Welcome to the World of Standards

ETSI

World Class Standards

4TH ETSI TC ITS WORKSHOP

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SUMMARY AND CONCLUSIONS

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Welcome and key notes

- ITS is a way of life
- Policy makers have to care about population, e.g. safety and environment
- Make public transport as attractive as car rides, i.e. fully informed travellers
- Traffic management and guidance high on the agenda, also for mass events
- Collecting, processing and distributing of data needs further streamlining
- Cooperation is important
- Automatic driving appears at the horizon

Session 2

- Stakeholders' feedback to standardization activities
  - there are regions without legacy systems: one can get it right from the beginning
  - remove trade barriers by using harmonized standards
  - Internet of Things is linked to ITS as well, e.g. transportation of goods
  - globally harmonized spectrum for high resolution automotive radar on its way
  - do not forget the user-centric approach
  - technology has to follow use cases and application requirements

Session 3

- EC Mandate for CEN and ETSI standardization
  - almost all standards will have been finalized in time
  - a release concept was proposed, e.g. release 1 upon the expiration of the mandate
  - cellular networks will be part of Cooperative ITS
  - continued harmonization of applications and message sets
  - ATIS and APTS need to be addressed
  - IPv6 will play an important role in Cooperative ITS networking
  - potential spectrum co-existence challenges
  - global harmonization of ITS Channel Congestion Control desirable

Session 4

- Cooperative ITS: Trials, Lessons, Improvements
  - successful Plugtests events done for Cooperative ITS, more to follow in 2012
  - Plugtests are interoperability in practice
  - Local Dynamic Map (LDM) standardization on a good way in ISO and ETSI
  - navigation systems will be improved by Cooperative ITS, e.g. real time traffic information will be used for routing
  - I2V communications optimize fuel consumption, e.g. timings of traffic lights
  - automated vehicles can make most out of Cooperative ITS, e.g. managing intersection traffic
  - further event driven hazard warnings being prepared, e.g. wrong way driving warning and weather condition warning

Session 5

- Managing the five senses of ITS
  - ensure smooth interworking of all components
  - cellular networks will provide Geomessaging
  - unified Geocasting for ITSG5 and cellular
  - dynamic communications management, i.e. selection of access technologies based on aspects such as QoS or radio coverage
  - IEEE 802.11p access management can be improved by TPC and slotted access
  - IPv6 will be the transmission protocol for different access technologies
  - IPv6 ITS Station Stack (ITSSv6) on the way
  - validation framework for all ITS standards

Session 6

- One thousand and one ITS applications
  - Sustainable Surface Transport aims at guiding the users by providing information
  - The right information, at the right time to the right location
  - people have to be the heart of ITS
  - multi-modal routing has to be available
  - consider the usage of an organizational architecture
  - process chains will assist in defining different roles, e.g. content provision, service provision, service presentation
  - user is in danger to get overloaded by different information channels
  - consider human factors such as disobedience
  - system validation has to include behavioural profiles as well

Session 7

- Radio waves have no borders
  - 5,9 GHz band shared by different services
  - 30 MHz of spectrum is allocated to time critical road safety applications
  - ITS-G5 (5 875 MHz to 5 905 MHz) will not suffer from harmful interference
  - CEN DSRC OBU coexistence with ITS-G5 has to be addressed
  - optimized DCC parameters contribute to a smooth coexistence
  - CEN DSRC OBU receiver parameters should be more stringent
  - assess DCC based channel access policies
  - start with the right amount of transceivers from the beginning
  - 700 MHz band allows for Non Line of Sight propagation, i.e. V2V communications will become more reliable
  - ARIB standard for 700 MHz ITS band will be published
  - CSMA/CA cannot handle overloaded situations, i.e. transmission delays will occur in congested situations
  - scalability challenge could be solved by time slotted approach
  - synchronization of network nodes required

Session 8

- Are you sure it is secure?
  - ITS is a sensor network
  - gathering information to rely on requires a trustworthy source
  - a trust architecture ensures trust in users and trust in content
  - location based services have to provide feedback in real-time to requesting users
  - no safety without security
  - provide security features on a in-vehicle platform
  - certification policies for applications, for doing so associated standards are required
  - many research projects work on security, results are validated in Field Operational Tests and fed to standardization
  - security subsystem is compliant to the ITS communications architecture

ETSI TC ITS for YOU

- Invitation to the next TC ITS meeting
  - ITS#10 meeting week
  - 23-27 April 2012, ETSI, Sophia Antipolis
  - get in touch with us (see last slide)
- ITS World Congress Vienna
  - 22-26 October 2012
  - ETSI will exhibit at stand P32
- 5th ETSI TC ITS Workshop February 2013
  - if you want to host it – please let us know!

BIG BIG THANK YOU TO

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