

The project

From a high level

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ES-PT corridor, 13/14 September 2022



5GMOBIX



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

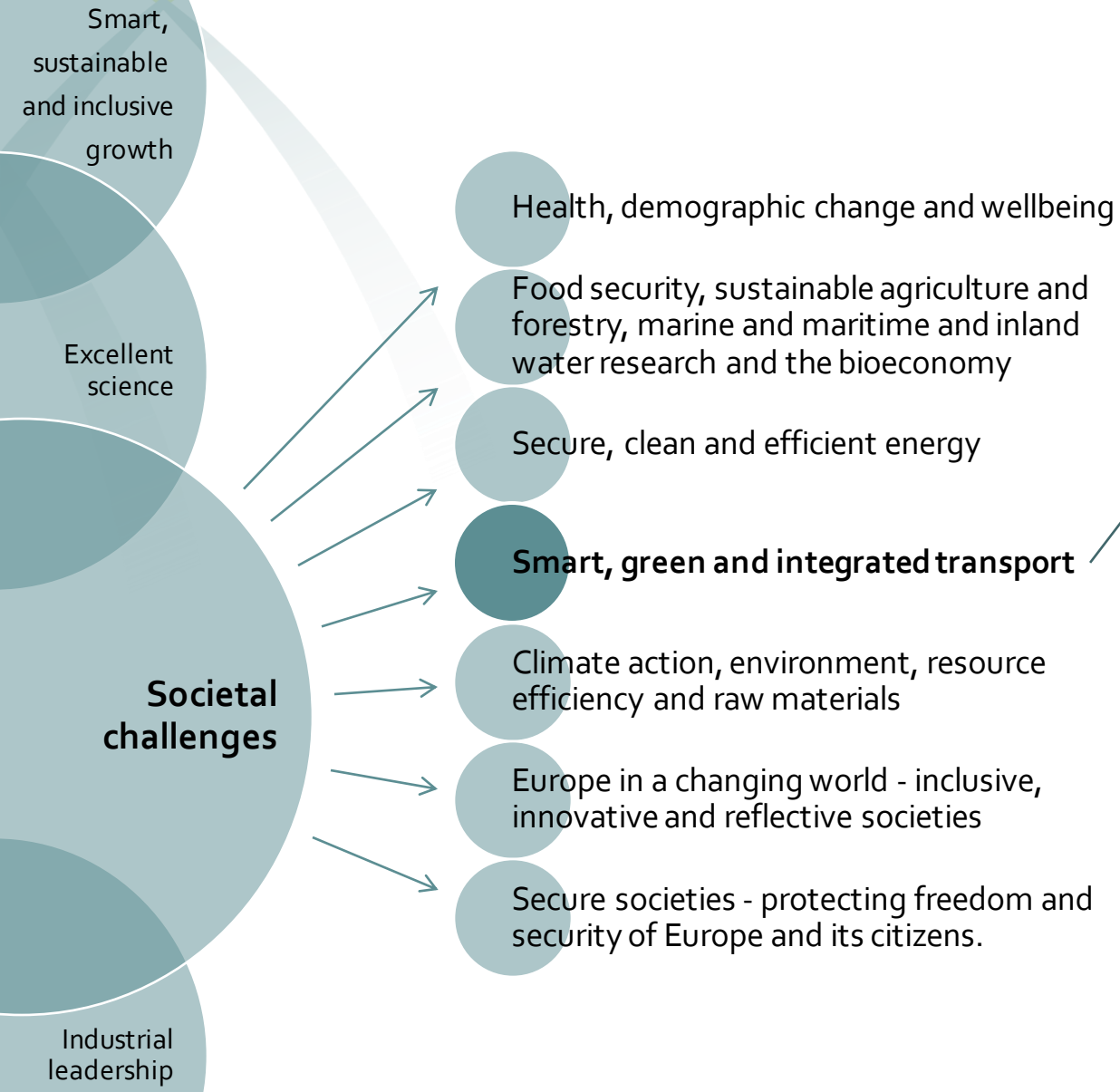


Imagine...



Reality...

H2020 ICT-18 goals



H2020 ICT-2018 -> 5G for CAM

- Qualify 5G as a core connectivity infrastructure for CAM
 - From technological perspective
 - From business perspective
 - For SAE levels 4 and 5
- Demonstrating the benefits of 5G in innovative business models to
 - Open the door to private investments
 - Open the door to broader digitization of the automotive sector
- Supporting the strategic objective to have major transport paths covered by 5G in 2035
 - With cross-border trials along the planned 5G corridors



ABOUT

- EU funded Innovation action (H2020-ICT-18-2018)
- November 2018 – September 2022
- 59 partners from 11 countries in Europe (incl. Linked Third parties)
- 9 non-EU funded partners from China and South Korea

OBJECTIVES

Accelerate deployment of 5G at cross-border areas

- Carry out trials along X-border corridors to assess 5G capabilities for CAM
- Qualify the 5G-infrastructure and evaluate the benefits of 5G within the CAM context
- Identify spectrum allocation gaps, contribute to standardisation and 5G CEF preparation



