The Rulemaking Topics of the Russian Federation
for Automated (Level 3 & 4) and Autonomous (Level 5) Vehicles

Note: The table below contains the list of regulatory topics for automated and autonomous vehicles proposed by the Russian Federation in alphabetic order. The right column of the table reflects the status of activities at the UNECE level.

Regulatory Topic	Comments	Status at UNECE
Adaptive Cruise-Control	Should cover: (i) at high speed; (ii) at traffic jams; (iii) speed limit road sign recognition; (iv) motion on steep climbs and descents	IWG ACSF current activity
Automatic Emergency Braking	Should cover: (i) moving vehicles; (ii) stationary vehicles; (iii) pedestrians; (iv) two-wheelers; (v) large animals(?)	Already regulated - UN R 131 (M_2, M_3, N_2, N_3). IWG AEBS current activity (M_1, N_1)
Autonomous vehicles operating in specific conditions (out of the scope R.E.3 and S.R.1)	Off-road mining dump trucks, vehicles for extreme Arctic and Antarctic conditions, extreme hot desert conditions, vehicles for radioactive contamination zones, rescue operations in severe fire conditions, etc.	New topic
Axle load monitoring system	Providing information to a diver regarding axle overloading. This information also may be communicated to the transportation inspection.	New topic (N, O_3, O_4)
Blind spot monitoring at high speed	Providing information to a diver (on the rear-view mirror) in case of detection of objects in the blind-spot areas	New topic
Blind spot monitoring at maneuvering at low speed	Providing information to a diver in case of detection of objects (vulnerable road users) in the blind-spot areas	IWG VRU-Proxi current activity
Cyber security	Protection of vehicles against unauthorized interference in the operation of the software	IWG CS-OTA current activity

Regulatory Topic	Comments	Status at UNECE
Drawback alerting system	Providing information to a diver in case of detection of objects at intersections in case of crossing traffic (when a vehicle goes straight, also applicable in case of reversing) and counter traffic (when a vehicle makes left turn). May involve V2V communication technology	New topic
Driver availability recognition	Should cover monitoring of driver's fatigue on the basis of the driver's psycho-emotional state (fatigue, drowsiness, irritability, drug or alcohol intoxication) and its control actions (frequency and amplitude of steering inputs, accelerator and brake pedal effects)	IWG ACSF current activity
Event Data Recorder (EDR)	The recorded parameters should allow to restore the picture of a road accident as accurate as possible	GRSG planned activity
General safety requirements for vehicles with a high level of automation	Ensuring the safety of design and performance of vehicles with a high level of automation	IWG Auto Veh current activity
Night vision	Providing recognition of traffic participants and road infrastructure at night time and warning the driver	New topic
Platooning	Automatic movement of commercial vehicles following the lead vehicle driven by a human driver. May involve V2V communication technology	New topic
Recognition of alcohol vapors in driver's exhaled air	Preventing engine start and vehicle control by a drunk driver	New topic
Requirements for testing prototypes of vehicles with a high level of automation on public roads	Ensuring the safety of testing prototypes of vehicles with a high level of automation on public roads	IWG Auto Veh current activity
Roadworthiness of vehicles with a high level of automation	Ensuring the safety of vehicles with a high level of automation at operation	Should be covered by IWG Auto Veh current activity

Regulatory Topic	Comments	Status at UNECE
Traffic signal and road sign (including wrong way) recognition	Providing information to a diver regarding upcoming traffic signals and road signs. May include the gestures of the traffic controller and recognition of alerting signals of special vehicles (police, ambulance). May involve V2I communication technology	Partly covered by IWG ACSF activity
Tyre pressure monitoring system	Providing information to a diver regarding low tyre pressure.	Already regulated - UN R 141 (M_1) New topic (M_2, M_3, N_1, N_2, N_3, O_3, O_4)
Vehicle automatic identification	Remote monitoring of vehicle motion and operation parameters	New topic
Vehicle dangerous condition alerting system	Detection of excessive concentration of harmful substances in the air of vehicle cabin, dangerous misaligned wheels and hubs, dangerous wear of the tyre cord, dangerous wear of the suspension and steering, dangerous road surface irregularities	New topic
Vehicle parking assistance system	Alerting a driver in case of emergency rapprochement with objects when parking a vehicle	Partly covered by IWG ACSF activity
Vehicle to vehicle (V2V) and vehicle to infrastructure (V2I) communications	Providing for communications between vehicles and between vehicles and infrastructure	New topic
Vulnerable road user safety messages	Transmission of personal safety messages from devices carried by pedestrians, bicycle riders and public safety personnel, to provide driver and vehicle system awareness and potentially safety alerts to vulnerable road users	New topic