D4.1 – WP4 meetings proceedings and external feedback

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CONTROL SHEET

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This deliverable is a draft document subject to revision until formal approval by the European Commission.

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Terms and abbreviations

Term / Abbreviation	Definition
CIP	Competitiveness and Innovation Programme
CBA	Cost-Benefit Analysis
COTS	Commercial off the shelf (referred to a technology product / solution)
EC	European Commission
ITS	Intelligent Transport Systems and Services
MRL	Manufacturing Readiness Level
MS	Member State (of the European Union)
OJEU	Official Journal of the European Union
PCP	Pre-commercial Procurement
PPI	Public Procurement of Innovation
TRL	Technology Readiness Level

1   Introduction

1.1   Purpose of Document

This report provides the proceedings of the network meetings held respectively on the 3-4 February 2015 in Brussels (Meeting # 5) and on the 21-22 May 2015 in Vienna (Meeting # 6) as well as of the external consultation workshop held on the 20 May 2015 in Vienna. The final outcomes of these meetings are the inputs for the "Updated network topics description and work plan" (D4.2).

1.2   Intended audience of this document

This report is a public deliverable of P4ITS intended to trigger the in-depth discussion on the updated identified barriers or new network topics identified as well as on draft key recommendation / guidelines to be elaborated within WP5 between September and November 2015 (M19 to M24).

1.3   P4ITS Contractual References

P4ITS is a Thematic Network of the ICT Policy Support Programme (ICT PSP), Competitiveness and Innovation Framework Programme (CIP). It stands for Public procurement of innovation for cooperative ITS.

The Grant Agreement number is 621049 and project duration is 30 months, effective from 01 December 2013 until 31 May 2016. It is a contract with the European Commission, DG CONNECT.

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Any communication or request concerning the grant agreement shall identify the grant agreement number, the nature and details of the request or communication and be submitted to the following addresses:

European Commission

Communications Networks, Content and Technology

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By electronic mail: CNECT-ICT-PSP-6210495@ec.europa.eu

European Commission

2   P4ITS Meeting #5

The fifth P4ITS network meeting was held in Brussels (BE) on the 3-4 February 2015. It was organised by the network coordinator, ERTICO – ITS Europe, who hosted the meeting at its premises.

2.1   Information exchanged prior to the meeting

Prior to the meeting, the project coordinator, Giacomo Somma (ERTICO), circulated to all network partners a new draft version of the Discussion paper (D3.2) for review and feedback.

G. Somma liaised with external parties to understand potential interest & experience in PPI and (cooperative) ITS, possible expectation from P4ITS in terms of outcomes, their impact and added value, and to set the basis for a partnership on innovation procurement. In particular, he contacted the coordinators of the EU funded projects CHARM, SYNCRO and V-CON, presented the P4ITS objectives, plans and current status and invited them to join the network and attend this meeting #5.

2.2   Attendance

Benef. N°	Short name	First name	Family name
1	ERTICO	Giacomo	Somma
2	NDR	Lasse	Stender
3	ATE	Bianca	Kapl
4	ASFINAG	Bernhard	Jelinek
7	CTAG	Jose Manuel	Martinez
9	VTT	Satu	Innamaa
10	EARDA	Melinda	Mátrai
11	ITSB	Imad	Fhail
12	VERONA	Arnaldo	Vecchietti
13	LIST (formerly TUDOR)	Christophe	Feltus
14	STA	Lisa	Silvemark
15	LIGURIA	Silvia	Risso
16	OHLC	Ana	Pou Merina
Ass. Partner	UK Highways Agency	Ian	Chalmers

2.3   Welcome and introduction

Giacomo Somma (ERTICO) opened the meeting by welcoming all participants. Then he presented the list of participants (with a round table presentations for the new associated partner), the meeting objectives, the outcomes from the Meeting #3 (reported in D3.1) and agenda (see next sections), which were approved unanimously.

The meeting running order is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Meeting-5_Running_order_V1.0.pptx

2.4   Objectives of the fifth network meeting

The list of objectives for this network meeting was circulated with the agenda to all network partners. The list of objectives was as follows:

Work package level objectives

- Interact with external stakeholders on the network's discussion paper
- Collect feedback
- Input the consolidated feedback in the network's work plan

Main outcomes from Meeting #3

- Finalised PPI flowchart including TRLs
- Analysed and developed key network topics
- Developed methods table with smaller working groups
- Finalised the deliverable D3.1 (submitted to the EC, to be published on P4ITS website)

Meeting #3 follow-up

- Meeting #4 not held (as agreed in Copenhagen / Verona)
- Coordinators of CHARM, SYNCRO and V-CON invited to join P4ITS as Associated Partners
- Proposal submitted for SIS at ITS WC 2015
- First draft of the Discussion paper (D3.2) distributed to P4ITS partners

Meeting #5 specific objectives

- Finalise the Discussion paper (D3.2), including stakeholders' questionnaire
- Prepare the external consultation: organisation, stakeholders to be invited, timeline, final workshop in Vienna

2.5 Agenda of the meeting

Day 1 – Tuesday, 3 February 2015

13:00 – 13:30	*Arrival of the participants*
13:30 – 13:45	Opening and welcome
13:45 – 14:00	Meeting objectives and agenda Network management and status overview Outcomes first contractual review
14:00 – 15:30	Introduction of new Associated Partners Presentations (15 minutes each): - CHARM project (I. Chalmers, UK Highways Agency) - TM2.0 platform (M. Flament, ERTICO) - iMobility support (B. Kapl, AustriaTech) Questions & Answers
15:30 – 16:00	*Coffee break*
16:00 – 18:00	Partners expectations from the external consultation (outcomes, impact, added value) Feedback to be collected on experiences, challenges / opportunities, enablers for PPI in C-ITS Preparation of the external consultation: organisation, stakeholders to be invited, timeline, final workshop in Vienna
18:00	*End of the meeting*

Day 2 – Wednesday, 4 February 2015

08:30 – 12:30	Feedback on the draft Discussion paper (D3.2) Preparation of questionnaire as part of D3.2
12:30 – 13:30	*Lunch*
13:30 – 16:30	Discussion paper wrap-up and conclusion
16:30 – 17:00	Update of work plan, next steps and meetings AOB
17:00	*End of the meeting*

2.6   Network management and status overview

2.6.1   Management of the network

G. Somma presented an update of the status of the milestones achieved and the deliverables submitted to the EC after approval of the P4ITS consortium and those planned for the next quarter. He also reminded the risks listed in the DoW (still relevant for the project) and in particular the need of continuity of action and involvement by different network partners.

2.6.2   Outcomes of the First Annual Review

The coordinator summarised the outcomes of the first annual review held the same day as follows:

Main outcomes:

- Good overall progress with only small deviations
- Project has limited resources, but high ambitions
- Hope partners are able to follow up as network, beyond project duration
- Contract amendment needed for legal entity change of VTT and TUDOR
- Project indicators (DoW, pg. 18) and website statistics to be included in D1.2 (Progress Report)

Recommendations:

- Keep momentum, don't lose focus / ambition
- Use indicators to communicate project progress (more effective message than deliverables)
- Provide the EC with feedback on identified PPI bottlenecks to highlight funding needs for the key areas, where action could be needed to supplement regional and national instruments
- The PPI flowchart should:
  - be "open" on the upper part, the procurers side, to take into account differences
  - connect more clearly procurement needs to TRL (well-known reference), but not use MRL (not widely known)
  - be made more clear by adding the words "new / additional" to the question on "functional demands"
- Address the TRL reference also in the SIS proposal.

2.7   Presentations

2.7.1   CHARM PCP project (Ian Chalmers, UK Highways Agency)

The CHARM project represented a strategic decision to use PCP to expand marketplace, reduce cost of ownership, and achieve flexibility and adaptability, but also to strengthen cooperation between

network operators. Mr. Chalmers presented the objectives of the CHARM PCP project, its three lots with specific focus on Support of Cooperative ITS Functions, and the current status. The project is divided in three phases. Phase 1 ("Challenge Solution Design") is intended to demonstrate the feasibility of proposed concepts for new solutions. CHARM partners expect to award a minimum of 4 projects per Lot (for a total of at least 12). Phase 1 results in a feasibility report. Phase 2 ("Challenge Prototype") is intended to develop and evaluate prototypes or demonstrators from the more promising concepts in Phase 1 and as such is dependent upon successful completion of Phase 1. Continued assignment under the contract for Phase 2 may be awarded to selected Phase 1 Contractors that have successfully completed (as detailed in the Framework Agreement) Phase 1 and that have submitted the best ranking offers to the further competition for Phase 2. CHARM partners expect to award a minimum of 3 projects per Lot for phase 2 (for a total of 9). Phase 3 ("Challenge Pre Production testing") is intended for the original development and testing of a limited volume of first products/ services (test series). Continued assignment under the contract for Phase 3 may be awarded to selected Phase 2 Contractors that have successfully completed (as detailed in the Framework Agreement) Phase 2 and that have submitted the best ranking offers to the further competition for Phase 3. Two Contractors will be contracted in phase 3 per Lot (for a total of 6). Pre-production testing will be done in a CHARM based operational environment (see Challenge Brief). A TMC in the Netherlands is expected to be used for this. Phase 3 results in the demonstration of the prototype in an operational environment and an end of phase report form.

The expectations from the collaboration between CHARM and P4ITS lie on knowledge sharing on PPI for ITS (not just Cooperative ITS) and the final Guidance document. Future perspectives for CHARM are that modules can be implemented in several TMC's improving Network Operation. Figure 1 here below summarises the innovation vision for intelligent mobility and the steps required to make it a reality. As part of the Roads Investment Strategy, the Highways Agency has been given £150m to use for Innovation projects. This is supported by an Innovation Programme (Research and Development) – it is believed the indicative budget for the ITS portfolio is in the region of £4m per annum but this has yet to be confirmed.

