

# ToD in 5GCroCo

**Tobias Müller**

**Robert Bosch GmbH**

**Tobias.Mueller8@de.bosch.com**

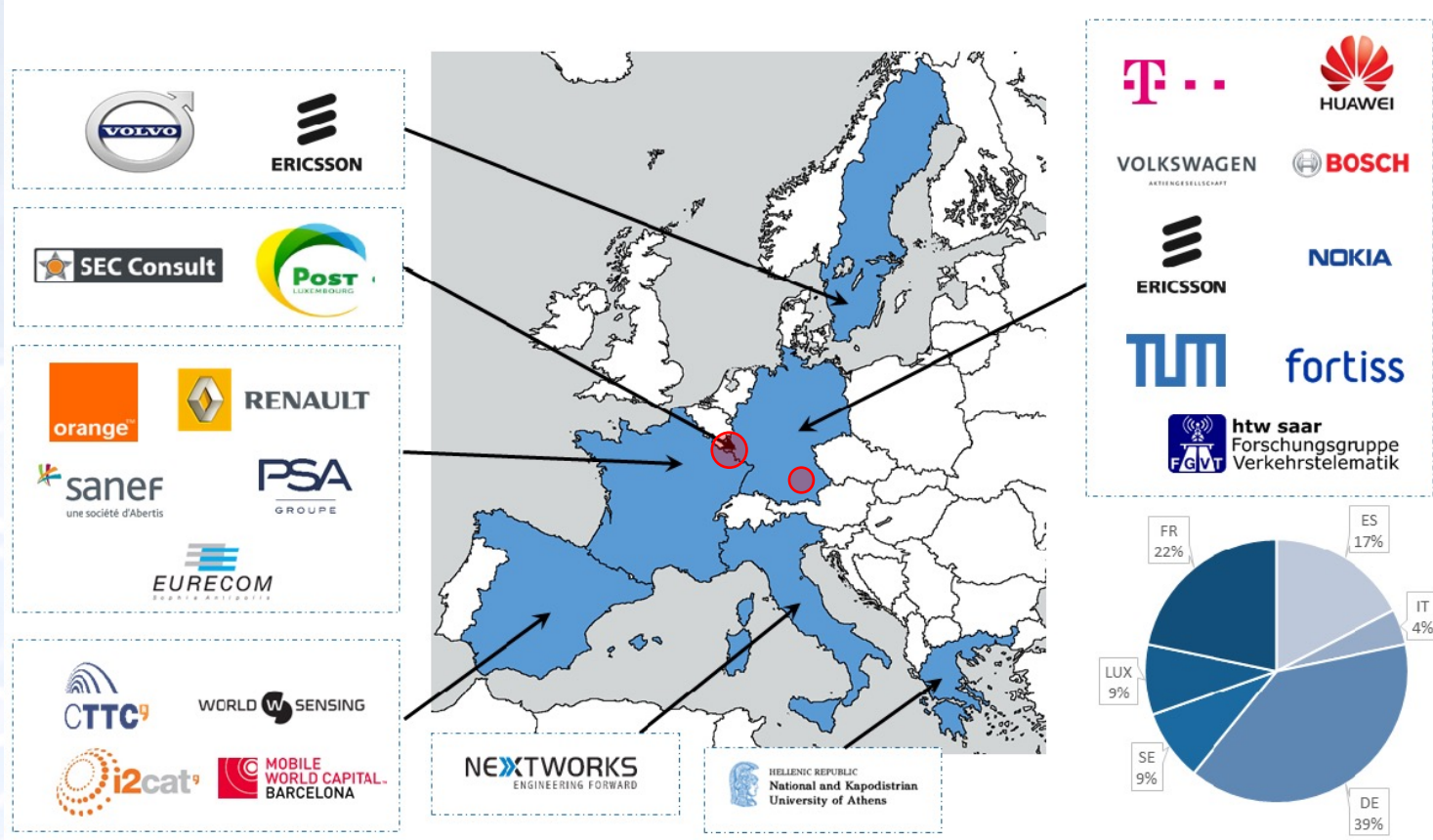
**2<sup>nd</sup> December 2021, 5G-Blueprint Forum on Teleoperation**



