



4th ETSI TC ITS Workshop

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AGENDA

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Hosted by



With the support of





About ETSI

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Organization. ETSI is an independent, not-for-profit association whose more than 700 member companies and organizations, drawn from 62 countries across 5 continents worldwide, determine its work programme and participate directly in its work.

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About QUWIC

QUWIC (www.quwic.com) is an applied research and development center founded by Qatar University in Collaboration with and located at the Qatar Science & Technology Park (QSTP) to leverage the use of emerging wireless and mobile technologies in creating smart solutions and applications targeting a number of markets including

Transportation, Utilities, Healthcare, Environment, etc.

QUWIC is emerging as a regional leader in developing and deploying Intelligent Transport Systems (ITS) and Applications targeting Qatar and the region. The ITS platform developed by QUWIC will deliver rich services and applications covering traffic monitoring, traveler info services, fleet management, multi-modal and cooperative ITS, and Car-to-X services.

To support its development and field trial activities, QUWIC is building a rich and comprehensive ITS lab.



About the Sponsor

Qatar Foundation established Qatar National Research Fund (QNRF) in 2006 as part of its ongoing commitment to establish Qatar as a knowledge-based economy. Qatar Foundation views research as essential to national and regional growth and as the means to diversify the nation's economy, enhance educational offerings and develop areas that affect the community, such as health and environment.

QNRF aims to foster original, competitively selected research in engineering and technology, physical and life sciences, medicine, humanities, social sciences and the arts. In addition to funding, QNRF aims to encourage dialogue and partnerships.

QNRF Programs and activities include:

- Undergraduate Research Experience Program (UREP)
- National Priorities Research Program (NPRP)
- Young Scientists Research Experience Program (YSREP)
- Secondary Schools Research Experience program (SSREP)
- Conferences, Workshops and Short Courses (CWSP)
- Qatar National Research Survey (QNRS)
- Distinguished Fellowships

Vision & Mission The Vision In response to the national needs of the State of Qatar, Qatar Foundation has set forth an ambitious vision of research and its benefits: Qatar Foundation envisions research as a catalyst for expanding and diversifying the country's economy; enhancing the education of its citizens and the training of its workforce; and fostering improvements in the health, well-being, environment, and security of its own people and those of the region. In striving toward this vision, Qatar will distinguish itself within the region and world as a cosmopolitan nation that embraces scholarly excellence, innovation, creativity, inclusiveness, and merit. **The Mission** The mission of Qatar National Research Fund (QNRF) directly supports this vision: QNRF will advance knowledge and education by supporting original, competitively selected research in physical, life, and social sciences, engineering and technology, the arts and humanities. It will provide opportunities for researchers at all levels, from students to professionals, in the private, public, and academic sectors.

SAFE, SMART & SUSTAINABLE TRAFFIC

VIA COOPERATIVE ITS

13:30 Session 1: Introduction and Keynotes

Moderator : **Soeren Hess**, ETSI TC ITS Chairman

- **13:30** Introduction to ETSI TC ITS
Soeren Hess, ETSI TC ITS Chairman
- **13:35** An Overview of the European Telecommunications Standards Institute
Luis Jorge Romero, ETSI Director-General
- **13:50** ITS Innovations in Qatar: From Vision to Reality
Dr. Adnan Abu-Dayya, Executive Director, QUWIC
- **14:10** The Qatar Transport Master Plan and ITS Implications
Eng. Mohamed Abdah, Director of Transportation & Infrastructure Planning Department, Ministry of Municipality and Urban Planning, Qatar
- **14:30** ITS Activities in China
Yang Qi, Secretary-General, National ITS Standardization Technical Committee of China
- **14:50** Effective deployment of ITS
Dr. Hermann Meyer, CEO, ERTICO
- **15:10** Qatar National Research Fund (QNRF): A Driving Force for Scientific Research
Dr. Munir Tag - Program Manager ICT, QNRF - Qatar Foundation

15:30 COFFEE BREAK

16:00 Session 2: Stakeholders feedback to standardization activities

Deployment scenarios are being developed within a range of stakeholders and within different regions. Are the standardization activities within CEN and ETSI sufficient to meet the stakeholder's requirements for the initial deployment?

Will the consistent set of standards developed within CEN and ETSI be sufficient to also cover requirements from other regions including the Arab countries, China and Japan?

