5G PPP Webinar: New 5G Core Technologies Innovation Projects

5GMETA Project: Monetizing car & mobility data for new Entrants, Technologiesand Actors

Dr. Oihana Otaegui (VICOMTECH)
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5GMETA quick

5GMETA - Monetizing car & mobility data for new Entrants, Technologies and Actors

Co-ordinator: Vicomtech

Duration: 36M - 1.9.2020 – 31.08.2023

Research and Innovation Action

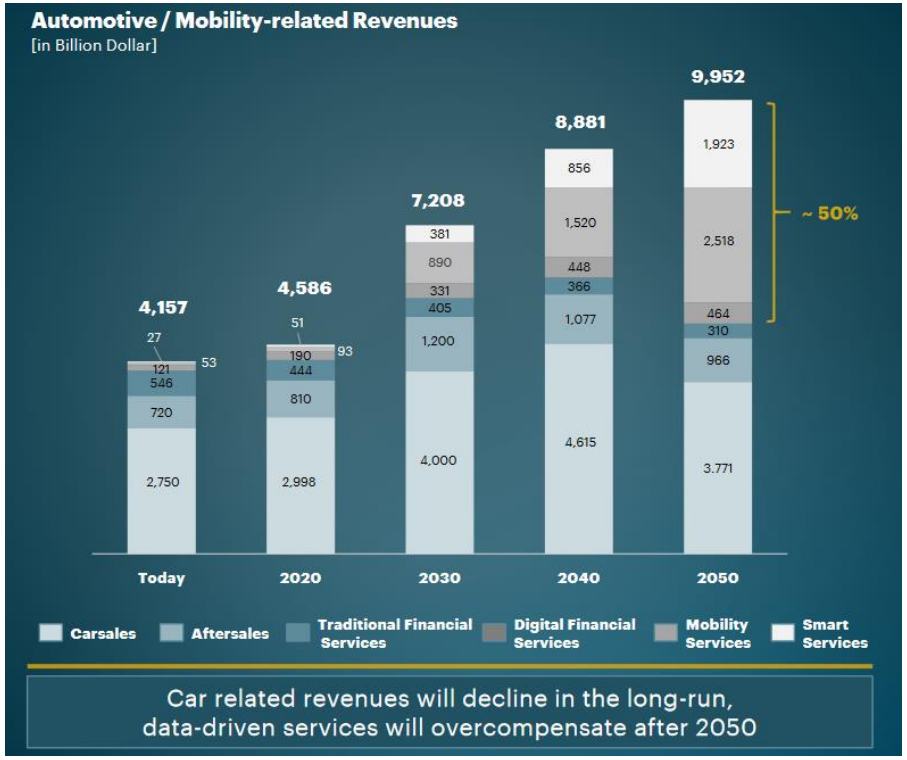
ICT-42-2020 - 5G PPP – 5G core technologies innovation