Technical

Business



Define deployment scenarios & recommendations including x-border context

- Perform cost/benefit analysis and impact assessment
- Identify new business opportunities for 5G-enabled CAM
- Investigate legal, regulatory and security issues



5G-MOBIX Trials



LOCATIONS

- 2 Cross-Border Corridors (CBC)
- 4 complementary European Trial Sites (TS)
- 2 complementary Asian Trial Sites (TS)



NETWORK

- 29 5G gNBs
- Started with **NSA** Architecture, investigated **SA**



VEHICLES

- 20 SAE L4 automated vehicles



USE CASES

- 5 use case categories based on 3GPP TS 22.186, focusing on x-border operation

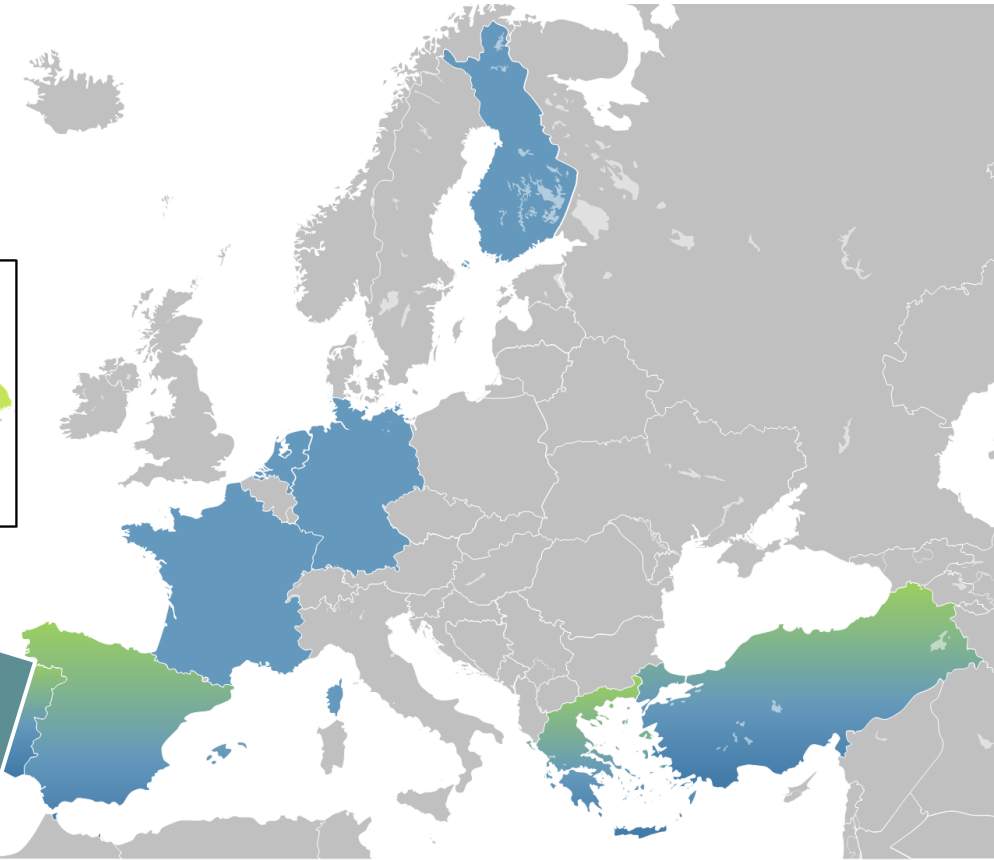
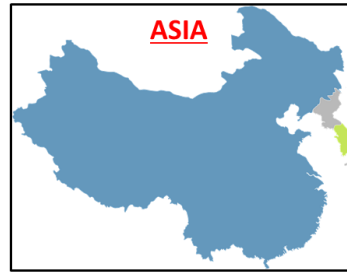
Advanced
Driving

Vehicles
Platooning

Extended
Sensors

Remote
Driving

Vehicle QoS
Support



5GMOBIX

Key messages

- 5G delivers a capable solution
- That you can use now
- And can further evolve

5G delivers a capable solution

Our trials in local and cross-border contexts have proven that:

- Seamless cross-border mobility is feasible
 - And we are proving that today as well in this demonstration
- The performance of 5G can be significantly better
 - 0,2s interruption instead of minutes
- There is room for growth
 - It is scalable
 - Allowing for more users and more services

That you can use now

- A large set of connected/automated driving services can be supported *today*
 - The needed performance is in line with commercially available performance
 - 80% (including all day-1 services)
- Services with higher needs can be adapted to network status
 - To ensure smooth automated driving
- In close collaboration with telecom operators to tailor needs
 - Cooperation between telecom network and service providers to solve technical challenges
 - To cover the period before generally available offerings

And can further evolve

- There are solutions for universal support of services
 - Incentivizing their deployment will greatly help
- The power of 5G can be better used
 - Joint development between telecom network and service providers can boost performance
 - By using the actual capabilities within the services
 - Joint development may solve the differences in technical knowledge of cooperating partners
- Detailing how the 'value' is co-created will help define organizations' roles
 - To find synergies
 - To allow for investments
 - National regulators can increase their significance to help create clarity

Telecom & Connectivity



R&D



Business



Automated driving



Thank you And enjoy the demo



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