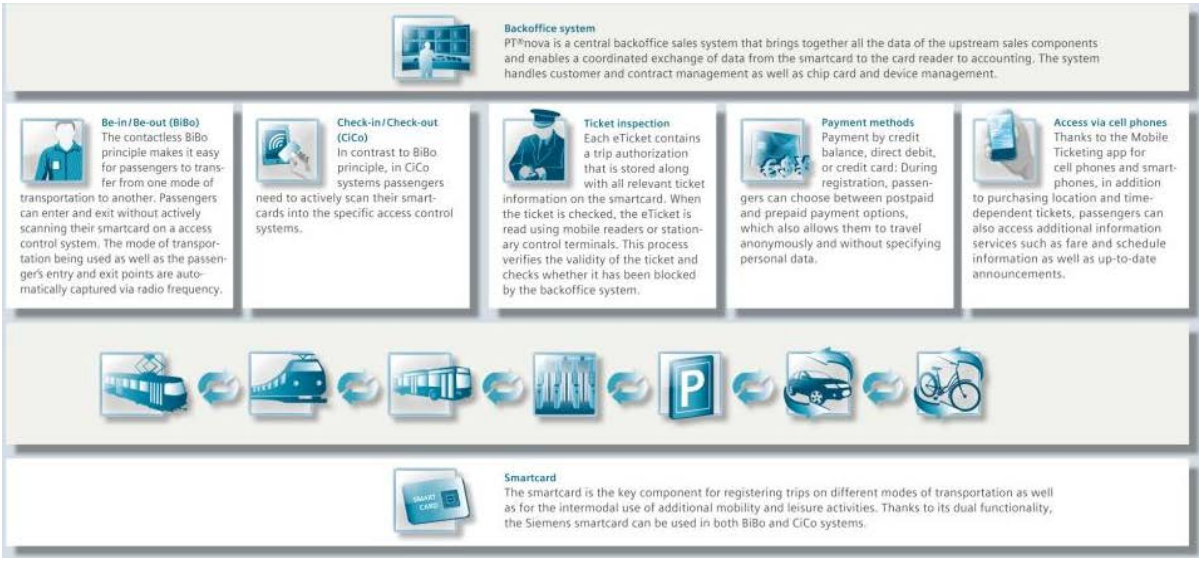

Figure 7: Siemens Integrated Mobility Platform IMP (Source: Siemens)

Functionality: Siemens’ Integrated Mobility Platform (IMP) connects public transport, parking, car sharing and other mobility offers for multi modal routes door-to-door. It enables users to manage travel preferences, reserve and pay for transportation services using mobile ticketing and authentication whilst the trip. Its features are schedule information, trip planning, reservation, mobile ticketing, traveller notification, payment and control features for the operator.

