Connected, cooperative and automated mobility in Europe
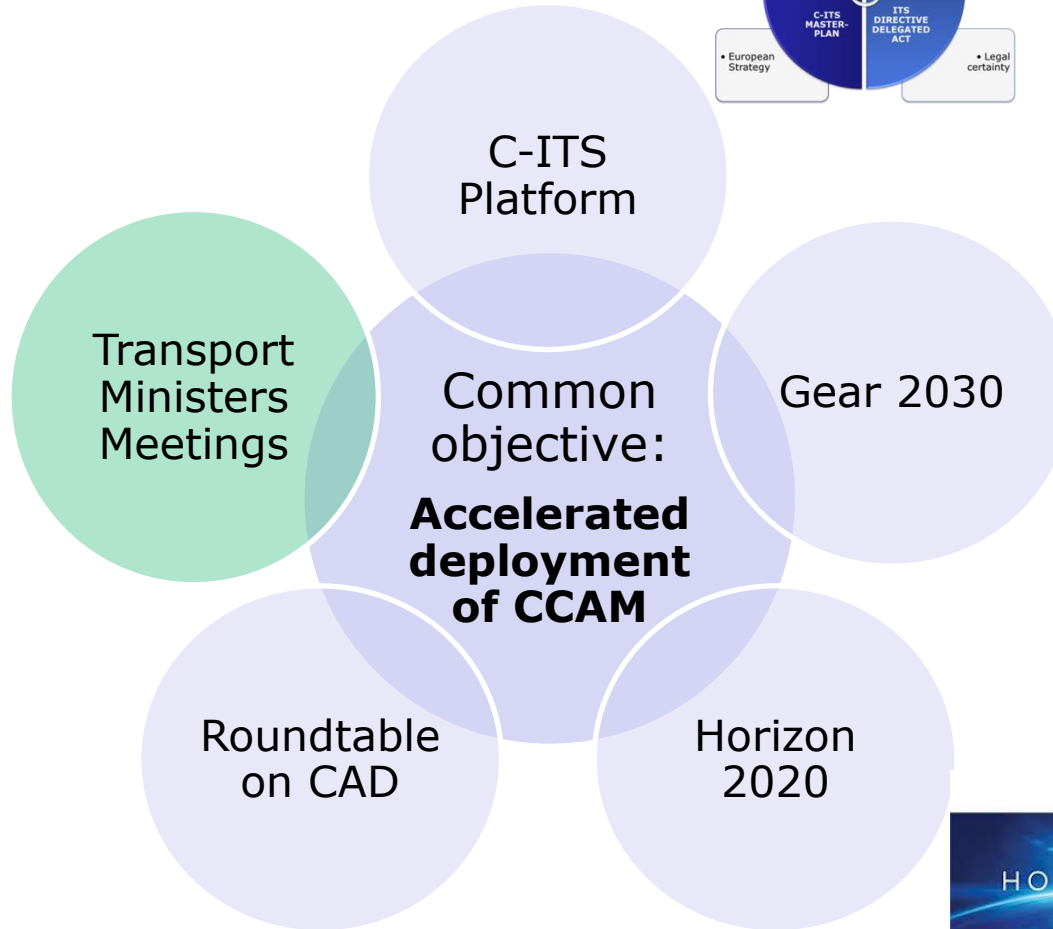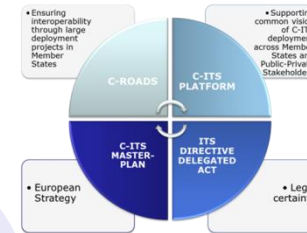
