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Cooperative ITS:
From research to implementation –
Relevance of standardization

6th ETSI ITS Workshop, Berlin, 12th February 2014

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❖   *C-ITS within EU policy*

❖   *The need of standards*

❖   *EC support to standardisation*

❖   *How to achieve it*

❖   *International cooperation*

❖   *Conclusions*

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Roadmap to a Single European Transport Area

Towards a competitive and resource efficient transport system

- **To meet the challenges**, transport has to:
  - Use less energy
  - Use cleaner energy
  - Exploit efficiently a multimodal, integrated and 'intelligent' network
- Curbing mobility is not an option
- **By 2050 reduce emissions by 60%**, and 20% by 2020 (2008 level)
- **By 2050 move close to zero fatalities** in road transport, halving road casualties by 2020

- *Action Plan* for the Deployment of Intelligent Transport Systems (ITS) in Europe (Dec 2008)

- *Directive 2010/40/EU:* Framework for the Coordinated and Effective Deployment and Use of Intelligent Transport Systems

- *Cars 2020 and Cars21*

- The overall aim of the *Digital Agenda for Europe (DAE)* is to deliver sustainable economic and social benefits from a digital single market based on
  - **fast and ultra fast internet and**
  - **interoperable applications**

C-ITS and DAE:
"Every Car Digital, Every Car Connected"

✓ *Connected vehicles*

✓ *Internet of Things / Internet of Vehicles*

✓ *Big Data*
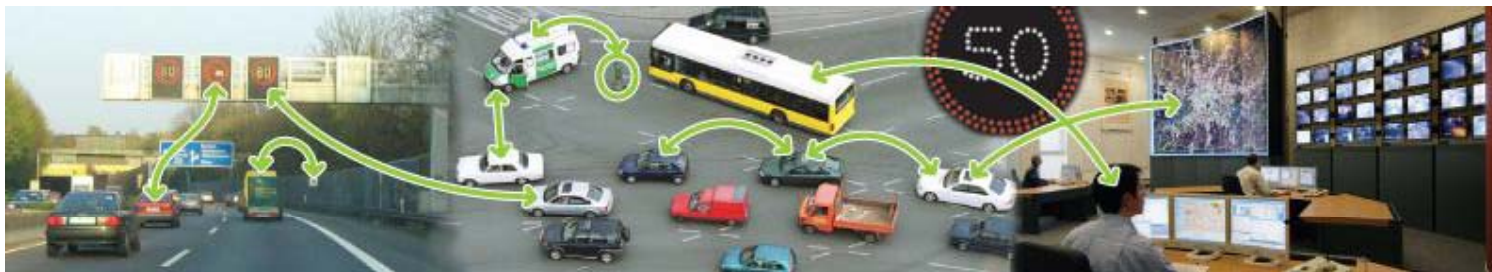
Why do we need ITS standards?

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- Enables **interoperability** of systems/services
- **Encourages innovation**, fosters enterprise and opens up new markets for suppliers
- **Creates trust and confidence** in products and services
- **Expands the market**, brings down costs and increases competition
- Helps to **prevent duplication of effort**
- Supports greater **confidence in procurement**
- **Interchangeability** of system component suppliers

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Instruments:
- Setting of the priorities **:** *ITS Directive legal Framework*
- Research Framework program/ H2020/ CIP
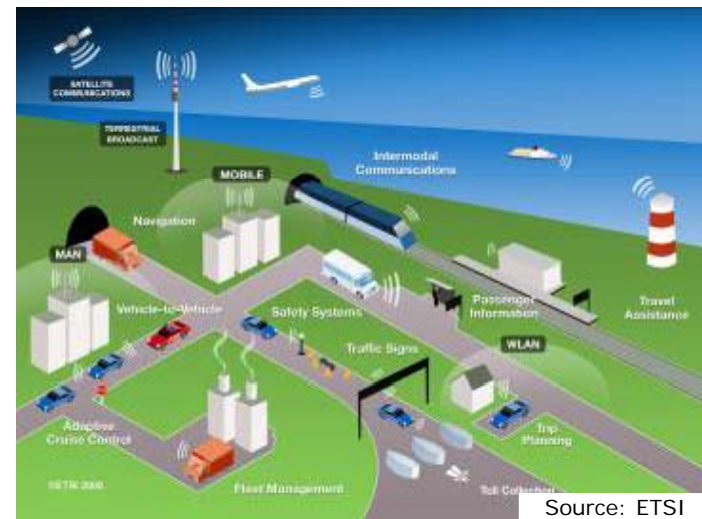- EC Mandates for standardisation