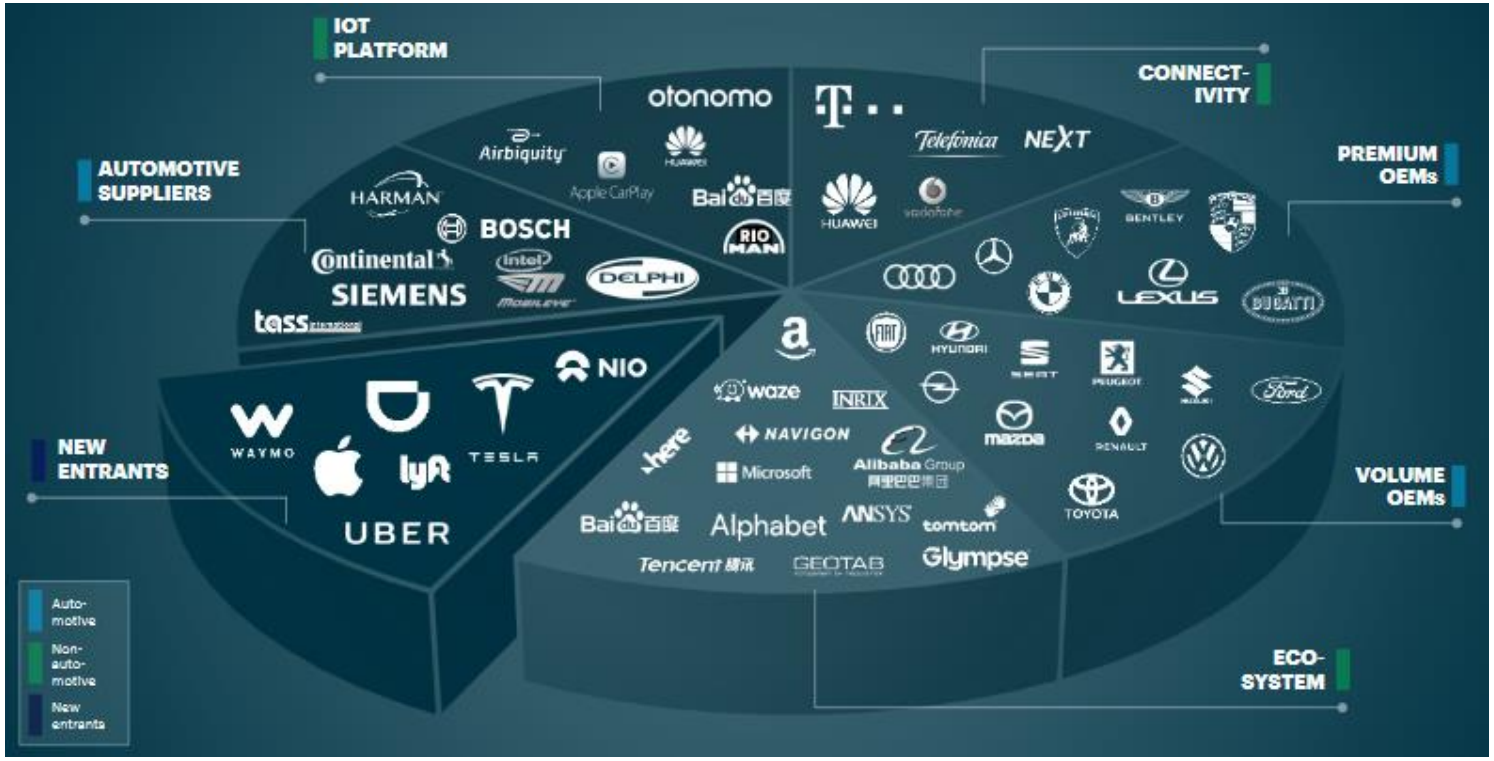
GA Num: 957360

Web Page: **https://5gmeta-project.eu/**

Background

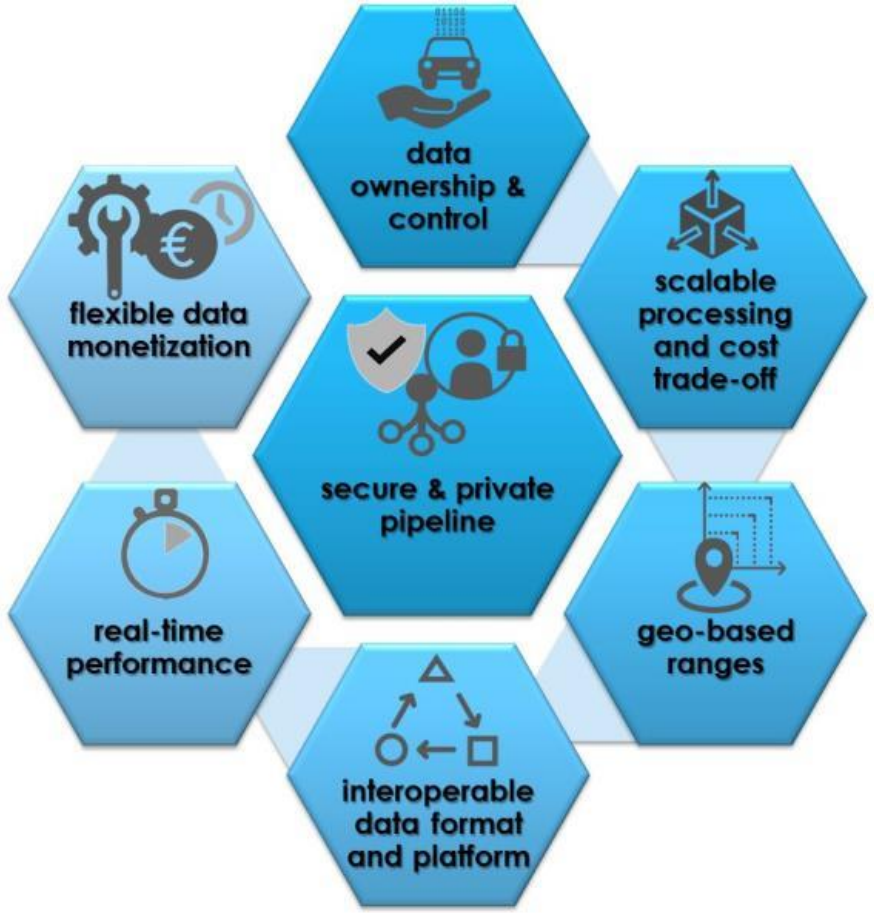
New Mobility Ecosystem





Background

- Data driven services will play a crucial role in the mobility ecosystem related revenues
- High-tech SMEs and start-ups will become key players in the data monetization
- Data management in terms of security, access etc. is required for allowing access to third parties