Replying to inquiries on award criteria and risks of supplier lock-in, Mr. Chalmers explained that in the first phase CHARM PCP had to spend time to define the challenge/problem to be solved and define the tendering process, both requiring a significant effort to the project consortium, and that to avoid vendor lock-in it was decided the PCP action was limited to add-on modules, for which a license for use of knowledge in the frame of CHARM PCP was included in the framework agreement, without prior decision to acquire a specific module from a vendor. At the same time the CHARM partners agreed to acquire the core system separately from each module.
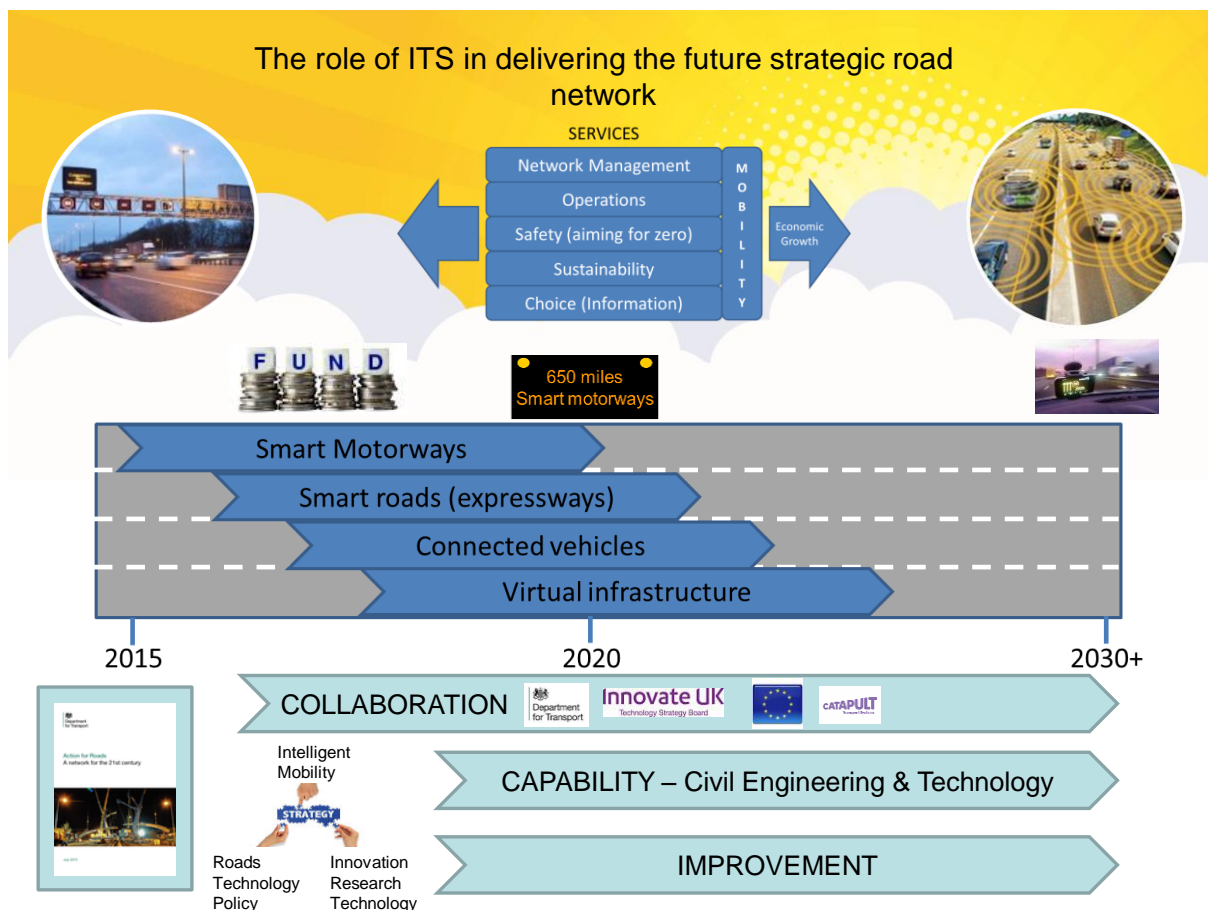
Figure 1: Innovation vision on ITS to enable the safe & efficient movement of people and goods

This presentation is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_CHARM-PCP_v2.ppt

2.7.2   TM2.0 platform (Maxime Flament, ERTICO – ITS Europe)

The vision of the TM2.0 platform is to enable vehicle interaction with traffic management, by moving from a traditional situation where a road-centred and a driver-centred approach are confronted, to a new situation where a set of existing interfaces are used to facilitate the exchange of data between vehicles and TM procedures supporting the entire value chain for consistent traffic management / control and traffic information services. According to this vision, the mission of TM2.0 is to build upon deployment of connected vehicles and travellers in order to:

- achieve convergence of mobility services and traffic management,
- create synergies between actions of individual travellers with collective mobility objectives,
- bridge the innovative developments in the vehicle and in the traffic management,

while giving value to the legacy and creating new business opportunities.

The data exchange principles illustrated in Figure 2 and Figure 3 are proposed by TM2.0 to this end.

Based on the above, Mr. Flament expressed the interest of the TM2.0 Platform towards a possible scenario for a PPI action on TM and mobility services in the frame of the Horizon 2020 call MG.8.3-2015 (Facilitating market take-up of innovative transport infrastructure solutions) being considered by the P4ITS network as a possibility to establish a longer term partnership.

This presentation is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/TM20-PPI-MG8-3.pptx
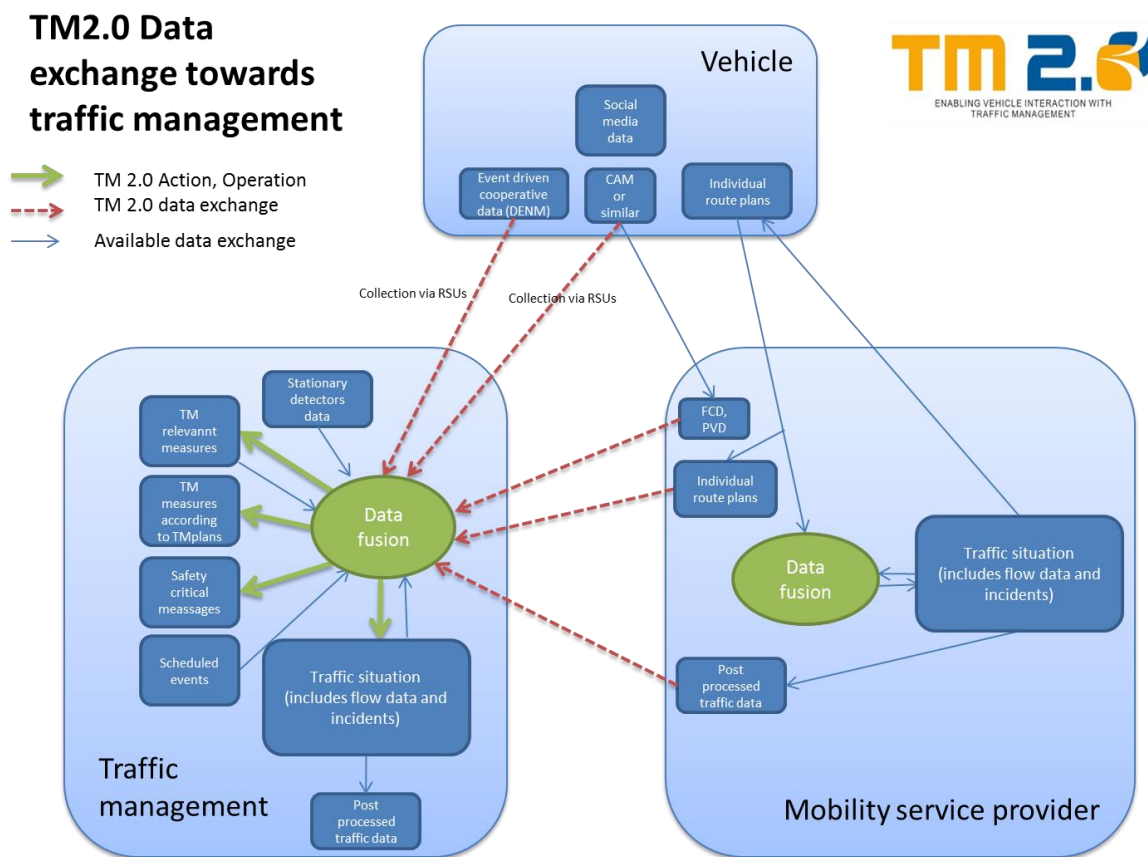
Figure 2: TM2.0 data exchange towards traffic management
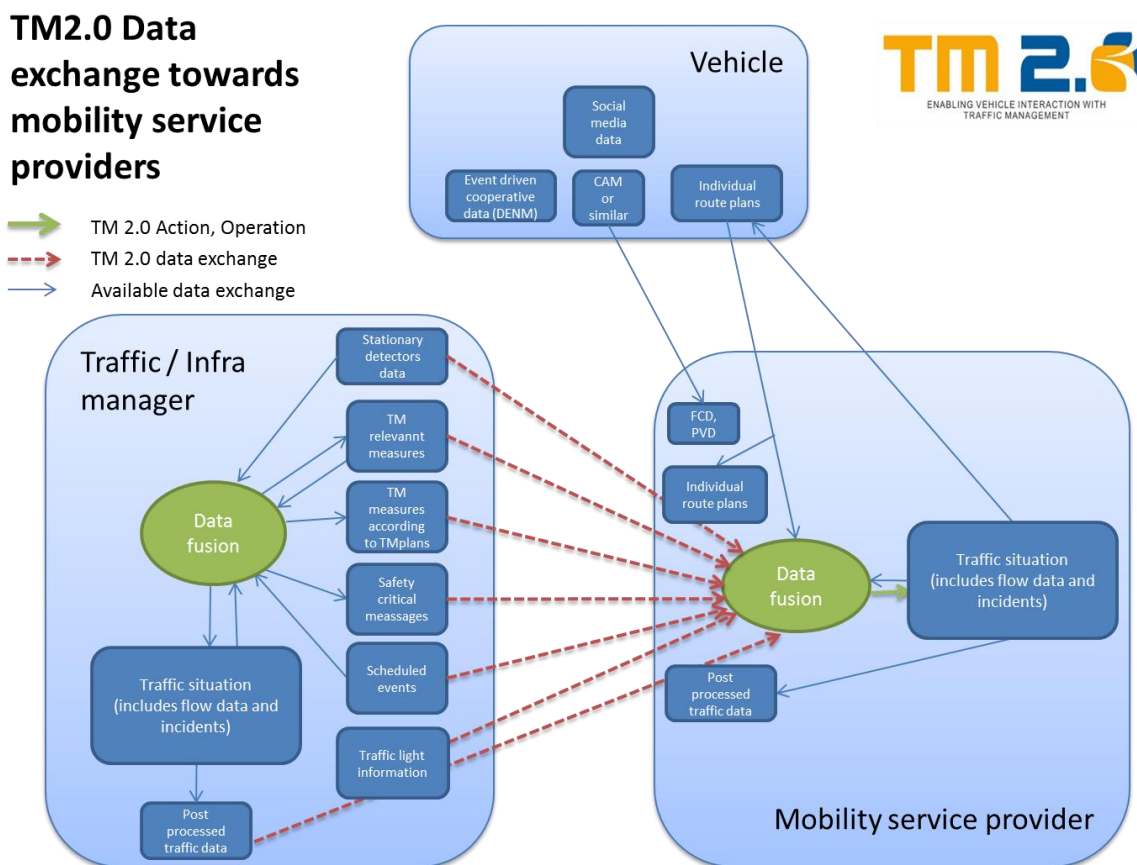
Figure 3: TM2.0 data exchange towards mobility service providers