Groups:
- ITS Committee; ITS Advisory group
- ITS Standardisation Coordination Group (ITS-CG)
- iMobility Forum

Funding of standardisation activities:
- *ICT Standardisation Work Programme – Now Rolling Plan*
  - Specialist Task Forces on EETS
  - Specialist Task Forces on coop. systems
  - Specialist Task Forces on eCall
- *Results from EU funded RTF projects/FOTs/Pilots*

How to achieve it: Cooperation

✓ *Active and fair involvement of all the relevant stakeholders*

✓ *Support from RTD projects, validation and fine-tuning through field operational tests*

✓ *Cooperation among the different standardisation organisations and groups*

✓ *International cooperation*

Source: ETSI
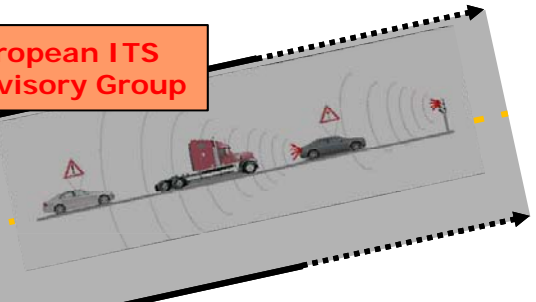
C-ITS: Road to Deployment

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Digital Agenda for Europe

CAR 2 CAR COMMUNICATION CONSORTIUM

ITS AP

ITS Directive

AMSTERDAM GROUP
Get It In On The Road, Get It In the Vehicle.

i2010 Intelligent Car Initiative

EU·US ITS COOPERATION

COMMISSION DECISION
of 5 August 2008
harmonised use of radio spectrum in the 5 875-5 905 MHz frequency band for safety-related applications of Intelligent Transport Systems (ITS)

European ITS Advisory Group

Safety

VSC WG Report

Safety

ETSI TR 101 607 V1.1.1 (2013-05)

ETSI Technical Report

Release 2

M/453

ETSI ITS Standards on the move

ETSI EN 302 665 V1.1.1 (2010-09)

Intelligent Transport Systems (ITS); Communications Architecture

Intelligent Transport Systems (ITS); Cooperative ITS (C-ITS); Release 1

cen ISO

Release 1 standards for Cooper...

CALM continuous communications for vehicles

GeoNet

cen

EU-US Standards Harmon...
Task Group Report: Feedb...
ITS Standards Developme...
Organizations—
Communication...

C-ITS Release 1 list of standards

GST

SEVECOM

CVIS Cooperative Vehicle-Infrastructure Systems

TC 278 WG16

FOTsis

M/453 F.R.