Tokyo, 14 November 2017
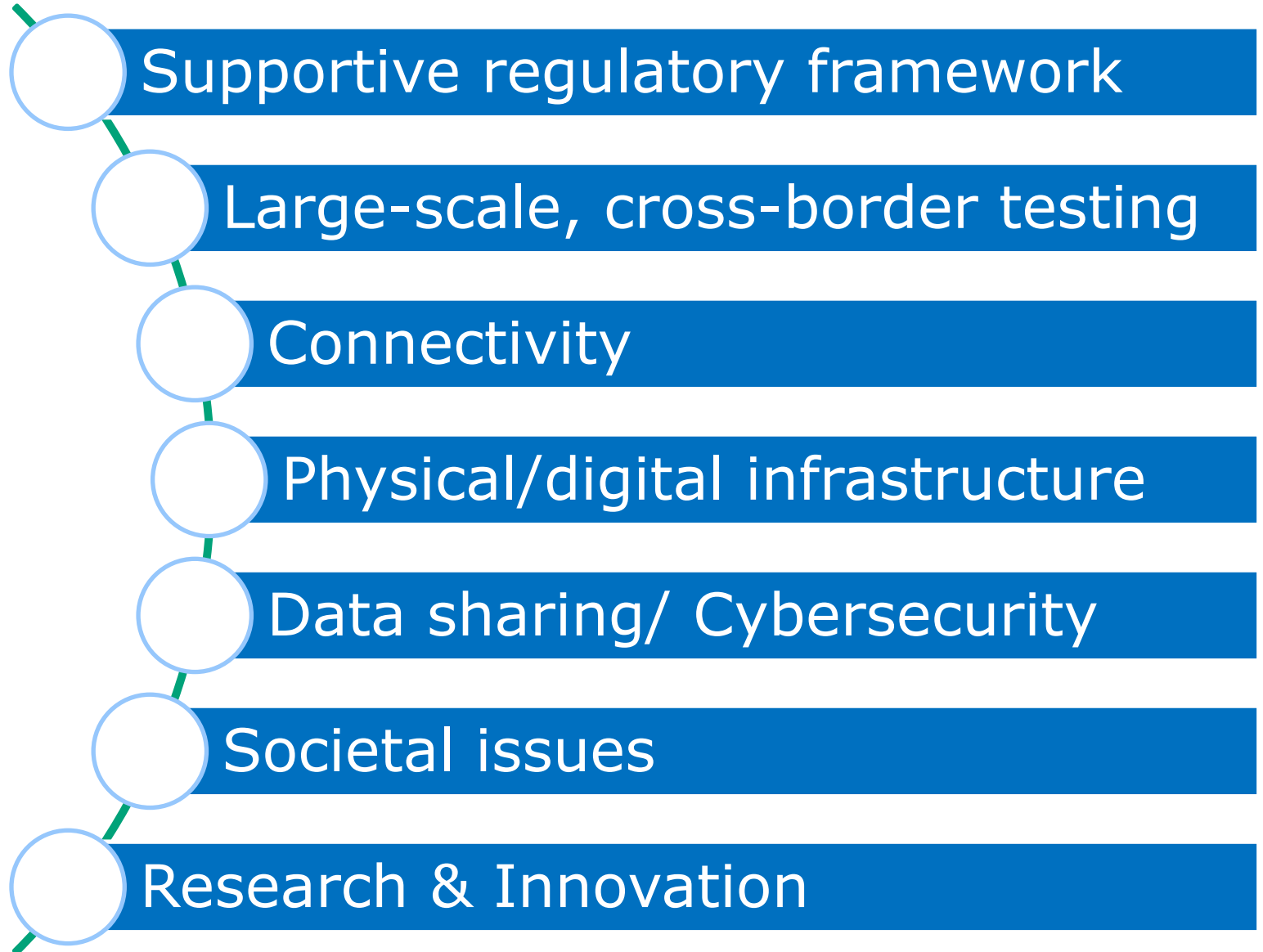
Ludger Rogge
Directorate-General for
Research & Innovation