2.7.3 iMobility support (Bianca Kapl, AustriaTech)

Mrs. Kapl presented the experience and results of a questionnaire and webinar on PCP actions carried out by of the iMobility Support Project. She presented the project objectives, structure and partnership, focusing on a task on "Pre-Commercial Procurement Support", led by AustriaTech.

Within the iMobility Support Project, the objectives of this task on PCP are to spread knowledge about instruments, policy mix strategies, benefits, procedures and more in general raising awareness in order to widespread the use of PCP supporting deployment of innovation in the mobility sector. Other objectives of this PCP Support task are to update the P3ITS handbook, to monitor and report on PCP (and develop a set of lessons learned, best-practice exchange) as well as to disseminate the PCP handbook and organise dedicated info days.

Mrs. Kapl described the process followed step-by-step, from the selection of target groups (Public Authorities, i.e. public procurers and

(co-)financing organisations), to the structure of the web-based survey and specific questions asked, and the results gathered with lessons learned. As a result of the PCP questionnaire it was recommended to address the following points:

- Lessons learned from projects that have been executed
- Different implementation models from the different Member States
- Critical issues within the PCP process
- Role of different actors (including research organisations and suppliers).

Therefore, after a first report, iMobility Support conducted extra phone interviews, an analysis of reports of other projects, and a webinar on PCP in Europe vs. Innovative Procurement in Canada, following to which a revised PCP report was issued and the P3ITS PCP Handbook was updated.

This presentation is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/iMobility-Support_for-P4ITS-Meeting.pptx

2.8   WP4 - External Consultation and Feedback

To introduce the discussion G. Somma shortly presented the Tasks of Work Package 4 (External Consultation and Feedback), and reminded that the network partners shall agree on the concept of the external consultation, i.e.:

- what external partners to consult (industry partners, European and national competition authorities, law firms, stakeholders groups)
- how to organise this consultation (questionnaires, phone interviews, workshops, conference papers or special sessions).

In relation to the process to follow, Mrs. B. Kapl, WP4 leader, presented the following proposal:

1. The first step of the external consultation will be the **preparation of a draft discussion paper**; use draft paper as introduction and add a question giving an option for feedback on the written part plus the questionnaire with questions to be decided on in this meeting #5.
2. This draft would be **sent out to the stakeholders identified** asking to answer the questions and send it back by April 2015, i.e. before the stakeholders' workshop & partners meeting #6 in Vienna (20-22 May 2015).
3. The inputs send by external stakeholders will allow having a **first analysis phase** before the workshop.
4. The inputs received will be used as basis of a **discussion in the stakeholder workshop** (to get their feedback and opinions). ERTICO will elaborate these inputs and present first conclusions at the stakeholder workshop as input for discussion.

5. A *second analysis phase* will then take place during summer (WP5). This phase would give P4ITS partners the chance to refine the questionnaire according to the results of the consultation and the stakeholders' workshop.

6. The outcomes of the second phase will be used for *D6.2 Final guidelines / recommendations.*

All the participants agreed on this proposal and the discussion on the external consultation started, which led to the decisions reported in the next sub-sections.

2.8.1 Partners expectations from the external consultation

The partners' expectations can be summarised as follows:

- **Outcomes:**
  - Gather feedback on the level of understanding of the PPI flowchart and its concept, including comments for improvement
  - Learn about the respondents' experience with PPI, including different views on approaches to PPI (open specification, market consultation, tenderers' remuneration, etc.)
  - Gather information on the problems / barriers encountered and lessons learned (e.g., best practice examples and/or recommendations)
  - Start building a list of enablers for PPI
- **Impact:**
  - Raise awareness on PPI and different aspects and approaches
  - Report to the EC so that barriers can be addressed by new policy instruments, including PPI/PCP actions funding
- **Added value:**
  - Learn from real-life cases studies
  - Share findings in final recommendations / guidelines

2.8.2 Preparation of the external consultation

The following points were discussed and agreed upon for the consultation process:

- **Organisation:**
  - Responsible: ERTICO – Host: ASFINAG
  - Management team telco: 6 March 2015, 9:30-10:30 CET
  - No phone interviews can be afforded in the frame of P4ITS, the Discussion paper (with questionnaire) shall be sent electronically and published online (e.g., surverymonkey.com)
- **Stakeholders to be invited:**
  - Each single partner to email the Discussion paper & Questionnaire to own contacts
  - ERTICO to collect inputs and draft first feedback document

- **Timeline:**
  - ERTICO to send D3.2 draft to partners on 6 Feb. 2015
  - Partners complete D3.2 draft by 13. Feb. 2015
  - ERTICO prepares D3.2 final version by 20 Feb. 2015
  - Partners approval D3.2 by 27 Feb. 2015 (and submission to EC)
  - Publish D3.2 on the internet by 3 Mar. 2015
  - All partners to send D3.2 to own contact list by 6 Mar. 2015
  - Time for answers until 20 Mar. 2015, with possibly extension until 27 Mar. 2015
  - ERTICO to send consolidated feedback doc by 30 Apr. 2015
- **Final workshop in Vienna:**
  - Two speakers from local host / partners / associated partners
  - Possibly, speakers from questionnaires respondents
- **Objectives of the workshop & consortium meeting in Vienna:**
  - Discuss questionnaires
  - Analyse outcome of the workshop
  - Update discussion points / identify PPI enablers
  - Plan activities until the meeting #7 (15-16 Sep. 2015).

2.9 Discussion paper (D3.2)

The meeting continued as working session to finalise the preparation of the Discussion paper, based on the draft prepared and circulated prior to the meeting by G. Somma. To introduce the discussion he reminded that, according to the work-plan, the Discussion paper shall:

- be a document ready to be published and circulated, and an invitation for external participants to interact with the network at the events planned during WP4
- summarise the common understanding on key discussion topics and present some questions that the P4ITS network partners wish to discuss with external stakeholders, and mainly industry suppliers.

The discussion moved around these points and the participants agreed to limit the consultation only public procurers, R&D organisations, and private operators of public infrastructures and services (e.g., road operators), but not to industry suppliers. At the same time, it was decided to extend the consultation to actors from various sectors, not only (cooperative) ITS. This way, the external consultation could gather feedback, knowledge and experiences on PPI aspects common to several

sectors, while gathering more insight in the ITS domain. To this end, it was decided to structure the Discussion paper as follows:

A. Introduction, purpose of Document and targeted audience

B. Definitions: concept of innovation, definition of PPI, P4ITS flowchart linking PPI to metrics

C. Questionnaire, organised in the following sections:

 1. Knowing the respondent

 2. Explanations and PPI flowchart with TRL

 3. Procurement experience

 4. PPI experience

 5. Intelligent Transport Systems & Services (ITS) and Cooperative ITS (C-ITS)

 6. P4ITS information.

Following to this meeting, the Discussion paper was finalised according to the timeline. The sections related to the points A and B of the Discussion paper were published in PDF file on the P4ITS website (http://p4its.eu/external-consultation/), while the Questionnaire (point C above) was published on surveymonkey.com. The full deliverable D3.2 (including points A, B and C) has been published on the P4ITS online library (http://p4its.eu/library/) for reference.

2.10 Update of work plan, next steps and meetings

The meeting participants confirmed that the work is running in line with the plan agreed in previous network meeting and confirmed the venues for the network meetings #7 (planned for Sep. 2015 at VTT, in Helsinki) and #8 (planned for Nov. 2015 at Regione Liguria, in Genoa). After the meeting, G. Somma sent a doodle to all partners and associated partners to fix the dates.

2.11 Dissemination activities

Mr. Lasse Stender informed the P4ITS partners about a webinar organised by ITS Denmark & North Denmark Region on "Innovative Procurement of ITS" to be held on Fri., 6 March 2015, targeting Danish ITS stakeholders. He announced his presentation on "Relevant procedures and approaches in PPI" and proposed a presentation by P4ITS. The partners agreed that this is a good opportunity for the network and agreed that the coordinator, G. Somma, would make a presentation.

G. Somma announced that, following to the approval by all P4ITS partners, the proposal for a Special Interest Session as final event of P4ITS at the 22nd ITS World Congress was successfully submitted.

2.12 Horizon 2020 calls on PPI / PCP actions

G. Somma reminded the participants about the Horizon 2020 call for cross-border PPI actions under topics **MG.8.3-2015** ("*Facilitating market take-up of innovative transport infrastructure solutions*"), for which the opportunity of preparing a proposal taking also into consideration the complementary European Structural and Investment Funds (ESIF). In particular, he suggested an idea for a join PPI action on interoperability issues of C-ITS technology solutions.

Apart from funded opportunities, G. Somma invited the partners to start elaborating proposals for the setting up a longer term partnership on PPI.