Status: Commercial offer to municipalities and mobility service providers

Business model: Sold as a bespoke solution

4.3.7 Source London[7]

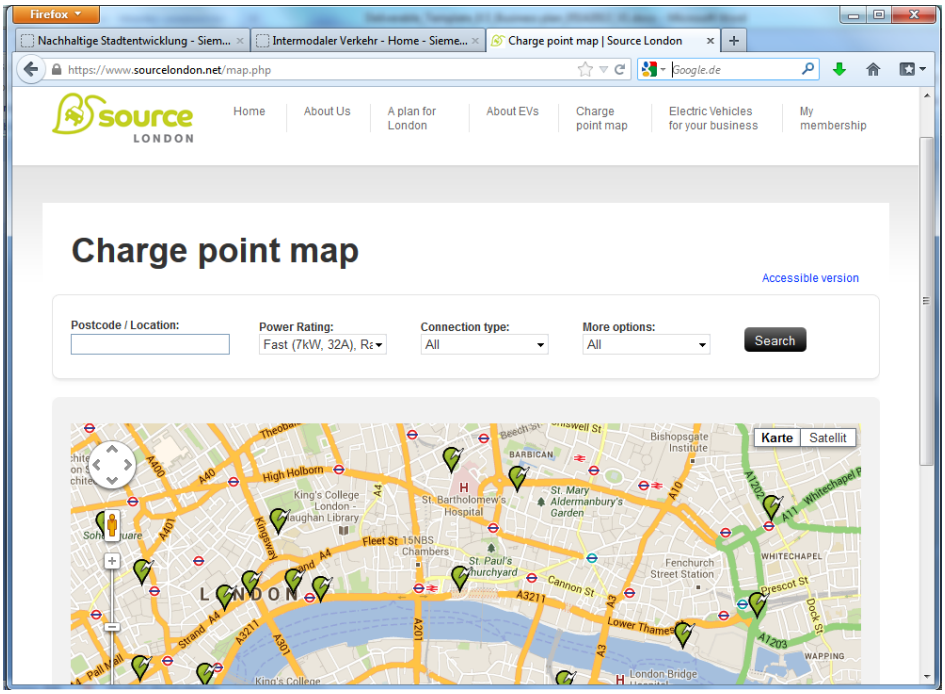

Figure 8: Charge point map (source: http://www.sourcelondon.net/sourcelondon)

Functionality: Source London is an offer to any vehicle that is licensed as a pure electric or a plug-in hybrid electric vehicle including motorbikes, cars, vans, trucks and scooters. There are planned 1,300 public charge points on residential streets and off-street locations, such as supermarkets, public car parks and at shopping and leisure centres in the Source London network. The vision is to unify the different permits in London with only one access card across the whole city. Source London will bring together all today's and future public charge points into one network. The charging points can be found in a charge point map; there is also a Source London App available.

Status: Already introduced to the market

Business model: Financed by TfL (Transport for London) and Siemens, in the longer run, electricity demand will be managed through the development of smart metering systems and intelligent charging.

