Multimodality for people and goods in urban areas

FP7 . CP 284906

WP7 – D7.3
Exploitation plan - initial version

30th September 2011

Editor: Castermans / ERTICO

Project co-funded by the European Commission within the Seventh Framework Programme (2008-2013)

Project funded by the European Commission under the 7th European Framework Programme for RTD - ICT theme of the Cooperation Programme.

Instant Mobility WP7 (Task 7.4)
D7.3 Exploitation plan - initial version

WP7.1	**D7.2 Dissemination plan - initial version**
Authors	Julie Castermans – ERTICO – ITS Europe
Short Description	This deliverable describes the expressed intentions of project consortium members and surrounding associates for exploiting Instant Mobility results.
Dissemination level (select)	PU Public
Date	04 October 2011 – Delivery date (final version)
Status	Final deliverable v1
Contributions by:	Merja Pentinen – VTT Thierry Nagellen – Orange
Internal review by	Roberto Quasso Telecom Italia
Internally accepted by	Merja Pentinen (WP7 leader)
Date of acceptance	4th Oct. 2011

Document history

Version	Date	Author /Reviewer	Description
0.1	03/10/2011	Julie Castermans	First draft
1	04/10/2011	Julie Castermans	Integration of comments

Deliverable abstract

Dissemination is intrinsically linked to exploitation in the sense that efficient publicity is a facilitator of the exploitation of these results beyond the project lifetime. Moreover dissemination allows to measure acceptance of the proposed concepts and reuse of them in other projects.

While the Dissemination Plan defines the strategy and planned activities, the Plan for using and disseminating Knowledge (or Exploitation Plan), presents in details the actual activities and how they support exploitation. The present document is the preliminary version of Instant Mobility exploitation plan, an interim version is scheduled at Month 12 before a final version at the end of the project (Month 24).

It contains partners' preliminary intentions towards exploiting the project results to support their own business or activities, as laid down in the initial version of the project Description of Work. It also includes the dissemination channels implemented to date as well as the plans for the other identified channels during the course of the project.

Table of Content

Table of Figures

Terms and abbreviations

Abbreviation	Definition
3GPP	3rd Generation Partnership Project
ATAC	Agenzia del trasporto autoferrotranviario del Comune di Roma
B2B	Business to business
CaON	Converged and Optical Networks
CEA	Commissariat à l'Energie Atomique et aux Energies Alternatives
CEN	European Committee for Standardisation
CO_2	Carbon diaxide
CVIS	"Cooperative Vehicle Infrastructure System" EC project
D	Deliverable
EC	European Commission
ELSA	European Large Scale Actions
ERTICO	European Road Transport Telematics Implementation Coordination Organisation S.c.r.l.
ETSI	European Telecommunications Standards Institute
EU	European Union
EUCAR	European Council for Automotive R&D
EWSP	Europe Wide Service Platform
FI	Future Internet
FP7	EU's Seventh framework programme for research and technological development
FT	France Telecom SA
GHz	Gigahertz
ICT	Information and Communication Technologies
I+D	Investigación y Desarrollo
IETF	Internet Engineering Task Force
IM	Instant Mobility
IRU	International Road Transport Union
ISBAK	Istanbul Transportation Telecommunication and Security Technologies Industry and Trade INC.
ISO	International Organisation for Standardisation
ITS	Intelligent transport systems
LTE	Long Term Evolution (mobile communication standard)
M	Month
MS	Milestone
MS1	Initial requirements
MS2	Scenarios
MS3	Societal Issues
NoE	Network of Excellence
PCM	Project Management Committee
PPP	Public Private Partnership
PU	Public
PUFD	Plan for the Use and Dissemination of the Foreground
RAS	Radio Access and Spectrum
RTD	Research and Technological Development
SAFESPOT	"Cooperative vehicles and road infrastructure for road safety" EC project
TBC	To be confirmed
TISA	Traveller Information Services Association
TNO	Netherlands Organisation for Applied Scientific Research
TV	Television
UA	Usage Area
UMTS	Universal Mobile Telecommunications System
VTT	Teknologian Tutkimuskeskus (Technical Research Centre of Finland)
V2V	Vehicle to vehicle
V2I	Vehicle to infrastructure
WG	Working group

WP	Work package
WP2	Program collaboration
WP3	Use Case Scenarios Work package
WP4	Future Internet Enablers Work package
WP5	Realisation and prototyping Work package
WP6	Societal Issues Work package

1. Introduction

1.1 Purpose of the document

Article II.4.2.b of standard EC Grant Agreement for FP7 projects stipulates the "Plan for the Use and Dissemination of the Foreground (PUFD)" as one the contractual reports to be delivered by project end (where "Foreground" means the results, including information, materials and knowledge, generated in the project), as a means for the Commission to assess the success of a project.

Partners are expected to report with enough details on the actual and expected "use" to be made of the foreground, i.e. on their strategy and concrete activities to disseminate and exploit the project results (Article II.29[1]).

While the Dissemination Plan defines the strategy and planned activities, the Plan for using and disseminating Knowledge, presents in details the actual activities and how they support exploitation.

A preliminary PUDF was already included in the project Description of Work itself. During the implementation of the project, the partners have to report periodically to the Commission on any activity carried out in relation to the PUDF. A final version is then submitted at the end of the project and describes detailed plans for the management of foreground.[2]

A first version of the Instant Mobility Exploitation Plan (D7.3) is thus scheduled in M6, with an interim version in M12 and final one at the end of the project.

1.2 Scope of the document

The PUFD is divided into two sections[3]:

1. A public one related to results that will be disseminated and the corresponding dissemination activities (specifying the target audience and the applied communication strategy, and presented in a verifiable way to ensure that the EC can keep track of them);
2. A confidential one describing exploitable results and related planned activities. This section should include:
   - a verifiable list of all intellectual property rights that have been applied for or registered (e.g. a European patent has been applied for);
   - a list of all the results that may have commercial or industrial applications (e.g. software, inventions, prototypes, compiled information and data, etc.)
   - an outline of the owner of each particular element of foreground, whether it is a single participant or several of them (in a situation of joint ownership).

[1] FP7 Grant Agreement - Annex II – General Conditions Version 6, 24/1/2011
[2] "Strategic Guide to Successful Use & Dissemination of the Results of Research & Development Projects", published by the FP7 USEandDIFFUSE project (2009), page 67.
[3] Guidance Notes on Project Reporting, FP7 Collaborative Projects, Networks of Excellence, Coordination and Support Actions, Research for the benefit of Specific Groups (in particular SMEs), Version June 2010, page 24.

- an explanation of how the foreground has been or is going to be used, in either further research or commercial exploitation activities, including elements such as the following:
    - purpose, main features and benefits of each technology or product, derived from the research results: innovative aspects in comparison Intended audience
    - with technologies and products already available, needs for further R&D activity and implied risks, collaboration needs for exploitation (technology transfer activities);
    - customer detection: identification of the potential customers and the factors that affect their purchasing decisions;
    - features of the target market: size, growth rate, share that the technology/product could reach, driving factors likely to change the market, legal, technical and commercial barriers, other technologies likely to emerge in the near future;
    - how the participant (or other entity) entitled to the technology exploitation is positioned (or should be positioned) in the market, competing businesses/applications/technologies.

The plan should also describe:

- the socio-economic impact of the results
- any contributions to standards or policy developments

1.3 Intended audience of this document

The Exploitation Plan is aimed at the following audiences and respectively at the fulfilment of the following objectives:

- European Commission: to communicate the consortium's strategy and report on dissemination activities;
- Consortium partners: to inform about participants' rights and obligations, as well as notify to other participants partners' intentions in order to enable them to exercise their objection right in case their legitimate interest could be impaired;

2. Related regulations

2.1 Contractual requirements

Ownership, use, dissemination and access rights are ruled in the "Part C INTELLECTUAL PROPERTY RIGHTS, USE AND DISSEMINATION" of the Annex II - General Conditions to the FP7 Model Grant Agreement:

- The beneficiaries shall report on the expected use to be made of foreground in the plan for the use and dissemination of foreground. The information must be sufficiently detailed to permit the Commission to carry out any related audit.
- Any dissemination activity shall be reported in the plan for the use and dissemination of foreground, including sufficient details/references to enable the Commission to trace the activity. With regards to scientific publications relating to foreground published before or after the final report, such details/references and an abstract of the publication must be provided to the Commission along with an electronic copy of the published version or the final manuscript accepted for publication.
- Any dissemination action concerning foreground must include a statement acknowledging the financial support of the European Community, as well as a disclaimer specifying that it reflects only the author's view, exempting the Community from any liability. Any publicity concerning the project must also display the EU emblem.

2.2 Definitions[4]

"Use" is defined as the direct or indirect utilisation of foreground in further research activities other than those covered by the project, or for developing, creating and marketing a product or process, or for creating and providing a service.

"Direct use" implies that partners utilise the results themselves for commercial applications (e.g. by producing and/or commercialising a new product or by integrating a new process into their manufacturing plant) and/or for further research ("further" with respect to the scope of the project in which the foreground is generated).

"Indirect use" implies that partners may allow third parties to exploit the research results through a specific agreement.

2.3 Intellectual property management

The Consortium Agreement is a very important document when it comes to ownership and sharing of Knowledge or project result, as it sets out or further defines how the consortium agrees on the use and dissemination of the project results.

The background[5] that is brought into the project will always remain the property of the partner involved. Those partners making available pre-existing know-how during the course of the project will specify any conditions for access thereto in the Consortium Agreement.

[4] Source: http://www.ipr-helpdesk.org/documents/ES_UseForegroundFP7_0000006654_00.xml.html

5 "Background" is project-related information and IP rights held by participants prior to the signature of the Grant Agreement.

The Consortium agreement will dedicate one section or one appendix to define which access rights to the background may be granted. Also background to be excluded from access rights in any event will be specified in another dedicated section or appendix. All other background will be considered as unnecessary and excluded from the access rights.

In the case of the foreground, i.e. the project results and any IPR that can be attached to them, typically it is owned by the participant that carried out the work from which it resulted. Nevertheless, the intention of the consortium is to strive for a maximum of openness in the design and operation of the Transport and Mobility Internet. This platform will facilitate the pooling of data and services and could thus lead to maximum growth of the eventual market. Also, any genuine service or information provider should be freely able to join the network and add to the choices on offer to customers.

Partners working in the same WP shall have Access Rights to all foreground and background needed for the execution of the WP, from all WP Partners. Participants from other WPs will enjoy the same access to foreground and background, if these form part of a deliverable or are necessary for the execution of the sub-project.

Bilateral agreement between the Contractors participating in the same WP or in other WPs may be set if Contractors believe that foreground or background forms part of a deliverable of the other WPs or is necessary to carry out activities in the other WPs. These access rights can be extended to affiliates that are participating to the project, but these rights will expire at the end of the project

2.4 Patents & protection

Publication and dissemination of foreground are granted with the approval of the Consortium, making sure that the period of secrecy needed for a successful patent application is respected.

Any patent applications relating to foreground filed shall be reported in the plan for the use and dissemination of foreground, including sufficient details/references to enable the Commission to trace the patent (application). Any such filing arising after the final report must be notified to the Commission including the same details/references.