European Commission

HORIZON 2020

European
Commission

Connected, cooperative and automated mobility - EC policy initiatives

- Supportive regulatory framework
- Large-scale, cross-border testing
- Connectivity
- Physical/digital infrastructure
- Data sharing/ Cybersecurity
- Societal issues
- Research & Innovation

Automation Pilots for Passenger Cars
- L3Pilot
- AutoPilot

AUTOPILOT

L3PILOT

Safety and end user acceptance
- InterAct
- TrustVehicle
- BRAVE

interACT

TRUSTVEHICLE

BRAVE

Road infrastructure to support automation
- CoExist
- InfraMix
- TransAid

CoEXist

TransAID

INFRAMIX

ICT infrastructure to enable road transport automation
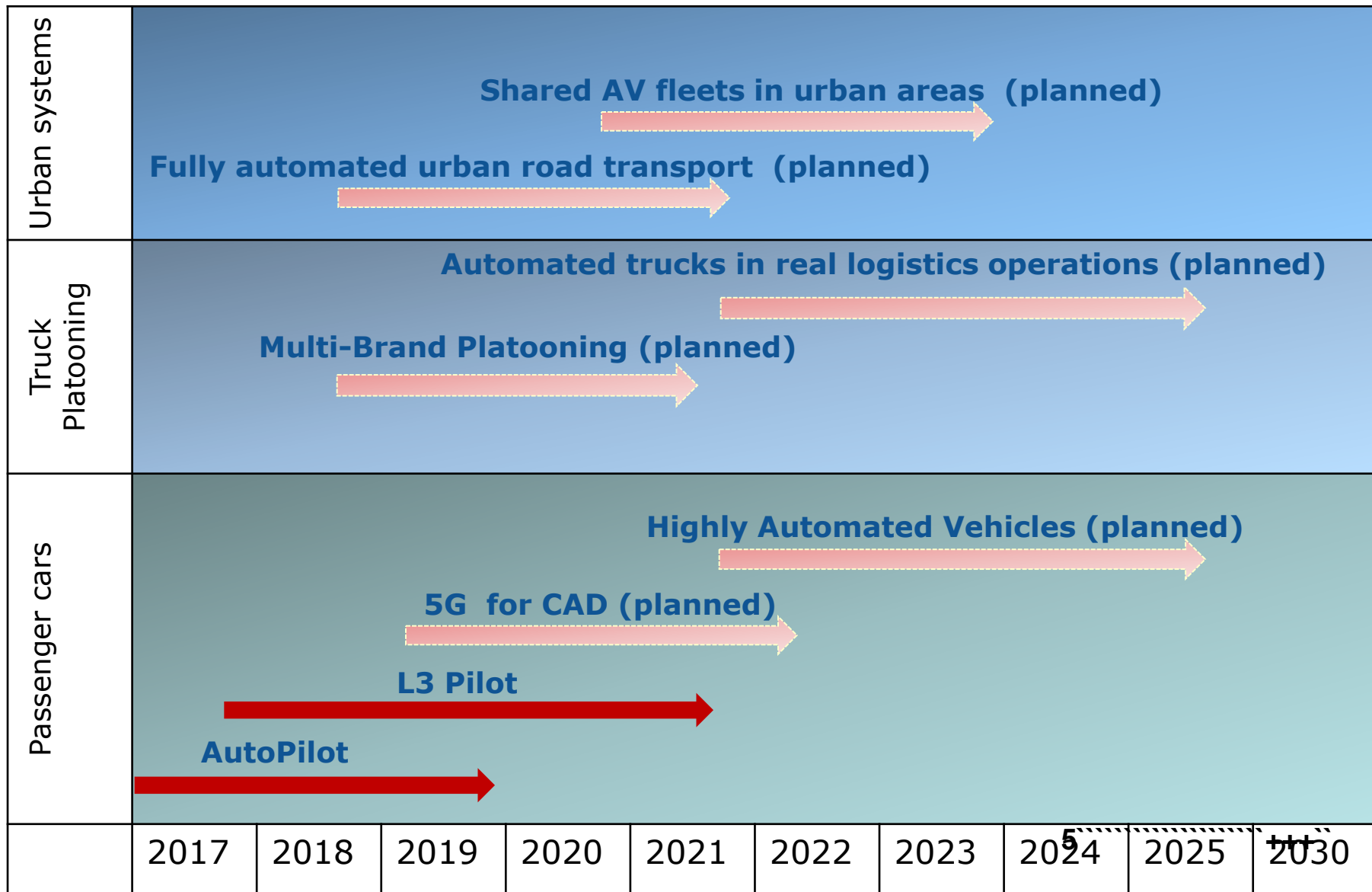
Multi-brand platooning in real traffic conditions
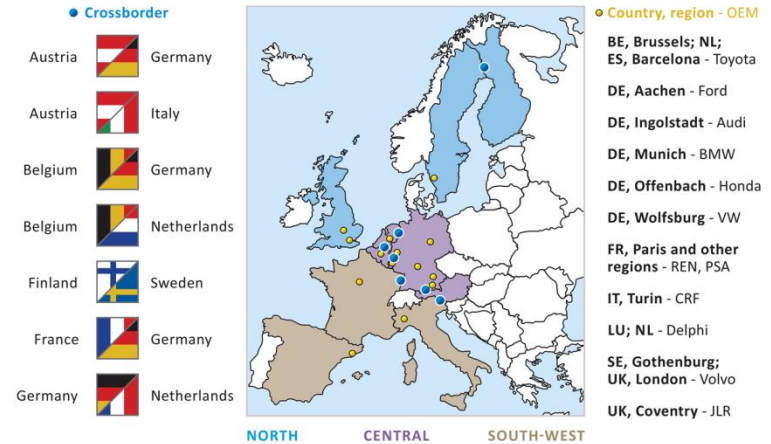
Automated urban transport systems

