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How ETSI connects the cars

Geneva, 5-7 March 2008



- About ETSI
- European legal framework
- ITS at ETSI
- ETSI's global role

- Produce Information and Communications Technologies (ICT) standards
 - fixed, mobile, radio, converged, broadcast and Internet technologies
- Officially recognized by the European Commission (EC) as a European Standards Organization
- Based on membership
 - almost 700 member organizations from 60 countries worldwide
- Work carried out in Technical Committees and Working Groups
- Standards made available for free

European Legal Framework (1/2)

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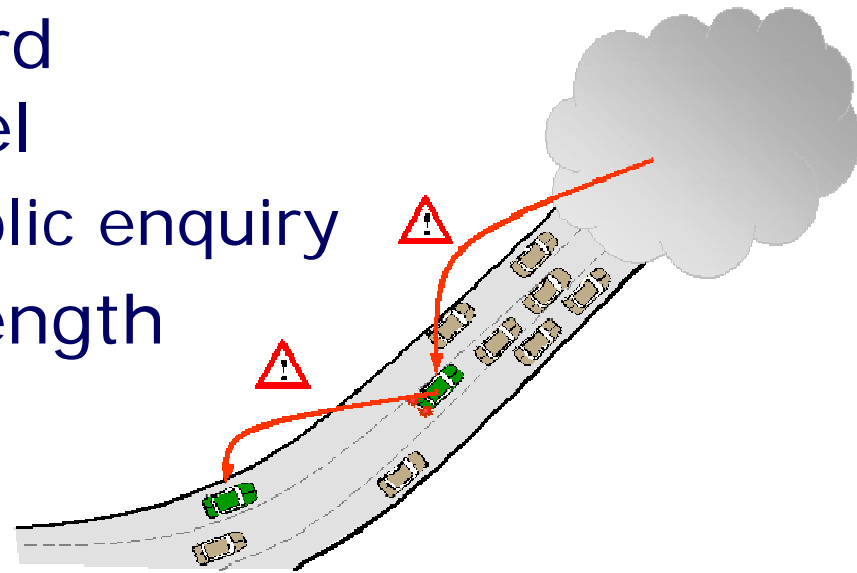
- Harmonization required for true Internal Market
- Directives as legal instruments, e.g.
 - 2004/108/EC (Electromagnetic compatibility)
 - 1999/5/EC (Radio and telecommunications terminal equipment)
- Harmonized standards complete the picture
 - elaborated by CEN, CENELEC and ETSI

- Application of Harmonized Standards
 1. Conformity assessment
 2. Self-declaration by the manufacturer
 - no type approval regime
 - Establishment of Declaration of Conformity
 - Affixing the CE marking
 3. Notified Bodies can assist to the assessment
- Legal certainty
- Market surveillance by regulators

V2V and V2R communications (1/3)

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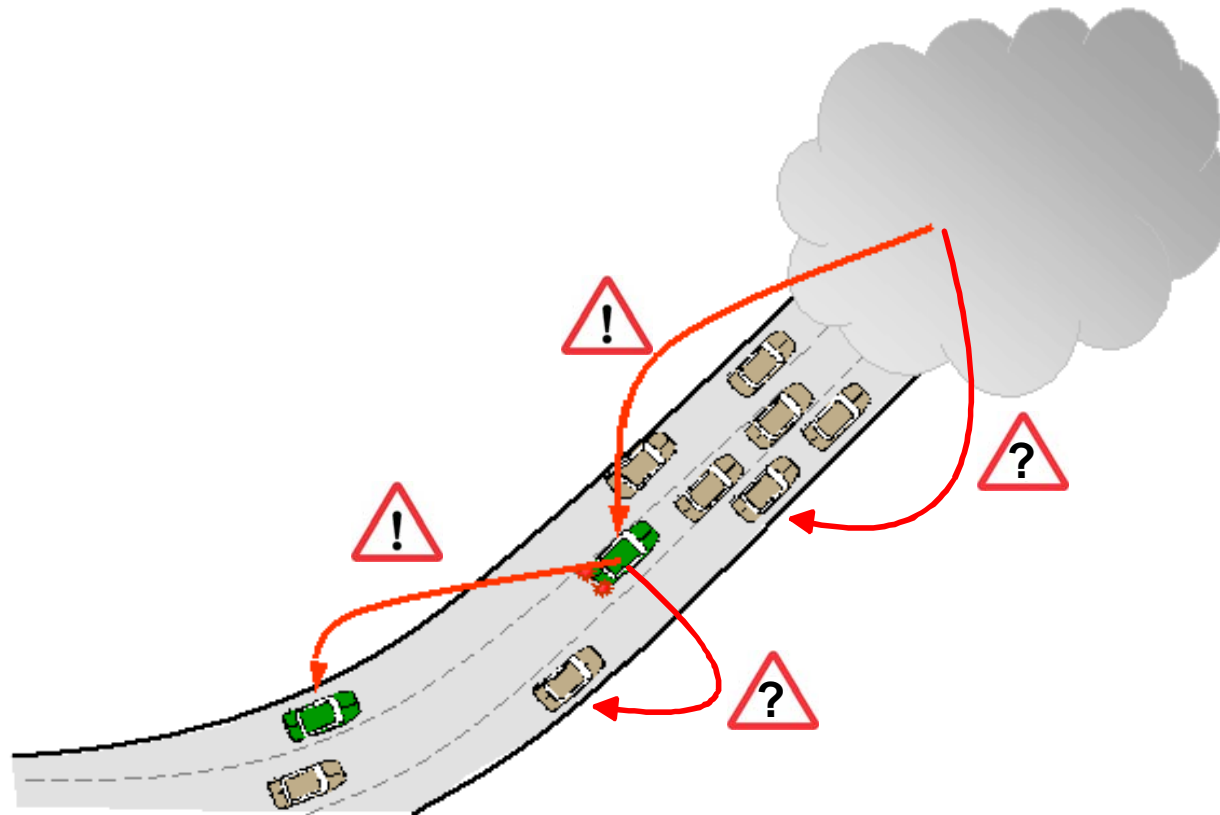
- 5,8 GHz frequency band successfully allocated by CEPT/ECC
- European Commission decision for safety related applications on its way
 - 5 875 MHz to 5 905 MHz
- Harmonized Standard elaborated in parallel
 - EN 302 571 on public enquiry
- On the same wavelength
 - JP/US/EU
 - who else?