Contractors have to inform the Consortium and the Commission of its intention to publish on its foreground. Publication can be impeded if another contractor can show that the secrecy of the foreground is not guaranteed.

Where the foreground is capable of industrial or commercial application and its owner does not protect it, the Union may, with the consent of the beneficiary concerned, assume ownership of that foreground and adopt measures for its adequate and effective protection.

3. Section I – Disseminating the foreground

3.1 Scope of the project

The physical world of urban transport and mobility is a world where virtually every person is both a traveller and a user of goods transport and where there are many different ways to travel or deliver goods. What is remarkable today is how few of these travellers, vehicles and transport infrastructures are networked with each other using mobile communication.

Global and local optimisation of urban mobility could be achieved if the total information for current and future transport and mobility in a given urban area was available in real time

In the Instant Mobility vision, every journey and every transport movement is part of a fully connected and self-optimising ecosystem in which travellers, goods and collective transportation can benefit from personalised and real-time information. On the basis of each traveller declared destination, this exact picture will be extended to a near future forecast of the evolution.

The Instant Mobility consortium believes that Future Internet capabilities in the technical domains of localisation, continuous connectivity and a host of personalised online mobility services, will within a few years significantly modify urban transportation and open new business models for relevant stakeholders:

- a “Mobility App-Store” of innovative applications and services will be online for consumers and operators, while opening new business models for data and service providers;
- City traffic managers will adapt and control their signal network knowing all vehicles’ intended destination via the Internet cloud;
- Public transport and taxi operators will match fleet, routes and timetables with actual demand, captured through wireless sensors and passengers’ online itineraries; ticketing and payment will be integrated and online from the user’s mobile handset.

3.1.1 Benefits

Intelligence: Internet for transport and mobility means more information, fresher information and personalised information, thus greater intelligence for planning journeys and for being aware of service changes and traffic problems as they happen.

The Instant Mobility platform will be the central meeting point for a vast quantity of travel- and travel-related data coming from vehicles, travellers, goods and infrastructure. Intelligent applications can take in these co-located real time data, and transform them into consolidated information to assist individual travellers, and to feed other innovative applications offering services using this information.

Thanks to future Internet technologies, information will be “mashed-up” with services, improving both location-linked information (for individuals) and a comprehensive overview (for traffic managers).

Efficiency: In addition to the direct time and cost savings for travel and transport operations, the Transport and Mobility Internet as B2B platform will vastly increase access to potential business partners, leading also to increased business efficiency.

For example the multi-modal journey scenario aims to support travellers by providing virtual ticketing, synchronised modal interchange and multi-link journey planning and on-trip guidance for finding the shortest-time itinerary.

The public transport operation scenario finds time and cost savings for operators through improved online demand-supply matching, more flexible routing and vehicle planning, and better crew scheduling.

Sustainability: Several use case scenarios, including the vehicle sharing scenario that aims to increase vehicle occupancy, target the reduction of the number of vehicle movements and therefore of fuel consumption and CO_2 emissions.

Performance: The aim to improve performance through application of future Internet technologies applies mostly to operational systems, such as for traffic or fleet management, but can also apply to individual means of transport.

The extra intelligence described above when applied to journey planning and assistance, for example, will reduce journey time uncertainty and increase reliability – giving generally faster, shorter and more comfortable travel. It will certainly mean that bus, tram and taxi services will be speedier, with less delay.

The innovative services such as online car- and ride-sharing will gain in performance when the Internet platform brings many more potential suppliers and passengers into play. Today's systems are limited to subscribers to a particular service; in future a potential passenger will have access simultaneously to the offers of all participating service networks, and vice versa for drivers seeking potential passengers.

3.1.2 Innovations beyond state-of-the-art

Future Internet is an ambiguous denomination meaning either the benefits and/or the new services one might expect from technological advances or the potential technological advances themselves.

In relation with the *multi-modal journey optimisation* for travellers, the advances cover the set of functions necessary to collect, to process and to provide in near **real-time** all the information related to each elementary mean of transport and each traveller participating to the multi-modal journey system. The specified target system will provide algorithm for optimising allocation of transport means on large scale data, using innovative integration of multiple sources preferences and constraints and an open format for data manipulation, storage and exchange. It will demonstrate the feasibility to optimise a large urban multi-modal situation in real-time and to forecast near future situation and their evolution.

The project will define an interoperable, semantically-based language and the associated set of services necessary for any public transport operator to publish its information in an interoperable way, with a user-oriented focus, the built-in ability to individually address people and the capacity to provide updates in real time. This **interchange language** will be the basis of the multi-modal public private language for user oriented journey planning.

Instant Mobility will provide a capacity for travellers to request multi-modal solutions **independently of** dedicated **operators** and to get back a valid solution. Secondly the services necessary to get **automatic** periodic update of their current travelling solution without having to proactively solicit the system. Additionally, the definition of standard **Vehicle-to-Nomadic interaction** paradigms to access information acquired from the environment and/or owned by the vehicle itself, together with the enhanced connectivity features offered by Next Generation Smartphones, will enable the development of **specific automotive-oriented mobility services**.

Regarding **on-the-spot vehicle sharing** (capability to use its available seat during the part of travel where it is unused) and car pooling in multi-modal journeys, Instant Mobility will enable:

- Negotiation functions between travellers and drivers allowing the acceptation of offers based on social networking and cross-rating of participant;
- Payment functions allowing proportional automatic contribution to journey
- Professional functions for taxi and fleet cars to optimise their operations

In addition, the project will allow implementing services universally accessible within the familiar smart phone interface, while simultaneously running safely within the vehicle.

Instant Mobility will allow the possibility to use special (long) truck hubs as central stores outside cities and realtime planning and coordination for small and mid-sized delivery trucks for just-in-time delivery plan in cities. Mobile technologies will propose bi-directional information flows and customers and suppliers will be able to update parcel profiles and characteristics in a homogeneous way for **last-mile parcel tracking and delivery planning optimisation**. This coupled with real-time parking/loading place booking **in the cities** will minimise the traffic and CO_2 loads.

"Traffic control in the cloud": the innovative idea here is to use the future internet – cloud computing capabilities to reduce the cost of buying additional dedicated traffic management platforms, which can integrate all the data coming from the different monitoring technologies so as to calculate and provide real time information and strategies. The traffic control operations will be hosted in the Internet, in secure virtual traffic signal controllers and virtual traffic centre.

"*Pay as you move*": the project will specify a generic billing system allowing multimodal electronic payment by multiple (and even competing) operators for inter-modal travellers convenience.

Finally, while projects like CVIS, SAFESPOT and others have created the ground for implementation of a huge number of cooperative mobility applications based on the communication network using IPv6 on 5.9 GHz ITS channel plus UMTS/LTE, future internet can become the "fire" to accelerate the process of deployment.

3.2 Target groups

The goal of "dissemination" is to promote and raise awareness about the project achievements, and communicate its benefits to the targeted stakeholder community.

Instant Mobility partners include main European **industrial actors** and **service providers** from the **transport** and **ICT** sectors, who will accelerate the creation, management and deployment of new products, services and business models for transport and mobility based on future Internet technologies, in the following categories:

- Multimodal journey optimisation (**traveller, collective transport operators**)
- Vehicle sharing (**driver**)
- Public transport (**PT operators**)
- Goods transport (**freight operators**)
- Traffic management (**road operators**)
- Mobile payment (**telecom and financial operators**)

The project results will be of great interest not only to transport professionals but also to local, national and European **authorities** (special attention will be given to **cities**, given the project focus

on urban transport and mobility). These are the people who should bring these new technologies into their planning for investment leading to Europe-wide deployment.

The results will – if properly presented and disseminated – also be of great interest for potential **end users**, but perhaps it is **industry and business users** who will be most keen to learn of these results, as Future Internet will bring opportunities for a breakthrough in the **transport and mobility services sector** similar to the explosion of applications ("apps") already occurring in the smartphone and mobile internet service markets.

The dissemination process aims to spread information among all potentially concerned stakeholders and to all levels of policy-makers, as well as to **certification and standardisation bodies**, **engineering organisations** and **universities**.

This approach will be eased by the research and academic organisations and the users and stakeholders' representative participating to the Instant Mobility consortium (ERTICO, IRU, EUCAR and the Humanist NoE).

ERTICO will make use of its Partner Sector Platforms, where leading actors in specific communities already come together around intelligent transport systems (e.g. Public Authority Platform; Mobile Network Operator Sector; Vehicle Manufacturer Platform; Research Establishment Platform).

Networks of which VTT is a member that will be addressed include:

- European Research Area (ERA-NET)
- NTF (Nordic Transport Research Forum)
- Transport Research Knowledge Centre
- EIT ICT Labs (European Institute of Technology)
- EARPA (European Automotive Research Partners Association)
- FERSI (Forum of European Road Research Institutes)
- ECTRI (European Conference of Transport Research Institutes)
- eSafety Forum (WG Implementation Roadmaps, WG RTD)

The consortium members intend to reuse, valorise or integrate results from previous **related projects** which they have been or are still involved in either as coordinator or partner. In addition, Instant Mobility will actively contribute to FI-PPP programme activities to ensure that all synergies with other FI projects are exploited. [6]

3.2.1 Associated Partners

Instant Mobility associated partners are well known and prestigious organisations, either public or private which have a strong willingness to contribute or benefit from Instant Mobility results and future outcomes.

Their contribution will be complementary to the project partners' work and will cover all aspects of the project phases.

- **Cities, local and regional authorities**

[6] A non-exhaustive list of these main projects from which Instant Mobility can reuse parts from scenario definitions to user experiences on various traffic services, is included in annex of this deliverable. The consortium members have been or are involved in most of these projects either as coordinators or partners.

Cities and local authorities are the most important partners of the Instant Mobility project as they represent end citizens and other users' needs.

The City of Toledo (Spain) is a strong associated partner willing to evaluate and experiment new mobility solutions to solve Toledo mobility strong issues in an innovative and citizen oriented manner.

The Conseil General des Yvelines (France) is supporting the Instant Mobility project and envision to experiment Instant Mobility multi-modality solutions when available.

Istanbul Metropolitan Municipality (Turkey) is associated to ISBAK and will experiment some of the outcomes of the project within the Istambul city context.

- **Industry**

  Continental AG as a leading car equipment maker will contribute to the prototyping of mobility services from the car drivers' viewpoint, thus providing an alternative implementation to the project one.

  Integrasys is assisting us in providing mobility solution in Spain and with the city of Toledo.

- **Research Institutes**

  TNO is providing us with its knowledge and expertise about mobility issues in urban areas.