Moderator: **Marco Annoni**, ETSI TC ITS Vice Chairman, Telecom Italia

- **16:00** **Hans Joachim Schade**, Convenor CEN/TC278/WG16 and ISO/TC204/WG18 and **Soeren Hess**, ETSI TC ITS Chairman
- **16:15** **Yang Qi**, Secretary-General, National ITS Standardization Technical Committee of China

- **16:30** Progress Report - ITS Radiocommunication in Japan
Hiroki Taniguchi, Deputy Director, Land Mobile Communications Div., Radio Dept., Telecommunications Bureau, Ministry of Internal Affairs and Communications (MIC), Japan
- **16:45** Standardization in the area of Cooperative systems in the MENA region
Dr. Muna Hamdi, Director of Research, ITS Arab
- **17:00** GSO in standards developments for Transport Systems
Omar Kanakrieh, Directorate of Standards and Metrology at GSO
- **17:15 DISCUSSION**

9:00 Session 3 : EC Mandate for CEN and ETSI Standardization

The EC Standardisation Mandate will be completed in 2012. Standards have been developed and are in the approval process. The first release of a consistent set of standards is expected for the initial deployment.

A panel discussion of the status and expectations to finalising the Mandate M/453 requirements with key CEN and ETSI officials will form the basis for discussing the next steps. Which standards are needed for the second release within the following 2-3 years?

Moderator : **Soeren Hess**, ETSI TC ITS Chairman

- **09:05 Lan Lin**, ETSI TC ITS WG1 Vice Chairman
- **09:15 Knut Evensen**, ETSI TC ITS WG2 Chairman
- **09:25 Dr. Andreas Festag**, ETSI TC ITS WG3 Chairman
- **09:35 Christoph Woeste**, ETSI TC ITS WG4 Chairman
- **09:45 Scott Cadzow**, ETSI TC ITS WG5 Chairman
- **09:55 Hans Joachim Schade**, Convenor CEN/TC278/WG16 and ISO/TC204/WG18
- **10:05 DISCUSSION**

10:45 COFFEE BREAK sponsored by QUWIC

11:15 Session 4: Cooperative ITS: trials, lessons, improvements

Field trials based on the very first set of Cooperative ITS standards have finished. Now is the time for analyzing the results and improving the standards based on the lessons learnt. Especially for Cooperative Awareness Messages (CAM) and Decentralized Environmental Notification Messages (DENM) the robustness of the standards could be demonstrated. Along with the finalization of the first V2V standards such as Intersection Collision Risk Warning activities for harmonizing message sets are ongoing between ETSI, ISO and SAE. Discuss with the panellist what was easy at the field trials and where the challenges showed up. Regarding interoperability: has the right (and required) amount of harmonization been reached?

Moderator: **Gérard Ségarra**, ETSI TC ITS WG1 Chairman, Renault

- **11:15** Benefits of Conformance and Interoperability testing – perspectives for 2012
Sebastian Müller, ETSI Center and Interoperability Testing and **François Fischer**, ERTICO
- **11:40** ITS database technology and LDM Standardization
Dr. Jun Shibata, ISO TC204 WG3 Convenor, Japan Digital Road Map Association
- **12:00** simTD - Shaping the future of road safety and mobility via car-2-x communication
Dr.-Ing. Karim Belhoula, Continental Automotive GmbH

- **12:20** Developing Intersection Cooperative Adaptive Cruise Control System Applications
Dr. Hesham Rakha- Virginia Tech Transportation Institute
- **12:40** ISO TC 204 WG14 – Liaison report with SDOs
G rard Segarra on behalf of Yousuke Akatsu(Nissan) Convenor of ISO TC 204 WG14

13:00 NETWORKING LUNCH

14:00 Session 5: Managing the five senses of ITS

LTE plays an important role in ITS related communications. ITS-G5 communications have to be taken into account. GeoNetworking and IPv6 are considered to be the protocols ensuring packets go there where they ought to be. Is it safety critical or not? All this needs to fit together - seamlessly, reliably. Facility layer functionalities ensure that everybody is on the same page. Harmonized internal and external interfaces allow for modular implementations. How advanced is associated standardization? Which facility functionalities are essential? Are LTE and IPv6 able to cope with them? Have all networking aspects been considered? What are the loose ends that prevent a transparent ITS communications path from being established and used?