Background

- Direct impact in the value chain and the business models

New value creation models for data generators and consumers generating revenues from direct monetization of innovative services or applications

Automotive players would reduce costs by means of shorter and efficient iterations on design and training from data coming from real-field tests prototypes

With other users and public entities getting triggers on time to reduce time for intervention.

Main Objective

- **Create a flexible telematics platform** for **pipelining car captured and generated data** to **traditional and new automotive industry players** while **ensuring data privacy, security, interoperability and ownership**.

- *Flatten barriers to create innovative data-based CAM services and applications* producing new revenue flows, reducing costs and enforcing safety to application users.

- **Business-driven design** with APIs and architecture for fast prototyping, training and operation of new services. 5GMETA intends to define a data monetization model compatible with OEMs, TIER1, SMEs and high-tech start-ups, and data licenses to keep users' control and limit commercial and geographical use.

- **Focus on technology transfer activities** performing different dissemination, tutorials and hackathons to **incubators and clusters** to capture attention of SMEs and high-tech start-ups with a **platform leading to new opportunities in an incoming profitable market**.

Project Concept

Question 1: WHY

- Data-based mobility and smart Services, and Digital Financial services market will reach car sales, aftersales and traditional financial services revenue volume in the long-term.

5GMETA: 3 general innovation corners for data monetization

1.- Data-driven **Product** innovation	2.- Data-driven **Process** innovation comprising	3.- Data-driven **Business Model** innovation spanning
• **Product Enhancement**: improving or personalizing customer experience. • **Product Augmentation**: creating a digital ecosystem around connected car sensors data with an accompanying cloud. • **Data as a Product**: analysing values to retrieve actionable information for advertising, location- based services, recommendation systems and predictions.	• **Enterprise Process Innovation:** optimising internal R&D processes from feedback/field operations datasets and alleviating costs. • **Customer Process Innovation:** optimising direct impact on customer experience through timely and personalized communications.	• **Value Model Innovation:** provide new methods of value generation for the customer. • **Monetization Model Innovation:** offer innovative ways of value recording for the company.

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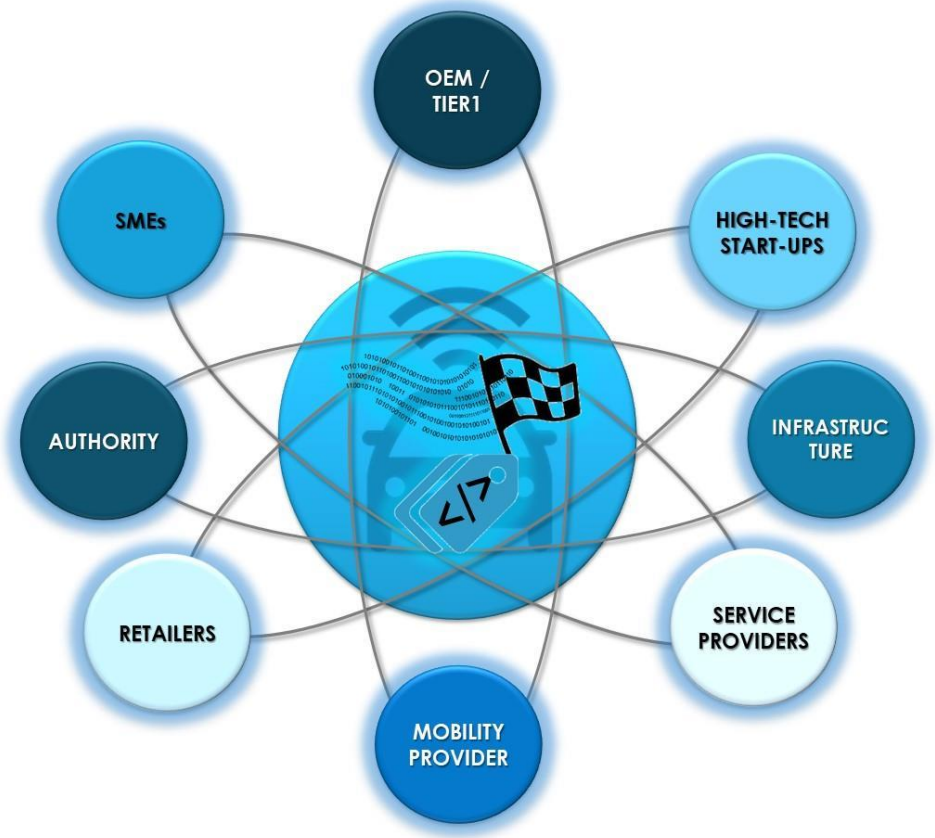
Project Concept

