5GCroCo

www.5gcroco.eu

5GCroCo Overview

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CTTC

Mobile World Congress – Monday, February 28th, 2022

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

5G PPP

VISION ZERØ

Eliminate road accidents by 2050

5G

Reliable technology in automotive applications

BENEFIT

Assisted and **automated driving** systems

Tremendous impact on **safety**.

SIMPLE

SPEED LIMIT INFO OBEYED BY ADAPTIVE CRUISE CONTROL

COMPLEX

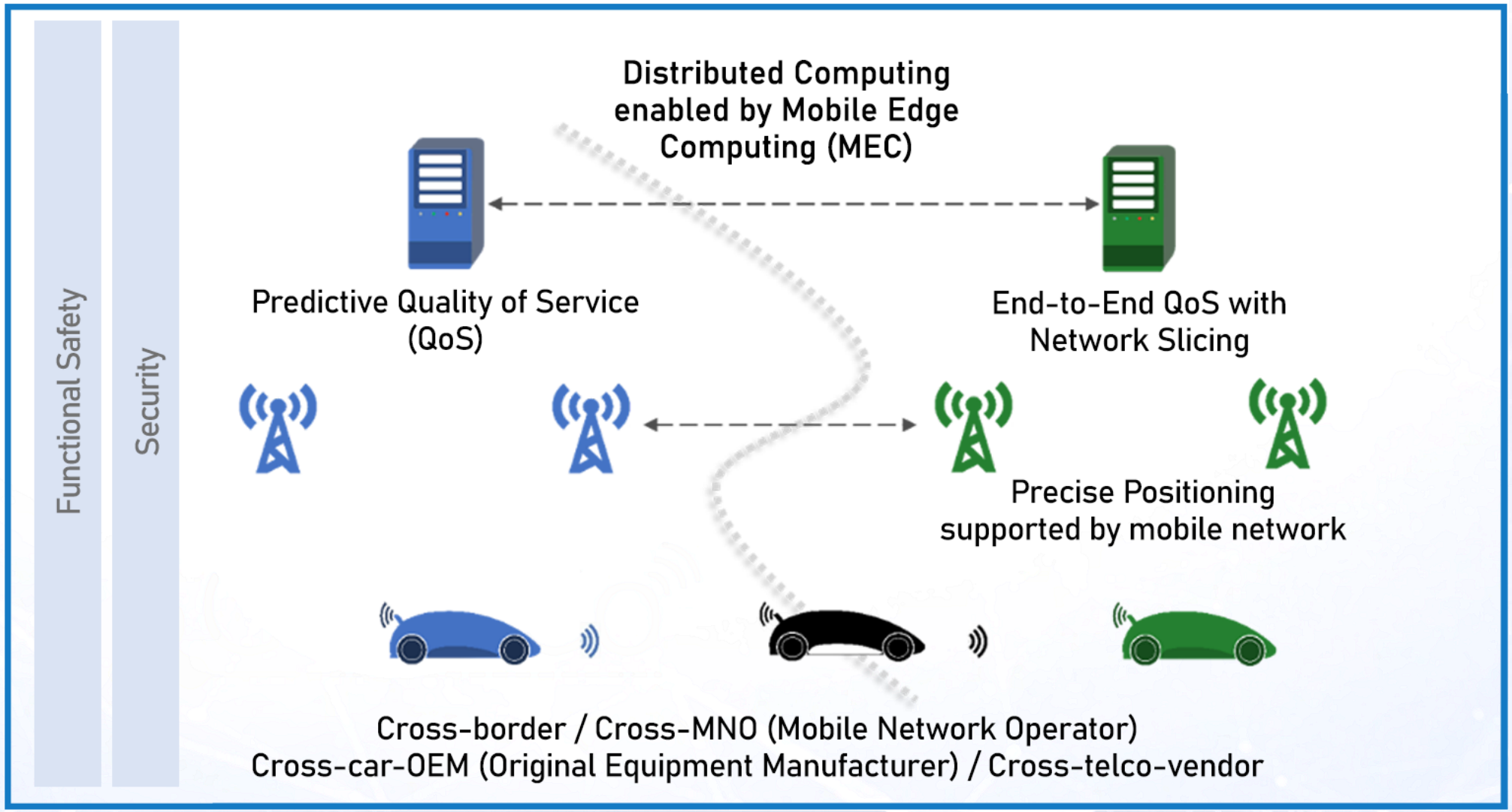
VEHICLES SHARE THEIR INTENTION AND COOPERATE ON MANOEUVRES

ROAD SECURITY PUZZLE

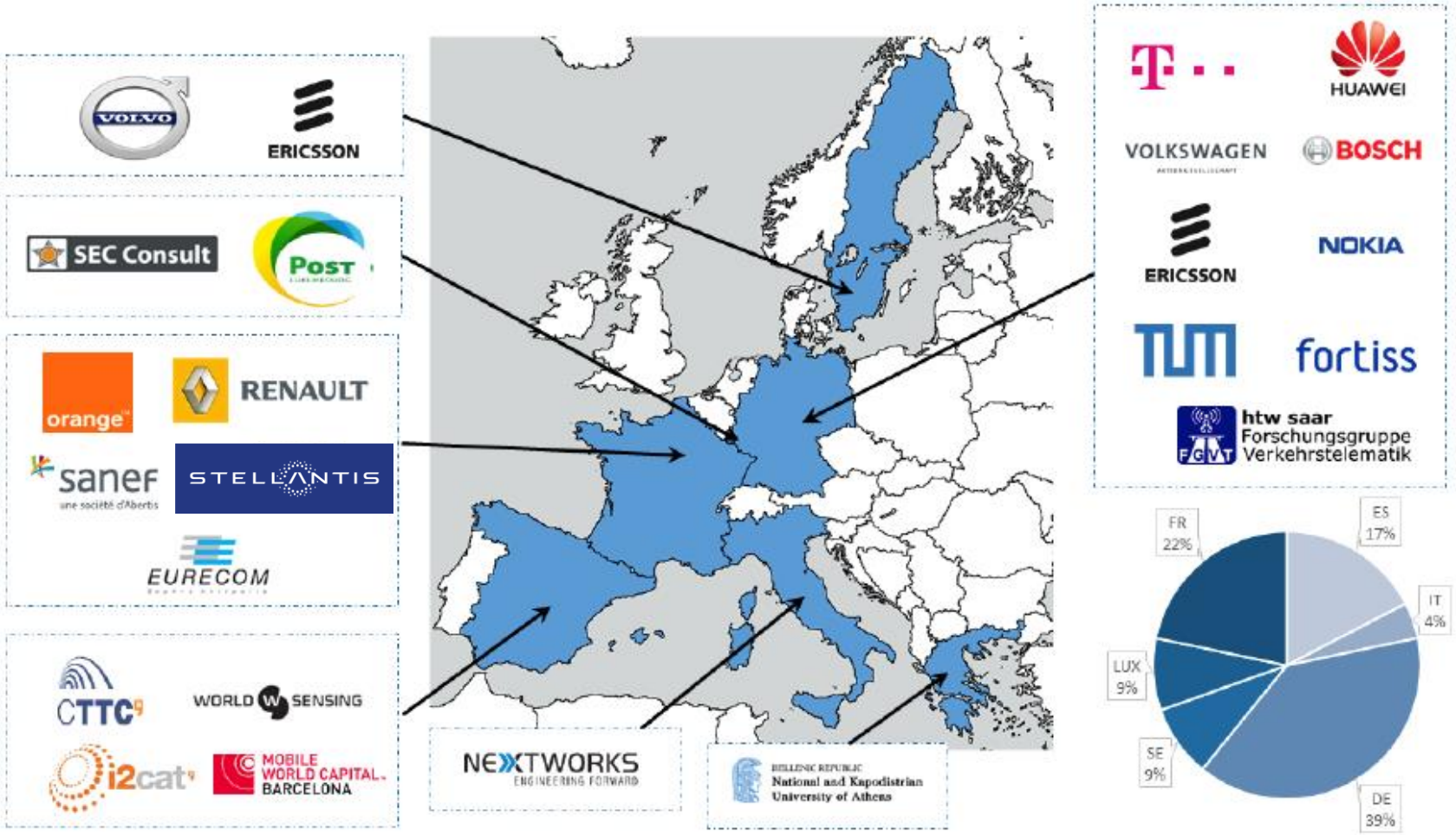
5GCroCo

5GCroCo: Seamless connectivity across borders

Tele-operated Driving (ToD) | High Definition (HD) map generation and distribution for autonomous driving | Anticipated Cooperative Collision Avoidance (ACCA)