4.3.8 QUIXXIT

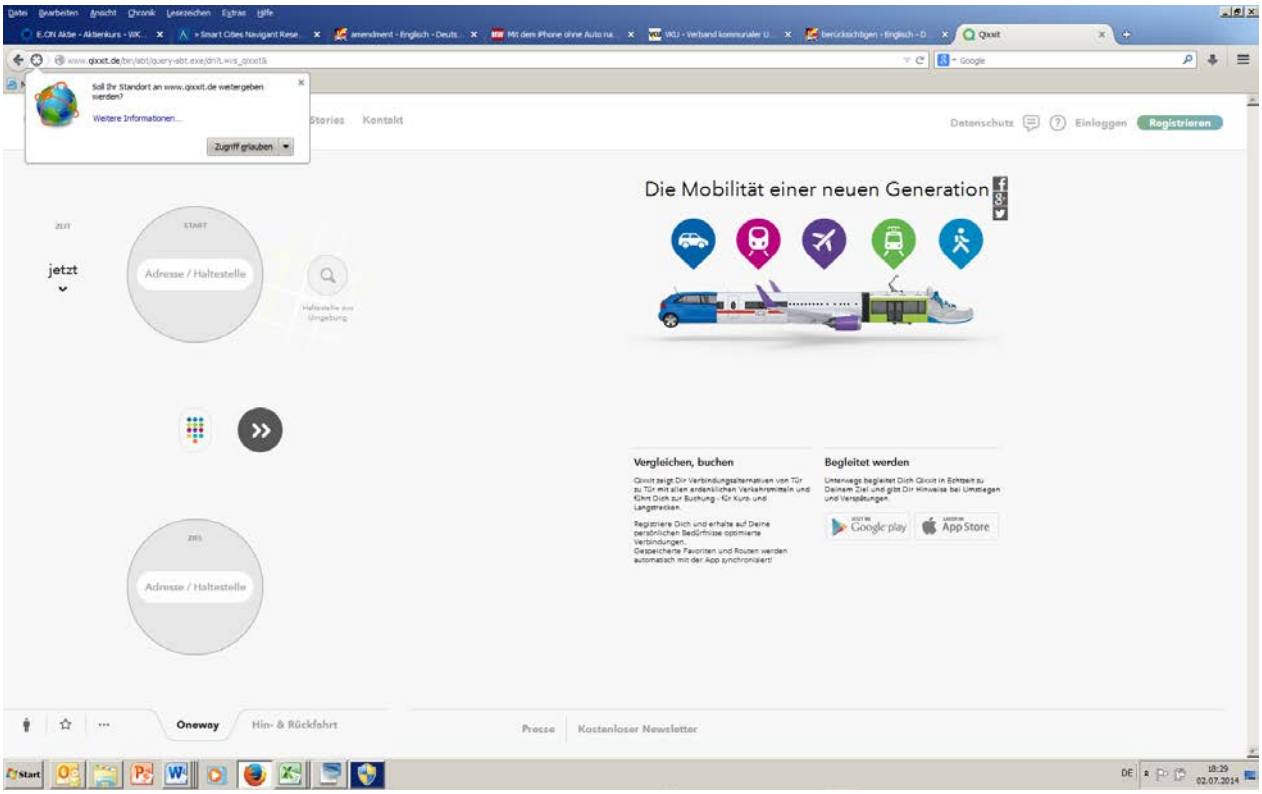

Figure 9: Quixx app(source: http://www.sourcelondon.net/www.quixxit.de)

Functionality: Quxxit is introduced as a mobility app for a new generation. Developed and operated by DB Vertrieb GmbH (Deutsche Bahn) this app offers a combination of all mobility options. The system suggests travel alternatives which can be selected by price, time, cost and CO2 output. It has access to real time information about public transportation. A registration is not necessary for a trip planning, but for the use of more detailed functions. The next steps will be the implementation of special offers for groups and business travels.

Status: App is online as freeware

Business model: Can be seen as a strategic sales support for Deutsche Bahn (DB-Rail) and (DB-) car sharing activities