3   P4ITS External Consultation Workshop

The P4ITS consultation workshop and sixth network meeting were held in Vienna (AT) respectively on the 20 and 21-22 May 2015. They were organised by the network coordinator, ERTICO, together with the hosting partner, ASFINAG, who offered to host the meeting at its premises. The workshop was prepared with the P4ITS Work Package leaders: AustriaTech, NDR, VTT and CTAG.

3.1   Welcome and introduction

Giacomo Somma (ERTICO) opened the meeting by welcoming all participants. After a round table presentation by participants, he presented the P4ITS network, the workshop objectives and agenda (see next-subsections). The presentation is available for download by P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Workshop_20150520_intro.pptx

3.2   External Consultation objectives and timing

Objectives:

- Interact with external stakeholders and collect feedback on P4ITS Discussion paper
- Input the consolidated feedback in the network's work plan

March-April 2015 – Online questionnaire

- Discussion paper & questionnaire published on the P4ITS website
- Invitation sent to identified external stakeholders (public procurers)
- Collection and first analysis of responses to the online questionnaire

20 May 2015 – Workshop in Vienna

- Presentation of Discussion paper & preliminary feedback gathered through the questionnaire
- Discussion with external stakeholders on key network topics (to get feedback and opinions)
- Reality check on the first conclusions of the network

June-July 2015 – Identification of potential enablers & discussion topics update

- Based on feedback received, identify PPI enablers remaining realistic in the scale of potential achievement (e.g., aligning competition laws in all MS is not considered as a realistic enabler)
- Identify which points could be effectively addressed through a concerted approach and which will have realistically the highest impact, thus leading to update network discussion topics

3.3   Workshop agenda

09:30 – 10:00	*Arrival of the participants*
10:00 – 10:10	Opening and welcome
10:10 – 10:20	Workshop objectives & agenda (G. Somma, ERTICO - ITS Europe)
10:20 – 10:45	*PPI - Experiences and Strategies in the Mobility Sector* (M. Russ, AustriaTech) Questions & Answers (10 min.)
10:45 – 11:10	*Eco-AT Project: European Corridor - Austrian Testbed for Cooperative Systems* (P. Meckel, ASFINAG) Questions & Answers (10 min.)
11:10 – 11:30	*Coffee break*
11:30 – 12:00	*P4ITS Discussion Paper& Online Questionnaire* (G. Somma, ERTICO - ITS Europe) Questions & Answers (15 min.)
12:00 – 13:00	*Lunch*

13:00 – 15:00	Three parallel sessions:
	• ***Working Group 1: PPI approaches, IPR & legal aspects***
	    (moderator: L. Stender, North Denmark Region; rapporteur: G.Somma, ERTICO)
	• ***Working Group 2: Major PPI challenges and mitigation plans – PPI guidelines***
	    (moderator: B. Kapl, AustriaTech; rapporteur: B. Jelinek, ASFINAG)
	• ***Working Group 3: PPI and (Cooperative) ITS***
	    (moderator: S. Innamaa, VTT; rapporteur: J.M. Martinez, CTAG)

15:00 – 15:30	Working Groups' summary by rapporteurs (10 min. each)
15:30 – 16:00	Final considerations and conclusions
16:00	*End of the workshop*

3.4   Attendance and Working Groups

Organisation	Name	Surname	Working Group 1	Working Group 2	Working Group 3
ASFINAG	Bernhard	Jelinek		rapporteur	
AustriaTech	Bianca	Kapl		moderator	
AustriaTech	Martin	Russ	-	-	-
Bundesbeschaffung GmbH	Stefan	Wurm	X		
CTAG	José M.	Martínez			rapporteur
ÉARDA	János	Agócs Kiss	X		
ÉARDA	Roland	Csehi	X		
ÉARDA	Melinda	Mátrai	X	X	
ERTICO	Giacomo	Somma	rapporteur		
Finnish Transport Agency	Kari	Hiltunen			X
Highways England	Ian	Chalmers			X
ITS Bretagne	Imad	Fhail		X	
LIST	Christophe	Feltus		X	
Hungarian Innov. Agency	András	Hlács		X	
North Denmark Region	Lasse	Stender	moderator		
North Denmark Region	Svend	Tøfting			X
Regione Liguria	Cristina	Battaglia		X	
Regione Liguria	Jacopo	Riccardi			X
Regione Liguria	Silvia	Risso	X		
Swedish Transport Admin.	Annica	Roos			X
TOPOS / CEREMA	Jean-Philippe	Méchin			X
VTT	Satu	Innamaa			moderator

3.5   Presentations

3.5.1   PPI - Experiences and Strategies in the Mobility Sector (Martin Russ, AustriaTech)

Mr. Russ presented a way forward to PPI & C-ITS deployment, in which a key need is to move from a project-driven landscape to sustainable operation and effective use of infrastructure for mobility. This requires an innovation eco-system (Figure 4), where "new" instruments are used to foster innovation in the transport sector, to bridge gap between R&D demand-side oriented innovation procedures for harmonised deployment, and to set up procedures to deal in an efficient way with legal boundaries (public procurement law, regulations, …). In this context, PPI can be considered as a policy instrument presenting challenges and offering opportunities at the same time. Challenges are for instance: complex legal framework, different methods and procedures, risk avoiding strategies as traditional approach, innovation as a new topic for public bodies (esp. procurement departments), lack of training, need for a policy mix. Opportunities are for instance: new services for the citizens, service- and innovation-oriented public bodies, innovation-demand by first buyers, deployment of innovative ITS solutions (large scale), adequate instruments for demand-oriented innovation. In the mobility sector (esp. C-ITS), it is particularly important to establish a clear role for the different stakeholders, to integrate/address all specific layers (data, services, MaaS), and to keep to pace and to achieve an open system- and service-landscape. This can be visualised through a conceptual framework to support deployment (Figure 5).
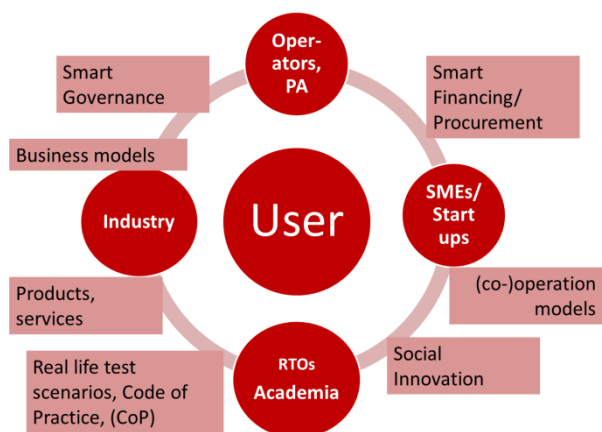
Figure 4: Mobility as an innovation eco-system   **Figure 5: A Conceptual Framework to Support Deployment**
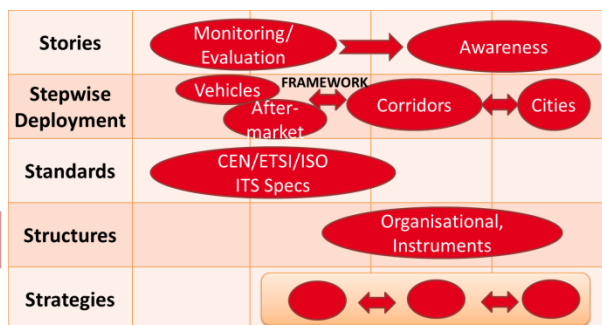
Mr. Russ finally presented the Austrian framework for:

- Public Procurement of Innovation:
  - Innovation Oriented Procurement Initiative started by Austrian Government in 2011 (40 Billion € Public Investment/Year);
  - Integration of concept in different sectoral strategies (National Mobility Plan, ITS Action Plan, Vienna Smart City Strategy, …);
  - Competence Building & Creation of Best-Practice (PCP Pilots, Eco-AT, …)

- Cooperative ITS:
    - Long term commitment to C-ITS: first projects in 2006, deployment steps since 2009, now clear focus on V2X roll-out, open to all OEM partners;
    - Clear role of actors: strong industry, leading highway operator;
    - National Deployment Strategy (Ministry of Transport): define 1st day services & next steps (cities, freight, …); establish "Living Lab" and Innovation Cluster (new); explore links with neighbouring countries (esp. Danube Region); AustriaTech appointed national coordinator;
    - Integrative approach: connect to probe data, traffic management, multimodal traveller information, …

This presentation is available for download by the P4ITS consortium members at: http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Workshop_20150520_Exp-Strat-Mob-Sec.pptx

3.5.2 ECo-AT Project - EU Corridor: Austrian Testbed for Cooperative Systems (P. Meckel, ASFINAG)

Mr. Meckel presented the ECo-AT Project, which moving from previous & current developments in C-ITS / C2X has been established in the frame of the C-ITS corridor launched by Austria, Germany and the Netherlands in June 2013 to develop a common implementation schedule for C-ITS applications, common conventions for harmonized interfaces towards vehicles in the three countries and roadside equipment/systems installed along the motorway corridor, and a common implementation strategy for further development of C-ITS applications on motorways. These activities are organised in two phases and two use-cases: 1) Pre-development, specification and proof-of-concept in the frame of national projects; 2) Nationwide Deployment of the use-cases *Road Works Warning* (RWW) and *Probe Vehicle Data* (PVD) in the Cooperative ITS Corridor (NL-DE-AT). Mr. Meckel presented project details on the two phases, the partners involved, the system architecture and interfaces, the specific ECo-AT use-cases (In-Vehicle Information, Intersection Safety, and other DENM applications). The main topics addressed by Eco-AT are:

- Use Cases
- Roles & Responsibilities
- System architecture for whole value chain
- Traffic Control Centre (TCC)
- Road Side Units (RSU)
- Co-Existence (5.8 GHz CEN DSRC with C-ITS / ITS G5 5.9 GHz)
- Convergence (5.9 GHz ITS-G5 with cellular systems)
- Upwards Compatibility
- Conformance Testing
- Definition and Implementation of a Living Lab
- Tender procedure – procurement
- Conformance Testing
- Roll Out and Operation

Replying to questions on procurement aspects, Mr. Meckel and Mr. Russ pointed out that no joint procurement will be done by NL-DE-AT in the frame of the C-ITS corridor. Also, the Austrian Climate and Energy Fund decided to use a normal tendering procedure in the frame of the Eco-AT project. The specifications are being defined with a set of suppliers and open workshops are organised to assure these specifications are as much open as possible.

