Intelligent Transport Systems (ITS)

- ITS means applying Information and Communication Technologies (ICT) to the transport sector

Benefits from ITS

- Lower impact of traffic on the environment, improve energy efficiency and decrease dependency on fossil fuels
- **Reduce congestion** and optimise the use of existing infrastructure
- Increase traffic **safety** and security
- Increase **convenience** of transport
Intelligent transport systems

Intelligent transport systems apply ICT to transportation networks to help improve safety, enhance the efficiency and sustainability of transportation.
TRENDS

- Mobility integration (Smart Cities)
- Connected and automated driving (C-ITS)

Trends increase importance of:
- Privacy / security
- Standardized architecture and interfaces
- International Harmonization
Examples of ITS applications

**DATEX II** Exchange traffic & travel information between road operators and service providers

**ECALL** Automatic alert 112 in the event of an accident

**Public transport** traffic management and traveler support

**CONNECTED VEHICLES**
Exchange of information between cars and roadside equipment

**ELECTRONIC FEE COLLECTION**
ITS use cases

**Efficiency**
- Travel information
  - In vehicle signage
  - Traffic light speed advice
  - Multimodal travel info
  - Real-time traffic information
  - Predictive maintenance
- Traffic management
  - Electronic Fee Collection
  - Variable speed limits
  - Parking management/reser.
  - Traffic info. & Smart routing
  - Dynamic travel & traffic info
  - Safe and secure truck parking
  - Traffic signal priority request
- Automation
  - Platooning
  - Cooperative cruise control
  - Electronic traffic regulations
  - Automated driving
  - Smart ticketing/payment

**Safety**
- Situation awareness
  - Road hazard
  - Emergency vehicle approach.
  - Roadworks
  - Curve speed
  - Traffic condition
  - Slow or Stationary vehicle
  - Weather conditions
  - Emergency Brake light
- Accident avoidance / emergency
  - Intersection collision
  - Forward collision
  - Lane change warning
  - Bicyclist/Pedestrian detection
  - Ecall
EC ICT Rolling plan 2019

Bridges policy and standardization
- Result of dialogue and input from European stakeholders
- Defines priorities for the EC Digital Single Market

Intelligent transport systems
- Ecall
- European Electronic Toll Service
- Public Transport
- Cooperative systems
- Urban ITS

ACTION 21 To continue international cooperation in the field of ITS standardisation, in particular with the USA and Japan, but also with other regions, including participation of the relevant SSOs.
Work Area

- Public Transport
- Cooperative ITS
- Electronic Fee Collection
- Urban ITS
- eCall
- DATEX
- Automatic Vehicle Id.
- TN-ITS
- DSRC
- HMI
- After Theft Systems
- Traffic information

Under development: [Bar Graph]
Published: [Bar Graph]
<table>
<thead>
<tr>
<th>Joint Working Group</th>
<th>Working Group</th>
<th>Dormant Working Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>WG 1 EFC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 2 Freight and logistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 3 Public transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 4 Traffic and traveller information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 5 Fee and Toll Collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 6 ITS spatial data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 7 Road traffic data / DATEX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 8 Public transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 9 ITS architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 10 Traveller information systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 11 Human machine interfacing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 12 Vehicle identification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 13 ITS architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 14 Recovery of stolen vehicles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 15 eSafety/eCall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 16 CALM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 17 Nomadic devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISO/TC 22/SC39/WG8 HMI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 18 Cooperative ITS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WG 19 Mobility integration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ITS domains with Vienna Agreement projects

- EFC (JWG 1/5)
- TTS (JWG 4/10)
- C-ITS (JWG 16/18)
- JWG 17/19 Mobility Integration
- Public transport 278/ WG3 204/ WG8

Projects started by year

- CEN only
- CEN-lead
- ISO-lead

Introduction videos
Datex II / Transmodel

WWW.ITSSTANDARDS.EU
ABOUT ITS

Intelligent Transport Systems (ITS)

The term Intelligent Transport Systems (ITS) refers to efforts to collect, store and provide real-time traffic information to maximize the utilisation efficiency, provide convenient safe transport, and reduce energy by applying advanced electronics, information and telecommunication technologies into roads, automobiles and goods.

Intelligent Transport Systems (ITS) can significantly contribute to a cleaner, safer and more efficient transport system. Consequently, ITS have become the focus of a number of policy and legislative initiatives in Europe. The European Commission has laid down the legal framework in order to accelerate the deployment of these innovative transport technologies across Europe. Furthermore, the European Commission has requested the European Standards Organizations to develop and adopt European standards in support of this legal framework. Not surprisingly there is considerable activity in this area by the standards organisations CEN, CENELEC and ETSI.

Benefits from ITS

- Lower impact of traffic on the environment, improve energy efficiency and decrease dependency on fossil fuels
- Reduce congestion and optimise the use of existing infrastructure
- Increase traffic safety and security
- Increase convenient of transport