Connected, cooperative and automated mobility in Europe

SIS04 International activities and pilots on Connected and Automated Driving
Strasbourg, 19 June 2017

Ludger Rogge
Directorate-General for Research & Innovation
European Commission
Amsterdam Declaration – Follow up

- **Declaration to strengthen cooperation in the field of connected and automated driving**

- **Signed by EU Transport Ministers on 14 April 2016**

- **MS driven in cooperation with EC & Industry**

- **Informal HL meetings (2/year)**
  - 15 February 2017 (Amsterdam)
  - 14-15 September 2017 (Frankfurt)

- **Working agenda**
  - Data sharing
  - V2X Communication technologies
  - Cross Border Testing
  - Coherent regulation
  - Joint European Approach
Connected, cooperative and automated mobility - EC initiatives

Common objective:
Accelerated deployment of Cooperative, Connected and Automated Mobility

Industry

GEAR 2030
LoI, RT - EATA; 5G Action Plan; DEI-IoT; Data COM

C-ITS Platform C-Roads
Transport
Research

Transport R & I Horizon 2020 Large Demos

Member States; Regions; Cities
Public co-funding
Stakeholders
Private investments
Common responsibility
Shared leadership
High Level Group GEAR 2030

- Launched in 2016 for 2 years, composed by industry, NGOs and Member States.
- Objective: support the EU cars industry to strengthen its competitiveness
- Final report delivered in October/November 2017

Dedicated working group (WG2) on automated and connected (CA) vehicles.

- Objective: develop a roadmap for the deployment of CA vehicles. Focus on policy, regulatory and financing issues.
  - First recommendations for upcoming systems (2020)
  - Final long-term (2030) recommendations by June.
  - Analyse existing EU and national funding programmes and give recommendations for improving this framework
Cooperation between telecom and automotive industry

High Level Roundtable involving telecom and automotive industry was launched in September 2015

European Alliance between Telecom and Automotive industries

- Counts today 37 companies including telecom operators, vendors, automotive suppliers and manufacturers
- Presented plans for testing connected and automated driving functionalities that will provide enabling connectivity
Digital Day, the digital part of the official celebrations marking the 60th anniversary of the Treaties of Rome

Letter of intent to intensify cooperation on testing of automated road transport in cross border test sites

Areas of cooperation: interoperability, data access and liability, as well as future 5G connectivity

LoI was signed by 29 European countries (27 MS plus Switzerland and Norway)
Adopted 30 November 2016

Making C-ITS a reality from 2019 onwards

C-ITS Platform (phase 2)
- Continuing important work on Security, Data Protection, Business models and Compliance assessment
- Introducing links with automation in new WGs on
  - C-ITS and automation in urban areas
  - Enhanced Traffic Management
  - Road Safety
  - Physical and digital Road Infrastructure

C-Roads
- Bringing together C-ITS platform deployment initiatives to ensure interoperability
Call "Automated Road Transport" 2016/17

- Budget: € 114 Mio
- Support short term introduction of automated driving systems (level 3) for passenger cars, trucks and urban transport
- First projects resulting from the 2016 call will start in summer 2017:
- Proposals resulting from the 2017 call are under evaluation
large-scale piloting of SAE Level 3 functions, with additional assessment of some Level 4 functions

11 countries, 100 vehicles, 1000 test drivers involved in the testing

Tested functions cover wide range from parking to overtaking, and urban intersection driving.

Cross-border tests are planned for automated driving systems on highways (e.g. traffic jam assist, highway assist)

34 (OEMs, suppliers, research, SMEs, insurers, authorities and user groups)

Start: September 2017 (48 months)

Budget: €47 Mio (EC funding: €36 Mio)
Safety and end-user acceptance (ART4)
- InterACT
- TrustVehicle
- BRAVE

Road infrastructure to support automation (ART5)
- CoExist
- InfraMix
- TransAid
Call "Automated Road Transport" 2018-20

- Builds on previous Workprogramme ART 2016-17
- Focus on large scale demos of highly AD systems (level 4)

Proposed topics

- Testing, validation and certification procedures for highly automated driving functions
- Human centred design of AV
- Large-scale demonstrations of
  - Shared automated vehicles in urban areas
  - Highly automated driving functions for passenger cars
  - Automated heavy duty vehicles in real logistics operations
- Assessment of impacts, benefits and costs of CAD systems
- Support in cooperation and networking activities for road automation

International cooperation
**Urban systems**

- Shared AV fleets in urban areas (planned)
- Fully automated urban road transport (planned)

**Truck Platooning**

- Automated trucks in real logistics operations (planned)
- Multi-Brand Platooning (planned)
- AutoPilot

**Passenger cars**

- Highly Automated Vehicles (planned)
- 5G for CAD (planned)
- L3 Pilot
- AutoPilot

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Main objective
Support public-private collaboration for development and deployment of ART

Activities:
- Common knowledge base
- Actively support large-scale demos
- Common evaluation framework, Data exchange
- Identify sustainable business models
- International cooperation (in particular with US and Japan)
- Organise conferences / workshops in Europe
2 workshops were held (16 Dec 2016, 18 May 2017)

Presentations of ongoing large-scale public road pilots in different countries: AT, BE, DE, EL, ES, FI, FR, NL, SE, UK

Discussions:
- Design of test environment
- Data collection and analysis
- Impact assessment methods

Summary of the workshop available on:
http://connectedautomateddriving.eu
EC and US DOT encourage twinning to exchange knowledge and experience and exploit synergies.

Growing number of twinning activities in different areas:
- Automated Road Transport, ITS, road safety, road infrastructure, city logistics

Examples for twinning activities: exchanges of information, data, visits, methodologies, researchers, results, joint workshops, publications etc.

New twinning arrangements between EC & US projects in the field of safety, ITS and ART: 7 projects from the EC side and 9 projects from the US side (mid 2017).
Tri-lateral Working Group on ART

- Exists since 2013
- Meets 3-4 times/year

**Objective**
- Support shared learning, develop solutions to shared challenges, and harmonize approaches where appropriate

**Subgroups**
- Human factors
- Impact assessment
- Digital infrastructure
- Roadworthiness testing
- Next generation transport
- Security
All Horizon 2020 projects can include international partners

- Applicants from non-EU countries are eligible to take part in Horizon 2020 programmes, even as coordinator

Targeted Opening

- Cooperation with projects or partners from the US, Japan, South Korea, Singapore, and/or Australia is encouraged

Twinning
Thank you for your attention!