Report on the Fully Networked Car Workshop - 7-8 March 2012
http://www.worldstandardscooperation.org/fully_networked_car2012.html

The Seventh Fully Networked Car workshop, organized jointly by ITU, ISO and the IEC, was held 7-8 March 2012, in association with Geneva's 82nd International Motor Show and Accessories.

The event attracted more than 130 experts from around the world, and covered a series of interactive discussions revolving around the need for standardization as it relates to electric vehicles and electromobility, driver distraction and vehicle safety, ITS communications, and standards for cooperative ITS systems. Participants also gained insight into the challenges and opportunities that are present in under-developed markets, specifically in a presentation given by Thinus Booysen of Stellenbosch University on the South African and African landscape. Participants learned, in particular, that while ITS solutions may not help in less developed areas in the next 5-10 years, there are a number of opportunities to creatively adapt existing technology to specific situations. In addition, participants were treated to an informal tour of the Kia Motors exhibit on the show floor, led by Andrei Iordache, Kia Product Specialist.

Richard Parry-Jones, former Vice President of Global Product Development and Chief Technical Officer at Ford Motor Company, served as the program moderator, and through the contribution and expertise provided by the panelists and the audience, the workshop developed several conclusions about the challenges and barriers the auto industry faces, as well as the ways that harmonized international standards can help.

CHALLENGES FOR THE FUTURE OF THE NETWORKED CAR:

- Large scope, but large opportunities
- Safety
- Congestion
- Ever-changing user transport patterns - How to manage large changes in traffic and help customers decide the most effective mode of transport for the journey
- Ongoing connectivity that young people expect

BARRIERS:

- Scale and scope of the 'fully networked car' - what are the boundaries?
- Managing multiple interfaces
- Collaboration - an imperative across sectors, stakeholders, and regions
- Involvement at a technical AND business level -- leaders need to understand opportunity, avoid regulation, and encourage innovation

SUMMARY OF ELECTRIFICATION DISCUSSION:

- NOW is a good time to push standards in electrification
- Focus should be on charging, both physical and software
- Prioritize standardization on software, repairs, recycling and re-use, and charging interfaces
- Batteries need 'passports' to easily demonstrate capacity, diagnostics, when to charge
- In audience voting, participants cited that 'technology and standards should be domain neutral' as the highest priority, followed by development of charging interfaces, software updates and human interfaces

SUMMARY OF VEHICLE SAFETY AND DRIVER DISTRACTION DISCUSSION:

- More technology available today impinges on the driver - how to manage and mitigate risks?
- Need to reduce unintended consequences - how to increase intelligence of the vehicle and use it to help drivers and their state of readiness
- Need to increase situational awareness to warn drivers about cyclists, trucks, stationary vehicles, among other things
- Great opportunities exist for work on autonomous control and acceleration
- In audience voting, participants cited 'safety regulations should refer to the same set of standards' as the highest priority, followed by a note that infotainment should be modified by situations, and certification standards and driver interfaces.

SUMMARY OF ITS COMMUNICATIONS and COOPERATIVE SYSTEMS DISCUSSIONS:

- The challenge is trying to make standards that don't add cost to a car or a device
- Standards and regulations should consider actual energy use, as opposed to lab testing measurements
- Desire for common communication protocols
- Continued work is required to integrate smartphones into autos, and to make sure a user's functionality is not inhibited when in a car
- How can we reconcile the life cycle of a car versus that of a mobile device?
- How can we reconcile a manufacturer's desire to differentiate itself in the market, but meet common consumer needs and have a base level of standards to build from?
- The good news is that there is joint standards development taking place - in particular between CEN and ISO on cooperative systems standards
- ITS is about everything connected, not just cars, and there is a need to deliver to stakeholders with sufficient security and privacy to make them attractive to end users
- In audience voting, participants cited 'standardized interfaces for smartphones to cars' as the highest priority of future work, followed by a desire for applications to be agnostic and FASTER.

KEY STANDARDIZATION PRIORITIES

- Interfaces of Electric Vehicles - Charging - creating a compatible infrastructure with the physical and software interfaces
- Safety - extending situational awareness from car sensing to driver sensing. This is an area that will surely engage the auto industry
- Managing devices
- Communications protocols
- Identification standards
- Authentication standards
- Using networking to create these solutions
- Finding the 'sweet spot' - getting the timing right for the right kind of standards
- Using the ITU, ISO and IEC to create groups to push this agenda and get stakeholders involved to make standards useful!

Please stay tuned for more information on the next Fully Networked Car forum - we hope to see you there!

Review of Fully Networked Car Workshop Schedule - Day 1 - 7 March 2012

INTRODUCTION OF MODERATOR: Richard Parry-Jones

Update on Strategic Level Discussions from IEC, ISO, and ITU

SPEAKERS: Rob Steele, ISO
Reinhard Scholl, ITU
Matei Cocimarov, IEC

Electric Vehicles and Electromobility, Roundtable/Discussion/Repor

PANELISTS: Luc Bourgeois, Advanced Technology & Electronics Expert, Renault R&D
Karl-Josef Kuhn, Siemens Corporate Research & Technology
Junichi Yoshio, Pioneer Corporation, IEC/TC100
Yoram Berholtz, Red Bend Software
Jack Pokrzywa, SAE International

Vehicle Safety and Driver Distraction, Roundtable/Discussion/Report

PANELISTS: Scott Pennock, QNX Software
Dr. Hans W. Gierlich, HEAD Acoustics GmbH
Marc Osajda, Freescale Munich
Oddmund Braaten, Nuance Communications

Regional ITS Perspectives - The African Market

PANELIST: Thinus Booysen, Stellenbosch University, South Africa

Review of Fully Networked Car Workshop Schedule - Day 2 - 8 March 2012

ITS Communications

PANELISTS: Mika Rytkonen, Nokia
Christian Rousseau, Renault
Russ Shields, Ygomi
Antonio Calmon, Kaitech Consulting
Roger Lanctot, Strategy Analytics

Standards for Cooperative ITS

PANELISTS: Knut Evensen, Q-Free, CEN TC278, ISO/TC204, ETSI
Hans-Joachim Fischer, ESF GmbH, ISO/TC204
Thierry Ernst, Mines ParisTech/Inria, ITSSv6 Project Coordinator
Scott Cadzow, ISO/TC204, ETSI TC ITS
Masaki Sato, KEIO University, ISO/TC204
Takaaki Sugiura, ISO/TC204
William Whyte, Security Innovations, ISO/TC204
Steve Sprouffske, Kapsch TrafficCom
Richard Roy, ISO/TC204
Yushi Naito, ITU-T SG16
Scott Pennock, ITU-T Driver Distraction Focus Group