I-Tunes Fahrplan info

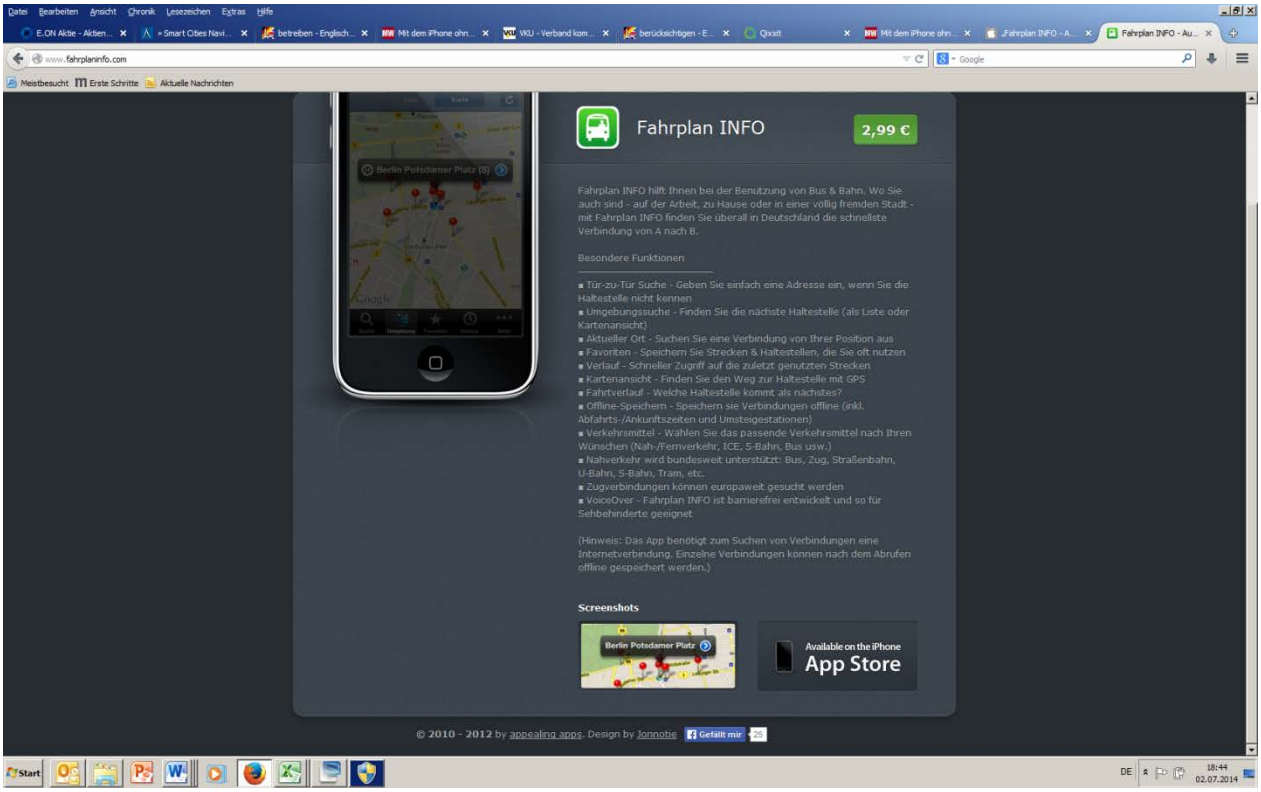

Figure 10: Apple Fahrplaninfo (Source: www.fahrplaninfo.de)

Functionality: *Fahplaninfo* is a kind of online schedule for public transportation and a route planner. Compared to other apps it is not available as a freeware. Has no combination with other transportation options as car sharing. Tickets can be bought online.

Status: App is online can be downloaded for 2,99€ at app Store

Business model: Can be seen as product enrichment for Apple-fans, willing paying 2,99€

4.4 The Unique Selling Propositions (USP) of MOBINCITY

Important for the success of MOBINCITY is the differentiation from other, comparable solutions in the market. Based on use cases here is an overview of the actual USPs of MOBINCITY. The ranking categories are:

USP Ranking	Comment
must have	”must have” means, this feature must be provided by MOBINCITY as it is standard for navigation systems and is not a USP
no USP	“no USP” means, this feature is already existing and offered by some providers
USP	“USP” means that this feature is actually not available and offers a clear or a weak advantage to anybody within the process chain like EV drivers, Charging Station Operators (CSO), energy Distribution System Operators (DSO) or Distributed Energy Resources Operators (DER).

Table 1. USP Ranking Description

Base for this USP ranking are the above mentioned and analysed proprietary solutions. This USP ranking will be updated during the next periods of the projects also related FP7 and other research projects will be taken into account.

4.4.1 Trip Planning

Trip planning is a feature which is offered since long time by many navigation systems and mobile Apps. Here it is very difficult to differentiate for a new system because the expectations regarding features, usability and user interface are very high. A new system has to offer all known standard features in at least the same quality like the existing systems in the market. So it is no surprise that MOBICITY has only few USPs in this section.

Trip planning and routing are basic features of all today’s navigation systems, so this is an absolute must have feature for MOBINCITY.

Integration of traffic information is used by every commercial navigation system, so this is also a must have for MOBINCITY.

Integration of weather information is already standard in many navigation systems especially for EVs because the range of an EV strongly depends on the climatic conditions, so this is a must have for MOBINCITY.

Integration with public transportation infrastructure is the precondition for an intermodal route planner. This feature is strong and helps MOBINCITY to differ from today’s standard navigation systems. But as there are already existing intermodal route planners at least in a research state esp. by BMW, Daimler and Siemens this is no USP.

The integration of the reservation system of car sharing operators will also be a strong feature of any intermodal route planner. But at least Siemens is already offering this feature. So also this is no UPS for MOBINCITY.

Integration with parking booking systems and parking lot reservation is a strong feature as this is of big importance for EV drivers who don’t want to wait at a charging point until it is free. It is of high value especially in inner cities where it is nearly impossible to find free parking lots. But due to regulations the reservation of parking lots is in most European countries restricted to private areas like car parks. This

feature can only be realized in cooperation with the majority of car park operators. But also here BMW and Siemens are offering this as a prototype; at Source London it is already commercially realized. So this is also no USP.

The collection of pricing and energy information is a new feature we couldn't find in other comparable solutions. So this is one of the few USPs of MOBINCITY. Pricing and energy information is of high value for EV drivers because the prices between different charging stations may differ strongly, because of the different business models of the charging station operators. In contrary to fuel prices they range between charging for free at special promotion places like shopping malls and prices which are comparable with fuel prises at fast charging stations. Experts expect that this feature may help to save up to 25 Euros for each charging process [7].

