



EUROPEAN COMMISSION

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Industrial Transformation and Advanced Value Chains
Automotive and Mobility Industries

GEAR 2030 Working Group 2 – Highly automated and connected vehicles

Project Team 1 – Policy and regulatory issues

Background paper on the vehicle assessment and certification needs

Automated vehicles raise new challenges for regulators in particular for the type-approval system based on harmonized tests.

There is a limit to the number of situations that Type Approval testing can assess. Tests should assess the most safety relevant situations based on intended functionality. This may not be sufficient to demonstrate the vehicle safety in all driving conditions. At the same time, the manufacturers remain responsible for the safety of products it places on the market.

In addition automated vehicles use different functions (steering, braking, and accelerating) of the vehicle and combined them. This also challenges the type-approval system based on the approval of the different functions of the vehicles.

Finally with increasing connectivity, the characteristics of a vehicle, including performance and safety system operation can be updated/changed via ‘over the air’ (OTA) downloads. This poses a major challenge for regulation which involves testing of a product before it enters the market and assumes that the characteristics are fixed. The above mentioned issues may call for a new approach on the approval of vehicles. The USA is having a similar reflection on the suitability of the self-certification for automated vehicles.

In addition to the new approach for the approval of highly automated vehicles, different technical requirements may be needed prior to the roll-out of highly automated and connected vehicles. This requires an integrated approach on the future EU type-approval framework for highly automated vehicles.