Facts and Figures



- **24 partners** from **7 European Countries**
- Total project budget ≈ **17M€** (EC Contribution ≈ **13M€**)
- Project duration: **44 Months** (Nov 2018 – June 2022)

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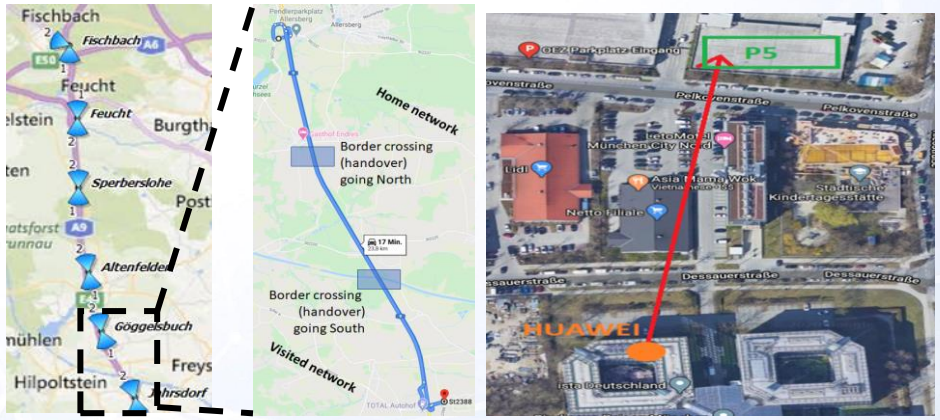
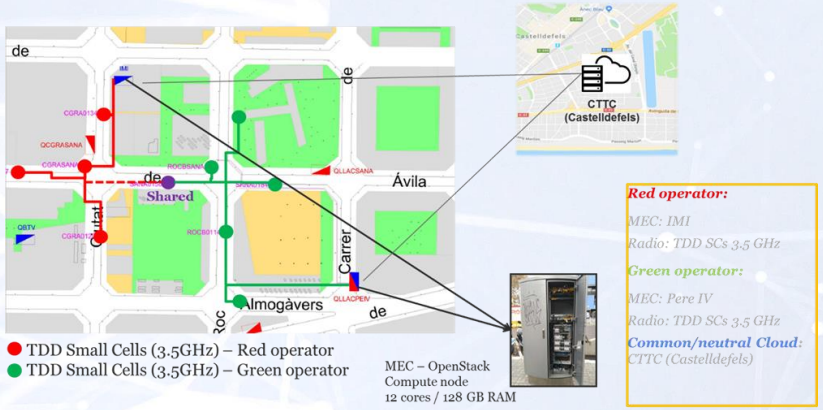
5GCroCo Tests & Trials

- Small-scale trials first:
  - For integration before large-scale deployment in corridor
  - For generation of experimental outcomes and KPI validation
- Distributed **locations**:

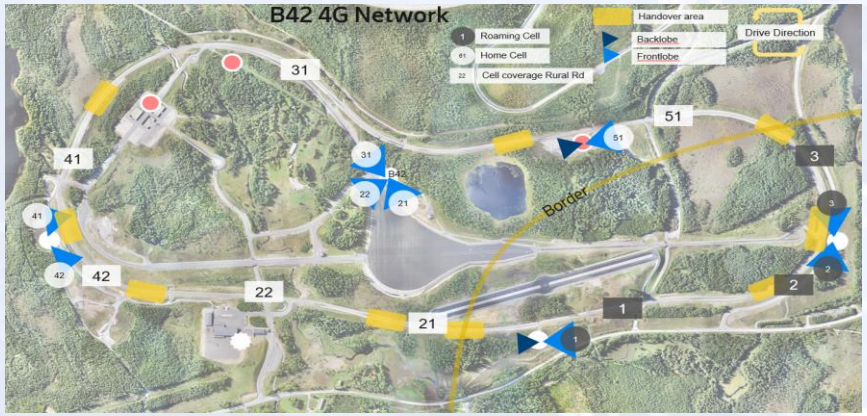
Germany (Motorway A9 and Munich City Center)