The integration of GLOSA (Green Light Optimized Speed Advisory) is a nice feature, helping EV drivers to adjust the right speed in order to avoid waiting at traffic lights. As it is quite difficult to gather GLOSA information from each municipality this feature is not offered by any commercial solution today. But the GLOSA features may be of a minor benefit because their trans-regional availability can only be realized in a long time frame (> 5 years). Reasons for this are missing standards and cities which deny access to traffic light data. Furthermore the trend towards vehicle-actuated traffic lights makes a GLOSA forecasting difficult or impossible. On the other hand if standardized GLOSA features will be integrated by most of the existing navigation systems, so a possible USP will be only very short-lived.

The USPs of MOBINCITY for Trip Planning are:

- Pricing and energy information collection
- GLOSA related (Green Light Optimized Speed Advisory) features

The following table gives an overview of this USP analysis:

Use Case No.	Use Case	USP Analysis	USP Ranking
UCTP0100	Information Gathering		
UCTP0101	Integration with Weather Information provider	Standard in many navigation systems	must have
UCTP0102	Integration with traffic information provider	Standard in all navigation systems	must have
UCTP0103	Integration with public transportation infrastructure	Part of all intermodal route planners (BMW intermodal route planner, Daimler Moovel, Siemens IMP)	no USP
UCTP0104	Integration with Parking Booking System	At least offered by BMW intermodal route planner and Siemens IMP and Source London	no USP
UCTP0105	Integration with Vehicle Sharing System	At least offered by Siemens IMP and might be part of all intermodal route planners	no USP
UCTP0106	Pricing and energy information collection	Up to now not offered by the known solutions	clear USP for the EV driver
UCTP0200	Trip planning	Standard in all navigation systems	must have
UCTP0201	Planning Green Light Optimized Speed Advisory (GLOSA)	Up to now only under research (e.g. "arrive" project with BMW)	USP for the EV driver

Use Case No.	Use Case	USP Analysis	USP Ranking
UCTP0202	Updating Green Light Optimized Speed Advisory (GLOSA)	Up to now only under research (e.g. "arrive" project with BMW)	USP for the EV driver
UCTP0203	Parking lots reservation	At least offered by BMW intermodal route planner and Siemens IMP and Source London	no USP
UCTP0204	Sharing Vehicle Reservation	At least offered by Siemens IMP and might be part of all intermodal route planners	no USP
UCTP0205	Trip Routing	Standard in all navigation systems	must have

Table 2: USP Ranking Trip Planning

4.4.2 On-trip Services

On-trip Services are the key competency of navigation systems. Also here for MOBINCITY it is nearly impossible to compete. Here the users' expectations usability and intuitive user interface are extremely high, because these systems have to be handled during driving. So also here it is no surprise that MOBICITY has only few USPs in this section.

Trip optimisation/re-routing in principle is a feature which is offered by any navigation system. MOBINCITY can add to this feature the reaction on bad grid conditions requested by the Proactive Intelligent Information Service at the travel destination. So if there is a grid overload at the planned charging station alternative charging spots can be suggested. Because of the very low density of EVs for the next 5 to 10 years, this feature will only be of interest in a very long perspective (> 10 years). So today it is at least a weak USP.

The trip re-routing on driver's request is standard in all navigation systems, so it is a must have feature.

The trip re-routing on request of the EV's main vehicle control system is of importance when there is an unexpected event that reduces the battery's charging state and as a result of this the vehicle is not able to reach the planned destination. This feature is very important but will be probably offered by all integrated FEV navigation systems and so this is also no USP.

The USPs of MOBINCITY for On-trip Services are:

- Trip optimisation/re-routing
- Trip Re-Routing on the request of Proactive Intelligent Information Service (PIIS) (as a sub-use case of Trip optimisation/re-routing)

The following table gives an overview of this USP analysis:

Use Case No.	Use Case	USP Analysis	USP Ranking
UCTS0100	Trip optimisation /re-routing	**If also grid conditions are considered** this can be unique but with no big benefit at an early stage of e-mobility	weak USP
UCTS0101	Trip Re- Routing on Driver's request	Standard in all navigation systems	must have

