

1st 5G-MOBIX Webinar

Cooperative, Connected and Automated Mobility use cases for initial deployment of 5G technological innovations

Project introduction

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16 September 2019



5GMOBIX



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 825496

Agenda

- 12.00 – 12.05 Welcome note
- 12.05 – 12.20 General presentation: 5G-MOBIX concept and approach, François Fischer, ERTICO-ITS Europe
- 12.20 – 12.35 5G-MOBIX Use cases overview: description and methodology, Edward Mutafungwa, AALTO
- 12.35 – 12.50 5G-MOBIX Use cases: Cross-border corridors and Trial Sites, Kostas Trichias, WINGS ICT Solutions
- 12.50 – 13.00 Questions & Answers

CCAM path towards 5G

ADAS+ - Partial automation
Driver supervises the ADS

Conditinal automation

Driver “out of the loop” but
need to take control on
request by the ADS

High/Full automation

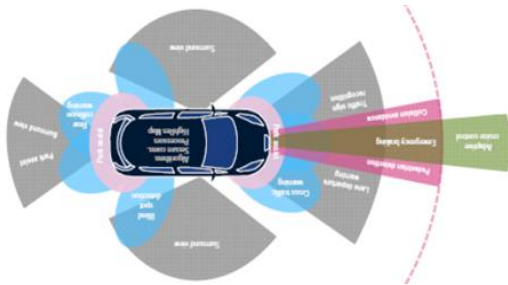
Driver out of the loop & no
need to take control – can be
driverless

L2

L3

L4/L5

In-vehicle sensors and ADS



Higher environment perception using connected
sensors and computing outside the vehicle

