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Commission

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Standardisation request as regards Intelligent Transport Systems in urban areas

Sustainable Urban Mobility
Informal meeting with stakeholders
2 October 2015



Urban mobility in the EU

Renewed focus on the urban dimension in EU transport policy

- The **Transport White Paper 2001 "European transport policy for 2010"** underscored the importance of urban dimension of the development of truly European transport system
- **Green Paper "Towards a new culture for urban mobility"** has put urban mobility high on the EU's political agenda
- The **White Paper on Transport 2011 "Towards a single European transport area"** suggested a number of initiatives which relate to urban mobility and anticipate ITS applications, e.g.:
 - Sustainable Urban Mobility Plans (Initiative 31)
 - An EU framework for urban road user charging and access restriction schemes (Initiative 32)
 - A strategy for near 'zero-emission urban logistics' 2030 (Initiative 33)
- **Urban Mobility Package "Together towards competitive and resource-efficient urban mobility"** adopted in 2013 provided the framework for adoption of Sustainable Urban Mobility Plans, and underscored the key importance of urban ITS, urban logistics, access regulations, road safety in 4 respective Staff Working Documents

ITS Policy framework

- **Action Plan** for the Deployment of Intelligent Transport Systems (ITS) in Europe (Dec 2008)
- **Directive 2010/40/EU**: Framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport (Aug 2010)



The deployment of ITS in urban areas was introduced in 2 EU Action Plans

- The **ITS Action Plan** (COM (2008) 886) foresees the set-up of a specific ITS collaboration platform to promote ITS initiatives in the area of urban mobility (Action 6.4)
- The **Action Plan on Urban Mobility** (COM (2009) 490) foresees that the Commission will offer assistance on ITS applications for urban mobility, possibly in form of a guidance document, to complement the ITS Action Plan (Action 20)

*These provisions resulted in the creation of the **Urban ITS Expert Group**, as a Commission Expert Group, for a duration of 24 months (December 2010-December 2012)*

http://ec.europa.eu/transport/themes/its/road/action_plan/its_for_urban_areas_en.htm

Urban ITS Expert Group - Tasks

Four key applications were covered by the Expert Group

- Traffic and Travel Information
- Smart Ticketing
- Traffic Management
- Urban Logistics

Main tasks and outcomes of the work of the Expert Group included

- Identification and exchange of **best practices** for the key applications of urban ITS
- Elaboration of **Guidelines for deployment** of the key applications of urban ITS (with specific regard to interoperability and continuity of services)
- Identification of possible need for further **standardisation** at EU level

Draft standardisation request for urban ITS - Scope

Urban ITS Experts recommended addressing standardisation gaps in 3 domains

- **multimodal travel information (data formats for new mobility services, logical structure for multimodal dataset)**
- **urban logistics (info/reservation of loading bays, intelligent parking)**
- **traffic management (urban-interurban interfaces, multi-application solutions, access restriction)**

*Urban ITS Experts recommended a **pre-study and active involvement** of urban authorities/experts/stakeholders in the ITS standardisation process*

Draft standardisation request for urban ITS - Consultation

Initial draft circulated to stakeholders & Member States (EU ITS Committee) for comments 2nd half 2014

- **Very positive feedback incl. positive reaction from ESOs**
- **Several detailed answers received**

Initial draft presented to multi-stakeholder platform on ICT standardisation on 4 December 2014

=> All received comments analysed towards finalisation of the draft standardisation request

Draft standardisation request publicly notified in April 2015

http://ec.europa.eu/growth/single-market/european-standards/notification-system/index_en.htm

Draft and approach presented to MS Committee on Standardisation on 29 April 2015

Final round of consultation of CEN members in May 2015

Draft standardisation request for urban ITS - Approach

1) *Pre-study by a small group of CEN & urban experts (Q4 2015)*

- **Stakeholder mapping**
- **Use Cases definition**
- **Gap/overlap analysis**

=> New Work Items Proposal (incl. standards requirements)

2) *Standardisation request (2016 onwards)*

- **3 areas of urban ITS: multimodal information services, traffic management, urban logistics**
- **Built upon use cases / user needs**
- **Focus on data formats and services interfaces**
- **Urban dimension within holistic ITS architecture**
- **User centric with involvement of urban and standardisation experts**

=> New EU standards and standardisation deliverables

Draft standardisation request for urban ITS - Next steps

*The **Mandate** will be submitted to the Committee of Standardisation (approval of Member States by written procedure) in October 2015, and adopted by the EC by end of the year 2015*

*The **Study** shall result in a draft report by end of the year 2015 (CEN validation to follow next year)*

*Commission will present the study/mandate at the **World ITS Congress** in Bordeaux (session at EC stand on Wednesday 7 October)*



ITS Action Plan and Directive

http://ec.europa.eu/transport/its/road/action_plan_en.htm

Urban ITS

http://ec.europa.eu/transport/themes/its/road/action_plan/its_for_urban_areas_en.htm

EU standards

http://ec.europa.eu/growth/single-market/european-standards/index_en.htm

Annexes:

Pre-study main goals & deliverables
Mandate deliverables

Main goals of the prestudy

1. Prepare the standardisation request by prioritising standardisation areas in the following 3 dimensions

- **Multimodal information services**
- **Traffic management** including access regulation
- **Urban logistics** including parking management

2. Follow a practical approach


- **Use case based: develop use cases, possibly spanning multiple areas, but with a very concrete objective**
- **Engage the right stakeholders**

3. Fit in the picture

- **Accommodate with existing architectures (Cooperative ITS, DATEX, e-FRAME, competing traffic management solutions, etc..)**
- **Address the variety of users' needs**
- **Cope with the multiple environments (including urban-interurban interfaces)**
- **And the different types of vehicles or modes of transport or mobility services**

Deliverables for the study

1. *Gap analysis*



Based on use cases, what are the needs, not covered by standards in the urban areas?