This presentation is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Workshop_20150520_ECo-AT.pptx

3.5.3 P4ITS Discussion Paper& Online Questionnaire (Giacomo Somma, ERTICO)

Mr. G. Somma briefly presented the P4ITS Discussion paper and the information gathered through the online questionnaire. After eliminating invalid or double responses, the results of the P4ITS questionnaire are the following.

1. **Participants to the Questionnaire:**
   - Respondents: 32 persons
   - Countries: 13 (Austria, Belgium, Denmark, Finland, Greece, Hungary, Italy, Luxembourg, Netherlands, Spain, Sweden, Turkey and UK)
   - Organisations: public authorities, transport & road operators, innovation agencies, associations, research establishment, consultants, providers/suppliers
   - Sectors: Transport / ITS, works / supplies / services, health, ICT

2. **Is the PPI flowchart clear?**
   Answered to the questions: 32 persons. Skipped the questions: 0 persons. Answers given:

Responses	
87.50%	28
6.25%	2
6.25%	2
	32
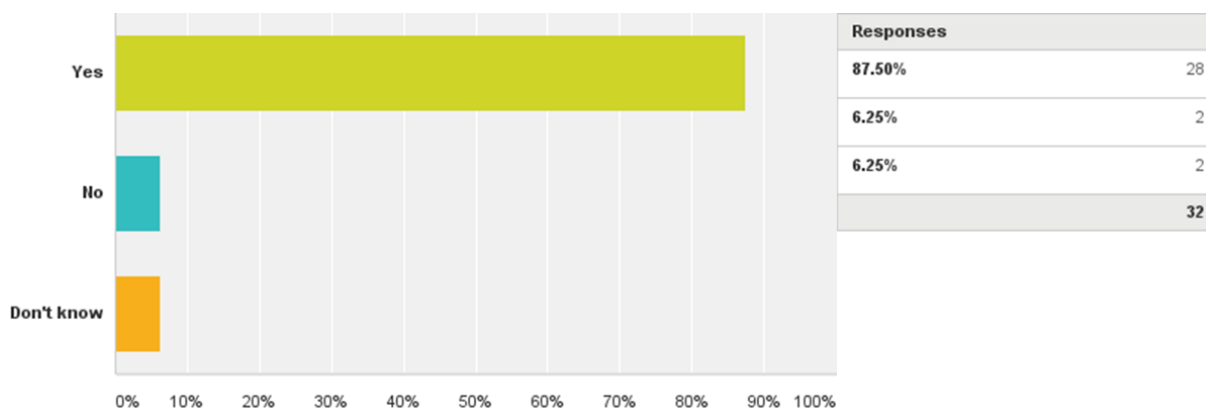
   Comments:
   - 3 persons: reformulate question "are any new or additional requirements needed" - term "functional" not clear
   - 1 person: revise flowchart referring to Guidance for PAs on PPI (pg. 18)
   - 2 persons: border between PCP and PPI as well as R&D and innovation is not always clear
   - 1 person: RFI/RFQ is only the starting point and doesn't guarantee success of the whole process
   - 7 persons: TRL reference not clear, or not appropriate (e.g., software services), or different scaling is used

- 2 persons: use of dotted lines and TRL colours not clear
- 1 person: real-life examples would help understanding better the flowchart

3. **Procurement experience**
   - Public procurement experience: Yes (25 persons), No (7 persons).

4. **PPI experience:**

Answered to the questions: 29 persons. Skipped the questions: 3 persons. Answers given:

Approaches knowledge / experience:

Approach	Yes	No	Never heard
Prior Information Notice (PIN) and market consultations	11	16	5
Using functional specifications in your technical specifications	17	11	2
Allowing the suppliers to offer variants	16	11	2
Using the principle of Total Cost of Ownership (TCO) as award criteria	8	15	6
Joint procurement with other stakeholders	14	13	2
Risk sharing between procurer and supplier / provider	9	16	4

Other approaches suitable for catalysing innov. procurement: Yes (9 persons), No (20 persons):
→ PCP, Competitive dialogue, Integrated Procurement, Project financing, Competition for best idea, BIM tech

Experience with PPI as described in Chapter 2.2 of the P4ITS Discussion paper:
- Yes (8 persons), No (14 persons), Not heard (7 persons)

Type of experience:
- Tenders or PCP
- PP (especially including PPI) becomes more and more difficult due to abundant ever moving formal requirements of PP legislation and jurisdiction. Especially the further evolution of procured systems is difficult since not all needs can be anticipated at initial procurement. Reasonable behaviour of the supplier is not enough for justifying additional procurements from the same supplier whereas full open procurement of such extensions is not really feasible. Due to evolving jurisdiction even "lessons learned" are often not useful. There is more formal / legal overhead than technical / user-side innovation required.

Key PPI aspects:

Answered to the questions: 8 persons. Skipped the questions: 24 persons. Answers given:

Are IPR aspects taken into account?
- Yes (5 persons), No (1 person), Don't know (2 persons)

Comments:
- Contractual agreements with supplier / provider; difficult to deal with in case of disputes.

Most challenging aspects of PPI & recommendations:
- Creating specific knowledge on PPI.
- Defining relevant problems or unmet needs.
- Defining preliminary project processing capacity, according to industrial methods.
- The state should be clear about the specifications; the rules should be clear, and possibly set with universities and possible supplier associations

- The legal framework, its actual interpretation and other inherent elements (e.g., liability, understanding of requirements by the supplier, user acceptance, system evolution, technical progress/obsolescence, etc.) are a challenge. The simplification of the legal framework and more stability / room for reasonable judgment (in general for PP but possibly in particular for PPI by exceptions) are recommended.
- Need to move a product / service from prototype / demonstrator to commercial readiness.
- Understanding the whole procurement process (supplier management, claim handling, contract management, reporting....), not just the bidding phase. PP is not just bidding; this is important, but it is only the starting point. The attitude is a challenge as well (e.g., lawyers should advise on what the law allows doing rather than what is not allowed). Involve procurers in the conceptual phase to support the process (e.g., choice & use of the correct bidding method to support procuring innovations.
- Challenge: the procuring authority to be "first mover" in relation to new technology / solutions. New rules on the negotiated procedures in the new procurement directive might help. Suggest to use always market consultations before drafting or issuing our technical specifications to avoid disregarding solutions that you don't know.

5. **PPI and (cooperative) ITS:**
   Answered to the questions: 20 persons. Skipped the questions: 12 persons. Answers given:
   Any experience? Yes (7 persons), No (10 persons), Don't know (3 persons)
   Is there any risk or difficulty factor specific to PPI in this particular sector?
   Rating from 0 (no particular sector related risk) to 5 (high risk when procuring ITS solutions)

	0	1	2	3	4	5	Don't know	Total	Weighted Average
a. Technology lock-in	0.00% 0	0.00% 0	42.86% 3	0.00% 0	42.86% 3	14.29% 1	0.00% 0	7	3.29
b. Lack of interoperability with other systems / solutions	0.00% 0	0.00% 0	28.57% 2	28.57% 2	14.29% 1	28.57% 2	0.00% 0	7	3.43
c. Lack of backward compatibility with legacy systems	0.00% 0	14.29% 1	28.57% 2	0.00% 0	28.57% 2	28.57% 2	0.00% 0	7	3.29
d. Technical maintenance (including updates / upgrades) difficult to guarantee	0.00% 0	0.00% 0	14.29% 1	0.00% 0	57.14% 4	28.57% 2	0.00% 0	7	4.00

Comments:
- <u>General</u>: normative these risks should be developed prior to the PPI
- <u>Technology lock-in</u>: it is difficult to avoid exclusive commercial rights by supplier; inherent risk for early adopters - when a different technology is standardised incompatibility issues may arise; PPI targets should not be set by technical specialists only, but in cooperation with ICT and procurement specialists.
- <u>Interoperability</u>: technical interoperability seems feasible; the challenge is mostly on the user. If Enterprise Architecture is not maintained in sufficient level this is obvious risk.
- <u>Backward compatibility</u>: legacy systems require old SW/API, not supported by new systems.
- <u>Maintenance</u>: mainly a PP challenge, not a technical one; systems / solutions should be independent from supplier.

Is there any other risk / difficulty factor specific to PPI in the (cooperative) ITS sector?
- Contractor's bankruptcy, in case of exclusivity. Liability in case of failures.

6. **P4ITS information:**
   - Interest in P4ITS network: 17 persons
   - Interest in questionnaire results: 21 persons
   - Interest in attending the P4ITS workshop on 20 May: 15 persons

This presentation is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Workshop_20150520_intro.pptx

3.6   Working Group Sessions

After the presentations, the workshop continued in three parallel Working Groups with discussions around a set of questions prepared by the moderators building upon the discussion topics developed in the previous network meetings and the answers to the online Questionnaire. The discussions in the three Working Groups (WG) with questions & answers were reported after the WG sessions and further discussed the day after during the P4ITS network meeting #6. The conclusions from the WG sessions held during the workshop & network meeting are reported in section 4.7 of this document.

3.7   Final considerations and conclusions of the workshop

The coordinator, Mr. G. Somma, thanked concluded the workshop informing the participants about the P4ITS work pan for the next period:

Objectives for the period June-December 2015:

- Trigger in-depth discussion on the updated identified barriers, or new topics identified
- Prepare draft key recommendations/guidelines

15-16 September 2015 – P4ITS Network Meeting # 7 in Helsinki (FIN)

- Analysis of the updated discussion points/enablers:

   - process external feedback and provide a possible answer to realise the enablers
   - have a close look at the latest PPI experiences and actual cases
   - look at the legal context evolved with the entry into force of the new public procurement directives

2-3 December 2015 – P4ITS Network Meeting # 7 in Genoa (IT)

- Towards the delivery of recommendations:

   - identify items where a consensus and a consolidated approach can be reached, and can have a positive impact for the market deployment of (cooperative) ITS
   - define a draft structure of the recommendations and the rationale behind.