Qualcomm



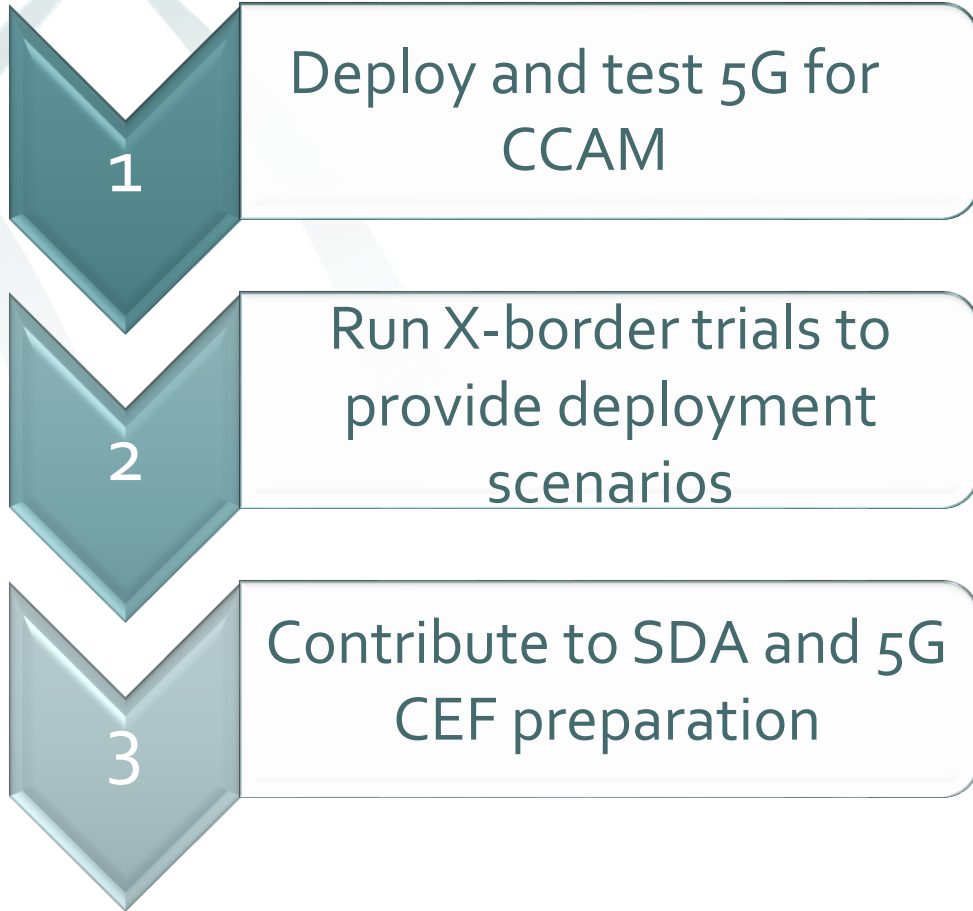
eMTC

uRLLC

eMBB

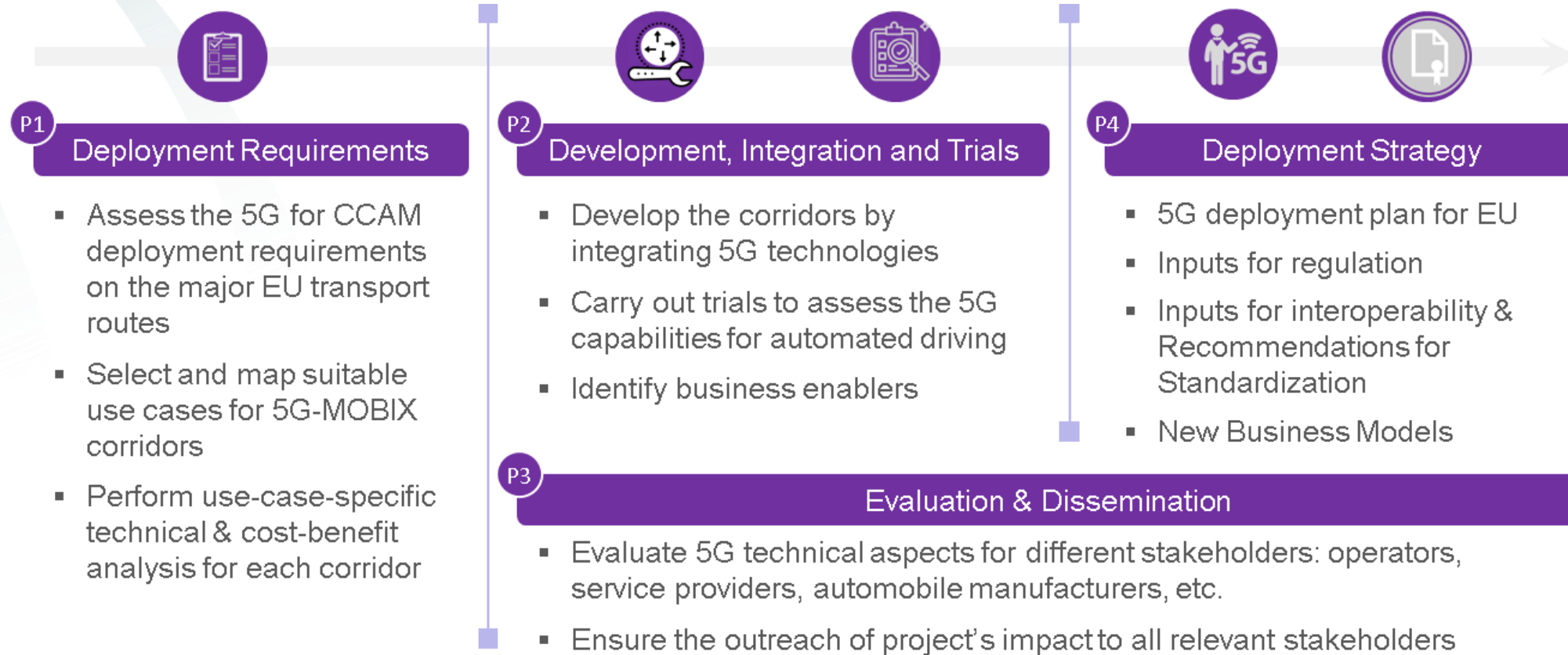
ADS: Automated Driving System

5G-MOBIX Objectives



- Formulate requirements for 5G/CCAM trials
- Establish 5G/CCAM corridors to carry out trials
- Trial, evaluate & validate 5G technologies for CCAM
- Analyse cost/benefits in multi-operators domains
- Explore and assess new business opportunities
- Provide 5G deployment scenarios & recommendations including x-border context
- Support standardisation and spectrum allocation
- Scale up & replicate for global 5G/CCAM adoption