Rolling Plan

SAFESPOT

simTD

DRIVE

PReVENT

COM Safety

COM Safety

cooperative Showcase 2010 mobility

SISCOGA

4D

coopers

iCar Support
ICT for smart, safe & clean mobility

FREILOT

ITSsV6

MOBiNET Internet of mobility

HORIZON 2020
THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

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Stakeholders Groups

ITS Coordination Group

Global

Coordination

Monitoring M/ 453

Cooperation

COM Safety2

Results

ITSsV6

Cooperation

International

Validation & Feedback
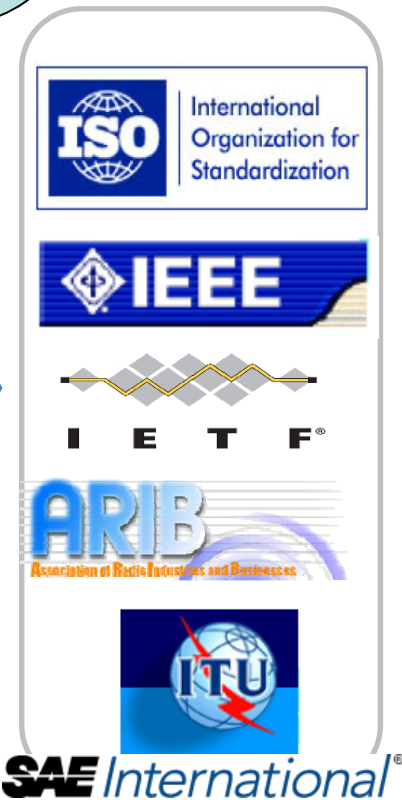
EU and national funded projects
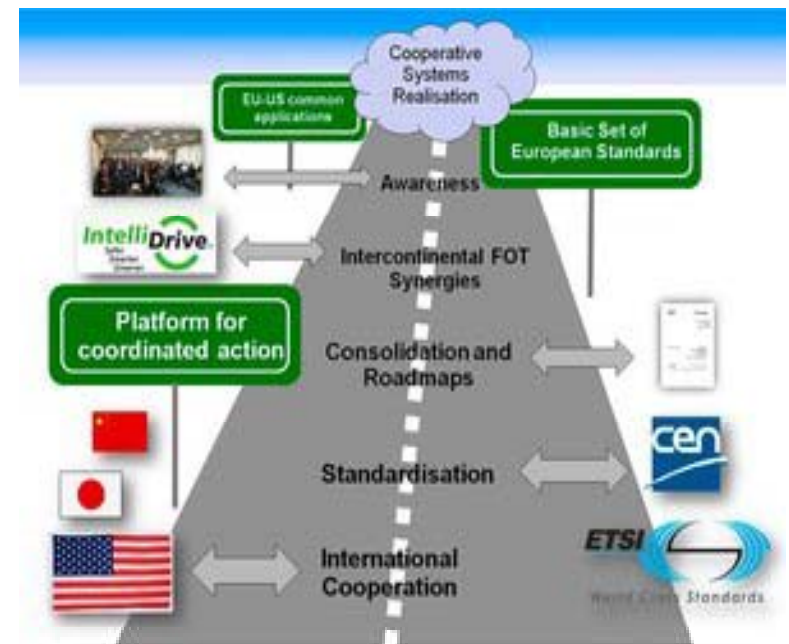
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HTG

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Global harmonisation of standards for Cooperative Systems

- *Memorandum of Cooperation* agreed between ETSI and U.S. DoT RITA
- *Harmonization Action Plan* process for finalising internationally harmonized standards
- *Harmonization Principles* suggest policies to be followed in the harmonization

- **Harmonization Task Groups (HTGs):**
  HTG1: Management and security (complete)
  HTG2: Vehicle Safety Message (complete)
  HTG3: 5.9GHz protocol harmonization (complete)
  HTG4: Roadside messages (under way)
  HTG5: Intersection messages (under way)
  HTG6: Security Policy (started Jan 2014)

- HTG reports issued and being applied by SDOs. Available on EU/US official sites:
  - http://www.its.dot.gov/connected_vehicle/international_research.htm
  - http://ec.europa.eu/digital-agenda/en/news/progress-and-findings-harmonisation-eu-us-security-and-communications-standards-field

- MoC with Japan (MLIT)

Benefits:
✓reducing development costs
✓getting to global markets
✓avoiding duplication of efforts
✓generating economies of scale

Source: COMeSafety2 project

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Conclusions

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❖ C- ITS have the potential to contribute tackling the mobility challenges in Europe and worldwide

❖ Standards are needed for wide take-up of ITS

❖ Stakeholders and SDOs cooperation is paramount

❖ Importance of global harmonisation

❖ Release 1 important milestone. In the right track towards deployment.

Thank you for your attention