

80th Inland Transport Committee

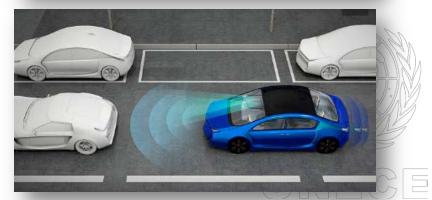
20-23 February 2018

Intelligent Transport Systems

Agenda item 4(f)



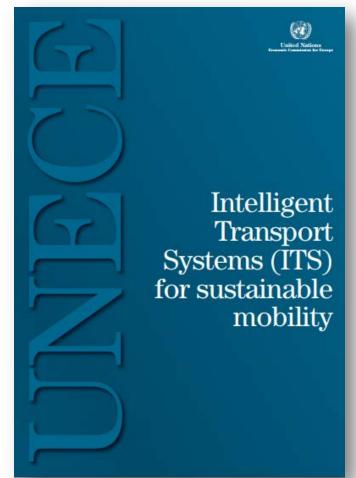




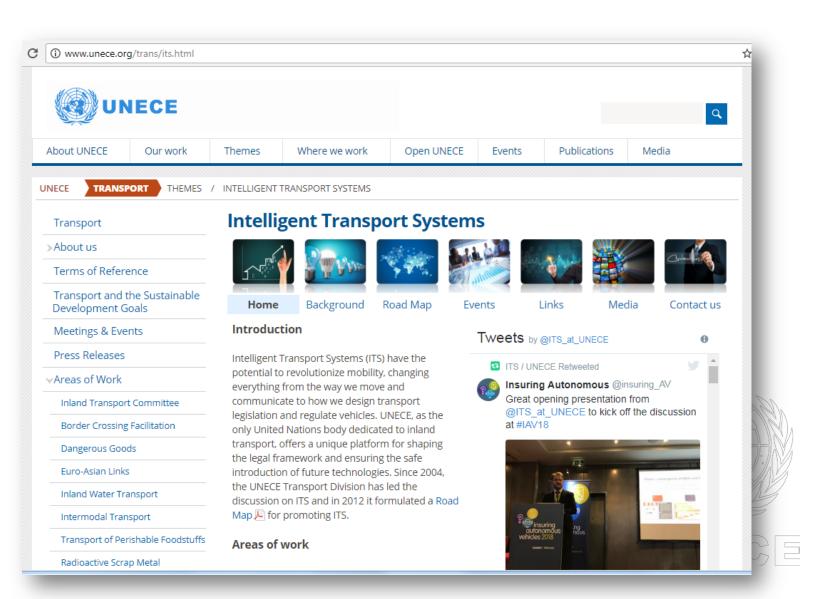




UNECE and Intelligent Transport Systems (ITS)



- Background document
- Strategic note
- Road map
- → Adopted in 2012





Agenda 2030 - SDGs





Events in 2017



The Annual ITS round table (WP.29/GRRF – WP.1)

- 90 min session
- Bringing the road traffic and vehicle experts together
- Exchange of information on respective activities of mutual interest
- Secondary activities
- Remote Control Parking
- Cyber Security
- «IoT» and Road Transport / Mobility





The 2017 Future Networked Car symposium

- 1 Day symposium co-organized by ITU and UNECE
- Bringing the Telecommunication and the Automotive industries together meeting the regulatory and standardization bodies (ITU/UNECE)
- · Policy dialogue on
- 5G and the automotive applications
- Connected and Automated vehicles
- Cyber security

Fidure Networked Car 9 March 17 Geneva International Motor Show



The Global Forum for Road Traffic Safety (WP.1)

- Workshop on <u>Traffic Safety</u> in an <u>Automated vehicle environment</u>
- Co-sponsored by
- · Global Forum for Road Traffic Safety,
- National Highway Traffic Safety Administration
- French Institute of Science and Technology for Transport, Development and Networks (IFSTTAR)
- To open discussion on the challenges and opportunities
- Focus on integration of highly automated vehicles in traffic
- To stimulate thought among a broad range of stakeholders on approaches for maximizing the safety of traffic in future years





