Toward an EU strategy on automated vehicles : GEAR 2030

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EU legal system for automated/connected vehicles

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

- **<u>Fully</u> 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 **<u>shall not prohibit, restrict or impede</u>** the registration, sale, entry into service **<u>or circulation</u>** 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)?
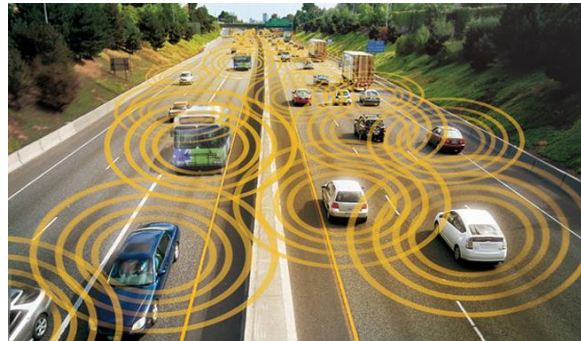
Why GEAR 2030?

- Objective: Comprehensive approach for the EU car sector by 2030

- 3 main focuses: decarbonization, digitization and globalization

- How: gathering relevant Commissioners, Ministers and stakeholders

- Recommandations 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.**

- Target: First recommendations for upcoming systems (2020) adopted in Feb 2017 and final long-term (2030) recommendations by September 2017.

- All documents publicly available

An EU common vision:
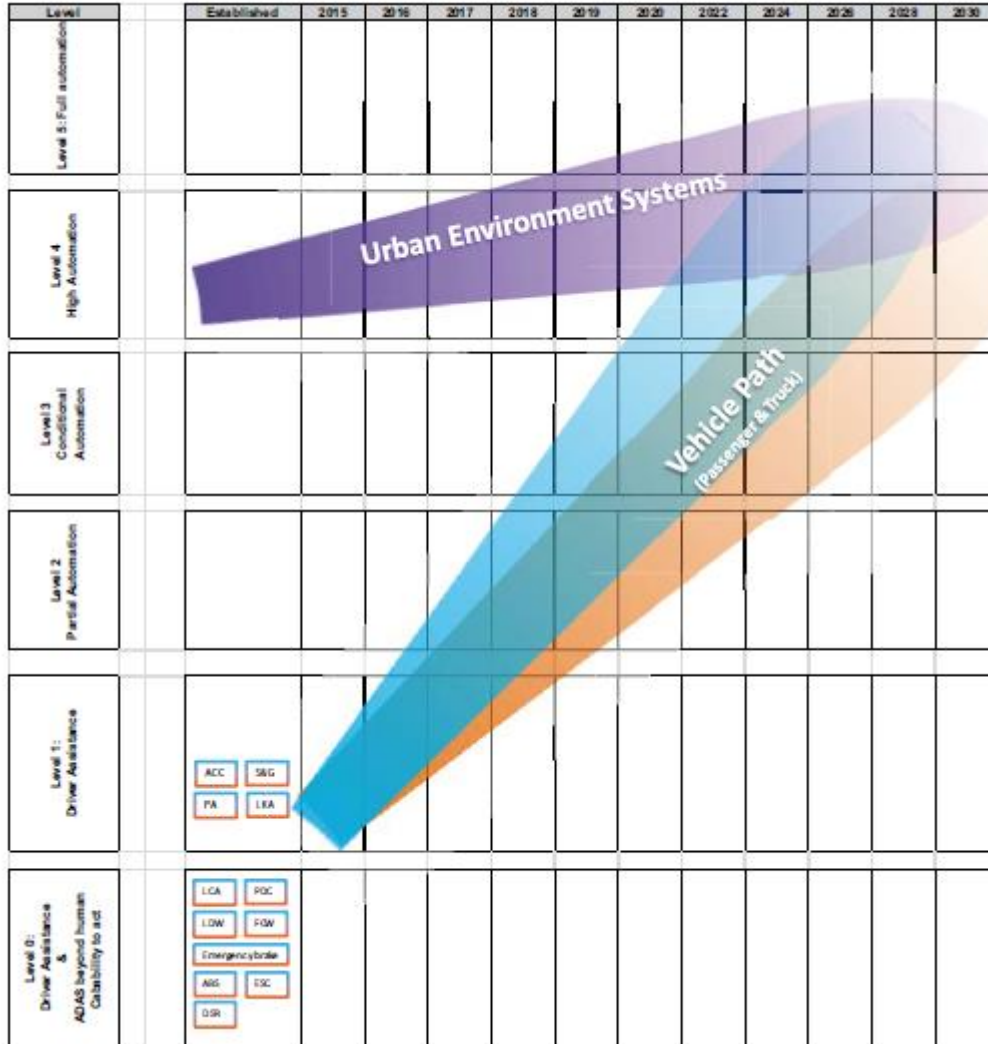
"Mass market 2020 systems- vehicle with driver/operator