Use Case No.	Use Case	USP Analysis	USP Ranking
UCTS0100	Trip optimisation /re-routing	**If also grid conditions are considered** this can be unique but with no big benefit at an early stage of e-mobility	weak USP
UCTS0101	Trip Re- Routing on Driver's re-quest	Standard in all navigation systems	must have
UCTS0102	Trip Re-Routing on the request of Proactive Intelligent Information Service (PIIS)	If also grid conditions are considered this can be unique but with no big benefit at an early stage of e-mobility	weak USP
UCTS0103	Trip Re-Routing on request of FEV's main vehicle control system (MCS)	Probably offered by all car manufac-turer's Apps like from BMW, Nissan, Honda and Ford	no USP
UCTS0104	Adaptive energy management	Probably offered by all car manufac-turer's Apps like from BMW, Nissan, Honda and Ford	no USP

Table 3 USP Ranking On-trip Services

4.4.3 Charging

Features regarding the charging infrastructure are still new and not realized by the already offered systems. So in this area MOBINCITY has its strongest USPs.

Charging strategies are features helping to avoid an overload at begin and during the charging process. These strategies also may offer the DSO the possibility of directly influencing the EVs charging behaviour in cases of constraints which have been detected in the distribution grid. These features are focused on CSO and DSO because they enable them to handle many charging sessions in parallel. None of the identified solutions offers similar features so they are a clear USP.

These are the charging strategies which are adding a USP to MOBINCITY:

- The feature of charging infrastructure development is mainly focussed on the CSO for whom it is a very cost saving tool which helps him to identify the right spots and dimension for the deployment of new charging stations. It is a USP for CSO.
- The EV charging load allocation helps to calculate the aggregated load profile of FEV charging on a given load area. So it helps to shifting loads from peak to low demand periods. It is a USP for CSO and DSO.
- The feature of dynamic schedule of charging sessions helps to optimise the parallel charging of several FEVs in the same grid area. So it can be avoided that all arriving FEVs are starting the charging session at the same time which may cause a network overload. It is a USP for CSO and DSO.

Also distribution system operator (DSO) policies are features which are not offered by the researched solutions, so they are also a clear USP. These features are all responsible for an EV charging load re-profiling on the request of the retailer, the system operator or the distributed energy resources operator. They help to optimise the energy management of these three stakeholders.

The following table gives an overview of this USP analysis:

Use Case No.	Use Case	USP Analysis	USP Ranking
UCIE0100	Charging strategies	Up to now no solution in the market	USP but invisible for the EV driver, good for DSO and CSO
UCIE0101	Charging infrastructure development	Up to now no solution in the market	USP but only for CSO
UCIE0102	EV charging load allocation	Up to now no solution in the market	USP but only for CSO and DSO
UCIE0103	Dynamic schedule of charging sessions	Up to now no solution in the market	USP but only for CSO and DSO
UCIE0200	Distribution System Operator (DSO) policies	Up to now no solution in the market	USP but only for DSO
UCIE0201	EV charging load Re-Profiling on Retailer's request	Up to now no solution in the market	USP but only for CSO
UCIE0202	EV charging load Re-Profiling on System Operator's request	Up to now no solution in the market	USP but only for CSO and DSO
UCIE0203	EV charging load Re-Profiling on request of Distributed Energy Resources Operator (DER)	Up to now no solution in the market	USP but only for CSO and DER

Table 4. USP Ranking Charging

All Use Cases of the Charging section are of no direct interest for EV drivers but for Charging Station Operators (CSO), energy Distribution System Operators (DSO) and the handling of renewable energies by Distributed Energy Resources Operators (DER). So these features will not help to market MOBINCITY directly to EV drivers.

5 Conclusions

5.1 Effects of the USP analysis on possible business cases

As MOBINCITY has only few unique features that offer EV drivers a more easy usage, time savings or money savings, a direct *sales* of MOBINCITY to EV drivers cannot be recommended.

MOBINCITY offers its strongest benefits to all players who are selling energy to EVs direct (CSO) or in-direct (DSO, DER) as well as municipalities with an own energy utilization. So the business cases and market scenarios will mainly focus on this target groups.