Mr. G. Somma invited the new participants to further collaborate with the P4ITS network on aspects of common interest, also in the perspective of establishing a long-term partnership on innovation procurement. He finally informed that the results of this external consultation will be published on the P4ITS website and presented at the 22nd ITS World Congress in Bordeaux at the **P4ITS final event** on the 6 October 2015, 13:30-15:00 CET.

4 P4ITS Meeting #6

The sixth P4ITS network meeting was held in Vienna (AT) on the 21-22 May 2015. It was organised by the network coordinator, ERTICO, together with the hosting partner, ASFINAG.

4.1 Attendance

Benef. N°	Short name	First name	Family name
1	ERTICO	Giacomo	Somma
2	NDR	Lasse	Stender
3	ATE	Bianca	Kapl
3	ATE	Martin	Böhm
4	ASFINAG	Bernhard	Jelinek
5	VL	Jozef	Cannaerts
7	CTAG	Jose Manuel	Martinez
8	FTA	Kari	Hiltunen
9	VTT	Satu	Innamaa
10	EARDA	Melinda	Mátrai
11	ITSB	Imad	Fhail
13	LIST	Christophe	Feltus
15	LIGURIA	Cristina	Battaglia
15	LIGURIA	Jacopo	Riccardi
15	LIGURIA	Silvia	Risso
17	TOPOS (CEREMA)	Jean-Philippe	Méchin
Ass. Partner	Highways England	Ian	Chalmers

4.2 Welcome and introduction

Giacomo Somma (ERTICO) opened the meeting by welcoming all participants. Then he presented the list of participants, the meeting objectives and agenda, the outcomes from the Meeting #5 (see next sections), which were approved unanimously.

The meeting running order is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Meeting-6_Running_order_V1.0.pptx

4.3   Objectives of the sixth network meeting

The list of objectives for this network meeting was circulated with the agenda to all network partners. The list of objectives was as follows:

Work package level objectives

- Interact with external stakeholders on the network's discussion paper
- Collect feedback
- Input the consolidated feedback in the network's work plan

Main outcomes from Meeting #5

- Agreement on external consultation: expectations, feedback to be collected, stakeholders to be invited, consultation timeline (online survey & workshop), organisation & objectives of the workshop in Vienna;
- New draft of the Discussion paper (D3.2);
- Update on next meetings & work-plan.

Meeting #5 follow-up

- Annual Review follow-up:
  - <u>D1.2</u>: re-submitted early February and approved by the EC
  - <u>D3.2</u>: finalised, submitted to the EC and published on P4ITS website late February
- External consultation:
  - Questionnaire prepared & published on Surveymonkey.com early March
  - Invitation sent by P4ITS coordinator mid-March (for both online survey & workshop) to 174 contacts from public authorities and R&D establishments (projects Compass4D, CHARM, SYNCRO, TIDE and V-CON as well as ERTICO Partnership members) - Invitation sent also by other P4ITS partners to their own contacts
  - Reminders & agenda sent in April-May. Survey results analysed & presented at workshop

Meeting #6 specific objectives

- Task 4.2 - Identification of potential enablers and discussion topics update
  - Based on feedback received, identify PPI enablers remaining realistic in the scale of their potential achievement
  - Identify which points could be effectively addressed through a concerted approach and which will have realistically the highest impact, thus leading to update network topics
  - Prepare related deliverables:
    - D4.1 – WP4 external meetings proceedings and feedback (due date: M18)
    - D4.2 – Updated network topics description (due date: M18)
  - Prepare work plan of the 2nd analysis phase (WP5) and update meetings planning for 2016.
- In addition:
  - Prepare the final event at the ITS World Congress (presentation of first recommendations)
  - Prepare P4ITS towards a sustainable longer-term network (new partners, funding, etc.)
  - Provide the EC with feedback on identified PPI bottlenecks to highlight funding needs for key areas, where action could be needed to supplement regional and national instruments.

4.4 Agenda of the meeting

Day 1 – Tuesday, 21 May 2015

08:30 – 09:00	*Arrival of the participants*
09:00 – 09:10	Opening and welcome
09:10 – 09:30	Meeting objectives and agenda Network management and status overview
09:30 – 11:00	*Session 1:* Presentations (10 minutes each): • CHARM project (I. Chalmers, Highways England) • Outcomes of the external consultation (WG moderators) External consultation wrap-up and conclusions
11:00 – 11:30	*Coffee break*
11:30 – 12:30	*Session 2:* Identification of potential enablers
12:30 – 13:30	*Lunch*
13:30 – 17:00	*Session 2 (continued):* Identification of potential enablers Updated network topics description and work plan (D4.2)
17:00	*End of the meeting*

Day 2 – Wednesday, 22 May 2015

09:00 – 11:00	*Session 2 (continued):* Updated network topics description and work plan (D4.2)
11:10 – 11:30	*Coffee break*
11:30 – 12:30	*Session3:* Preparation for the second analysis phase Partnership enlargement towards a sustainable longer-term network Preparation of the final event at the ITS World Congress Update of work plan, next steps and next meetings
12:30 – 13:00	Presentation: • C-ITS Status (Alex Frötscher, AustriaTech) Questions & Answers
17:00	*End of the meeting*

4.5   Network management and status overview

4.5.1   Associated Partners update

The coordinator informed the partners about the following point:

- UK Highways Agency has changed legal name to Highways England
- New associated partner: ITS Spain (confirmed) and DG Traffic Spain (to be confirmed)
- Mr. J.C. Maisonobe (Conseil Général de l'Isère, FR), coordinator of the SYNCRO project, could not follow-up on initial interest and did not confirm his participation to the P4ITS final event
- Mr. B. Koehorst (Rijkswaterstaat, NL), coordinator of V-CON project, didn't react to invitation

He then invited the P4ITS partners to take contact with other potential Associated Partners from their network and the external consultation. This action is important for a successful preparation of the P4ITS final event as well as for setting up a longer term network.

4.5.2   Contract amendment

No amendment was needed, because the changes of legal entity for TUDOR / LIST and VTT have been done in March using the UTRO information procedure. Also, the EC Project Officer confirmed that the small deviations to the P4ITS work-plan do not require any modification to Annex I. P4ITS is on track!

4.5.3   Second Annual Review

The date & place are: 21 January 2016 from 10:00 to 13:30 CET at DG CNECT premises in Brussels (B).

The coordinator asked to the meeting attendees if there was any objection on the independent experts indicated by European Commission.

- Mr. Daniel Gaultier: now retired. Former Director of European programs at SAGEM DS (FR). Expertise in road automation, ADAS and HMI. Reviewer and evaluator of procurement actions.
- Mr. Francesco Fionda: Project Manager at the Regional Public Authority of the Aosta Valley, Italy. Expertise in open innovation, PPI and PCP, support for innovation and technology transfer, cross-border cooperation, Living Labs for intelligent mobility and e-health.

None of the participants to the meeting and of the partners who voted electronically via e-mail raised any objection to these experts. Therefore the coordinator confirmed to the EC Project Officer that no objections have been raised with respect to the above-mentioned independent experts.

Concerning the participation to second Annual Review, G. Somma reminded that in February 2014, the P4ITS Management Team (except AustriaTech) participated to the Review, but WP leaders asked him to carry out alone the 2nd Annual Review, which he is reluctant to do because specific competencies on public procurement, legal aspects and technical ITS aspects lie with the partners. Thus, G. Somma decided to ask all partners if they want to delegate him to carry out alone the next

Review or not. Upon request of few partners the following two questions were asked to all P4ITS partners present at the meeting and to the other partners via electronic e-mail vote:

- Do you want to have a physical or remote Review? It was decided to hold **physical Review** in Brussels based on 13 votes in favour (9 votes at this meeting plus 4 via email after it) against 4 votes in favour of a remote Review.
- Do you want to participate in the 2nd Annual Review or delegate the coordinator, ERTICO (G. Somma) to participate in it alone on behalf of the P4ITS consortium? All P4ITS partners acknowledged to good job done by the coordinator with the first Annual Report and Review and the following partners decided to **delegate** the coordinator: ASFINAG, ATE, FTA, ÉARDA, ITSB, LIGURIA, LIST, OHLC, TOPOS (CEREMA), VL, VTT as well as (after the meeting) VIGO, VERONA, ITS Sweden (STA), OHLC. The following partners volunteered to **participate** to the 2nd Annual Review with the coordinator: NDR and CTAG.

4.6   Presentations

4.6.1   CHARM PCP project (Ian Chalmers, Highways England)

Mr. I. Chalmers presented the following updates regarding the CHARM PCP project: the award of Phase 2 contracts, the contract savings, and the contractor publishable summaries. Concerning the savings, these are equal to 6% over pre-tender estimate, but go up to 400% without vs. with IPR.

The summaries can be read in the presentation uploaded on the P4ITS website at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Meeting-6_CHARM-PCP-Phase2_HE_Chalmers.ppt.

4.6.2   C-ITS status and challenges for PPI (Alexander Frötscher, AustriaTech)

As follow up of the presentation from the previous day on the ECo-AT project, Mr. Frötscher gave a short presentation in which he stressed the need to develop & use open standards/specs, which need to be based on ETSI release 1 (02/2014) and the additions and updates since then. On the contrary, he pointed out that implementations are done by single industry partners, which requires to test and check "Basic communications" between components (ETSI), to cross-validate functionality between components with respect to both basic set of functions for interoperability and extensions of single partners. He therefore proposed this topic as discussion points for the P4ITS network.

This presentation is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Meeting-6_C-ITS-Status_ATE-Froetscher.pdf.

4.6.3   C-ITS validation - C-ITS Mobile Lab (Alexander Frötscher, AustriaTech)

Mr. Frötscher also gave a short presentation about the C-ITS Mobile Lab by AustriaTech, where all network components are built-in (i.e., ITS roadside and in-vehicle stations, and – to be confirmed – ITS personal station) and can be activated or deactivated as needed for a single test / validation step and/or combined with other equipment/systems for a full C-ITS cycle test. Their implementation is verified in Live Test Scenarios using the latest standards. To date, a basic ETSI Plugtest was completed by comparing data from test runs of components with test-validation standards from ETSI CEN/ISO, so to meet a "minimum of interoperability" in bi-directional data exchange and communication, and to validate components delivering additional data sets (optional data sets) which are useful for traffic management or other nodes of the C-ITS network.

