

Reg. no. No.
 Date of assessment Date
 Assessed by Name

	Annex 5 No.	ok	nok	na/ne/comment
Back-end servers related to vehicles in the field				
- Attack on the vehicle	1	<input type="checkbox"/>	<input type="checkbox"/>	
- Unauthorised access to data	1	<input type="checkbox"/>	<input type="checkbox"/>	
- Attack on back-end server	2	<input type="checkbox"/>	<input type="checkbox"/>	
- Attack on communication channel between back-end server and vehicle	2	<input type="checkbox"/>	<input type="checkbox"/>	
- Loss of vehicle-related data (identification, control, ...)	3	<input type="checkbox"/>	<input type="checkbox"/>	
- Falsification of vehicle-related data (identification, control, ...)	3	<input type="checkbox"/>	<input type="checkbox"/>	
Communication with the vehicle				
- Spoofing of data for the vehicle	4	<input type="checkbox"/>	<input type="checkbox"/>	
- Spoofing, erasure, other modification of vehicle-held data	5	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by unreliable or untrusted sources	6	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by interception of data	7	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by accessing sensitive data	7	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation of vehicle functions	8	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by access by unprivileged user	9	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by malicious software (malware)	10	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by malicious messages received	11	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by malicious in-vehicle messages	11	<input type="checkbox"/>	<input type="checkbox"/>	
Update of the vehicle				
- Compromise of over-the-air software update procedures	12	<input type="checkbox"/>	<input type="checkbox"/>	
- Compromise of local software update procedures	12	<input type="checkbox"/>	<input type="checkbox"/>	
- Compromise by manipulated update software	12	<input type="checkbox"/>	<input type="checkbox"/>	
- Compromise by preventing critical software updates	13	<input type="checkbox"/>	<input type="checkbox"/>	
Access by unintentional actions				
- Access by unintentionally loading malware	15	<input type="checkbox"/>	<input type="checkbox"/>	
- Access by no following security procedures	15	<input type="checkbox"/>	<input type="checkbox"/>	
External connectivity and connections				
- Manipulation of functions designed to remotely operate the vehicle	16	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation of vehicle telematics	16	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by wireless systems	16	<input type="checkbox"/>	<input type="checkbox"/>	
- Access by manipulated applications	17	<input type="checkbox"/>	<input type="checkbox"/>	
- Access via external interfaces (e.g., USB, OBD)	18	<input type="checkbox"/>	<input type="checkbox"/>	
Vehicle data/code				
- Access to personal data and software	19	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation of personal or vehicle data (identity theft, falsifying vehicle parameters)	20	<input type="checkbox"/>	<input type="checkbox"/>	
- Erasure of personal or vehicle data	21	<input type="checkbox"/>	<input type="checkbox"/>	
- Introduction of malicious software (new software)	22	<input type="checkbox"/>	<input type="checkbox"/>	
- Introduction of manipulative malicious software (overwriting existing software)	23	<input type="checkbox"/>	<input type="checkbox"/>	
- Disruption of operations	24	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation of vehicle parameters	25	<input type="checkbox"/>	<input type="checkbox"/>	
Potential vulnerabilities				
- Unsuitable encryption keys	26	<input type="checkbox"/>	<input type="checkbox"/>	
- Use of deprecated cryptographic algorithms	26	<input type="checkbox"/>	<input type="checkbox"/>	
- Hardware or software engineered to enable an attack	27	<input type="checkbox"/>	<input type="checkbox"/>	

Risk Analysis Checklist

according to UN-R 155, Annex 5

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- Software bugs as a result of inadequate testing or poor programming	28	<input type="checkbox"/>	<input type="checkbox"/>	
- Access via internet ports	29	<input type="checkbox"/>	<input type="checkbox"/>	
- Access via other network interfaces	29	<input type="checkbox"/>	<input type="checkbox"/>	
- Unintended transfer of data (e.g., sale of vehicle, change of hired vehicle)	31	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by additional hardware	32	<input type="checkbox"/>	<input type="checkbox"/>	
- Manipulation by hardware replacement	32	<input type="checkbox"/>	<input type="checkbox"/>	

Documents assessed: