

Expert Group on Communications Technology for Automated Driving

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- ITU has created the Expert Group on Communications Technology for Automated Driving
 - ▶ See www.itu.int/en/ITU-T/extcoop/cits/Pages/egcomad.aspx
- The Expert Group brings in automotive experts
 - ▶ Much of the automotive regulation work is done in WP.29
 - See unece.org/transport/vehicle-regulations/world-forum-harmonization-vehicle-regulations-wp29
- The Expert Group brings in communications experts
 - ▶ Much of the communications regulation work is done in ITU-R WP.5A
 - See www.itu.int/en/ITU-R/study-groups/rsg5/rwp5a/Pages/default.aspx

First Meeting of the EG-ComAD

- The Expert Group had its first meeting on 8 March 2024
 - ▶ Main items covered
 - Objectives of the Expert Group [Doc 002R1]
 - Work Plan of the Expert Group [Doc 003R2]
 - Meeting agenda: <https://tsbcloud.itu.int/s/gGjyJ6e5fwn2HSR>
 - Meeting documents: <https://tsbcloud.itu.int/s/no3mpn4fcyZbawi>
 - ▶ Follow up
 - The Objectives and Work Plan are being updated based on the meeting discussion
 - The meeting report will be posted soon
 - Next meeting: Friday 17 May 2024, 12h00-15h00 CET

Expert Group Topics

- The Expert Group has identified three key topics
 - ▶ (1) Providing the V2V communications capabilities to ensure that automated driving systems (ADS) can reliably merge into a crowded lane in every circumstance
 - This will challenge types & volumes of communications messages needed
 - Review the technical requirements of ADS and identify potential gaps regarding the spectrum usage of such systems
 - ▶ (2) Protecting vulnerable road users (VRU) by making V2X communications an addition sensor for AEBS products in new vehicle
 - This will challenge the types and volumes and communications devices needed
 - ▶ (3) Matching the service life of communications equipment with the service life of automobiles
 - Automobiles being developed today will be on the roads in many counties after 2050

WP.29 Timeline

- WP.29 created the Task Force on Vehicle Communications (TF VC) in 2023
 - ▶ The TF VC is examining the automotive communications needs with recommendations targeted by 2026
- If the TF VC recommends the creation of one or more regulations and WP.29 agrees, an Informal Working Group (IWG) will be created.
- Creating WP.29 regulations usually takes 2-3 years
 - ▶ Thus, the new regulations should be approved by the end of 2029
- WP.29 usually have at least two years for phase in
- This will make new regulations in force from the beginning of 2032

ITU Timeline

- ITU-R WP 5A has Question 264-5 which was approved at WRC in 12/2023
 - ▶ This work is scheduled to be completed in 2027
 - ▶ If ITU-R WP.5A determines that existing allocated radio spectrum for ITS does not meet the requirements identified by the Expert Group on Communications Technology for Automated Driving, ITU-R SG 5 can propose to the WRC in November 2027 that an according item be put on agenda for WRC 2031
- If WRC 2027 approves an agenda item for WRC 2031, ITU-R WP.5A will prepare the proposal for a new radio spectrum use
- If the WRC in November 2031 approves the proposal for a new radio spectrum use, and depending on the decisions taken, it is expected to be available for 2032 products

Standardisation (3GPP) Timeline

- In parallel with the regulatory efforts, standardisation activities for 6G (IMT-2030) technologies will progress (e.g., in 3GPP) and should also be available in 2032
- The Expert Group will keep 3GPP and other relevant standardisation activities informed of the progress about the regulatory efforts to meet the requirements from topics (1) and (2) on slide 3
 - ▶ This information will be input to the C-V2X capabilities created by 3GPP for 6G
- The Expert Group will work with vehicle manufacturers and automotive engineers to secure formal commitments to install the 6G equipment in all new vehicles
 - ▶ The commitment will be dependent on 3GPP creating the specifications for 6G equipment to support the requirements developed for topic (3), as well as topics (1) and (2), on slide 3