Countering Cyber Security Threat in Connected Mobility

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Automated driving vehicles are expected to contribute to the solutions needed to address the transport-related issues:
- Road traffic
- Pollution
- CO₂ emissions
- Road safety crisis
UNECE and vehicle regulations

What is WP.29 doing?

- Emissions of pollutants and CO₂
- General safety
- Passive safety
- Noise and tires
- Automated/autonomous and connected vehicles
- Lighting and light signalling

WP.29 is open to all Nations of the United Nations without any limitation or discrimination.

Geographical scope of WP.29

This map doesn’t show those Countries applying the Regulations unilaterally.
Regulation through cooperation with various sectors

• Lighting and Light Signalling sector:
  – IEC standards: IEC 60061, IEC 60809
  ➔ Specific UN Regulations on light sources

• Tire sector:
  – ISO, ETRTO, JTMA standards
  ➔ Regulation on tires
  ➔ Regulation on tire installation

• ICT and Telecom sector:
  – eCall
  – Cyber Security and OTA
Cyber security

Advocacy groups presented the following cases to WP.29:

- Malicious or fraudulent activities
- Fully legal activities but not in the interest of the consumers
- (Concerns related to privacy, which is mentioned in the Universal Declaration of Human Rights)

⇒ WP.29 adopted guidelines on Cyber Security and Data Protection
⇒ Task Force on Cyber Security and Over the Air

They also raised the concern of data protection

- Malicious or fraudulent activities
- Fully legal activities but not in the interest of the consumers
- (Concerns related to privacy, which is mentioned in the Universal Declaration of Human Rights)
The Task Force on Cyber Security and OTA

- Initiated in November 2016, by WP.29
- Reporting to the IWG on ITS/AD
- Deliver output in 2018 to GRVA
  - It contains elements for a UN Recommendation
  - As well as a draft UN Regulation

... Almost all new cars come with a sim card
Draft recommendation on Cyber Security

Recommendation Cyber Security

„Cyber Security Guidance“
- Main body of the Recommendation (Chapter 1-6)
- Annex B („List of threats and corresponding mitigations“)
- Annex C („Examples of Security Controls related to mitigations“ - informative)

„Cyber Security Regulation“
- Annex A

Guidance on process and procedures; best practices (threats & mitigations); ...

Requirements for approving OEM C/S Management System; Certification of OEM
Approval of vehicle type C/S
Cyber Security requirements refer to Resolution
Draft recommendation on Software updates (incl. OTA)

- **Recommendation Software updates processes**
  - **„S/W update guidance“**
    - Main body of the *Recommendation* (Chapter 1-6)
  - **„S/W update Regulation“**
    - Annex A
  - **„Regulatory text RxSWIN“**
    - Annex B

Guidance on processes and procedures, and advice to support national registration processes

Requirements for approving OEM S/W update Management; Incl. process verification, audits & assessment of OEM capability

S/W update requirements for vehicle types incl. safety and security

Software Identification Number be introduced in existing UN Reg. (where appropriate)
THANK YOU VERY MUCH FOR YOUR ATTENTION

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http://www.unece.org/trans

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