The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825050-5GCroCo



# Fifth Generation Cross-Border Control



- ▶ 24 partners from 7 European Countries
- ▶ Total project budget  $\cong$  17M€
- ▶ Expected EC contribution  $\cong$  13M€
- ▶ Project duration: 44 (36) Months until 06/2022 (from proposal 10/21)
- ▶ 3 CCAM key use cases demonstrated
  - ▶ Tele-Operated Driving, HD Mapping, Anticipated Cooperative Collision Avoidance

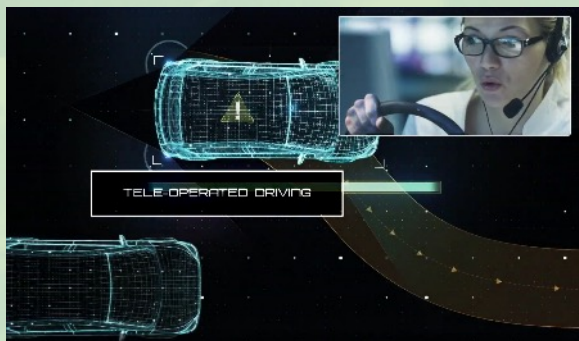
Validation of 5G technologies for cross border Connected Cooperative Automated Mobility use cases



# Three CCAM Key Use Cases

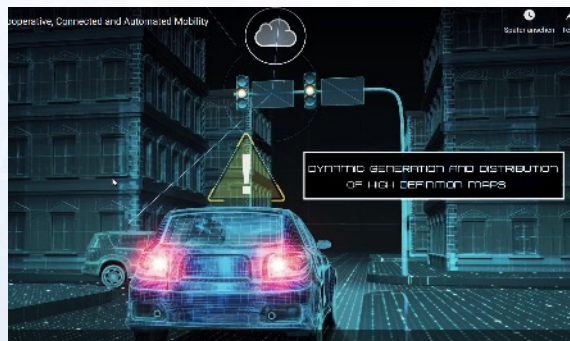
## ► Tele-Operated Driving

ToD



## ► HD Maps for Enabling Autonomous Driving

HD



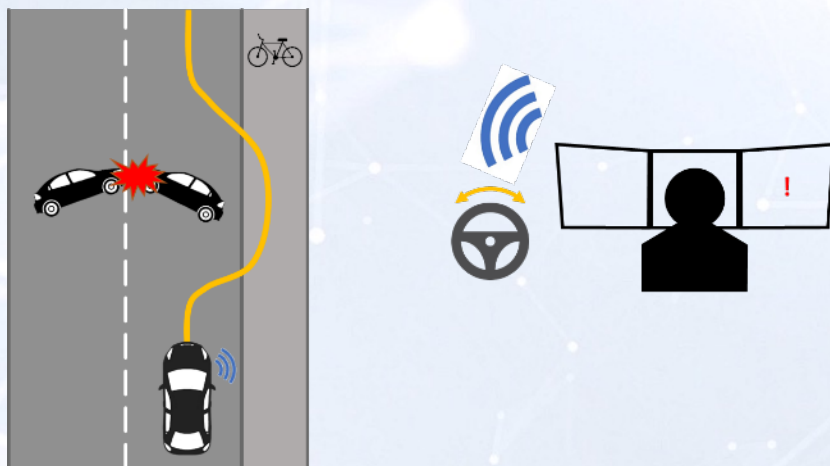
## ► Anticipated Cooperative Collision Avoidance

