



What are Intelligent Transport Systems?

Intelligent Transport Systems (ITS) add information and communications technology to transport infrastructures and vehicles in an effort to improve their safety, reliability, efficiency and quality.

ITS services are also designed to optimize transport times and fuel consumption thus providing greener and safer transportation. However, the deployment of Intelligent Transport Systems and the provision of corresponding services are not limited to the road transport sector only, but include other domains such as railways, aviation and maritime as well.

ETSI, well known for producing standards for fixed telecommunications, mobile, radio, broadcast and Internet technologies, supports the ITS domain with comprehensive standardization activities.

Release 1 of a set of basic ITS standards has now been published. The full list of standards in ITS Release 1 is available in ETSI Technical Report TR 101 607. This first set of standards will lead to the harmonized development of ITS related products and their deployment on the market, responding to market demands.

Who is involved in ITS standardization work?

ETSI's Technical Committee for Intelligent Transport Systems (TC ITS) creates and maintains standards and specifications for the use of information and communications technologies in transport systems. Most of the Technical Committee's ongoing standardization activities are focused on wireless communications for vehicle-to-vehicle and vehicle-to-roadside communications.

The goal is to address the safety of life through the reduction of road fatalities and injuries (in Europe over 40 000 road fatalities per year and more than 1,25 million injuries), to address traffic efficiency with a reduction in transport time and the related economic consequences, and to decrease polluting emissions such as CO₂. This is a global issue and ETSI is cooperating with standardization bodies worldwide in order to achieve global interoperability and harmonized deployment of Intelligent Transport Systems.

As a consequence, the work of TC ITS is supported by a large variety of companies who actively contribute to the standardization work. These include car makers along with automotive industry suppliers. Equally, there are silicon vendors, network operators, research bodies as well as test houses.



Intensive links are maintained with the European Commission whose ITS related initiatives aim to stimulate the deployment of Intelligent Transport Systems. In parallel, industry organizations such as the Car to Car Communication Consortium (C2CCC) provide important input to the standardization work.

Due to the international nature of this work ETSI cooperates closely with other international standardization organizations such as ISO, CEN, IEEE, SAE International, ARIB and IETF in order to achieve internationally deployed and harmonized standards on ITS, essential to achieve worldwide interoperability.

New MEC industry standards and deployment of MEC platforms will act as enablers for new revenue streams to operators, vendors and third-parties. Differentiation will be enabled through the unique applications deployed in the edge cloud.

Current standardization activities

Standardization currently focuses on cooperative systems, electronic fee collection and interoperability of these technologies. Since ITS has a global dimension, great attention is given to the creation of commonly agreed standards for the network architecture, protocols and transmission formats. Having such a set of commonly agreed standards helps lead to a global harmonization of ITS services and applications. A key issue when working on such standards is ensuring interoperability. Here, ETSI's Centre for Testing and Interoperability (CTI) provides expertise on all aspects of interoperability.

Since the Release 1 set of standards has been completed, ITS related standardization continues, in addition to the maintenance of Release 1, with the development of Release 2 designed to support additional ITS services, functionality and features. The following list shows some potential topics for which ETSI TC ITS will develop standards and technical specifications:

- Autonomous driving (e.g platooning, C-ACC and
 Manoeuvre Coordination Service)
- Sensor sharing (e.g. Collective Perception and Cooperative Observation Service)
- Integrated transport supporting Smart Cities
- Infrastructure-based Services (e.g. SPAT, MAP)
- Roadside platform architecture
- Integration of existing infrastructures
- Digital maps
- In vehicle platform architecture
- Urban mobility management (e.g VRUs)
- Freight and fleets

Contacts

If you are interested in joining the standardization work of TC ITS or should you have any other questions then do not hesitate to get in touch with:

Mr Niels Peter Skov ANDERSEN ETSI TC ITS Chairman npa@anemonetechnology.com

Mr. Marco Annoni ETSI TC ITS Vice-Chairman marco.annoni@viasatgroup.it

Mr Teodor Buburuzan

Chairman ETSI TC ITS Working Group Application Requirements and Services (WG1) teodor.buburuzan@volkswagen.de

Ms Brigitte LONC seungryul.yang@lge.com Chairman ETSI TC ITS Working Group Security (WG5) brigitte.lonc@renault.com For further details on ETSI TC ITS please visit: WWW.etsi.org/ITS

Dr Andreas FESTAG

Chairman ETSI TC ITS Working Group Transport and Network (WG3) andreas.festag@nw.neclab.eu

Mr Hans JOHANSSON

Chairman ETSI TC ITS Working Group Media and Medium related (WG4) hans.johansson@kapsch.net

Mr Seung Yang

Chairman ETSI TC ITS Working Group Architecture and Cross Layer (WG2) seungryul.yang@lge.com

Q3 2018

ETSI provides members with an open and inclusive environment to support the timely development, ratification and testing of globally applicable standards for ICT-enabled systems, applications and services across all sectors of industry and society. We are at the forefront of emerging technologies. We address the technical issues which will drive the economy of the future and improve life for the next generation. We are a not-for-profit body with more than 850 member organizations worldwide, drawn from 68 countries and five continents. Members comprise a diversified pool of large and small private companies, research entities, academia, government and public organizations. ETSI is one of only three bodies officially recognized by the EU as a European Standards Organization (ESO).

www.etsi.org - ETSI, 650 Route des Lucioles, F-06921 Sophia Antipolis Cedex. T: +33 4 92 94 42 00 - info@etsi.org