- **User associations**

  The following user associations fully support the Instant Mobility project and are committed to participate to our open workshop to comment and enhance the scenarios and use cases driving the project:

  - EUCAR, the European Council for Automotive R&D
  - TISA, the Traveller Information Services Association
  - IRU, the International Road Transport Union

3.3 Dissemination channels

The various channels and media used in the project for dissemination & exploitation purposes are selected and adapted according to the intended audience or target groups. The table below presents the media used in the Instant Mobility project:

Target Group / Tool	EC	Authority	Industry	Research sector	General public	Standard. bodies
Website	x	x	x	x	x	x
Deliverables - restricted	x					
Deliverables - public	x	x	x	x	x	x
Technical & Scientific Publications			x	x		x
Dedicated workshops, Symposia, etc	x	x	x	x		x
Trade shows		x	x			
Technical fairs		x	x			

Target Group / Tool	EC	Authority	Industry	Research sector	General public	Standard. bodies
Congresses	x	x	x	x		x
Stakeholder forums		x	x	x		
Social media			x	x	x	
Audiovisual media					x	
Posters, flyers, leaflets, etc.		x	x	x	x	
Printed & online press					x	

3.3.1 Instant Mobility identity

Before any communication can be properly executed, a visual identity needs to be developed that reflects the project vision and key concepts and creates an easily recognisable "image" to improve the project visibility.

Such visual identity is defined by the project logo that is used prominently in all dissemination tools and printed materials.

The Instant Mobility logo has been created; colour as well as black & white versions have been provided, in several resolutions to meet all dissemination purposes.

Figure 1: Instant Mobility logo

3.3.2 Instant Mobility website

The Instant Mobility website is the main promotional tool for publishing research results as well as a dynamic database compiling Instant Mobility public documents and the scientific, standard, market information relative to the Instant Mobility context.

The following domain names had been secured from proposal stage and are linked to the same page:

- www.instant-mobility.eu
- www.instant-mobility.org

- www.instant-mobility.com

Use is made of social media like blogs and discussion forum within Instant Mobility website to keep a fast-moving flow of project news and messages moving out to various online communities

All partners have the possibility for to publish latest information in order to ensure the up-to-date 'living' information sharing between the project and the external actors.

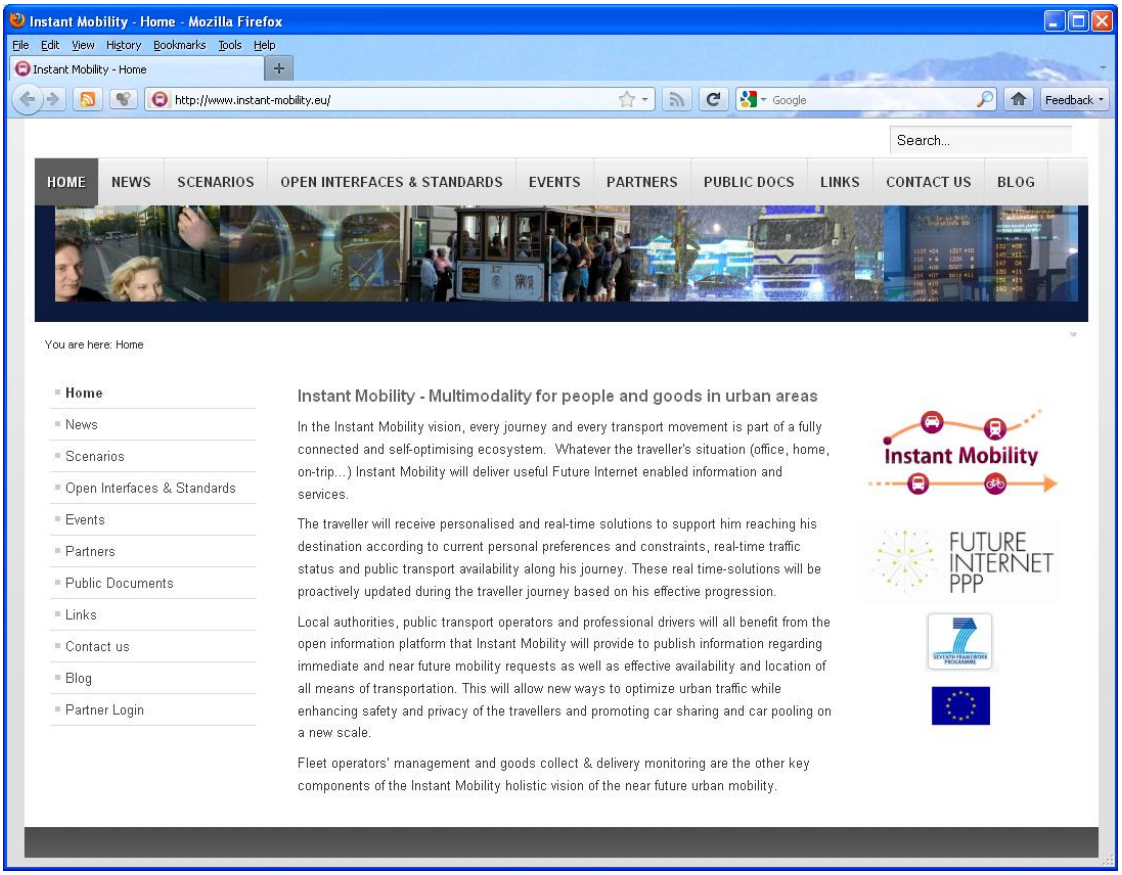

Figure 2: Instant Mobility homepage

3.3.2.1 Structure

The Instant Mobility web portal is structured as following:

- **Home** (summary describing the vision, context and audience of the Instant Mobility project)
- **News**
- **Scenarios**

  The "Scenarios" page includes description and latest information related to the following lead scenarios:

  - **Multimodal Travel Made Easy**
  - **The Sustainable Car**
  - **Collective Transport 2.0**
  - **Trucks and the City**
  - **On-line Traffic and Infrastructure Management**
- **Open Interfaces and Standards**

The purpose of the "Open Interfaces and Standards" page is to (i) list the standardisation issues targeted by the Instant Mobility project and (ii) to present the forecasted enablers and functions related to open interfaces.

- **Events** (up-coming as well as past events related to the Instant Mobility project)
- **Partners** (information about the Instant Mobility consortium partners including the logo and link to the homepage of each partner; in addition, the associated partners are also listed)
- **Public Documents**

  All the public documents (e.g. brochure, press releases, deliverables) produced during the project will be added into the "Public Documents" page. In addition, a link (if publicly available) or reference information of each presentation or scientific article will be added.

  This page has two sub-pages:

  - **"Instant Mobility in the Press"** is for links and notifications of Instant Mobility project in public media
  - **"Public Deliverables"**

- **Links** (to the related relevant initiatives/organisations such as participating cities as well as Future Internet and ITS-community programmes including national and international)
- **Contact information** (of the Coordinator)
- **Blog**

  The blog exists on Wordpress: (http://fiformobility.wordpress.com/) and is linked to the Instant Mobility webpage. Each partner can send plain or formatted text (e.g. in html format) to the blog by sending email to the address provided by VTT for each partner.

3.3.2.2 Partners' corporate websites

Partners are encouraged to publish project-related information on their own organisation website, through either a dedicated page or news about the project progress and activities (such as workshop announcements, etc).

For example, in the area Projects/International activities of ATAC public website will be published in both Italian and English versions, a short description of the project with the link to Instant Mobility website.[7]

3.3.3 Print materials

An Instant Mobility Leaflet has been produced in Month 6 that describes in a concise manner the project main objectives, steps and expected outcomes, but also introduces the consortium, contact information and funding schemes.

It is meant to be freely circulated for project information and promotion at workshops, trade shows, technical fairs, congresses and other events. The electronic version of these materials will be downloadable from the Instant Mobility web portal.

A more complete brochure will be produced towards the end of the project that will include the final results.

[7] The list of Instant Mobility pages on partner organisations' websites will be included in the second version of this deliverable.

3.3.3.1 Partners' corporate publications

Partners intend to use their internal channels such as corporate newsletters to disseminate the project expected results and benefits that their organisation could gain from being in Instant Mobility.

3.3.4 Press

The press is a crucial tool to diffuse information about Instant Mobility to a wide range of stakeholders including the general public.

A press release has been issued at the Kick-off meeting in Nice, France, with presence of local media and TV (France 3), while other partners such as for example Telefónica I+D have issued corporate press releases about their participation in the EU FI PPP programme and specific projects, including Instant Mobility.

Other opportunities for press releases will be identified in conjunction with major milestones, as well as opportunities to publish articles in scientific and technical journals and publications.

3.3.5 Participation in external conferences and events

Personal contacts and presentations through attendance at relevant workshops, trade shows, technical fairs and other conferences are ranking top of the list of most popular channels used for the dissemination of project results.[8] Networking remains a crucial way to share and exchange professional experiences and keep informed about latest research developments.

A calendar of such relevant events (including cross-cutting topical workshops or training events organised by the PPP Future Internet, other Future Internet initiatives or by other EU and non-EU projects dealing with competitive technologies and/or business models) has been set up in D7.2 deliverable (Communication Plan).[9]

3.3.6 Workshops

Workshops will be organised to present project results (even preliminary ones) to invited actors of the Transport and Mobility ecosystem, including our associated partners (see chapter 3.2.1.), in order to adapt and re-adapt regularly the Instant Mobility focus and stay fixed on the most important challenges for the specific stakeholder community, based on their feedback.

As Instant Mobility targets the largest possible interoperability with urban mobility actors, it will be for us a strong concern to ensure that the required openness (in listening to needs, validating achievement, specifying interfaces, providing access to results, etc.) is effective.

These workshops will be managed as an iterative loop with the stakeholders from functional definitions of multimodal services to Future Internet specific and generic enablers' features. This approach will emphasize Instant Mobility innovation and build up progressively the IM stakeholder community.

These workshops will be organised around key topics corresponding to the major outputs of the project, i.e. the use case scenarios, the specifications for technical enablers and capabilities, the business cases and user survey feedback. A final evaluation workshop will also be organised at the end of the project.

8 Source: IPR Helpdesk - Dissemination of Foreground under FP7 (http://www.iprhelpdesk.org//documents/ES_DisseminationForegroundFP7_0000006629_00.xml.html), page 28

9 The interim version of the present deliverable (scheduled M12) will include a list of the specific occurrences which partners actually attended and/or used for disseminating IM.

These activities will include a specific axis for business issues to evaluate best practice to develop the ecosystem during phase 2 and 3 of the PPP FI programme.

The project will as much as possible schedule these workshops within the frame of other major outreach events, such as Future Internet Assemblies or European and World ITS congresses.

3.3.6.1 Partners' corporate events

Partners will present the outcomes of the project (including conceptual prototypes) to their own business clients and local or national stakeholders during commercial meetings and/or showcases organised by their own organisation.

For example, VTT is planning to organise two events during September 2011:

- the first one including representatives of Ministry of Transportation and Communications, City of Tampere and Finnish Transport Agency, and focusing on the development of a roadmap for innovative transport system operation services.

  The services to be selected should provide new opportunities for export and domestic business for Finnish companies as well as provide clear added value for the transport system operators. The novelty of the services will probably be linked to the increasing importance of travellers and haulers as new stakeholders in the actual operation of the transport system due to the advent of the cooperative and social media applications which will revolutionise the content and organisation of service in transport;

- the second workshop concentrating on the user-centred approach of the traveller information services, and potential of the new technologies in the area of (train) traveller information services.

4. Section II – Pathway to exploitation

4.1 Key aspects

The strongly complementary expertise and multi-disciplinary nature of the Instant Mobility consortium is a real added value for the project, which will investigate the complementarity of Future Internet Technologies and Transport and Mobility challenges from different perspectives: technical, business and societal.