For EV manufacturers a system like MOBINCITY is of great interest in order to improve the usage of their vehicles. This is also the reason why big car manufacturers already offer similar systems to their EV customers. For these manufacturers MOBINCITY cannot offer enough new features to swap completely to MOBINCITY. But maybe some MOBINCITY features are of interest for these manufacturers so they are interested in integrating parts of MOBINCITY to their existing solution.

But for smaller EV manufacturers who have not the financial power to develop an own system like BMW or Ford MOBINCITY may be of great interest. For them a customized version of MOBINCITY will be the most attractive solution.

Also for medium and small car sharing companies with own EVs a customized version of MOBINCITY may be of interest.

5.2 Market for Mobility apps

The market for mobility apps is growing. More and more apps are available provided by car manufacturer but also cities and operator of public transportation or car sharing companies. Some offered services are comparable to those of MOBINCITY. However, further analysis of market supply and business environment showed that ***charging services*** of MOBINCITY seems to be the most interesting feature. A more detailed evaluation shows those are mainly covered by proprietary systems or only are available as fragments. MOBINCITY offers a “complete solution” including some unique functions that are not covered by any other supplier. This makes MOBINCITY attractive for the market, especially in context with charging features.

5.3 Market Scenarios

As MOBINCITY as a full solution for Greenfield operators of EV mobility platforms seems unlikely focus of ongoing work will be at specific features of MOBINCITY as supplementary offer for already existing EV mobility platforms. MOBINCITY consortium partners offering their specific know-how for contract development will be developed within the business plan.

5.4 Integration of SMARTV2G

As MOBINCITY includes also function like e.g. “trip planning”, “search for charging station” or “charging”, results of SMARTV2G project can be integrated. In this section the joint offer of MOBINCITY and SMARTV2G solutions will be analysed after SMARTV2G now is completed and all relevant results are now available within the next period.

6 Future work

Within the second period a detailed illustration of possible user interfaces have been analysed. In addition, within the next period, especially the input of the management workshop held in Munich June 2014 will be taken into account. On aspect to be evaluated is the assessment of MOBINCITY within private public partnership projects e.g. in context with charging infrastructure. A second issue will be to focus on the “Generation Y” as targeted user group. Goal is to get more information about user acceptance as a base for further discussions with potential industry and utilities. More details about the workshop results are described in D8.3.

6.1 Market Models

To generate market models, the project has to reach a more mature stage what will happen within the next period. Market models deal with the financial aspect of MOBINCITY. Therefore it is necessary to have a clear picture about the options how to use the project results as described and analysed in 3.6 for entering the market, taken into account changes and development affected by the interim project review held April 2014.

6.2 Business plan

Actual findings show that a business plan at (consortium) partner level seems to be the most appropriate one as the individual launch of the WP results is more likely. This approach is gives also the opportunity to take into account the changes of emphasis of the WPs. For each partner the business plan in the final version will describe:

- Brief description of products and services
- Planned activities regarding phase in
- Forecast

7 References

[1] [Online]. Available: http://www.bmw-i.de/de_de/?WT.mc_id=s_ggl_de_phase3&noredir=1&WT.srch=1. [Zugriff am May 2013].

[2] [Online]. Available: http://www.nissan.de/DE/de/vehicle/electric-vehicles/leaf.html#vehicles/electric-vehicles/leaf.

[3] [Online]. Available: http://www.myfordmobile.com/. [Zugriff am June 2013].

[4] June 2013. [Online]. Available: http://www.justpark.de/technologien/telematikapps/hondalink-ev.html.

[5] [Online]. Available: http://www.daimler.com/technologie-und-innovation/mobilitaetskonzepte/moovel#bm1342008010. [Zugriff am June 2013].

[6] [Online]. Available: http://www.siemens.de/elektromobilitaet/elektromobilitaet.html. [Zugriff am June 2013].

[7] [Online]. Available: https://www.sourcelondon.net/. [Zugriff am June 2013].

[8] [Online]. Available: http://www.city-parking-in-europe.eu/. [Zugriff am June 2013].

8 Glossary

The glossary of terms used in this deliverable can be found in the public document Glossary_Terms.doc, also available at http://www.mobincity.eu.