Spain (Barcelona City Center)



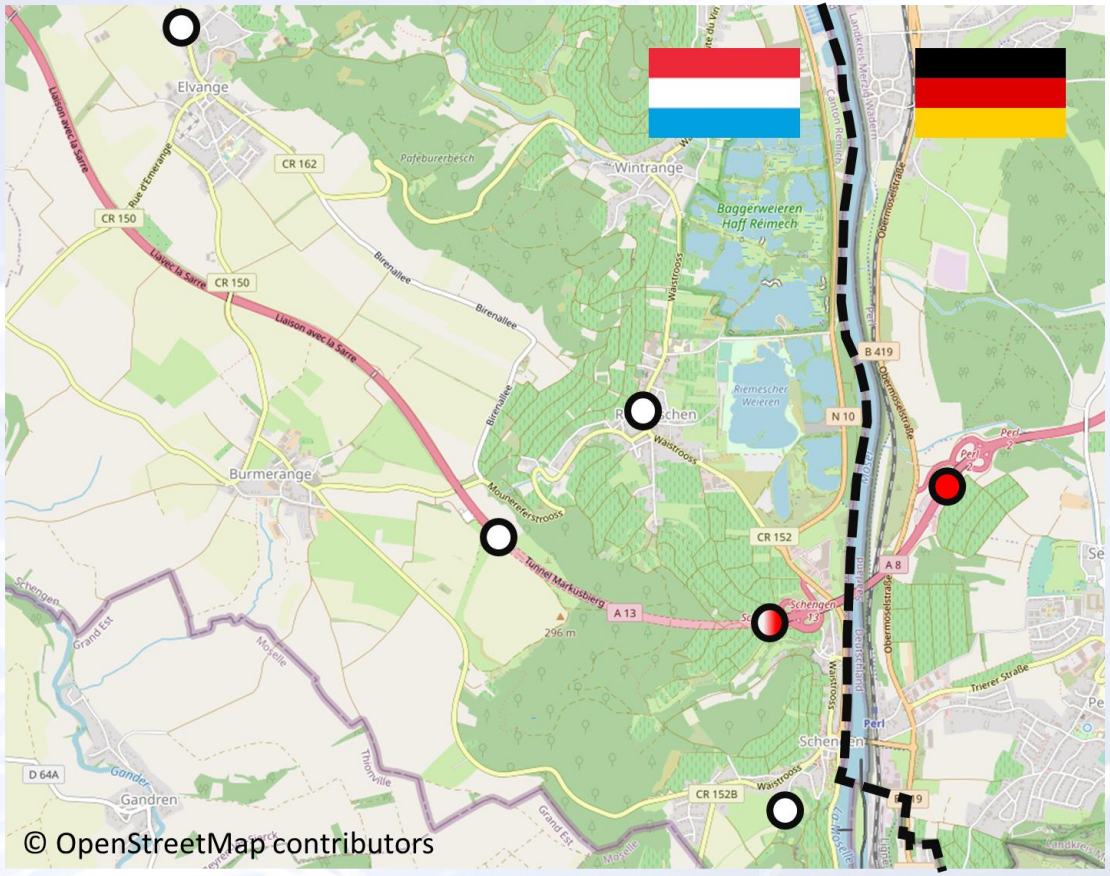
Sweden (AstaZero test track)