This involvement and cooperation of major industrial players in Europe, often competitors, is a clear evidence of their belief in the project's strategic importance for their business activity. The involvement of major EU network operators is particularly important for a relevant and concerted European dissemination of Future Internet technologies. A consistent representation of several Transport sector companies shows a strong commitment that Instant Mobility objectives are crucial for a new wave of green and sustainable services in Urban Areas and the contribution of potential Demonstration Cities, within different urban contexts, will also integrate Citizen and Customers point of view.

This wide perspective, seeing a comprehensive solution to a related group of specific and local problems, will pave the way to identify the real limitations of current isolated approaches in the ICT and Transport and Mobility domains, as well as the realistic future steps that will have a chance to gain a wide acceptance by the market and the citizen.

Moreover the expected impact will be strengthened by the planned liaison with the whole Future Internet PPP programme (see chapter 4.3), as well as towards standardisation (see chapter 4.4).

4.1.1 Potential impacts on society

Communities of travellers with common needs or travel patterns could grow up, leading to freer sharing of transport means and providing a better travel experience for all. Travellers with special needs would find the assistance they need provided automatically at each point in their journey, greatly improving their mobility and accessibility. The Social Network approach to involve users as active members of the transport ecosystem is likely in the long term to launch a "Transport 2.0" wave of innovative internet-based services. This will offer particular opportunities for SMEs to play a part in the Transport and Mobility ecosystem, stimulating the co-creation of greener and smarter Transport and Mobility services.

Collective means of transport (e.g. buses, taxis, trains, shared cars) could become much easier to use, more flexible and more reliable, leading to a modal shift away from car and towards collective modes.

Internet-based demand management could lead to public acceptance of rationing of scarce transport resources, especially if coupled with provision of high-quality collective transport alternatives and with a scheme of mobility credits that would reward environment-friendly behaviour.

4.1.2 Risks & limitations

The collection and storage of personal data for context-adapted and personalised travel, as well as the real-time knowledge of individual travellers location during journeys could raise strong concerns among citizens and pose serious privacy threats, even though these techniques are

already silently in use in various ways and do not in itself correspond to specific Future Internet threats.

Instant Mobility intends to seriously address these concerns, providing recommendations for security enhancements and taking the necessary measures to guarantee people and data privacy. Cryptography and anonymisation mechanisms will be systematically used for location reporting from mobile devices, strictly preventing direct association between an identity and habits or locations.

Moreover through prototypes, we will be able to determine the feasibility and complexity of what we propose for the various actor involved. There is thus a risk that not all five "targets" defined through the five lead scenarios meet equivalent acceptance and success.

To guarantee that the ideas of Instant Mobility can be both demonstrated and evaluated, it is necessary to study the availability and usability of the underlying technologies and emulate these critical features functionalities if they are not available in time. In practice there can be substitute functionality that, for example, emulates distributed (cloud) data storage with conventional technologies. This is especially important for the domain specific enablers that are implemented in WP5 and will allow evaluating the Instant Mobility services in the demo cities even if their capabilities (e.g. computation power) are limited to a much smaller scale than intended.

In addition, some technology may be available, but not usable under any circumstance (e.g. absence of network coverage), in which case the service that is using this link will then be reduced to a functionality that can be maintained with the reduced data rate. Indeed in Instant Mobility, the use of auxiliary future technology is meant as further enhancement for the accuracy and performance of the envisioned system. The system will continue to work as expected even with lesser accuracy than as first desired.

Main technical risks identified prior to project commencement, together with the proposed contingency plans, are shown in the table below:

Technology	Risk	Contingency/ "fallback" plan
Cloud computing (computation) distributed, partitioned data (storage)	Technology not available in time	Mock-up technologies can be used to emulate the computation and storage functionality. Capabilities will be therefore limited.
Management of semantic, contextual information	This technology bears risks as it depends on other challenging technologies such as mass data computation and localisation	Substitutes can be used for the underlying technologies
Data (Internet) Link, such as S-Band, UMTS	Services rely on fast Internet connections	Faster connections can be substituted by (slower) conventional connections, such as 3G or GPRS or WiFi. The development of the service has to take service degradation into account.

Geo localisation	Enhanced outdoor localisation relies on GALILEO service availability and reliability. Indoor navigation standards will be much more heterogeneous, standardisation of currently experimented methods is foreseen. Live tracking of the individual position will also require an internet connection Seamless navigation (everywhere, anytime) would rely on standardised indoor specification of the transmitted signals for hassle-free navigation.	Acceptable outdoor localisation can use reliable technologies such as GPS. Indoor navigation should use the most reliable method as this increases precision and confidence of localisation. Seamless navigation can rely on approximation of localisation (e.g. building entrance/exit), 3G, WiFi, Bluetooth and pre-compiled detailed maps can help at transferring points based on known coordinates (e.g. building's entrance/exit)
(HD) Video broadcast	The bandwidth for the upstream is limited	Reduced frame rate, quality and buffering mechanism, event detection mechanisms can be used to cope with a lower bandwidth

4.2 Exploitable results

4.2.1 Innovative services

Instant Mobility will create and analyse a set of innovative Future Internet-based "lead scenarios" and constituent services corresponding to the needs of five key stakeholder groups:

- multimodal travellers

Lead Scenario 1 - Multimodal travel made easy		
Nr.	Service name	Short description
1a	End-to-end itinerary planning	Traveller can choose preferred modes; online service provides optimised end-to-end itineraries, e.g. quickest, cheapest, least Green House Gas (GHS) modes.
1b	Real-time itinerary monitoring	Online service monitors execution of itinerary on all modes, calculates actual versus planned service quality, identifies and notify service incidents and degradation as support services.
1c	Continuously updated travel time information	Service provides continuous journey/arrival time estimate based on real reported journey times.
1d	Disrupted service assistant	Service detects disruption to any part of planned itinerary, offers best alternatives to traveller
1e	Interchange & en route assistance	For multi-modal trips, provides specific information and guidance at mode-to-mode interchanges, and during each leg informs about stops/stations, connections, etc.
1f	On-the-spot POI & tourism information	During the journey, service delivers relevant point-of-interest or tourism information, at the right spot.

1g	Special-needs travel support	Service for travellers with reduced mobility, guiding along fully accessible transport means and arranging for real-time support as needed, e.g. interchange. It will offer voice (for blind) or text (for deaf) information.
1h	Ticketless mobile fare payment	Online service offers single account payment for multiple journey legs, so no need to purchase tickets; especially valuable for tourists and occasional users. Proof of payment provided via traveller's handset.
1i	Bicycle sharing	Online service informs of bike and docking space availability, and allows multi payment on single account. It can accept reports of defective equipment, etc.

- car drivers and passengers

Lead Scenario 2 - The sustainable car		
Nr.	Service name	Short description
2a	Personalised route guidance	This service is enhanced with real-time recommendations for avoiding congestion, while interacting with a service that optimises each individual trip and the overall traffic system.
2b	"itinerary booking" service	This online service allows drivers to reserve "slots", departing at arranged time and following recommended route, and receiving limited traffic signal priority. Internet service pools all requests and allocates itineraries.
2c	Real-time traffic & route information	Probe vehicle data from all fleets are gathered on internet, integrated with other sensor data to give real-time traffic conditions over full road network. Online traffic info services are available to drivers, and support other travel services.
2d	Car sharing plus	Online service to locate, book and pay for a shared vehicle (small or large car, electric car, scooter, van, etc) for short-term use; may be offered as "mobility service" by vehicle manufacturer; may receive eco-incentive. The service can be delivered via mobile handset.
2e	Ride sharing	Requests and offers of ride sharing from various social-networks are combined in online database, and mashed-up together to give greatest choice of time, location, type of person, etc.
2f	Congestion charging	Online service to monitor users' vehicles and apply variable charges according to location, time of day, vehicle type, etc; can include negative charges, i.e. bonus for avoiding congested times and locations. It can be combined with service to suggest eco-friendly alternative.
2g	Parking assistance	Online services to provide parking space availability, booking, guidance and payment. Also social-network crowd-sourcing service to notify real-time availability of on-street parking spaces.

- public and other collective transport operators

Lead Scenario 3 - The collective transport		
Nr.	Service name	Short description
3a	Floating passenger data collection	Sensors at stops and passengers' mobile devices provide location and destination information; when mashed up with route and service information this enables real-time operational optimisation.
3b	Demand-responsive service coordination	Online service to receive passengers' requests and optimise operators' offer for demand-responsive transport (e.g. taxis, dial-a-ride, special transport services).
3c	Flexible schedule adaptation	Based on real-time vehicle monitoring, operator uses online

		passenger demand information to adapt service route and timetable, and to inform passengers of service modification.
3d	Adaptive collective transport priority	Internet service adapts traffic light timing to offer green light to bus & other collective vehicles, provides speed recommendation to vehicle driver.
3e	Ticketless fare collection	Operator uses Internet to collect fares via users' mobile devices, and to connect to mobile ticket inspectors. E-ticket payments are mashed up with passengers' other mobility services and added to monthly account; internet used for inter-operator payment clearing.
3f	Driver & passenger security monitoring	Real-time or stored video of vehicle interior is sent wirelessly to web service that automatically identifies problems (driver or passenger) and alerts security services.
3g	Taxi sharing	Taxis can pick up and drop off additional passengers along the route through online service to match potential users with actual shared taxi availability (location and destination, number of places, etc.)

- truck fleet operators and the distribution industry

Lead Scenario 4 – Trucks and The City		
Nr.	Service name	Short description
4a	Load sharing & balancing	Online exchange to mash up cargo requests with available transport, eliminating empty trips. May be combined with special "city logistics" vehicles. This kind of services addresses the need of transport management.
4b	Loading/unloading zone booking	Online reservation service for on- or off-road loading/unloading spaces. Includes space availability info, fee payment if needed, physical access control and enforcement. This kind of services addresses the need of terminal management.
4c	Goods supply chain visibility	Total visibility of the Goods Supply Chain has the purpose to enhance the performance of all distribution and pick up operations in the city zone. The service is an enabler for many of the other services in the scenario.
4d	Automated access control & security check	The automated access control & security check is a service for streamlining the inbound traffic to hubs such as ports and terminals by eliminating the need of manual checking and authorisation of access rights to restricted zones for goods, vehicle and driver.
4e	Dynamic time/place drop point	The aim is to increase the flexibility in the delivery of goods by launching a service that dynamically points out the right time and place for delivering every single package.
4f	Traffic zone control	The service will automatically control that the vehicles entering a specific zone is allowed to be there. If not allowed in the zone, appropriate measures will be taken;
4g	Green corridors	*A green corridor is* a concept referring to a number of dynamic (based on need, availability and capacity) features which provide a virtual environment for green transport through/within the city to/from hubs and harbours.
4h	Real time traffic optimized route navigation	The service will provide a route optimised to minimise e.g. average mission duration, average mileage, fuel consumption, pollution, etc, via the on-board unit and the collection of

		information from various sources.
4i	Eco-driving support	Online community and service to monitor truck drivers' fuel use and provide recommendations or reducing consumption based on peers' performance; managers can monitor consumption in real time and compare with other drivers, and provide incentives for improved performance. This kind of services addresses and encourages CO_2 consciousness by driver.