This presentation is available for download by the P4ITS consortium members at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/P4ITS_Meeting-6_C-ITS-Valid-Lab_ATE-Froetscher.pdf.

4.6.4   H2020 call MG.8.3-2015 (Giacomo Somma, ERTICO – ITS Europe)

Moving from this presentation, G. Somma presented reminded the possibility of building a P4ITS partnership through a proposal for joint PPI action under the H2020 call MG.8.3-2015 on the topics of standards and interoperability. The presentation is available for download on the P4ITS website at:

http://p4its.eu/wp-content/uploads/sites/6/2014/02/ERTICO-Partnership-Proposals_PCP-PPI_May2015.pptx.

The meeting participants acknowledged that these are key topics of common interest, but there are already other initiatives / projects ongoing, which will not make use of PPI as procurement tool. This is the case in France, Spain as well as in the countries of the C-ITS corridor (NL-DE-AT), in which no joint procurement actions are planned. Further considerations were made and the partners agreed to formulate a first set of recommendations for the European Commission (see section 4.8).

4.7   Working Group Sessions summary

After this presentations and discussion, the participants agreed to continue the meeting with Working Group session at the end of which elaborate a first draft list of potential PPI enablers and an updated description network topics and work plan for the deliverable D4.2. The summary of these WG sessions including outcomes from the workshop held the day before are summarised hereafter.

4.7.1   WG1: PPI approaches, IPR & legal aspects

The WG1 was moderated by L. Stender (North Denmark Region) and appointed as rapporteur G. Somma (ERTICO - ITS Europe). The WG1 worked around five questions listed below together with the answers elaborated for each of them.

Question 1: *In PPI "innovative characteristics" will typically be one of the contract award criteria (ref. directive 2014/24/EU art. 67 (2) (a)). How can you set up the definition of "innovative characteristics" for your specific tender and how will you evaluate this criterion?*

Answers:
- For a procurer the ambition is to have a solution available on the market respecting some functional specs without need on further innovation.
- Innovative characteristics could be divided in <u>objective</u> (measureable) and <u>subjective</u> (less tangible) sub-criteria (ex., project on led lights for public road).
- Innovative for the procurer based on <u>peer consultations</u> (with other PA) or <u>market consultation</u> (web search, consult funding auth. national/regional, innovation agencies, start-up centres, followed by suppliers innovation day) → this can be time consuming & heavy for the procurer and/or the potential suppliers, who may not participate and directly bid in the successive tender.
- Who evaluates this? Board of experts or left with the procurer/lawyer? Experts are needed, but not all the stakeholders are always needed depending on objective vs. subjective criteria and priorities.
- Related to the choice of PPI approach.

Question 2: *How can functional requirements ensure that you get a solution that fulfils your needs? Can you find examples of PPI procurements, or elements hereof, where the use of functional requirements are not the best way of drafting you technical specifications?*

Answers:
- Sometimes defining needs / requirements leads to too many proposals (ex., project on solution to maintain the same indoor temp. through the year that needed to be integrate with existing building infrastructure → received over 45 proposals, very different, e.g. green wall to complex cooling system).
- Depends on the scale of the project.
- Possibility of using 2-step approach:
  1. Pre-tender market consultation (with remuneration for participation and shortlisting, to avoid bidders skipping that due to the lack of resources);
  2. Actual tender.
- Tenders are usually not 100% based on functional requirements, but rather on a mix of specifications (such as process-based, non-functional, functional, technical, evolving needs / external factors → reference laws, technology / service obsolescence).

Question 3: *In which C-ITS procurements might "Life-cycle costing" (re. directive 2014/24/EU art. 68) (LCC or TCO) be interesting in particular? Both as a cost-effective procurement instrument but also as an enabler for innovation in the specific PPI project?*

Answers:

- Depends on the possibility to define a method for calculating TCO / LCC and suitable (set of) indicator(s) and their measurability / comparability.
- The possibility or willingness of bidders to provide correct figures for given indicator(s).
- Ask the market if this method and indicator(s) are suitable.
- Need to understand if TCO or LCC is suitable for procurement of services? If contract variants is put to tender (ownership of product ctr. service contract), TCO / LCC might very well be relevant.
- Design / Finance / Build / Operate / Maintain (DFBOM) contract for road infrastructure.

Question 4: *In which situations might IPR be subject to considerations / negotiations in PPI for C-ITS?*

Answers:

- IPR questions and division of IPR is normally linked to R&D activities, not to procurement of commercially available solutions.
- If low TRL, and PPI is carried out as innovation partnership, IPR might however very well be subject to regulation (dir. art. 31 (6)).
- Innovation of proposed solutions can also imply IPR aspects related to adaptation / integration into existing systems – depending on whether this adaption / integration activities (R&D) are carried out under the contract.
- It depends on the quantity purchased (high quantity → may be worth to buy also IPR).
- It could be worth to buy / secure IPRs when a key service could be discontinued (e.g., software solution) or security issues (PCP project on dikes surveillance in NL) or to avoid supplier lock-in.
- It is better to define IPR clauses in the tender, rather than trying to buy IPR afterwards.
- Arrangements on IPR issues shall be addressed in competitive dialogue (art. 42) and innovation partnership (art. 31).

Question 5: *If the value of R&D-activities (might) exceed the value of the main procurement object which considerations should we make?*

Answers:

- This might indeed be an indicator for low TRL. If low TRL, and a certain R&D must be foreseen, innovation partnership should always be considered.
- If not innovation partnership - always better to separate, if not possible how to choose between PCP and standard commercial procurement? Procurers tend to go for procedures according to procurement directive (conservative attitude) rather than risk to use mixed procurement or a procedure outside the procurement directive.
- Example of R&D needs: PCP project on Variable Traffic Messaging: need for a flexible system that can be placed in short time in a road for the duration of an event (e.g. a festival) and then moved somewhere else.

### 4.7.2   WG2: Major PPI challenges and mitigation plans – PPI guidelines

The WG2 was moderated by B. Kapl (AustriaTech) and appointed as rapporteur B. Jelinek (ASFINAG). This WG identified the following discussion points:

Major PPI Challenges:

- Lack of knowledge and know-how
    - Unawareness of technology
    - Lack of info of benefits of PPI
    - Common terminology
    - Functional vs. Non-functional requirements
- Procurement culture
    - Risk aversity
    - Inflexibility
    - Strict procurement regulations and attitudes
- Legal problems
- Resources
- Tight schedules / timing
- Budgetary restrictions
- Human resources
- Missing "Yes" on a strategic level
- Lack of engagement between public procurers and suppliers
- Heterogenous solutions and difficult assessment of bids
- Mostly top-down decisions for PPI possible
- Specific areas / markets and risk of vendor lock-in
- => Missing identification of innovation needs

Needs for Innovation Governance (see figure here below):

- Challenges have to be solved on multiple levels:
    - European
    - National
    - Regional
    - Examples: PPI strategy, clear legal structure, funding mechanisms, etc.
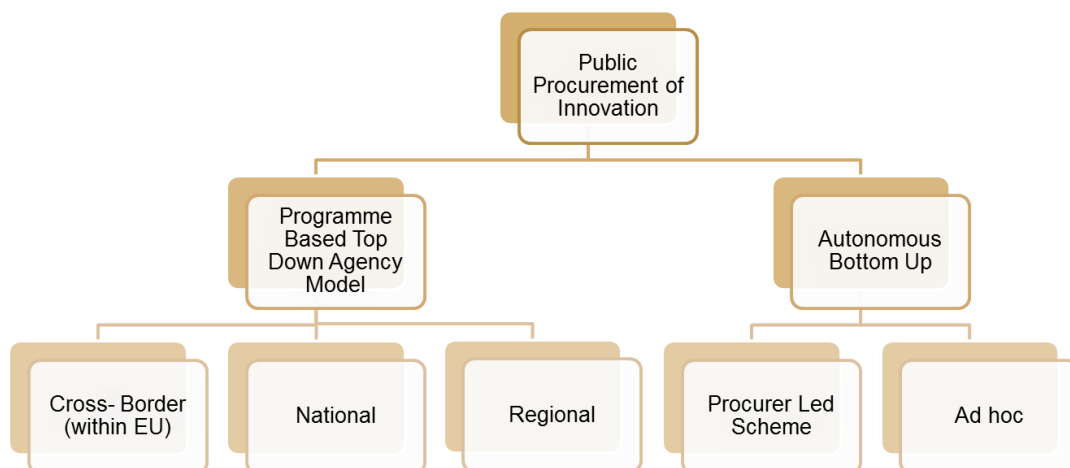
Strategies | Enablers

- Training and education in PPI
- National Contact Points
- Guidelines
- Establishment of networks / platforms on PPI and open information
- Clear rules / legal framework for PPI
- Overall innovation strategy and integration of PPI strategy in different sectoral strategies
- Make innovations measurable to better demonstrate benefits
- Multiregional PPI / PPI with several procurers? (ex., "Nordic Way Project")
- Bottom-up PPI (best practice example from Canada)
- The "Hamburg case"
- Living labs

Recommendation for the EC (PPI and C-ITS)

- C-ITS Strategy on European Level (White book, etc.)
- Don't see PPI as a strict instrument but rather as an approach
- C-ITS roadmap
- Allow PPI in funding calls (CEF, H2020, etc.) – integration
- Harmonize / cooperate with other C-ITS projects
- Harmonization through PPI for day 2 C-ITS
- Lack of Knowledge of PPI: Training, NCPs, etc., funding for training => target decision makers
- Monitoring and evaluation of PPI best practices

4.7.3   WG3: PPI and (Cooperative) ITS

The WG3 was moderated by S. Innamaa (VTT) and appointed as rapporteur J.M. Martinez (CTAG). This WG worked around the following discussion points.