2016 Call

2017 Call

H2020 – Ongoing and planned large-scale demos

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030

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)

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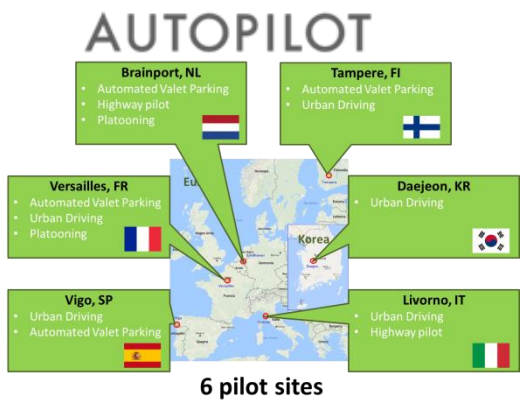- AutoPilot

5

H2020 – New large-scale demo – L3 Pilot

- Large-scale piloting of SAE Level 3 functions, with additional assessment of some Level 4 functions
- 34 partners (OEMs, suppliers, research organisations, SMEs, insurers, authorities and user groups)
- 11 countries, 100vehicles, 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)
- Start: September 2017 (48 months)
- Budget: €47 Mio (EC funding: €36 Mio)

Crossborder	
Austria	Germany
Austria	Italy
Belgium	Germany
Belgium	Netherlands
Finland	Sweden
France	Germany
Germany	Netherlands

Country, region - OEM
BE, Brussels; NL; ES, Barcelona - Toyota
DE, Aachen - Ford
DE, Ingolstadt - Audi
DE, Munich - BMW
DE, Offenbach - Honda
DE, Wolfsburg - VW
FR, Paris and other regions - REN, PSA
IT, Turin - CRF
LU; NL - Delphi
SE, Gothenburg; UK, London - Volvo
UK, Coventry - JLR

6

AUTOPILOT

Brainport, NL	Tampere, FI
• Automated Valet Parking	• Automated Valet Parking
• Highway pilot	• Urban Driving
• Platooning	

Versailles, FR	Daejeon, KR
• Automated Valet Parking	• Urban Driving
• Urban Driving	
• Platooning	

Vigo, SP	Livorno, IT
• Urban Driving	• Urban Driving
• Automated Valet Parking	• Highway pilot

6 pilot sites

- ❏ Large-scale piloting to test IoT enabled autonomous driving cars in real conditions,
- ❏ Objectives
  - ❏ **Enhance the driving environment perception with IoT sensors enabling safer highly automated driving**
  - ❏ **Use and evaluate advanced vehicle-to-everything (V2X) connectivity technologies**
  - ❏ **Contribute to the IoT standardisation and eco-system**

- ❏ Automated Driving Scenarios
  - ❏ **Urban Driving**
  - ❏ **Highway Pilot**
  - ❏ **Platooning**
  - ❏ **Automated Valet Parking**
- ❏ 44 beneficiaries
- ❏ Start: January 2017 (26 months)
- ❏ Budget: €25.4 Mio (EC funding: € 20 Mio)

- ❏ Services for automated driving
  - ❏ **City chauffeur services for tourists**
  - ❏ **Automated driving route optimisation**
  - ❏ **Real time car sharing**
  - ❏ **Driverless car rebalancing**
  - ❏ **HD maps for automated driving vehicles**
  - ❏ **Electronic Driving License**

- ❑ 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**
- ❑ R&I topics for International Cooperation
    - ➢ **Cooperation with projects or partners from the US, Japan, South Korea, Singapore, and/or Australia is encouraged**
- ❑ Twinning