- road operators and traffic managers

Lead Scenario 5 – Online Traffic & Infrastructure Management		
Nr.	Service name	Short description
5a	Traffic control in the cloud	Traffic control operations are hosted in the Internet, in secure virtual traffic signal controllers and virtual traffic centre, leaving local systems the task of providing safety controls and communications. Virtual components and data are accessible anywhere to authorised personnel, while local units guarantee reliability.
5b	Cooperative traffic signal control	Ad-hoc networks are created in the cloud between clusters of vehicles and the traffic management infrastructure, offering drivers a recommended speed to avoid stopping, and adapting the traffic signals to the real demand, in real time.
5c	Area-wide optimisation strategies	Large amounts of data on vehicle movements and on traffic control measurements and predictions are mashed up in a comprehensive optimisation process, and self-learning strategies are applied to achieve least emissions, least delay, etc.
5d	Traffic-adaptive demand management	City-wide traffic demand is managed through adaptive physical control and pricing enabled by online services. Targeted flows are achieved through varying permitted vehicle flows and adaptive pricing
5e	Demand-responsive parking management	Online service for controlling availability of parking spaces and their price, coupled with driver guidance to balance demand across available parking supply.

These services will be available to any Internet-connected user, whether using a portable, vehicle-based or fixed terminal.

4.2.2 Enablers

Instant Mobility will define and specify essential "enablers", i.e. generic and transport-specific technologies and components, but also the architectural requirements, needed to support the Instant Mobility services.

4.2.1 Conceptual prototype

Instant Mobility will integrate the enabler specifications into a conceptual prototype demonstrating a simplified Transport and Mobility Internet and some scenario services as examples. Instant Mobility advanced services will be available on demand or "pushed" as needed, and will be equally easy to use, to develop and to deliver. They will work in on-board integrated units as well as in next-generation smartphones, tablets and computers.

4.2.2 Non-technical studies

Instant Mobility will investigate the key societal issues, including security and privacy, acceptability, business models, which may support or hinder Instant Mobility services adoption for potential Instant Mobility deployment.

The outcomes of the Instant Mobility project will constitute a profound change of perspective with respect to current use of Future Internet technologies for transport and mobility in urban areas. This project will already explore in some depth just how Future Internet could be an enabler for very different ways to organise mobility and to operate transport fleets and networks.

Multimodal services require strong commitment from European users to adopt new sustainable ways to use all transportation means. Instant Mobility will study at the European level acceptability criteria for people and companies to invest and modify their vision of future transport.

4.2.3 Implementation plan

Instant Mobility will develop a detailed plan for implementing limited real life trials and demonstrations in the next phase of the FI-PPP, leading to operational Transport and Mobility Internet platform in Phase 3.

This plan will assess the need for new Internet enablers so support these applications and will be grounded in a number of real cities – including consortium partners – that are candidates to host both the Phase 2 trials and potentially also large-scale testing in Phase 3 of the FI-PPP programme.

4.3 Programme collaboration

Instant Mobility will collaborate with the other projects of the FI PPP Program, in particular the Core Platform/Technology Foundation project (FI-WARE), the Capacity Building and Infrastructure Support action (INFINITY) and the Programme Facilitation and Support action (CONCORD).

Beyond an active contribution to the Architecture Board at the program level, the project will also support exchange and collaboration with the other Usage Area projects, namely ENVIROFI, FINSENY, FI-CONTENT, FINEST, OUTSMART, SAFE CITY and SMARTAGRIFOOD[10], to identify commonalities and share a common understanding on potential technical solutions and requirements (but also non-technical) and increase business transversality between several business areas.

The functional and technical requirements for potential Generic Enablers will be validated with FI-WARE early in the process, while the impact for Instant Mobility architecture will be determined, based on exchanges with the other Usages Area projects and the FI-WARE project feedback.

4.4 Contribution to standards

Instant Mobility targets several standardisation areas in the Transport and Mobility area as well as in ICT and Future Internet technologies. Based on the defined requirement process that foresees links with the Core Platform project FI-WARE and continuous synchronisation efforts in the architecture and enablers definition process, the project will submit proposals for standardised interfaces and needed domain-specific components to the relevant European and global standards development organisations (e.g. CEN, ETSI, ISO).

More specifically, two main areas are targeted by Instant Mobility:

- ITS standardization through ETSI technical Committee

[10] http://www.fi-ppp.eu/projects/ or http://www.future-internet.eu/home/future-internet-ppp.html

- 3GPP standards (to include V2I and V2V constraints into 3GPP specifications)

Inputs towards Future Internet standards will be managed through collaborative actions under the FI Program Facilitation and Support project (CONCORD) while domain-specific issues will be directly managed by the Instant Mobility project.

Lots of Instant Mobility partners are involved in standardisation and will utilise their networks of contacts in the industry in order to reach a broad knowledge of the standardisation activities and to contribute to relevant interest groups that provide active support across multiple standardisation bodies. To emphasize the Instant Mobility results in the global environment of Future Internet, presentations, reports and recommendations from Instant Mobility will be contributed to various standards committees

In order to minimise the risk, an early evaluation and continuous monitoring of project results from standardisation potential point of view is planned: parties, who plan major standardisation initiatives, are also involved in other technical Instant Mobility tasks, where the technical base of existing and future standards will be evaluated. Thus a close management between technical work and standardisation activities is guaranteed.

4.5 Exploitation plans per partner

There is a general willingness of all stakeholders in Future Internet Transportation and Mobility usage area to exploit this promising FI technology. But there is also the fact that exploitation of this technology requires substantial investments that need to be justified by an adequate return.

Depending on the stakeholder, this return on investment can be monetary in terms of a permanent revenue stream that pays back for the investment on the longer run or non monetary. Examples of non-monetary benefits are reduction of CO_2 emissions, better use of the existing street network or being recognised as an innovative company or urban area.

Considering the impact on European society and the market potential, it is important for European Transport and ICT industries to take the leadership in Future Internet Technologies applied for Transport and Mobility services. Instant Mobility will have an important impact in increasing the technical leadership of the participating partners as well as the Transport and Mobility community, driving the roadmaps and standards for Future Internet services in that domain.

Partners' individual intentions are detailed below, demonstrating their strong engagement to exploit the project results to support their own business or activities.

4.5.1 ATAC SPA

ATAC SpA is a company fully owned by the Municipality of Rome (Italy) that manages the public transport of the city: bus, tramway and trolleybus, metro and two regional railway lines. Moreover ATAC manages 1.355 traffic lights, 65 measurement stations of traffic flow and 12.488 parking spaces (264 of which are reserved to disabled people). Furthermore ATAC manages the Limited Traffic Zones (through 32 electronic gates checking access to the historic city centre) and controls (through a specific system) 17 local public transport preferential lines.

For all these reasons, for ATAC the INSTANT MOBILITY project represents the opportunity to analyse the real needs and requirements of its passengers and to use new solutions based on Future Internet technologies that can be applied to the world of public transport and more in general urban mobility.

The results of INSTANT MOBILITY and its implementation phase could be used to set up new technologies and services to provide information to the citizens about the transportation modes

that could became a real alternative to the private transport. Indeed the possibility to have real time, complete, comprehensive and integrated information about transport and urban mobility, could encourage the citizens to use public transport instead of their own car, making their life easier, with the consequent reduction of the road traffic congestion and pollution.

4.5.2 CEA

CEA is a well known research centre for its high quality research activities in the field of Information Technology. As a Research and Technology Organisation (RTO), one important mission of CEA is to help European companies to increase their competitiveness by developing innovative technologies and transferring these CEA technologies and know-how to industrial partners.

In the INSTANT MOBILITY project, CEA will define, develop, and validate open specifications of Future Internet mobile networking enablers for supporting smart vehicular communications and smooth integration between vehicular on-board units and surrounding nomadic devices (i.e. smartphones).

CEA plans to integrate the results of its contribution to the INSTANT MOBILITY project in its mobile networking technology and software suite specifically targeted to vehicular networking, and to exploit these results through new technology transfer partnership with industrial partners. In that respect, CEA will build on its collaborations with car manufacturers, automotive tier-one companies, as well as public transport operators to assist them in experimenting new technologies and developing new products (around the connected vehicle) for enabling sustainable and multimodal mobility matching the INSTANT MOBILITY vision. CEA also expects to experiment its technologies coming from the INSTANT MOBILITY project in future collaborative mid-scale trials to take place in the Paris-Saclay Campus (including CEA campus) like the envisioned “Mobilité 2015” initiative. Finally, CEA also plans to exploit its results from the project by influencing standardisation (and in particular the IETF) when applicable. The knowledge gained from the project will also be used to identify new research challenges for the future research activities.

4.5.3 CRF

The so-called “cooperative mobility communication network” (as demonstrated at the Cooperative Mobility Showcase 2010 by CRF and by several other European companies) is planned to be implemented to enable applications to prevent road accidents for all road users, cars, trucks, motorbikes, pedestrians, cyclists and to improve traffic efficiency, with a consequent reduction of CO_2 emissions. The overall idea is that the mobility network should be created:

- Instantaneously, between two vehicles in case of imminent risks of accidents;
- locally, among vehicles and road infrastructures whenever any kind of traffic related problem is created and can be solved locally thanks to the exchange of information;
- at geo-referenced network level where all traffic control centres will know in real time how to best “inform” and “distribute” the traffic flow & provide traffic related information.

Therefore a common European architecture for the mobility network should include at least:

- time critical safety information that needs to be exchanged in real time and with the highest priority and should use a dedicated communication channel (the IEEE.802.11p wireless technology, as defined by the Car to Car Communication Consortium);
- safety and traffic efficiency information that can make best use of different communication bearers.

The mobility network, as developed by cooperative systems, is already foreseeing the access to a number of communication channels among which internet (IPV6).

Additional customised services for the users should also be made available to enable a sustainable deployment. It is for this reason that this project outcomes (e.g. Multimodal journey optimisation, navigation experience via continuous connectivity, etc) summarised in the "INSTANT MOBILITY implementation plan" will create a substantial basis on which FIAT will be enabled to integrate future internet in the future mobility network based applications.

Future vehicles shall be enabled to offer the users (drive and passengers) a number of services that will also be based on "cloud and distributed" paradigm. For all these reasons the INSTANT MOBILITY project represents a key point to analyse the needs and requirements and to fit them into existing reality. It will moreover contribute together with communication and localization technologies to make the cooperative mobility network become a reality.

4.5.4 DHL

As a global player in logistics, DHL makes every effort to prepare its business and customers for the challenges of the future.

With challenges being as complex as they are, INSTANT MOBILITY project is an innovation project to develop M2M networking in the Future Internet framework. It is a chance to achieve logistics challenges for sustainable logistics industry in the next years:

- Climate – "Green" the Central Challenge: Companies collaborate with each other in order to develop intelligent and instant logistics solutions to improve route planning and execution and to reduce city traffic and CO2 emissions. The logistics industry will become a trendsetter and establish new standards for cooperative efforts and "green" business.
- Technological Developments – Radical Changes in the Industry: The development and spread of the "Internet of Things" will bring wide-reaching changes. Every product will be networked with the Web, making it easy for consumers to get information about products and track them from production to delivery. New standards for supply chain management and transparency will be implemented. The Internet will transform customer expectations and behaviour all over the world – the focus will be on individualization, transparency, availability, and speed.
- Flexibility in transport - Internet commerce. The transport of numerous individualized products will create new challenges. Logistical systems will have to adjust for new markets and products in ever shorter time frames. Logistics companies will need to find answers to the increase of transit and transport streams in new and growing areas with high population densities. Flexibility, simplicity, and individualization will be required.