Moderator: **Knut Evensen**, ETSI TC ITS WG2 Chairman, Q-Free

- **14:05** C-ITS, moving forward
Enrico, Brancaccio Ericsson Telecomunicazioni S.p.A
- **14:25** Geocasting over 11p, LTE and beyond
Dr. Andreas Festag , NEC Laboratories Europe
- **14:45** MAC layer performance of ITS G5
Dr. Marc Werner, Qualcomm
- **15:05** IPv6 in the ITS station reference architecture
Dr. Thierry ERNST, INRIA
- **15:25** Conformance and interoperability testing of ITS protocols compliant with standards from ETSI, CEN and ISO at ETSI
Dr. Hans-Joachim Fischer, ETSI STF 422

15:45 COFFEE BREAK

16:15 Session 6: 1001 Applications

Smart and sustainable transport requires collecting all types of data and delivering them to the instance and location where they are needed. Prince Kamar al-Akmar would certainly have benefited from ITS services when he was riding the Ebony Horse: a navigation system offering location based services telling him where he is and where to find accommodation and restaurants. However, smart and sustainable transport means more than that.

Assisting and guiding the users by providing information on road conditions, weather and public transport network condition in real-time while travelling requires a lot of data collection and data exchange happening in the background. In addition, all entities owning and providing such data have to work together in a harmonized way. How do the standards look like here? What tangible results are available to make that happen? And will those applications assist you in finding your princess as well?

Moderator: **Hans Joachim Schade**, Convenor CEN/TC278/WG16 and ISO/TC204/WG18

- **16:20** i-Tour – Placing the user at the centre of Intelligent (Urban) Transport
Scott Cadzow - Cadzow Communications Consulting
- **16:40** Enabling Vehicle Cooperative Perception: Challenges and lessons learned
Dr. Cherkaoui Soumaya -University of Sherbrooke
- **17:00** TISA - A Facilitator for Traffic Management and Safety- & Mobility-Information
Dr.-Ing. Karim Belhoula, on behalf of Thomas Kuhn (TISA) Continental Automotive GmbH
- **17:20** Who does what? Why do we need an organizational architecture?
Teresina Herb - Federal Highway Research Institute (BAST)
- **17:40** Simulating driver behaviour and user error in a seamless ITS data highway
Paul Copping, TRL Ltd

9:00 Session 7 : Radio waves have no borders

For the deployment of Cooperative ITS using wireless means of communications, the allocation of corresponding spectrum is a prerequisite. When allocating spectrum to new services then existing users may experience harmful interference. To minimize this effect co-existence specifications have been elaborated and tested for the 5,9 GHz frequency band. Moreover, allocated spectrum has to be used efficiently. What are those mechanisms aiming at preventing harmful interference? Are the spectrum allocations for Cooperative ITS nearly identical around the globe? Which regions still have to make a spectrum allocation decision? How do the silicon makers manage this situation?

Moderator: **Christoph WOESTE**, ETSI TC ITS WG4 Chairman, Federal Network Agency (DE)

- **09:05** Intelligent Transport Systems: 5.9 GHz in Europe and worldwide
Thomas Weilacher , ECC Vice Chairman of Working Group FM
- **09:25** Coexisting ITS-G5 systems – The CEN DSRC example
Dr. Friedbert Berens ETSI STF 420
- **09:40** Multi-Channel Operations for ITS G5
Dr. Friedbert Berens ETSI STF 421
- **09:55** Activities on Standardization in Japan and International Harmonization
Yamamoto Takeshi, NEC/ ITS Info-Communications Forum
- **10:15** A more reliable and efficient usage of the 5,9 GHz band for cooperative ITS
Sjoeberg Katrin, ETSI STF395 (phase 2)

10:35 COFFEE BREAK

11:00 Session 8: Are you sure it is secure?

The standardization mandate M/453 for Cooperative ITS covers security and privacy aspects as well. Topics such as Security architecture and ITS Station Security Management, Identity, Trust and Privacy Management, Access Control and Secure and Privacy-preserving services as well as Confidentiality services are being standardized in synchronization with IEEE and ISO. These specifications are intended to make cooperative ITS trustworthy from day one. Learn which measures preserve your privacy and how the underlying communications become secure.

Moderator: **Scott CADZOW**, ETSI TC ITS WG5 Chairman

- **11:00** Centralised privacy processors and controllers – lessons from the i-Tour project
Scott Cadzow - Cadzow Communications Consulting Ltd
- **11:20** Designing Open Computing Platforms with Security in Mind
Jan Holle, University of Siegen
- **11:40** Security fo ITS cooperative applications: challenges in standardization, implementation and field-testing (FOTs)
Dr. Brigitte Lonc, Renault