Question 2: WHOM

- 5GMETA envisions a win-to-win cooperation where traditional players, OEM/TIER1, mobility providers, authorities and infrastructure managers
- flatten barriers of captured and generated data to R&D departments, SMEs or high-tech start-ups quickly
- efficiently developing disruptive and innovative services and applications.

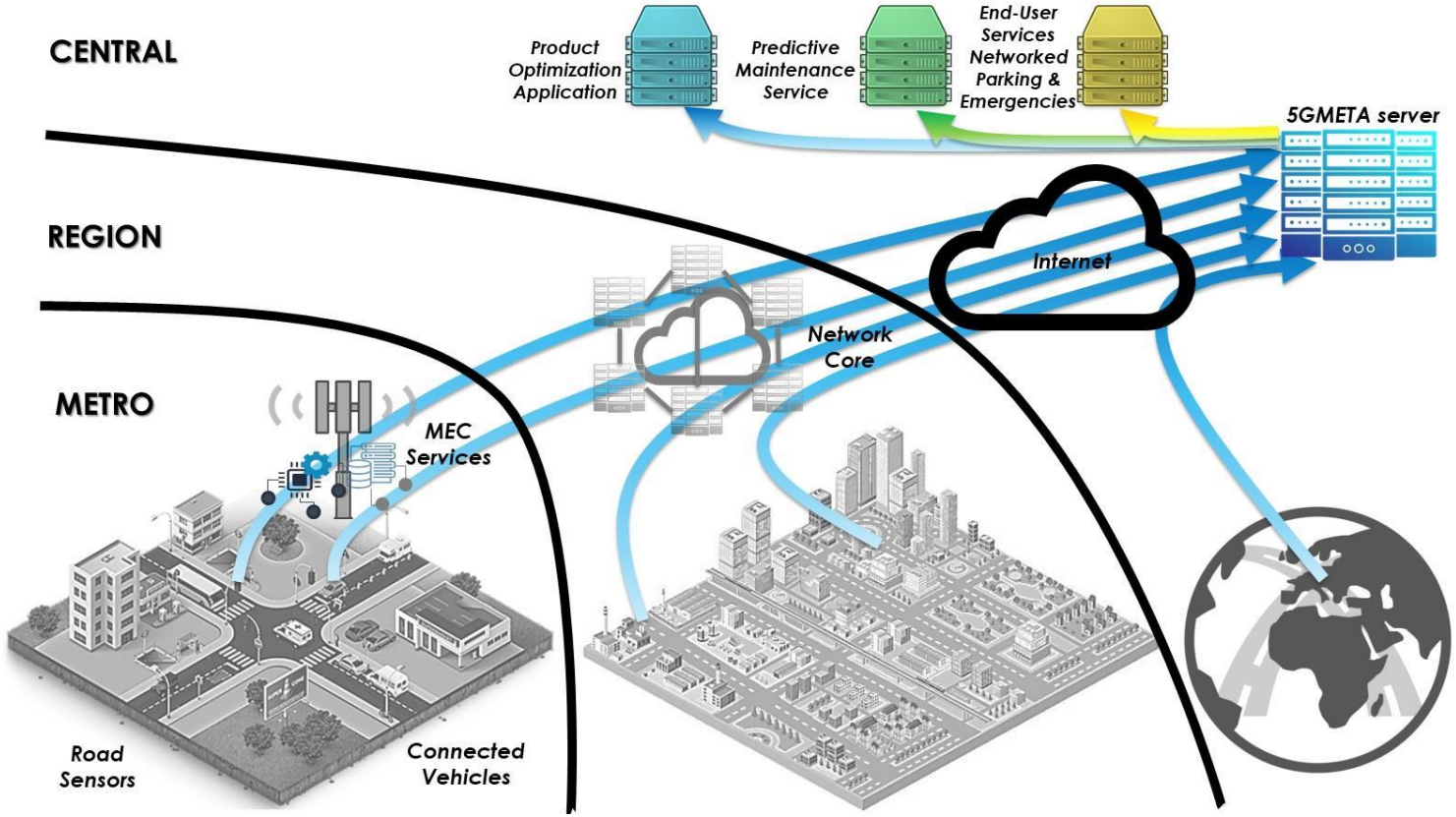


Project Concept

Question 3: WHAT

- Build a common 5G-IoT platform and exercise it with innovative 5G enabled CAM demos