For all mentioned challenges, Instant Mobility project represents an opportunity to develop and test solutions for the future years. We plan two complementary exploitation strategies:

- Internal: It will be used to improve logistics solutions for real time M2M in a FI environment.
- External: It will aim at guaranteeing exploitation with third-parties. New standards and collaboration will be progressively extended to targets sectors (Consumer Goods, Retail, Pharmaceutical, Automotive, etc.). Special focus will be put on home delivery and SME community.

4.5.5 DLR

DLR has strong expertise in developing co-operative driver assistant systems and in setting up large scale testing facilities in this domain. The work of the INSTANT MOBILITY project will help to establish expertise in the co-operative applications that rely heavily on future internet technologies. The methodology, technology and architecture well-proven in this project will help to extent and sustain expertise and capabilities of DLR in this domain. This knowledge will be the foundation for further research activities on national and European-wide level.

In this project the core challenge will be the introduction of Future Internet technologies to the transport and mobility domain. DLR is applying some of these paradigms to its current developments but there are open gaps between a full integration and the code of practice today.

INSTANT MOBILITY will bridge promising technologies into the domain. This project will not only be beneficial for DLR but OEMs will also profit from new technological opportunities and will open new markets with this leap ahead.

DLR has three aspects of interest that are covered by the INSTANT MOBILITY project:

- DLR is convinced that the definition of a clear architecture is a cornerstone in the design of ITS applications. INSTANT MOBILITY will extend the existing expertise in the field to innovative technologies.
- Future assistant systems will rely on highly dynamic heterogeneous information sources such as social networks. INSTANT MOBILITY will integrate this information in a travel related context and prove its relevance. Other use-cases such as electro mobility can also benefit.
- DLR already has expertise in conducting large scale trails. The planning of the INSTANT MOBILITY FOT will not only apply this expertise to the project but also extent the knowledge and experience of DLR.

4.5.6 ERICSSON

The telecom industry has become very successful in providing subscription and connectivity to people. There are now close to 5 billion mobile subscriptions worldwide and we believe that the next wave of communication is going to be driven by the need to connect devices. Our Ericsson forecast is that we will have 50 B devices connected, by 2020. By providing intelligent connectivity services to devices, we are expanding the communications market and providing novel services to vertical segments, such as the transport segment, in which Ericsson is already internationally active. As the transport sector considers implementing multi-modal transport functionality, the timing of the FI-PPP is ideal to trial the use of Future Internet communications services in new transport applications.

In this context, Ericsson is a driver of the FI-PPP concept of defining and using common and specific enablers in trial applications for the transport sector. In the INSTANT MOBILITY project, Ericsson anticipates implementing this concept and preparing trial projects using common and generic enablers in the transport sector, paving the way for international standards and the widespread uptake of project results in products and services in the transport and ICT sectors .

Ericsson anticipates leveraging its participation in a range of Smart City pilot projects in Europe to trial the results of the INSTANT MOBILITY project as part of a pan-European trial of the project results. Examples of Smart City trials in which Ericsson is an active participant are the Stockholm Sea Port and the Smart Santander Smart City initiatives.

4.5.7 ERTICO – ITS EUROPE

ERTICO is a European partnership with 100 shareholders from public and private sectors, covering all key groups of stakeholders in the area of intelligent transport systems and services, and in most areas comprising a critical mass in that sector. A wide range of ITS technologies, products and services are already available, there is still however relatively little deployment. Some key standards are in preparation, while many existing telematics services are proprietary and linked to a single technology.

ERTICO is committed to widespread deployment and to the use of open platforms – i.e. a single platform in the vehicle that incorporates future-proof technology and can support numerous services from different providers and with pan-European coverage. ERTICO is investing in INSTANT MOBILITY with the hope that the more data and services are available via the Internet, the more transport and mobility information will be available, the greater the choice of travel options and the more efficient and safe will be the operation of road and transport networks.

Indeed, we are convinced that the Internet – enhanced with features such as cloud computing, social networking, data warehousing and analysis, web services etc. – will be essential for the next stage of ITS growth and implementation. ERTICO intends to use and re-use the results of INSTANT MOBILITY by promoting the new future Internet technologies towards its membership and seeking opportunities – such as through future R&D calls or through self-funded activities – to explore and to pilot some of the new mobility services in testbeds that could be provided by ERTICO Partners. (These include major European players in ITS services such as TomTom, IBM, Logica, Satellic, Telecom Italia).

ERTICO will also promote the take-up of the INSTANT MOBILITY results in future large-scale actions such as ELSA for transport or the Europe-Wide Service Platform. As manager of TISA (Traveller Information Services Association) ERTICO will also advance the project's results concerning Future Internet as additional medium that could also deliver rich traveller information in addition to traditional broadcast means.

As organiser of European ITS congresses, including the triennial World Congress with over 5000 key professional delegates, ERTICO will promote the themes explored in this project as congress programme topics, or as themes for the exhibition and accompanying showcases.

ERTICO has a Public Authorities Platform that has been meeting for over 10 years, where its more than 25 public sector partners come together. In 2010 ERTICO has begun to organise other sector platforms for its Partners, including so far Mobile Network Operators, Automotive Manufacturers and Research Institutes. Each of these groups will have a special interest in the potential of the Future Internet for their own sector's involvement in ITS (intelligent transport systems and services). On behalf of INSTANT MOBILITY ERTICO will bring the project and its results to each of these sector platforms, dealing with the specific issues relevant for that sector. The aim will be to encourage the membership to take an interest in these promising new developments and to consider testing, evaluating, trialling and eventually deploying them in solutions specific to themselves (e.g. mobile network operators could be interested to see which novel mobile internet applications for travel and transport could be enabled by a dedicated Transport and Mobility Internet platform and other tools).

4.5.8 FRANCE TELECOM

FT with its 123 million of European customers (200 million worldwide) has to improve regularly networks infrastructures. These infrastructures provide the common basis of the future networks to connect users, different communication devices, computers, sensor networks and applications for mobile and fixed networks. INSTANT MOBILITY results will significantly extend connectivity beyond the systems, which are available today. The number of mobile devices will continue to

grow and soon exceed the number of fixed network devices. The number of such smart devices is increasing further by developments such as small applications for always connected services. In addition, mobility of people and goods increase significantly every day the data traffic volume especially with real-time applications. This is requiring a further increase of available capacity and bandwidth in transport and access networks in order to support the requested Quality of Service and France Telecom should take substantial benefits through these new traffic sources.

The today's Internet protocol has been designed for fixed network applications and future mobile technologies for high bandwidth when Intelligent Transport Services will also required on-demand and adapted bandwidth. The mobile network would provide relevant support for Vehicle to Infrastructure and Vehicle to Vehicle communications, as well as to collect and host large amount of data.

Future real-time multimodal services will not suffer limitations in Quality of Service like in the today's mobile Internet and the improvements could be done following new communication models and standards.

As France Telecom is the EPC Global provider in France, we will be able to test, deploy and apply the most significant results of INSTANT MOBILITY regarding Trucks in the city and manage data services and storage solutions for multimodal services.

The FT M2M centre is specifically interested in the INSTANT MOBILITY results for potential tests and trials based on ITS in city environment and deployment of in-car services.

During the INSTANT MOBILITY project duration, 2 internal workshops per year will be organised with the relevant Business Units in the different countries of the European France Telecom footprint to assume the dissemination of the results and to shorten the time between Research and commercial exploitation In this perspective, the INSTANT MOBILITY project will support France Telecom Group and its FT brand in a best-in-class Mobile Internet of Services operator, by providing enhanced intelligent domain-specific services facilitating the European services implementation and based on the valorisation of large and complex contextual information conveyed on the mobile internet network.

4.5.9 IFSTTAR

INRETS and LCPC merged on 1 January 2011. Ifsttar stands for French institute of science and technology for transport, development and networks. This Institute is a French State-owned research Institute under the authority of two ministries: Ministry for Higher Education and Research and MEDDTL: Ministry of Ecology, Sustainable Development, Transport and Housing. The new activities of research, development and innovation are:

- Urban engineering
- Civil engineering and building materials
- Natural hazards
- Mobility of people and goods
- Transport systems and means and transport safety

As a research organisation, all results of INSTANT MOBILITY are of interest. In particular, Ifsttar will apply the results of its contribution to INSTANT MOBILITY to enhanced and widened urban planning understanding and to improve its capacity to integrate user’s preferences, acceptance and concern within its multi-modality studies and trip planning.

The fact of highlighting interdependencies, by the identification and description of related actors, sub-networks (composed by user, vehicles, infrastructure) and communities, analyze of the stakeholder needs and roles will lead to shape more adapted scenarios for future mobility.

4.5.10 ISBAK INC.

ISBAK is an affiliated company of Istanbul Metropolitan Municipality with more than 350 permanent staff working to provide the best technology and services around the world mainly in the field of Intelligent Transportation Systems. Road and traffic management, lighting management and urban security management are the other areas of activity of the company.

By means of accessibility and wide-spread usage of Internet, presentation of individualized instant traffic information via different platforms is among the on-going projects of ISBAK. Since the milestones of INSTANT MOBILITY are in parallel to the current project phases of ISBAK, the outputs of INSTANT MOBILITY will be supportive and beneficial during the development of transportation related projects.

ISBAK will be able to exploit international know-how during this project development. Although ISBAK has experience in collaborative EU projects, INSTANT MOBILITY will fortify the global thinking aspects of the company.

Currently, ISBAK is struggling with spreading the usage of mobile applications in transportation related solutions provided to public. In this sense, INSTANT MOBILITY will contribute to the progress of researches which will facilitate the access of individualized traffic information in the FI domain.

4.5.11 MIZAR AUTOMAZIONE

The core activities of Mizar are research, design, development and the implementation of integrated telematics systems and services for the supervision, monitoring and control of traffic and transport.

Mizar would like to take advantage of the FI enablers such as mash-up of different information from different sources in the cloud, social networking, cloud computing and virtualization. In this project, we would like to take an advantage to study on how to use and bring the FI enablers directly to our product lines and through combinations of this to bring about new innovative applications that improves traffic efficiency and in general emission level in transportation networks. We believe that IM project will bring our products services and information to be used in the cloud by the new cloud value chain stakeholder (cloud content provider or service provider and vice versa). The implementation of FI enablers coupled with innovative applications, it will bring reduction in costs of traffic management and monitoring platforms and traffic management control systems for our client municipalities, cities, public authorities and private companies etc.

We are planning to demonstrate our first phase studies and outcomes partly followed by a full implementation and demonstration in the second phase in Trondheim, by working together with public authority for transport of Norway and also other cities that will be proposed in the project.

In Norway, Mizar has already implemented a modern PT and traffic management systems platform. This we believe that will help us to make studies, tests based on the objectives of IM project.