V2V and V2R communications (2/3)

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Do they understand each other?



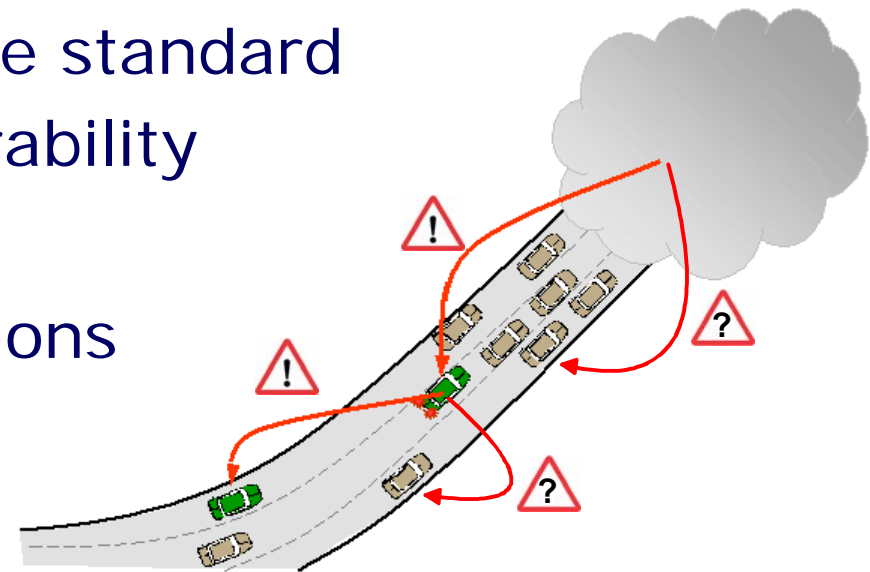
The Fully Networked Car
Geneva, 5-7 March 2008



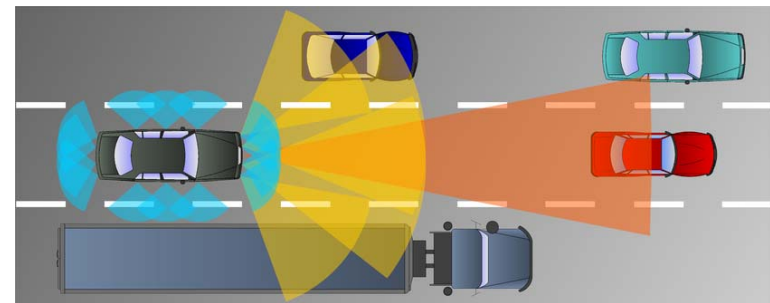
V2V and V2R communications (3/3)

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- Protocol standards
 - data formats, content and language
- Interface standards
 - automotive system/communications system
- Conformance testing standards
 - interpreting the base standard
 - increasing interoperability
- Security standards
 - secure communications
 - privacy aspects



- Anti-collision radar
 - blind spot warning, lane change, obstacles, parking
 - EN 302 288 (24 GHz), EN 302 264 (79 GHz)
- Adaptive Cruise Control (ACC)
 - define desired interval and maximum speed to follow traffic
 - vehicle sets corresponding speed automatically
 - EN 301 091 (77 GHz)



- Dedicated Short Range Communications (DSRC)
 - 5,8 GHz frequency band mostly used
 - Base Standards elaborated by CEN
 - EN 12795, EN 12834, EN 13372
 - Specifications for Conformance Testing elaborated by ETSI
 - TS 102 486 standards family
- One component of the European Electronic Toll Service (EETS)



- o Technical Committee (TC)
Intelligent Transport Systems (ITS)
 - created in October 2007
 - home for road transport
 - 5 Working Groups
 1. User and Application Requirements
 2. Architecture, Cross Layer and Web Services
 3. Transport and Network
 4. Media and Medium related
 5. Security
- o Place to turn research results into standards
- o Excellent point for collaboration

- Technical Committee (TC)
EMC and Radio Spectrum Matters (ERM)
 - ETSI's radio committee
 - Work organized in Task Groups, e.g.
 - TG37: ITS related radio matters
 - TG31B: automotive radar
 - TG25: aeronautical
 - TG26: maritime
- Processing of System Reference Documents
 - spectrum requests sent to CEPT/ECC and EC
- General interface to CEPT/ECC

- Some ETSI standards applied globally
 - GSM
 - more than 2,4 billion users in over 200 countries
 - 1,3 million new users every day
 - DECT (Digital Enhanced Cordless Telecommunications)
 - over 200 million terminals in more than 110 countries
 - DVB system specifications
 - based on DVB Project proposals
 - services available on every continent
- When will ITS appear on this list?

Does this mean...

Can you please...

How does this...

Just for my
understanding...



What is...

Is it true that...

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