This project has received funding from the European Union's H2020 research and innovation programme under Grant Agreement No 731993.

AUTOPILOT presentation
François FISCHER, ERTICO
Project Coordinator
AUTObmated driving Progressed by the Internet Of Things

Use **IoT technologies** to move **Automated Driving** towards a new dimension

✓ Enhance driving environment perception with “IoT enabled” sensors
✓ Integrate IoT platforms in the vehicles
✓ Use Cloud and IoT platforms to
  ✓ Share IoT sensor data
  ✓ Create new Mobility Services with fully automated vehicles
Overall concept

- Use a vehicle IoT platform
- Create IoT and cloud based service platforms
- Evaluate network performance needs
- Involve many IoT sensors

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AUTOPILOT targets

• Develop global IoT platforms and architecture
  ➢ for the provision of automated driving application and services

• Provide Vehicle IoT platform integration
  ➢ to make the vehicle an IoT device dealing with IoT sensor data

• Deploy an Eco-system of IoT sensors (Pedestrian, vehicles, infrastructure ...)

• Use and assess advanced connectivity technology (pre-5G, LTE-V2X, ITS-G5)

• Assess IoT suitability and benefits for the automated driving, the users and for the business exploitation

• Contribute to the IoT and Functional Safety standardisation
Driving modes and new services

Driving Modes
- Urban Driving
- Highway pilot
- Platooning
- Automated Valet Parking

Automated driving Services
- City chauffeur services for tourists
- Automated driving route optimisation
- Real time car sharing
- Driverless car rebalancing
- HD maps for automated driving vehicles
- 6th sense driving
- Dynamic eHorizon

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Non-EU beneficiaries

- China - Huawei – provision of IoT Platform

- Korea – ETRI - Pilot site in Daejon
  - ISI (Intersection Safety Information)
    - LDM and 5.9 Ghz (wave)
    - Traffic signal and fixed radar used to generate relevant IoT data containing LDM and road status information
    - V2X advanced communication will be explored
International cooperation

• AUTOPILOT is open to international cooperation on the project relevant topics:
  • Automated Driving pilot site wishing to use and assess IoT
  • Technical cooperation on Automotive - IoT – Sensors – LTE-V2X/5G – IoT – Cloud services
  • Automated Driving and Data privacy regulations and policy
  • User acceptance – Business exploitation

• The cooperation is possible via:
  • Becoming an associated partners (require providing useful contributions to AUTOPILOT win/win)
  • Participating in the Advisory Board

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Project information

5 Large Scale Pilots on IoT are funded by the European Commission
- AUTOPILOT is the Pilot 5: autonomous vehicle in a connected environment
- Innovation Action - 3 Years: 01/01/2017 – 31/12/2019
- 44 beneficiaries – coordinator: Francois Fischer, ERTICO
- Project costs: €25.425.252 - EU contribution: €19.924.984
- European Commission: DG CONNECT unit E.4 – IoT / H.2 Smart Mobility & living / A.1 Robotics & Artificial Intelligence

The 5 Large scale pilots are cross coordinated and supported by 2 CSA:
- CREATE-IoT (create-iot.eu)
- U4IoT (www.u4iot.eu)
Thank you

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