ITC Working Parties ITS activities (examples)



Guideline on Cyber Security and Data Protection

Guideline adopted by WP.29 in March 2017

It contains:

- Definitions
- Data protection requirements, e.g.
- · Everyone's right for privacy and communications shall be respected
- · Privacy «by design» and «by default»
- Cyber Security and Safety requirements, e.g.
- · Avoid fraudulent manipulation
- · Detect fraudulent manipulation by a cyber-attack, inform driver
- Secure software updates
- Verifiable through independent authorized audit



of Vehicle Regulations (WP.29) Work on Automated Vehicles

The regulatory work is preempting the technology

→ The regulator has to be *moderately proactive* to enable innovation: not too quick, not too slow.

Goal:

- Integrate the technologies into the existing transport system.

The World Forum for the Harmonization

- ensuring that the benefits of these new technologies can be captured
- We do so without compromising: safety and ITC's achievements so far (e.g. international transport, trade, interoperability and environmental



The IWG on ITS/AD Level 3-5: Horizontal Regulation

Use-Cases: Urban, Highway, Interurban, [Parking] for automation levels 3*, 4 and 5 equirements address vehicle behavior in road traffic and further general safety requirements

Real World Test Drive

Test drive to assess the compliance with traffic laws to defined checklist

- Limited testing efforts Subjective influence on
- Requires highly skilled and qualified test

OEM provides e.g.: - Safety concept / functional safety strategy Simulation and development data to verify vehicle behavior in edge cases - Manufacturer's self declarations

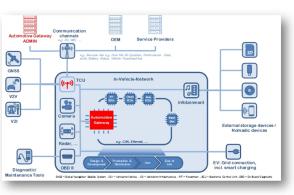
← pros/cons: see RWTD

* If not covered by UN-R 79 ACSF - ACSF results for highway could also be transferred afterwards

Real World Test ADS Audit Is 60 minutes enough

ITS/AD's Task Force on Cyber Security and OTA

- · Initiated in November 2016, by WP.29,
- Reporting to the IWG on ITS/AD.
- · The aims of the group are to:
- Define requirements for addressing cyber threats
- Define requirements for software update management with respect to safety type approval
- Define guidance or measures for how to achieve this
- Address the effect of OTA on cyber security and the overall Type Approval system (Potential challenge for administration of vehicle "in use")
- Aim to deliver these in 2018 to WP.29
 - The output may then be adopted as a UN Regulation possible linked to a Resolution (dynamic)
- · Recommendations are being drafted on Cyber security and on OTA issues



Proposed certification system compatible with existing systems (Type Approval or Self Certification) This ensures a minimum impact on national or regional systems dealing with registration, insurance etc.



ITC Working Parties ITS activities (examples cont.)

The Working Party on the transport of Dangerous Goods

The joint meeting of:

 The Committee of experts on the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)

and

 the Working Party on the Transport of Dangerous Goods, through its Informal Working Group on Telematics,

continued work on ITS applications aimed, inter alia, at improving the speed and efficiency of emergency responses involving dangerous goods in transport.

Working Party on Intermodal Transport and Logistics

The Working Party regularly addresses the role of ITS in intermodal transport and logistics by inviting experts to present:

- projects,
- innovative solutions and good practices in ITS.

This year the Working Party invited the European Union project <u>Tellisys</u> on the development of a complete volume optimized intermodal combination, including a product family of new intermodal loading units, which satisfy the current market demands.

This solution enhances the performance of intermodal logistic chains by meeting the European Union's demand for more energy-efficient, low-emission logistics networks and contributes to more efficient transport by easing the transition between different transport modes

The Working Party on Inland Waterways

- ITS applications in Electronic Ship Reporting and on the harmonization of pan-European River Information Services (RIS)
- Provisions for variable traffic signs were included in Resolution No. 59, "Guidelines for Waterways Signs and Marking"
- Electronic charts and the visualization of signs on inland waterways were added to the draft revision of Signs and Signals on Inland Waterways in Chapter 12

The Working Party on Customs Questions affecting Transport



 $\underline{\text{MoU}}$ with IRU as basis for $\underline{\text{funding}}$ of $\underline{\text{finalization}}$ and $\underline{\text{rollout}}$ of the system