- 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
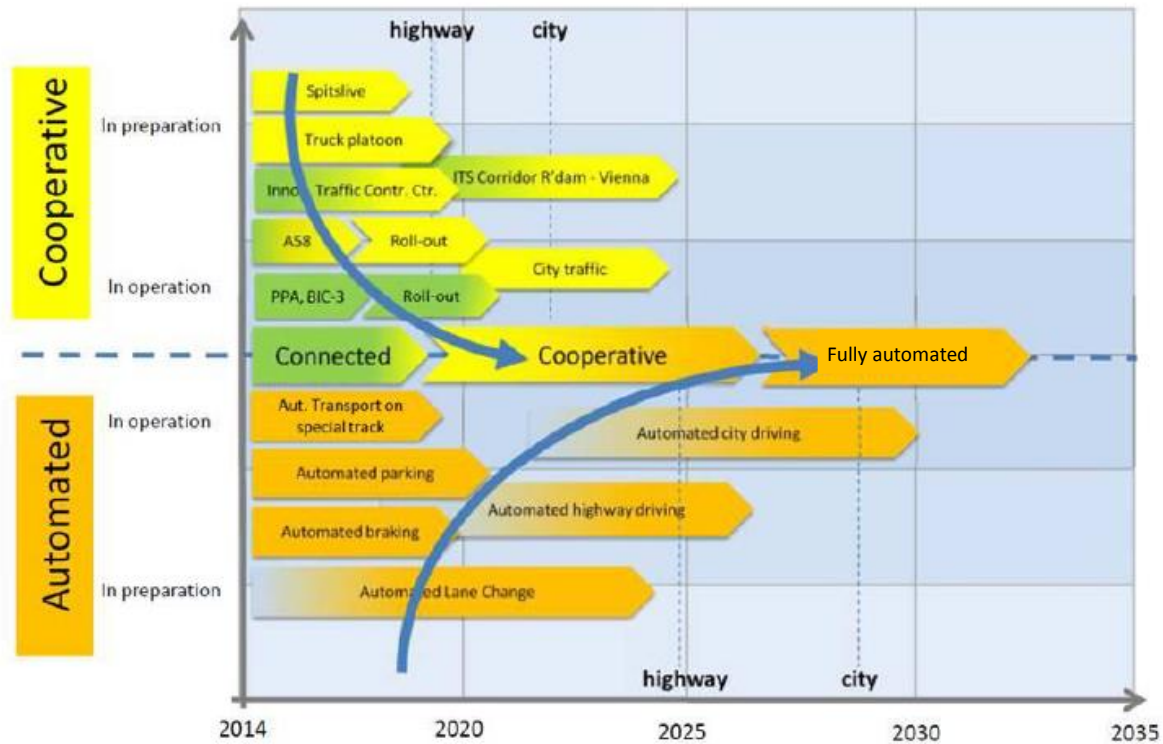
GEAR 2030: first recommendations on 2020 systems

- 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 internaitonal 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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