4.5.12 NAVTEQ

As the leading global provider of maps, traffic, location data enabling navigation and location based services, NAVTEQ is committed to lead the development of location based services and

supporting the creation of location enabled solutions targeted at efficient and multimodal navigation applications for an improved and sustainable urban mobility. The map and location are a central component of mobile and internet based solutions as has been demonstrated by the recent high market penetration of mobile location based applications and the launch of free navigation solutions by mobile manufacturers or mobile network providers. Today's maps are extremely dynamic and a continuous input from the communities and a high availability of the data owned by local authorities merged with field services will guarantee a high level of quality and coverage. At the same time, users need to be able to receive location information and dynamic content on different platforms while travelling.

Its participation in the INSTANT MOBILITY Project will allow NAVTEQ to participate with a large scope of the European industry on the specification and integration of location-based services in the future internet framework.

The results of the INSTANT MOBILITY project will allow NAVTEQ to improve existing products, identify and specify new services thus ensuring that NAVTEQ continues creating the Map driving a mobile world and offering optimal solutions for better mobility.

A key element of the exploitation plan would be the integration of three outputs from the INSTANT MOBILITY project into our product portfolio and services:

- The creation of precise indoor maps connected with the outdoor ones is an obvious necessity to support the needed accuracy in indoor positioning research.
- Enhancing map content beyond traditional ways by adding trusted sources (e.g. public authorities) and social networks feedback would be reflected in creating an optimal system to guarantee an up-to-date map.
- Improving map update mechanism, by ensuring more frequent update of the map will be reflected in developing new ways to keep the Map as fresh as possible. This will accelerate map delivery for ordinary connected travellers (e.g. via satellite or other Future Internet enablers).

NOKIA, as the mother company of NAVTEQ, will foster this initiative especially by providing NOKIA's technology needed for development.

4.5.13 NICE CÔTE D'AZUR

Nice Côte d'Azur Urban Community (NCA) is committed to developing an intelligent and sustainable city with particular focus on sustainable urban mobility.

The INSTANT MOBILITY project fits perfectly into the strategy that NCA wants to implement in the Eco-valley, a reference model territory in urban sustainable development and granted with "National interest project" status and supported by national funds.

Multimodal transport modes are keys in NCA sustainable development strategy. The INSTANT MOBILITY results will be directly exploited to enhance existing sustainable mobility heavy project investments aiming at reducing traffic congestion and improving national and interurban transport connections. These projects, mainly the city centre Thiers and the Nice Airport/St Augustin train station multimodal centres and the electric car-sharing newly launched innovative services.

The INSTANT MOBILITY project results will facilitate the take up of new technologies and services across the city of Nice that will facilitate the decision making process of end-users in favour of the large panel of transport modes alternative to road.

In addition, in line with the last year successfully launched “NFC contactless city” project applied to transport, culture, commerce and national heritage, NCA will ensure that end-users are involved in the project implementation phase as early as possible and that project results are tested amongst them. NCA finds the “living lab” approach essential to guarantee that new technologies and related applications are successfully introduced and nicely match the end-users interests and expectations.

That approach will be followed in the INSTANT MOBILITY project in order to foster the share of sustainable transport modes in Nice Côte d’Azur and progressively decrease the road traffic congestion and pollution."

4.5.14 STATENS VEGVESEN

Statens Vegvesen has participated in CVIS, and one of the largest CVIS test sites is located in Trondheim. We believe that participation in the INSTANT MOBILITY project, with its strong industrial partners, can allow us to further focus on utilisation of safety, efficient and environmental aspects of future M2M communication. Statens Vegvesen is a national supplier of both static and dynamic road related data. We are dedicated to encourage data utilization according to our national ambitions for safety and efficiency. Future internet solutions can assist this development.

We will use new standards and technology obtained in this project as a basis for future national and European projects. Statens Vegvesen is prepared to participate in the second phase of the INSTANT MOBILITY project with a large demonstrator in Trondheim together with the project partners. The current implementation of a modern PT and traffic management scheme can be further developed through the INSTANT MOBILITY project. We are also seeking proof of concept for the benefits of M2M information.

Management of multimodal transport modes for both people and goods are vital in Norway to allow a greener and improved use of the current road network. We are eager to participate in technology enhancement probable to assist this development. INSTANT MOBILITY is regarded as a vital project for obtaining our future strategies.

4.5.15 PERTIMM

As an SME involved in search appliance domains, Pertimm mostly deals with data looking for a relevant matching between the query and the retrieved documents or items. In the INSTANT MOBILITY project, Pertimm’s know-how will be adapted to an itinerary search taking into account user profile (preferences). The new matching processes involved will enable Pertimm to enlarge the scope of applications in which to integrate its technology. This technology has to be applied on real time data. The results also have to be well understood by the end-users. It opens new markets; transportation only represents one of these. Pertimm aims at being considered not only as a search engine provider but as a high level technology provider in matching and searching among real time data.

4.5.16 TELECOM ITALIA

By participating to INSTANT MOBILITY Telecom Italia will achieve a more comprehensive understanding of future services and the future networks capabilities; this will allow to enhance services offered on mobile terminals. INSTANT MOBILITY results will help to improve in particular services related to mobility including travel information, traffic status, transports time and fares going towards a multimodal approach for travel. Moreover, mobility services will be improved

using the cooperation between mobile terminals and on board devices, as addressed in INSTANT MOBILITY sustainable cars scenarios.

Telecom Italia believes that the world of transport related services is going to be dramatically transformed by leveraging connectivity and localization of people and things. Telecom operators will be among the main actors involved in this process, not simply carrying bits but providing valued information to human and “machine” data consumers; for instance mobile networks may significantly contribute to facilitate and enhance localization; operators may also contribute to perform low level data aggregation. This vision is quite in harmony with the FI-PPP approach, focused on identifying common and usage area specific enablers and Telecom Italia expects that many of those enablers will need the contribution of fixed and wireless network operators in order to become really available and effective. TLI believes that features like localization, data aggregation, vehicle data availability and open mobile framework for developing services and cooperating with on board devices are key elements that could be used to deliver future services.

Besides building its own mobile services and applications, Telecom Italia also wants to encourage the growth of a large community of developers that can easily plug their mobile applications on the open mobile framework, which gives access to both devices and network capabilities in a standard way. Since Telecom Italia intends to promote this approach also in INSTANT MOBILITY, the project results will be highly exploitable and re-usable in mobile applications development both in Telecom Italia and in the developer community.

4.5.17 TELEFÓNICA I+D

INSTANT MOBILITY is a core project for Telefónica in order to define its strategy in the transport, mobility and logistic area, in a more general way, in the machine-to-machine field, that has been recently identified as one of the most promising growth engines for the company.

Even if the result after the end of the project is not a complete system that can be in the market, the activities to be performed within the INSTANT MOBILITY will allow Telefónica to be positioned in the place and moment where the decisions over the Future Internet will take place, so that exploitable products from Telefónica are aligned since the early beginning with the FI enablers.

One hand, the data mining that is to be done by the platform from the different data sources engaged in the INSTANT MOBILITY system (public operators, traffic information, smart city data, etc.) can be used by Telefónica in order to create services for its customers in the vehicle or outside it, especially if the services can be delivered in mobile phones or in aftermarket devices.

This situation will position Telefónica in the market offering an added-value for its direct customers.

In the same way, new enriched data (from the combination and processing of the different data sources) can be offered to Third Party Service Providers, enabling and easing the provision of end to end services for them. In this second case, the business model is of type B2B2C (business to business to customer), which allows specialized companies to create best-in-class services by joining optimum M2M communications platform, meaningful data, its knowledge in the field, and their traditional relationship with the final customer.

Moreover, TID is currently working in a general Ambient Intelligence platform (IDAS) as part of the machine-to-machine strategy at Telefónica. We envision aligning the results from the INSTANT MOBILITY with the definition and specification of this platform.

4.5.18 THALES

THALES Transportation Systems division is organized around four business lines:

- Rail Signalling for Main Lines
- Rail Signalling for Urban Rail
- Integrated Communications and Supervision Systems
- Revenue Collection Systems

These business lines are directly addressing transport operators, our main customers. Among these divisions, three are directly interested in the outcomes of the INSTANT MOBILITY project. Within its "Rail Signalling for Urban Rail" business line, Thales develop interoperable systems providing real-time location and context positioning (number of passengers, time before next train,...) through its ATS (Automatic Train Systems) offer. The outcomes of INSTANT MOBILITY will show new and enhanced usage and offers for the information generated.

The "Integrated Communications and Supervision Systems" will develop new products around the multimodality concept for use by transport operators both for providing a better and more accurate end user traffic information and for optimisation of their activity.

The "Revenue Collection Systems" division will be able to make use of new payment paradigm and test them via the targeted platform.

4.5.19 VALEO

Valeo, as an automotive Tier One company, considers that the deployment of Future Internet and associated use cases will provide considerable business growth opportunities. Indeed, following technologies will experience considerable growth:

- Connectivity between vehicle and smart phones, e.g. to allow safe use of smart phone (to access Future Internet services) through vehicle HMI, adapted to driving conditions,
- In-vehicle NFC technology to authenticate car users and passengers, e.g. car sharing and car pool use case scenarios,
- In-vehicle cameras and recording.

Valeo has multiple product lines that can take advantage from this market expansion:

- Display products will benefit from the need to enhanced HMI
- Connectivity products will benefit from the need to connect vehicles and smart phones
- Vision products will benefit from the need to increase car sharing safety

Therefore Valeo intends to invest in Instant Mobility to accompany Future Internet deployment, and thus gain leadership and market competitiveness.

4.5.20 VOLVO

AB Volvo, as one of the global and leading OEM and Total Transport Solution Provider is committed to provide and utilize high-end technologies to its customers and product life cycle management. With this mission as the background, the ultimate aim for AB Volvo is to provide the cost efficient, secure and sustainable solutions for public and goods transport. The concept of fully networked vehicle provides new possibilities for added-value services directly related to vehicle, transport mission and product life cycle management. As our main products are mobile and critical assets for our customers and the society, the requirement on communication channels, QoS and required features are at a high level.

INSTANT MOBILITY is the right project for AB Volvo to evaluate the current features in a new world of connectivity and get prepared for evolution and revolution in enhancement and development of existing and upcoming services and products. The main goal for Volvo in this project is to highlight the challenges from transport industry in a mobile and connected world of things as well as to bring in state of the art technology into its own business for supply-chain management.

4.5.21 VTT

As an applied research institute VTT has especially a target to use the know-how developed in the INSTANT MOBILITY project to apply Future Internet platform and enablers more to the Finnish urban mobility system development. The current very strong trend is to bring different kind of services to mobile users. VTT wants to increase the awareness and knowledge of public and local authorities to realise the digital convergence in terms of mobile handsets and vehicles.

Furthermore, VTT is willing to exploit the results in other application areas of ICT and M2M provides today.

The INSTANT MOBILITY project and other Future Internet Public Private Partnership projects will have a notable effort on development of Intelligent Transportation Systems. VTT will be actively promoting the possibilities of FI in realization and implementation of Finnish ITS strategy. VTT will also motivate Finnish public sector – especially large urban areas – and private companies to take active role in future large-scale actions such as ELSA for transport or the Europe-Wide Service Platform.