Pilot projects Georgia - Turkey







Non-ECE relevant activities

- The 2017 G7 transport ministers' declaration:
 - encourage the UNECE's WP.29
 - to continue to work on the fundamental technical principles, including appropriate performance metrics and test procedures for demonstrating the effectiveness and safety of these technologies
 - to focus activities on systems with higher levels of automation and
 - to assess whether new categories should be defined in order to cover all kinds of automated driving systems
- The Resolution on Data Protection in Automated and Connected Vehicles adopted by the thirty-eighth International Conference of Data Protection and Privacy Commissioners in September 2017 mentions:
 - The Guideline on Cyber Security and Data protection



G7 Transport Ministers Meeting

W.; the G7 Ministers of Transport and the European Commissions for Transport, realfirm our commissions to footneig inventions in high-quality finistructure as key strategy to reignize and sustain economic growth. We recognize that investment is infrastructure as early happe multilay patterns, on contribute to interesting, automation, productivity improvement and digital solutions for mobility, and can impair economic, environmental and social

As a time when national economics are recovering from an unperceduted economic crisis are are challenged to simultaneously maintain existing infrattwetter and identify fund in sources for new inflatintatine directiments. We exceptine the importance of procuring selfptional, certiminates and sufficient investments, fecuning on effects on improved quality is life, improved proceedings and consoning septime-order lowest from: "We emphasis the importance of providing adequate funding and financing for inflamination development and mantenance by promoting efficience and innecessarie means of everytigin investments."

Particular attention should be paud to ensuring usund plasming to facilitate the solution of the most beneficial option, generating the highest added value, beaud on combonellar analysis. We acknowledge that inflammature plasming should also conside forgon-term socionates impact, promote file-cycle optional and menuating efficient solutions, including excensive analysis of the control of the compact for the compact and an excensive fifteen solutions, including excensive particular analysis of the control of the

We also recognize that transport infrastructure can contribute to social well-being facilitates access to health and oducation services, and to employment opportunities. It can also certific interpressal exchange, enable better integration of people, cultures and dea promote equal access, and reduce the risk of exclusion from its benefits of segments of the

We highlight the leadership of G7 countries in facilitating robust public participation in interactive planning and development process. In this respect, we stress the importance building public acceptance of infinatriacture projects, of efficient administrative procedured of storambining the regulatory exvironment. We acknowledge the importance and other acceptance of the properties of

39th International Conference of Data Protection and Privacy Commissione Hong Kong, 25-29 September 2017

Resolution on Data Protection in Automated and Connected Vehicles

The 38th International Conference of Data Protection and Privacy Commissione

Recognizing that automated and connected vehicles may offer significant benefits for user by providing enhanced levels of usability or convenience, as well as for the general public improving traffic efficiency and safety of vehicle drivers and their passengers, other road users and nedestrians:

Highlighting the rapid advancement of vehicle automation and connected wehich technologies allowing the development and introduction of new and innovative products, devices or telernatics services, which in many cases will include the collection and processin of personal data due to the wide variety of sensors installed in them, thus evolving new challenges to the rights to the protection of personal data and privacy of users especially

Noting the Declaration of the G7 Ministers of Transport and the European Commissioner Commission

Noting the Declaration of the GDD Ministers responsible for the Digital Scoromy at their meeting in Dissolatori, Germany on 6-14 grid 2010 on Stapping Signalization for an interconnected World's which recognizes the necessity to strengthen trust in the digital economy by respecting legal frameworks for privacy and data protection and strengthening security in the use of information and communication technology as well as it remaptency.

Concerned about the possible lack of available information, user choice, data control and valid consent mechanisms for vehicle owners, drivers and their passengers and other road

http://www.g7talu.it/decidefush/Hec/documents/Final Declaration 0.pdf
 https://www.hmmi.de/Redaktion/DE/Downloads/Glg20-digital-economy-ministerial-declaration-enunities only - Nohumbication/file Res 12



THANK YOU VERY MUCH FOR YOUR ATTENTION

UNECE

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