ACCA

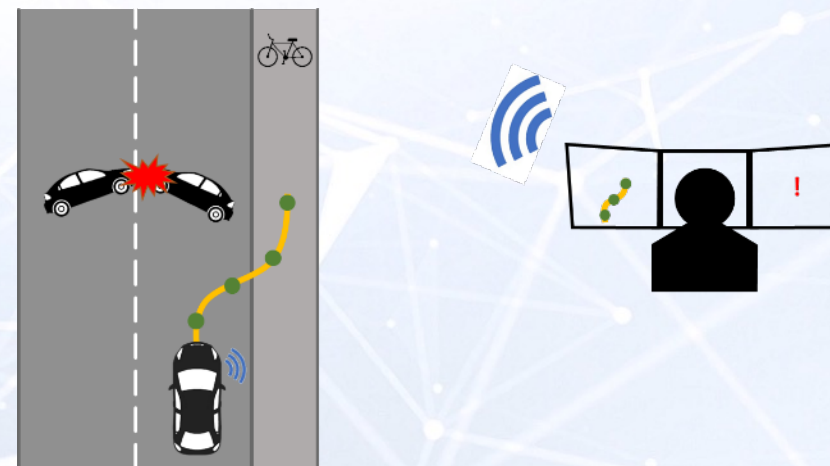


# Two Concepts for Tele-Operated Driving

## Direct Control



## Indirect Control

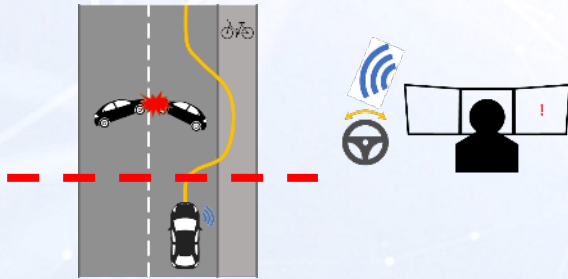




# Four User Stories

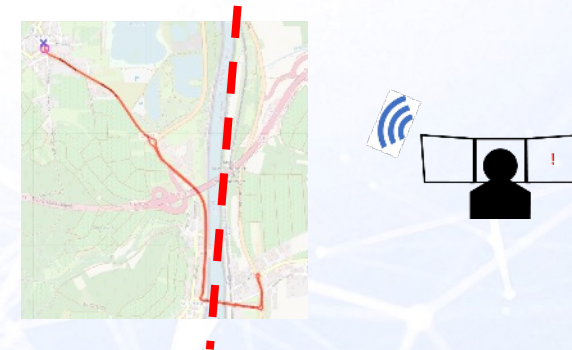
## User Story 1

Direct Control, Low Velocity, Closed Area



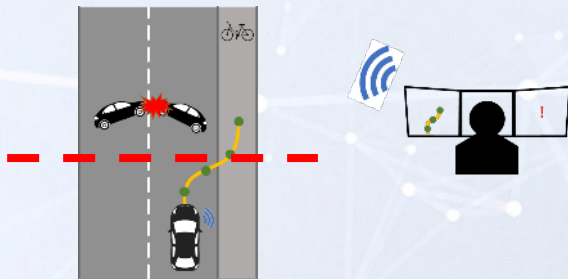
## User Story 3

Only Monitoring, Varying Velocity, Open Area



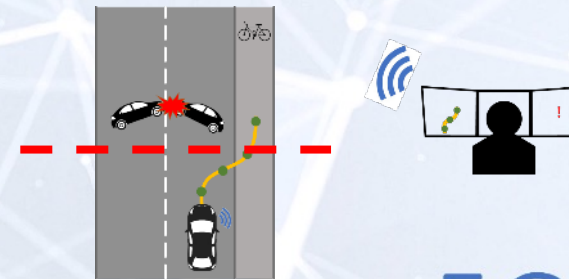
## User Story 2

Indirect Control, Low Velocity, Closed Area



## User Story 4

Indirect Control with Slim Uplink, Low Velocity, Closed Area



# Thanks!!!

5GCroCo   
www.5gcroco.eu

**Tobias Müller**  
**Robert Bosch GmbH**  
**Tobias.Mueller8@de.bosch.com**

To know more:  
<http://5gcroco.eu>  
Follow us in twitter: @5GCroCo  
Connect in LinkedIn  
Subscribe to our Newsletter

Contact us:  
[coordinator@5gcroco.eu](mailto:coordinator@5gcroco.eu)



The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825050

