Toward an EU strategy on automated vehicles: GEAR 2030

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EU legal system for automated/connected vehicles

- **EU type-approval mandatory** for new cars produced in series from 1998, motorcycles from 2003 and trucks/buses from 2014.

- **Fully harmonized requirements** (*more than 70 functions*). More and more based on international regulations (UN) for the approval of vehicle functions (coordination at EU level).

- **Comprehensive**: Member States shall not prohibit, restrict or impede the registration, sale, entry into service or circulation on the road of vehicles... covered by Directive 2007/46/EC, if they satisfy the requirements of the latter.

- **Special ad-hoc assessment for new technologies** (Art 20 of Directive 2007/46/EC) pending new requirements.

- Flexibilities for Member States on small series or individual approval (e.g. for testing).
Why an EU strategy?

- Requested by Member States: https://english.eu2016.nl/documents/publications/2016/04/14/declaration-of-amsterdam

- Vehicles are coming

- Cross-cutting/interlinked issues

- Many initiatives

- Need for a common vision:
  - What are we talking about?
  - When will these systems come for testing/consumers?
  - How do we get there?
  - Who is empowered to act (EU, national, international level)?
Why GEAR 2030?

- Objective: Comprehensive approach for the EU car sector by 2030
- 3 main focuses: decarbonization, digitization and globalization
- How: gathering relevant Commissioners, Ministers and stakeholders
- Recommendations for an EU roadmap on automated and connected vehicles- Three main pillars:
  - EU legal and policy framework,
  - coordinated research and financing tools,
  - International co-operation and support competitiveness.
- All documents publicly available
"Mass market 2020 systems: vehicle with driver/operator"
- Motorway (high speed): e.g. Highway pilot assist, level 2 platooning
- City (low speed): traffic jam assist, manoeuvres at low speed (e.g. parking), level 4 shuttles in some dedicated areas).

"Mass market 2030 systems: 'driverless' systems"
- Driverless vehicles (driver as passenger) in cities such as shuttles in wider ranges, valet parking.
- Highly automated vehicles on motorways (levels 4 highway pilots, level 4 platoons, etc.)
Convergence between automation and connectivity
GEAR 2030: first recommendations on 2020 systems

• Adopted in Feb 2017 covering large scale tests, road safety, connectivity, liability
• No big issues for the placing on the market/tests. However shall be regulated quickly:
  • Data storage (black boxes) for liability assignment reasons
  • Vehicle legislation and traffic rules shall ensure that the driver will not misuse or will be confused by upcoming automated systems.

➔ UNECE favoured route for international vehicle regulations and traffic rules: Need to urgently finalize the work for 2020 systems (L2/3/4 automated vehicles with a driver) in WP1 and in WP29 (UN Regulation 79) as systems are already coming the market
GEAR 2030: Next steps including 2030 systems

- Final recommendations to be adopted by the high level group on 18 October 2017. Follow up by Commission,
- Will cover: testing, liability, road safety, connectivity, societal issues, data issues, road infrastructure, vehicle certification, financing issues, competitiveness and international issues.
- Points of interest for UNECE:
  - Shift of the tasks/responsability of the driver especially for driverless
  - WP1: The work shall be speed up on driverless vehicles (shuttles). Some work also needed at national level (e.g. distance keeping).
  - WP29: New approach needed for the certification of automated vehicles, new topics (cybersecurity, data recorders, driver monitoring, sensing environment, distance keeping, etc)
  - For both: Coherent relashionship between the machine and the driver/other road users
Research and funding for CA vehicles at EU level

- Development of large scale projects involving the automotive, telecom and digital sectors.
- Horizon 2020 has a dedicated call for automated road transport, with a budget of over 100 million Euros over 2 years.
- The Connecting Europe Facility (CEF) and the Investment Plan for Europe have important targets to stimulate C-ITS
- Cooperation at the international level?
Thank you for your attention!

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