TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

CEN/TR 17143

October 2017

ICS 35.240.60

English Version

Intelligent transport systems - Standards and actions necessary to enable urban infrastructure coordination to support Urban-ITS

Systèmes de transport intelligents - Normes et actions nécessaires pour permettre la coordination des infrastructures urbaines en faveur des STI urbains

Intelligente Verkehrssysteme - Notwendige Normen und Aktivitäten um die Koordination der urbanen Infrastruktur zur Unterstützung urbaner ITS zu ermöglichen

This Technical Report was approved by CEN on 18 September 2017. It has been drawn up by the Technical Committee CEN/TC 278.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (CEN/TR 17143:2017) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

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Introduction

Cities are home to over 70 % of the EU population and account for some 85 % of the Union's GDP. Most journeys begin and end in cities. In many urban areas, however, increasing demand for urban mobility has created a situation that is not sustainable: severe congestion, poor air quality, noise emissions and high levels of CO_2 emissions. Urban congestion jeopardises EU goals for a competitive and resource-efficient transport system.

With its declared 'Urban Mobility Package', the Commission reinforces its supporting measures in the area of urban transport by:

— sharing experiences, show-casing best practices, and fostering cooperation,

— providing targeted financial support,

— focusing research and innovation on delivering solutions for urban mobility challenges.

In accordance with Article 8 of Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of 'Intelligent Transport Systems' in the field of road transport and for interfaces with other modes of transport, the Commission may request the European standardisation organisations (ESOs) to develop necessary standards to provide interoperability, compatibility and continuity for the deployment and operational use of ITS. Such standards are scoped by Articles 2, 3, 4 (1), and Annex J of Directive 2010/40/EU [2] to specific priority areas and priority actions in the field of ITS. (Annex J also stresses the need for urban and interurban interfaces for data exchange, and the interoperability and compatibility between the urban and European ITS architectures.)

Within the overarching ITS objectives set by Directive 2010/40/EU [2], the urban dimension has its own needs envisioned in the Action Plan on ITS (2008) [33] and the Action Plan on Urban Mobility (2009) [38]. In 2010, the European Commission set up an Expert Group on Urban-ITS, with the participation of representatives of local authorities and their main partners, from the fields of research, industry, transport authorities and operators, standardisation bodies, etc. This 'Expert Group on Urban-ITS' developed guidelines on the deployment of key applications of Urban-ITS (namely: multimodal information, smart ticketing, traffic management and urban logistics), collected a number of best practices and reflected upon the need for further standardisation in the domain of Urban-ITS. The 'Expert Group on Urban-ITS' recommended better integrating the urban dimension within European standardisation activities and focusing standardisation efforts on multimodal information services including new mobility services, traffic management including access management, and urban logistics including reservation of loading bays. The standardisation efforts should cover existing gaps, upgrade and complement existing standards and ensure the establishment of the needed urban-interurban interfaces.

The EC Communication "Against lock-in: building open ICT systems by making better use of standards in public procurement" [41] points to the benefits of using standards and open specifications to avoid vendor lock-in of technological solutions, and promote the deployment of more cost-effective solutions. Its accompanying 'Staff Working Document' "Guide for the procurement of standards-based ICT – Elements of Good Practice" [42], lists a number of examples of open specifications in the transport domain, but also shows a lack of common standards for ITS.

The 'Expert Group on Urban-ITS' recommended involving local authorities and experts with specific urban knowledge in the ITS standardisation process. Therefore, the European standardisation organisations are invited to liaise with relevant bodies representing urban mobility and interested in Urban-ITS, such as standardisation coordination groups and organisations, local standardisation frameworks, experts and stakeholder platforms, cities and regions associations, user associations, transport operators and service provider's representatives. The resultant Project Team (CEN/TC 278/PT 1701) therefore comprises a mix of standardisation experts and experts from within or associated with Urban administrations, and organisations such as POLIS, and, importantly is linked to a wider outer network of experts, largely associated with Urban administrations, with whom it will consult and seek opinion and feedback to its initial proposals. The composition of the project team, in accordance with CEN project team selection procedures, was dependent on, and limited by, those who responded to the call for experts. While it was hoped that many Urban Administrations would be inclined to apply, applications were limited by the fact that public sector applicants could not be recompensed for their time costs. PT1701 have therefore worked to create contacts from other Urban Administrations to review and comment on its work (and acknowledge the help received from the European Commission in this respect), and the Interim Report is being used as a key outreach tool to achieve this participation and feedback.

The European Commission is in the final stages of processing and publishing a "COMMISSION IMPLEMENTING DECISION" (CID) on a standardisation request to the European standardisation organisations as regards Intelligent Transport Systems (ITS) in urban areas in support of Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport." [1] The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 22 of Regulation (EU) No 1025/2012 [43].

In this Decision, the European Committee for Standardisation (CEN), the European Committee for Electrotechnical Standardisation (CENELEC) and European Telecommunications Standards Institute (ETSI), hereafter referred as the ESOs (European standardisation organisations), are requested to draft new European standards and European standardisation deliverables in support of the implementation of Article 8 of Directive 2010/40/EU[2] for multimodal information, traffic management and urban logistics in the Urban-ITS domain. The CID[1] is required to be supported by a list of targeted standards to be developed as a priority. And it is within this context that this pre-study has to identify the (high level) requirements, identify available standards, and thereby identify the 'gaps' where the EC should target financial support in order to obtain/accelerate the provision of the Standards necessary to fill these gaps in order to enable efficient Urban-ITS to be instantiated.

The requested European standards and European standardisation deliverables shall be developed to be consistent and compliant with the requirements of the Delegated Acts adopted by the Commission under Directive 2010/40/EU[2], in particular the specifications for the provision of EU-wide real-time traffic information services adopted on 18 December 2014 [44], and the specifications for the provision of EU-wide multimodal travel information service [46].

This pre-study report is therefore designed to assist the European Commission to target where to provide such financial support for standards development in the areas of 'Multimodal Information Systems', 'Traffic Management', and 'Urban Logistics'.