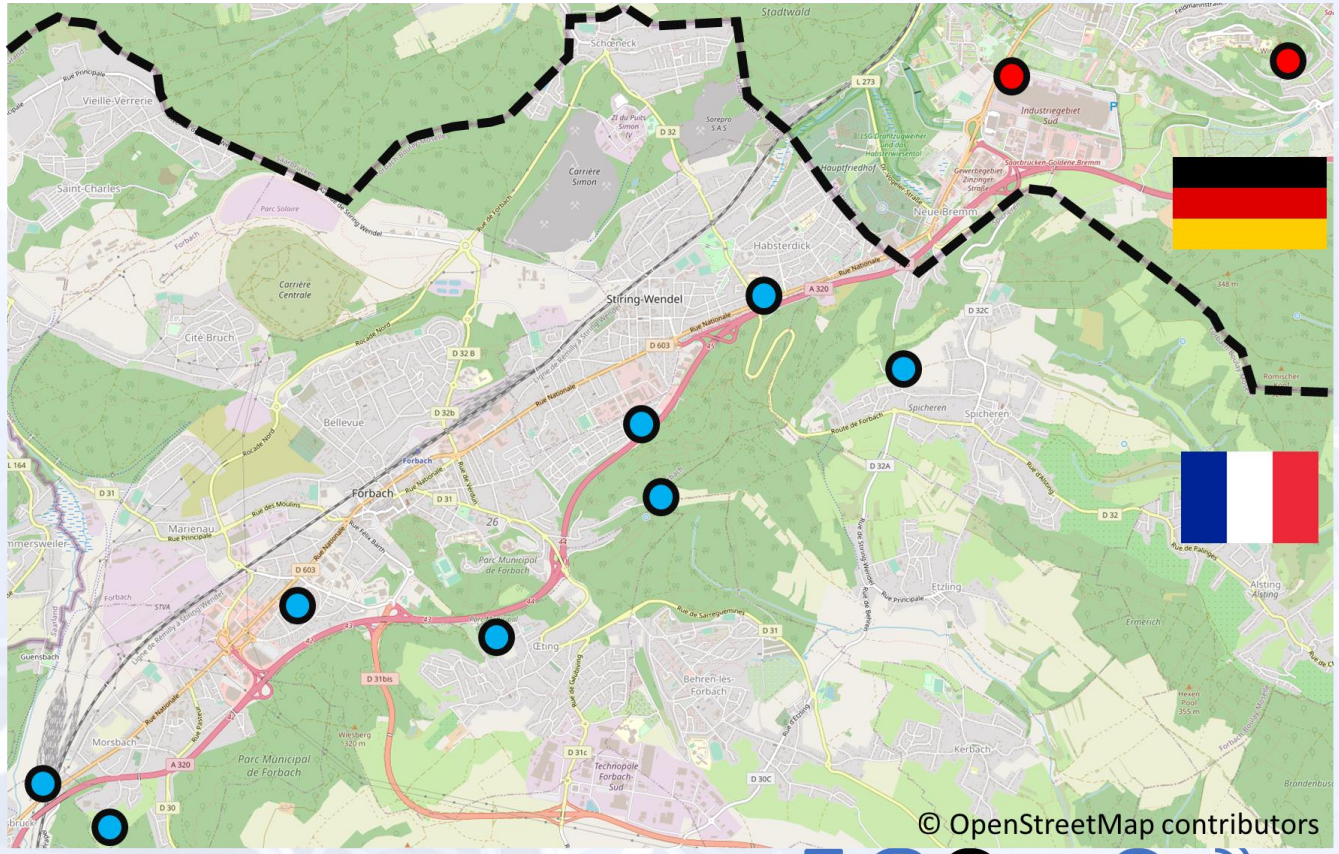
France (Montlhéry test track)

Large-scale 5GCroCo Networks

Germany-Luxembourg Corridor (D-L)



France-Germany Corridor (F-D)



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Tele-operated driving

Remotely Controlled Manoeuvring

TOD_VIDEO_1

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Tele-operated driving

Remotely Controlled Path-based Driving

TOD_VIDEO_2

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HD Mapping

HDMAPPING_VIDEO

Anticipated Cooperative Collision Avoidance

ACCA_VIDEO

Conclusions

The results obtained so far in the project and through the three use cases show:

- Cross-border/-MNO handover works seamlessly
- The use of 5G networks is key to reducing the end-to-end latency
  - Critical in CAM applications, such as the ones studied in the 5GCroCo use cases
- Mobile Edge Computing / Cloud technology enables achieving more stable delays than when relying on public Internet for the hosting of applications
- A significant increase of the transmission speeds has been measured in the 5GCroCo tests and trials

Thanks!!

5GCroCo

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To know more:
http://5gcroco.eu
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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

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