5G-MOBIX phases



5G-MOBIX – Two x-border corridors



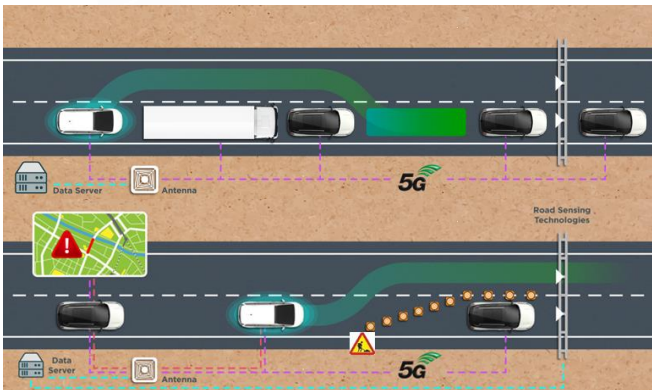
Spain - Portugal



Use cases

- Private Automated vehicles (SC1: Lane merge, SC2: Automated overtaking, SC3: HD MAPS)
- Public transport
- EV automated shuttle vehicles (SC1: Automated operation. SC2: Remote control.)

Porto – Vigo is a Pan-European X-Border 5G corridor for Connected and Automated Mobility



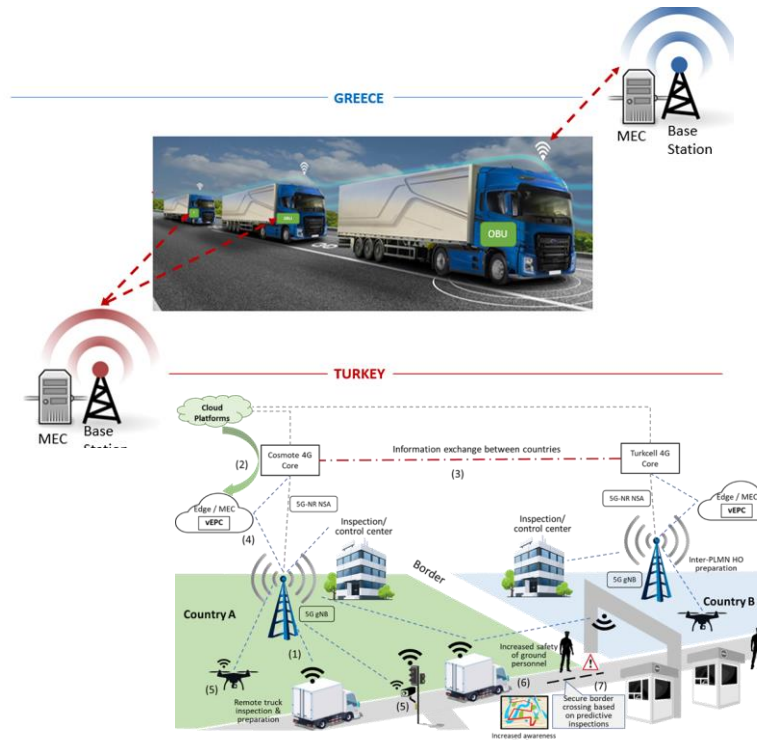
Greece - Turkey



Use cases

- Truck Platooning with "see what I see"
- Assisted Truck border crossing

Kipoi – Ipsala site is a main entry point into EU territory for cargo, with heavy customs operations



Local Trial Sites

- Germany
- Finland
- France
- The Netherlands
- China
- Korea

5G-MOBIX – Six local trial sites



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VWINGS
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COMMUNICANT ET DE SA MOBILITÉ

Gemeente Helmond



CONCELLO
DE VIGO



norte litoral

5GMOBIX

Automated driving

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IMT
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TRANSPORTES, I.P.

山东省科学院
SHANDONG ACADEMY OF SCIENCES

KATECH



EU Parliament, 6 February 2019



World Transport ConventionTC 2019, China



EUCAD Conference, 3-4 April 2019, Brussels



ITS EU Congress, 3-6 June 2019, Eindhoven



EUCnC 2019 - Valencia

- EUCnC Conference, 18-21 June, Valencia
 - Stand with 5GCARMEN and 5GCroco
 - Video, leaflets, postcards
 - Demo by Wings of GR – TR x-border automatic control
 - **Best booth award!**



- Workshop “5G in the Era of connected cars” (co-organised by the 3 projects):
 - Presentation role of IoT and 5G for CCAM deployment (including lessons learned from AUTOPILOT)
 - Presentations PT-SP and GR-TR corridors



www.5g-mobix.com



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