5. Annex I – Liaison projects

Project name - type & end date	Description related to the domain addressed	What Instant Mobility Expect to make use of
- COMeSafety FP6 SSA Dec 2009	The COMeSafety Project supports the eSafety Forum with respect to all issues related to vehicle-to-vehicle and vehicle-to-infrastructure communications as the basis for cooperative intelligent road transport systems. COMeSafety provides a platform for both the exchange of information and the presentation of results. http://www.comesafety.org	Consolidated European architecture for cooperative systems (V2X)
SEAMLESS French 2008 ANR	IP connectivity for public transport vehicles & for IP standard -based vehicle-to-infrastructure connectivity across WiFi and 3G accesses. http://www.systematic-paris-region.org/fr/projets/seamless	Results from project
- Intersafe-2 FP7 STREP 2011	V2X communication on urban intersections, Different safety scenarios covered and their functionality tested.	Scenario from urban intersections areas for driver assistance and technical functionality of V2X in urban intersection scenarios
CVIS 2010	The FP6 CVIS project defined a global platform for cooperative communications and services. CVIS developed an open architecture and prototype of cooperative on-board units, roadside units and necessary back-end infrastructure enabling vehicles to cooperate with each other, with the roadside infrastructure and with back-end services. http://www.cvisproject.org	1-Reuse CVIS cooperative systems architecture; communication, positioning and application management components; reference platform software for floating vehicle data, cooperative urban traffic control, fleet management, traffic information and management
P-Innovations Finnish 2007	Parking guidance using long range RFID http://www.vtt.fi/uutta/2007/20070613.jsp?lang=en	Project results
COOPERS FP6 IP Jan 2010	COOPERS focuses on the development of innovative telematics applications on the road infrastructure with the long term goal of a "Co-operative Traffic Management" between vehicle and infrastructure http://www.coopers-ip.eu	Privacy results and Galileo evaluation
eCoMove FP7 CP Mar 2013	eCoMove focus on integrated driver assistance systems for energy efficiency. By applying communication technologies for vehicle-to-infrastructure and vehicle-to-vehicle communication, the project will create an integrated solution comprising eco-driving support	Use the basic concepts, e.g. real time feedback to the driver regarding driving behaviour, for urban eco logistics

	and eco-traffic management to tackle the main sources of energy waste by passenger and goods vehicles. http://www.ecomove-project.eu/	
TeleFOT FP7 IP 2012	Use of nomadic devices as driver support on various traffic information like road conditions, hazards, feedback on behaviour, congestion. Field Operational Test.	Use the results of road tests, preferred services, their impacts and use of nomadic devices
EuroFOT FP7 IP 2011	"Smart drive" to test various intelligent in-vehicle systems across Europe, with the aim of making our road transport safer, more efficient, and more comfortable. The large-scale European Field Operational Test on Active Safety Systems	Use results, data collection methods, user experiences (like TeleFOT and DRIVE C2X)
CityLog 2013 STREP CityMOVE 2010	CityLog will increase the sustainability and the efficiency of urban delivery of goods through an adaptive and integrated mission management and innovative vehicle and transport solutions. (http://www.city-log.eu/) CITYMOVE aims at developing an innovative integrated vehicle solution fitting with the integrated city transport solution approach for a secure, flexible, reliable, clean, energy efficient and safe road transportation of goods across European cities. (http://www.citymoveproject.eu/)	Reuse basic concepts of smart and integrated logistics in urban areas
E-Freight FP7 CP Jun 2013	E-Freight address information visibility in the supply chain. The e-Freight Integrated Project is addressing the development, validation and demonstration of innovative e-Freight capabilities. E-Freight service networks adhering to co-modality principles for improved efficiency and end-to-end quality of surface freight transportation to exchange information with other authorities for collaboration in security and environmental risk management. http://www.efreightproject.eu/	Taking advantages of the suggested framework regarding electronic exchange of freight related information between different actors.
EIT Sweden national Project 2011	The Efficient and Integrated Transport Processes (EIT) project is a national collaboration project including 9 partners within the transport industry such as DHL, DSV and Schenker. The purpose with EIT project is to identify and analyze different options to develop and harmonize the administrative processes, business and process integration between transport companies, industry and authorities. The aim is to increase transport efficiency with consideration to new requirements and applications for sustainable and secure transportation. http://www.transporteffektivitet.eu/	Specification of stakeholder's need and requirement for future ICT aiming to enable and improvement of innovative transportation processes and business.
eMOTION FP6 STREP – Apr 2008	Project has investigated and specified a framework for a Europe-wide multimodal traffic information service offering real time information and special services for the road and public transport use	eMOTION Specification & data model

	http://www.emotion-project.eu/	
Euridice FP7 CP Dec 2010	The basic concept of Euridice is to build an information services platform centred on the individual cargo item and on its interaction with the surrounding environment and the user. http://www.euridice-project.eu	Euridice Data model for business processes; online services library for intelligent cargo
FREILOT	The FREILOT pilot project focus on increasing energy efficiency of urban freight through deployment of ITS services. By applying a holistic management on a combination of services for traffic- and fleet- management, vehicles and drivers a reduction of fuel consumption on up to 25% is suggested. http://www.freilot.eu/	Reuse the concepts for energy efficiency, e.g. load latency and loading/unloading space booking, in urban transports
GST FP6 IP Mar 2007	GST strove to develop an environment in which innovative telematics services could be developed and delivered cost effectively and thus increased the range of economic telematics services available to manufacturers and consumers. GST S-PAY sub-project provided an architecture for the electronic billing and payment of car Telematics Services as part of the global GST framework. http://www.ertico.com/gst-website/	Reuse some operational concepts Reuse architectural and functional decomposition of processes for single payment
- INTIME FP7 STREP Aug 2012 - ASSET FP7 STREP 2011 - Claire-CITI French -CONDUITS	Traffic Events and Trip Planner service are available with European Specification http://www.in-time-project.eu Traffic monitoring technologies and communicating information to road operators and drivers. http://claire-siti.inrets.fr/ Ongoing project about the information sharing of ITS applications and traffic management. http://www.conduits.eu/	INTIME CAI Interface Specification Monitoring data for tests, scenario definitions, I2V Smart system for Intermodal Transports Tools in development
iTravel FP7 STREP Sep 2009	Project goal was to develop, validate and demonstrate an innovative solution for a personalised, context-aware online 'virtual travel assistant' service for travellers, both before and throughout their journey, based on the integration of e-commerce and internet technologies to create the first 'e-marketplace' in the traffic and travel information services sector, through which - creation of a wide-ranging community of information and service suppliers who through i-Travel can expand their customer base while fulfilling travellers' needs. http://itravelproject.wordpress.com	iTravel API for mobile devices

NSFrits	North Sea Freight Intelligent Transport Solutions (NS FRITS) is a project co-funded by the Interreg IVB North Sea Region Programme. The aim is to improve accessibility for the road freight sector in the seven countries of the North Sea Region by improving safety as well as efficiency and reducing the risk of accidents and security threats for drivers of Heavy Goods Vehicles. The system will help: improve traffic flow addressing logistical problems around congestion and freight volumes http://www.nsfrits.eu/en/	Reuse of the concepts for data integration and smart information dispatching and exchange. Information portal and partner agreement for integration of data coming from different data provider exists.
Optitrans	Create a Mobile GNSS platform to provide commuters & travellers with the ability to plan their trip in an efficient manner in order to utilise and share a combination of public/private transportation by combining information from various public transport authorities and other private vehicle owners. http://www.optitrans-fp7.eu/	Mobile GNSS platform
Persist **FP7-ICT-2007-1** **Apr. 2008 – Oct. 2010**	PERSIST has defined specification and develop tools to create Personal Smart Spaces providing a minimum set of functionalities which can be extended and enhanced as users encounter other smart spaces during their everyday activities. Users interact with smart spaces through mobile terminals, thus the smart space become a Personal Smart Space. The personalization is based on user behaviors and context aware information. The smart space is composed by sensors and actuators.	Method and tools for context aware and personalized services
Infomagic **(French ANR)** **Doxa** **(French Cap Digital)** **SOLEN** **(2010 CNRS)** **Topos** **ADREVA** **2009**	Semantic processing of high volumes of data http://www.infomagic.com/ Extract moods and emotions from textual data https://www.projet-doxa.fr/index.php interaction with mobile devices http://www.medialab.sciences-po.fr/index.php?page=Solen Connection with social data http://www.concertation-topos.net/	semantic/real-time approach reuse of the different projects results
PRECIOSA **FP7 CP** **2010** **Humanist NOE**	Demonstrate that co-operative systems using V2V and V2I communication can comply with future privacy regulations. http://www.preciosa-project.org Acceptability and user-orientation NoE see http://www.noehumanist.org/	Privacy verifiable architecture, mechanisms for V2X privacy Ergonomy, acceptability

- Pre-drive-c2x FP7 CP Jun 2010 - DRIVE C2X FP7 IP 2013	Develop methods and tools for vehicular communications. Create most likely scenarios for services to be tested. http://www.pre-drive-c2x.eu Traffic s scenarios created in Pre-drive C2X to be tested in Field Operational Tests across Europe	Methods and tools for vehicular communications User experiences, impacts. Most preferred services.
SAFESPOT FP6 IP Jan 2010	SAFESPOT creates dynamic cooperative networks where the vehicles and the road infrastructure communicate to share information gathered on board and at the roadside to enhance the drivers' perception of the vehicle surroundings. http://www.safespot-eu.org/	Infrastructure and in-vehicle sensing platforms
Smartfreight Jun 2010	This project will make urban freight transport more efficient, environmentally friendly and safe through smarter use of the distribution networks and improved delivery and return-load systems. The basic idea is to integrate urban traffic management systems with freight management and onboard systems. http://www.smartfreight.info	Smartfreight framework architecture and reference model including CALM Mail implementation reference

- FINest
- fi-ware
- INFINITY
- CONCORD
- e- Justice
- WCAM
- µDrone
- IMPACT
- Use-it
- PROTECTRAIL
- DEMASST
- SECUR-ED
- NEXOF-RA
- COMPAS
- SEMbySEm
- EBSF
- ISSTE
- PM'N'IDEA
- CITYMOBIL
- OverDRiVE
- AIM
- ITS Test Beds
- 4WARD
- SAIL
- eMobility ETP
- 4Caast
- Cityzi
- SCOREF

- P@ss-ITS

6. Annex II - References

- Instant Mobility Annex I - "Description of Work", 2011-05-13
- Annex II - General Conditions to the FP7 Model Grant Agreement, Version 6, 2011-01-24
- FP7 Model Grant Agreement, Version 2, 2009-12-01
- D7.1 – Instant Mobility webpage, Penttinen, M. et. Al., June 2011
- eCoMove Deliverable D1.6 Plan for Using & Disseminating Knowledge, Castermans, J. et. al., Version 1.0, April 2011
- Strategic Guide to Successful Use & Dissemination of the Results of Research & Development Projects, USEandDIFFUSE project, 2009
- Dissemination of Foreground under FP7, IPR-Helpdesk
- Guidance Notes on Project Reporting, FP7 Collaborative Projects, Networks of Excellence, Coordination and Support Actions, Research for the benefit of Specific Groups (in particular SMEs), Version June 2010