Comparison of methods for purchasing C-ITS (see section 2.7.1 for Phases definition in CHARM PCP):

Technology Readiness Level	Traditional R&D process	PCP	PPI Speeding the procurement and the deployment	
			To enlarge the number of actors	To ensure the critical mass
1 - Basic research	Basic research	/	/	/
2 - Technology formulation	Basic research	/	/	/
3 - Experimental proof of concept	Research program (in 2006 started with CVIS SAFESPOT, COOPERS)	Phase 1: proof of concept description for evaluation for Phase 1 (for CHARM this started in 2012)	/	/
4 - Validation: small scale prototype/ in lab environment	Demonstration inside research program (small prototyping pre-DRIVE C2X)	Prototype for evaluation of Phase 2 (pre-production prototype demo)	/	/
5 - Validation: large scale prototype/ in relevant environment	Validation in research program / Field operational test (DRIVE C2X, FOTSIS)	Phase 3 (first versions of commercial product available)	Beginning of Phase 1	/
6 - Demo in relevant environment	CIP program (SIM-TD, pre-Compass4D)	End of Phase 3	Evaluation for Phase 2	Beginning of Phase 1

Technology Readiness Level	Traditional R&D process	PCP	PPI Speeding the procurement and the deployment	
7 - Demo/system prototype in operational environment	CIP program (Compass4D)	/	Evaluation for Phase 3	Evaluation for Phase 2
8 - System complete and qualified	TEN-T or CEF, Interreg, Structural Fund (SCOOP@F, ECo-ATE)	/	End of Phase 3	Evaluation for Phase 3
9 - Full commercial application	TEN-T or CEF Structural Fund	/	/	End of Phase 3
	Structural Fund	/	/	/

The conclusions drawn from the above table elaborated during the workshop are that:

- C-ITS is currently in TRL 7 phase, i.e. there are system prototypes in operational environment, soon the day-1 C-ITS systems will be complete and qualified for commercial operation
- From now on, PPI is quicker than traditional R&D programs & financing as the development of C-ITS systems does not start from zero but they can build on knowledge and solutions created already in previous R&D projects
- Process has already started, it is too late for PPI in day-1 C-ITS as they are already on TRL 7 and PPI targets mainly TRL 6-8
- PPI is good option for the day-2 C-ITS, as they still at lower TRL
- Harmonised procurement is needed to create a truly European market for industry and interoperable and harmonised services and to aim at interoperability and continuity of services

PPI & C-ITS

- New needs:

- C-ITS technology is not mature enough yet
  - Benefits are not demonstrated for decision makers of all levels
  - Interoperability may be still lacking
  - Real large-scale tests are still missing (large fleet in one location for long enough period, naturalistic driving, all conditions)
- To adapt existing solutions to meet the needs
  - New needs of public authorities
  - To be able to add new functionality to existing traffic management software, integration, hybrid solutions (allowing to put together old and new solutions)
  - To see if services and products are in line with specifications
  - Actively to move towards digital traffic management infrastructure (e.g., ECO-ATE vision), and personalised and targeted traffic management (not one message for all, but different personalised messages, e.g. for HGV only) → this will create new possibilities for active traffic management
  - Working towards common goals: from reactive traffic management towards proactive (network benefit optimisation)
- Market speed up
  - Working actively together to find solutions
  - To ensure minimum market size

- Cooperation with private companies, public authorities and research organisations, to speed up development
  - To be able to follow the market, cooperation between public body and industry
- To offer opportunity to get new players to the field with their experiences, new innovative thinkers, radical new ways of thinking

- New cooperation

- New, iterative process of solving the problem together / dialogue, C-ITS is a product of network
- Needs of public authorities are communicated to market for free, and requirements are acknowledged
- Increase competition (in a healthy way)
- Shared risk is attractive in a complicated economic situation
- For good PPI a multidisciplinary team is needed, including ITS specialists, procurement specialists, lawyers, and strong project management are all needed
- With cooperation, it is easier to achieve common understanding, mutual learning
- The stakeholders of the whole life-cycle of C-ITS should be included in the PPI
- Cooperation ensures interoperability
- Many stakeholders for C-ITS, complex network (car manufacturers, IT providers, map providers, drivers, administrations, standardisation organisations, ITS action plan & delegated act) where road authority is not in the centre of the network, several different authorities included, difficult to prioritise all the stakeholders
- Every partner has its own agenda and different financial situation and level of expectations → it is important to communicate also to look at future perspectives and opportunities
- When talking with several organisations in parallel, to make sure not to transmit information from one company to another (not only products but also perceptions)
- How to publicise the benefits: no first brick, no ribbon cutting ceremony, nothing physical to show, the lack of electoral appeal
- Difficulty in assessing the ITS benefits for the end-customer

- Better outcome

- Possibility to get best knowledge (when price is not a factor in the first phase) and negotiate the price later
  - More accurate estimate for the correct price
- Possibility to communicate the large-scale problem and to find solution to it
- To enhance interoperability and continuity of services
- Increased customer experience
- Increase in purchasing power, bigger interest to the buyer
- Inherent risk for early adopters - when different technology becomes standard the result is incompatibility: risk for project that are already deploying with current standards to become obsolete when new EU standards will be issued

Recommendation to EC

- Raise awareness of different policy instruments (public authorities, suppliers) → many respondents to online questionnaire never heard or used innovation procurement
  - Demonstrate the benefits
- Create culture of using new procurement tools, to get new experience of instruments available
- Look into expanding the funding period length for grants in order to match the innovation plan with the actual practice, i.e. the time should be more flexible, not limited to a fixed time period
- Communicate better the strategic needs to decision makers; this is not understood yet and not given sufficient importance. Currently, the communication is often made at technical level, not at strategic level → decision makers are not interested into technical / legal aspects, but into operational benefits (value for money) and impact
- Policy initiatives related to C-ITS are disjointed as they come from different DGs and therefore they should be an overall strategy for C-ITS
- To enable PPI in all the European calls if it is matching the topic and goal and not to have no strict calls just for PPI.

4.8   Preliminary overall recommendations for the European Commission

Raise awareness on PPI as procurement approach:

- PPI not to be considered strictly as an instrument but rather as an approach
- Due to lack of knowledge on PPI, there is a need to create culture of using new procurement tools / approaches and to build new experience on available instruments (through NCPs, funding for training, ...)
- Strategic awareness need has not been seen and understood yet: innovation procurement has been addressed at lower level (i.e., technical, procedural, but not at decision making level) → decision makers are not interested into technical or legal aspects, but about impact and benefits (value for money); EC needs to approach the high level decision makers (see e.g., INNOVEIT 2015 - EIT Innovation Forum, held in Budapest on 5-7 May 2015)
- Need to monitor and evaluate best practices in PPI and demonstrate PPI benefits
- Need to support harmonised procurement of (Cooperative) ITS to create an European market for interoperable, harmonised mobility products and services

Create joint, overall strategy for C-ITS policy

- C-ITS strategy on European level (e.g., white book)
- Policy as basis for coordinated initiatives from different DGs (MOVE, CONNECT, Enterprise) related to C-ITS
- C-ITS roadmap
- The deployment process has already started, it is too late for PPI in day-1 C-ITS, but:
  - PPI approach could be quicker than traditional R&D programs & financing for day-2 C-ITS (see table by P4ITS Working Group 3)
  - PPI could be good option for the day-2 C-ITS

Funding mechanisms:

- Look into making the length of the granting period flexible, to match the innovation time span with practitioners / project needs
- Allow integration of PPI in EU / national funding calls (CEF, H2020, etc.)
- Allow faster deployment for innovative products / services / solutions
- Allow better harmonisation / cooperation with other C-ITS projects

4.9   Update of work plan, next steps and meetings

4.9.1   Objectives of the Meeting # 6 to be addressed at the Meeting #7

- Task 4.2 - Identification of potential enablers and discussion topics update
    - Based on feedback received, identify PPI enablers remaining realistic in the scale of their potential achievement
    - Identify which points could be effectively addressed through a concerted approach and which will have realistically the highest impact, thus leading to update network topics
    - Prepare work plan of the 2nd analysis phase (WP5) and update meetings planning for 2016.
- In addition:
    - Prepare the final event at the ITS World Congress (presentation of first recommendations)
    - Prepare P4ITS towards a sustainable longer-term network (new partners, funding, etc.)
    - Provide the EC with feedback on identified PPI bottlenecks to highlight funding needs for key areas, where action could be needed to supplement regional and national instruments.

4.9.2   WP5 – 2nd analysis phase

WP5 objectives (M19-M24):

- Trigger in-depth discussion on the updated identified barriers, or new topics identified

- Prepare draft key recommendations/guidelines

Task 5.1 - Analysis of the updated discussion points/enablers

- P4ITS network meeting (**Helsinki, 15-16 Sep 2015**) to move forward on identified enablers

- Analysis of the updated discussion points/enablers:

    - process external feedback and provide a possible answer to realise the enablers
    - have a close look at the latest PPI experiences and actual cases
    - look at the legal context evolved with the entry into force of the new public procurement directives

Task 5.2 - Towards the delivery of recommendations

- P4ITS network meeting (**Genoa, 2-3 Dec 2015**) to discuss potential recommendations

- Towards the delivery of recommendations:

    - identify items where a consensus and a consolidated approach can be reached, and can have a positive impact for the market deployment of (cooperative) ITS

- produce a short internal report summarising the rationale behind the production of recommendations, and a draft structure of the recommendations deliverable to be documented into written meetings proceedings, and made publicly available

4.10 Dissemination activities

Following to previous email exchanges, G. Somma confirmed to that:

- An article was published on Cities Today Special edition and ITS World Congress
- ERTICO has been invited by Innovation Unit of DG CNECT to present P4ITS at the Workshop on Innovation Procurement on 13/10/2015 between the hours 14:30-17:00 in Brussels. The focus will be on how to modernize transport services through a smart combination of Innovation Procurement and ICT. This event is hosted by DG Regio in the frame of the Open Days organised every year and attracts the interest of relevant regional and municipal stakeholders since it tackles issues related to the regional policy. More info on the following link: http://ec.europa.eu/regional_policy/opendays/od2015/index.cfm.