Use cases :

- **identified based on priorities for cities**
- **realisable for cities**
- **could span the 3 dimensions (multimodal IS/traffic management/urban logistics)**

What are the overlaps between existing, possibly competing standards ? Opportunities for developing interfaces between those standards (instead of replacing)?

Deliverables for the study

2. Stakeholder Mapping



- *Identify the stakeholders (key players) mapped to use cases*
- *Need to reach beyond the core team (multiplier effect)*
- *Keep informed – Include in requirements definition*
- *Coordinate with other groups (avoid redundancies & ensure convergence of results with smart cities, WGs under CEN/TC278, ETSI)*

Deliverables for the study



3. Initial Architecture

- *Systemic, integrated to the broader ITS architecture, and accounting for the existing*
- *Realising the use cases*

4. Prepare the Work programme for the Mandate

- *Topics to be covered*
- *Focus on the topics of the mandate first*

Deliverables of the mandate

1. USE CASES, URBAN ITS ARCHITECTURE, AND IMPLEMENTATION

Table 1 – Requested new European standards and European standardisation deliverables for use cases, urban ITS architecture, and implementation

Reference information	Deadline for adoption ²⁹
<p>A European standardisation deliverable on use cases addressing the three areas of this request and highlighting their possible interdependencies</p>	<p>12 months after notification of this Decision to the ESOs</p>
<p>European standardisation deliverable for urban ITS architecture integrating the three areas of this request and highlighting connexions or interfaces with surrounding ITS applications as well as compatibility or coherence with existing standards, technical specifications, data models</p>	<p>12 months after notification of this Decision to the ESOs</p>
<p>A European standardisation deliverable on a deployment strategy including practical guidance for the implementation of the European standards of this request</p>	<p>39 months after notification of this Decision to the ESOs</p>

Deliverables of the mandate

2. MULTIMODAL INFORMATION SERVICES, CONTRIBUTING TO SEAMLESS MOBILITY

Table 2 – Requested new European standards and European standardisation deliverables for multimodal information services

Reference information	Deadline for adoption
<p>European standards for:</p> <ul style="list-style-type: none"> ○ New mobility services, such as car sharing, car-pooling, public bike sharing services, park & ride, bike & ride, etc. ○ Alternative fuels infrastructure, including information on location and availability of stations, charging models and capacity at stations, (integrated) payment schemes, etc. 	<p>39 months after notification of this Decision to the ESOs</p>
<p>A European standardisation deliverable on reference data model, common data dictionary and metadata structure for multimodal information services</p>	<p>39 months after notification of this Decision to the ESOs</p>

Deliverables of the mandate

3. TRAFFIC MANAGEMENT, INCLUDING ACCESS REGULATION

Table 3 – Requested new European standards and European standardisation deliverables for traffic management, including access regulation

Reference information	Deadline for adoption
<p>European standards for:</p> <ul style="list-style-type: none"> ○ A set of traffic management measures (encompassing the necessary infrastructure / static road data, dynamic road status data, traffic data or traffic control data, weather data), ○ A set of traffic re-routing, traffic prioritisation and access regulation measures including intersections management (supplemented by vehicle identification data). In particular the different types of road user charging models set up in various cities as well as the modalities of shared use of dedicated lanes by different types of vehicles (e.g. freight, public transport, emergency vehicles) should be considered 	<p>39 months after notification of this Decision to the ESOs</p>
<p>European standards or European Standardisation deliverables on reference data model, common data dictionary and metadata structure for traffic management including access regulation</p>	<p>39 months after notification of this Decision to the ESOs</p>

Deliverables of the mandate

4. URBAN LOGISTICS, INCLUDING PARKING MANAGEMENT

Table 4 – Requested new European standards and European standardisation deliverables for urban logistics, including parking management

Reference information	Deadline for adoption
<p>European standards for:</p> <ul style="list-style-type: none"> ○ Intelligent parking for light vehicles, commercial vehicles and trucks. The option of extending existing technical specifications or profiles regarding parking³⁰ or adapting them to the needs of the urban areas should be considered. ○ Loading bays information and reservation services for specific freight vehicles and logistic sectors. Standards and specifications proposed will need to address both infrastructure and vehicles (including vehicle and/or load identification where relevant). Moreover the use of alternatively fuelled vehicles for urban logistics, and the options of their charging (e.g. during loading/unloading at the specific bays) should also be looked into. 	<p>39 months after notification of this Decision to the ESOs</p>
<p>A European standardisation deliverable on reference data model, common data dictionary and metadata structure for urban logistics including parking management</p>	<p>39 months after notification of this Decision to the ESOs</p>