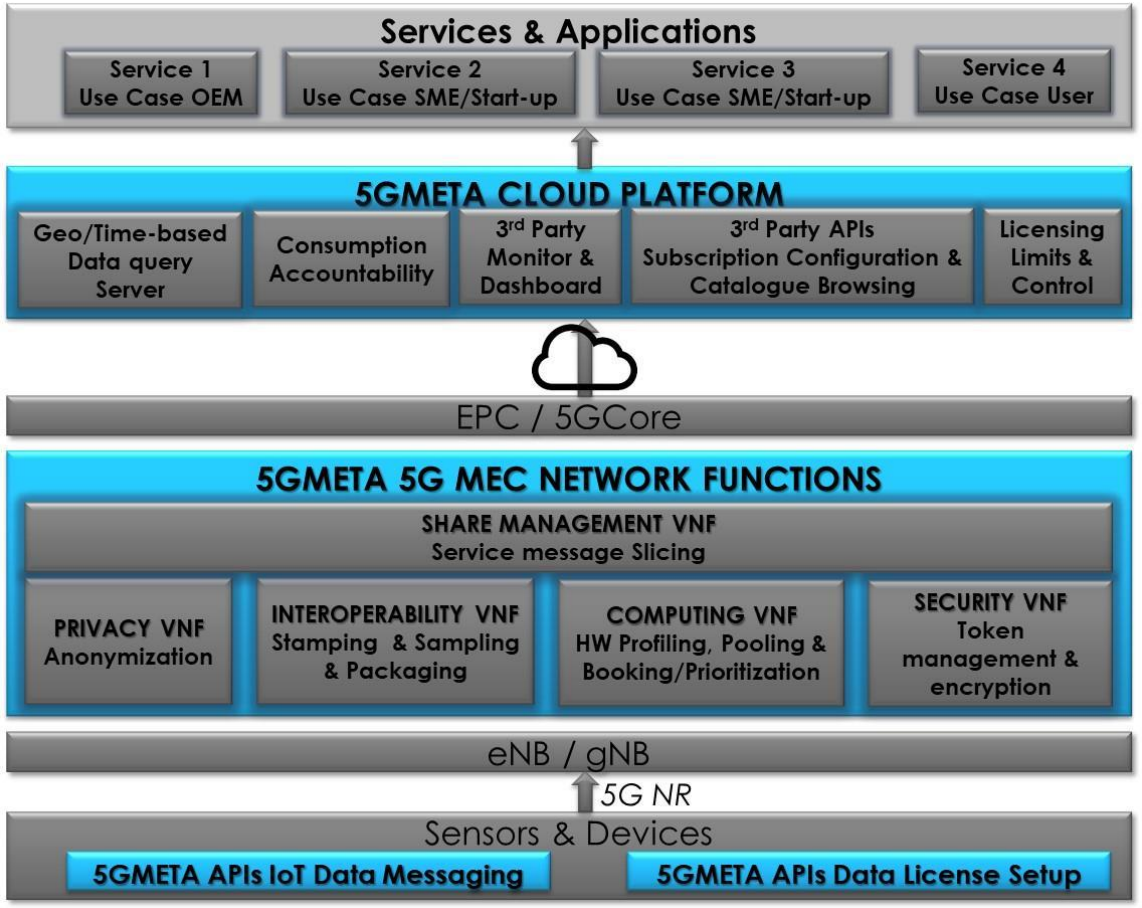
- Generate different data flows with relevant data for specific services subscribed to live feeds from specific geographic areas



Project Concept

Question 4: HOW

- 5GMETA framework is an **open** data-centric IoT messaging for CAM services and applications live ingest where the security, privacy, scalability, interoperability and licensing features are provided by the 5G networks functions executed at the edge to gain zero latency, capillarity and geo-driven networking.



Methodology: Overall methodology

- Platform validation with a set of representativa use cases
- **Hackathons and/or testfests** will be organised to engage stakeholders and disseminate the results of the project
- To support this action Interested associated partners (LoI)
  - Incubators (I3P, BicBerrilan)
  - SMEs (ALP.Lab, Bylogix, Lifetouch)
  - SME cluster (Groupement ADAS)

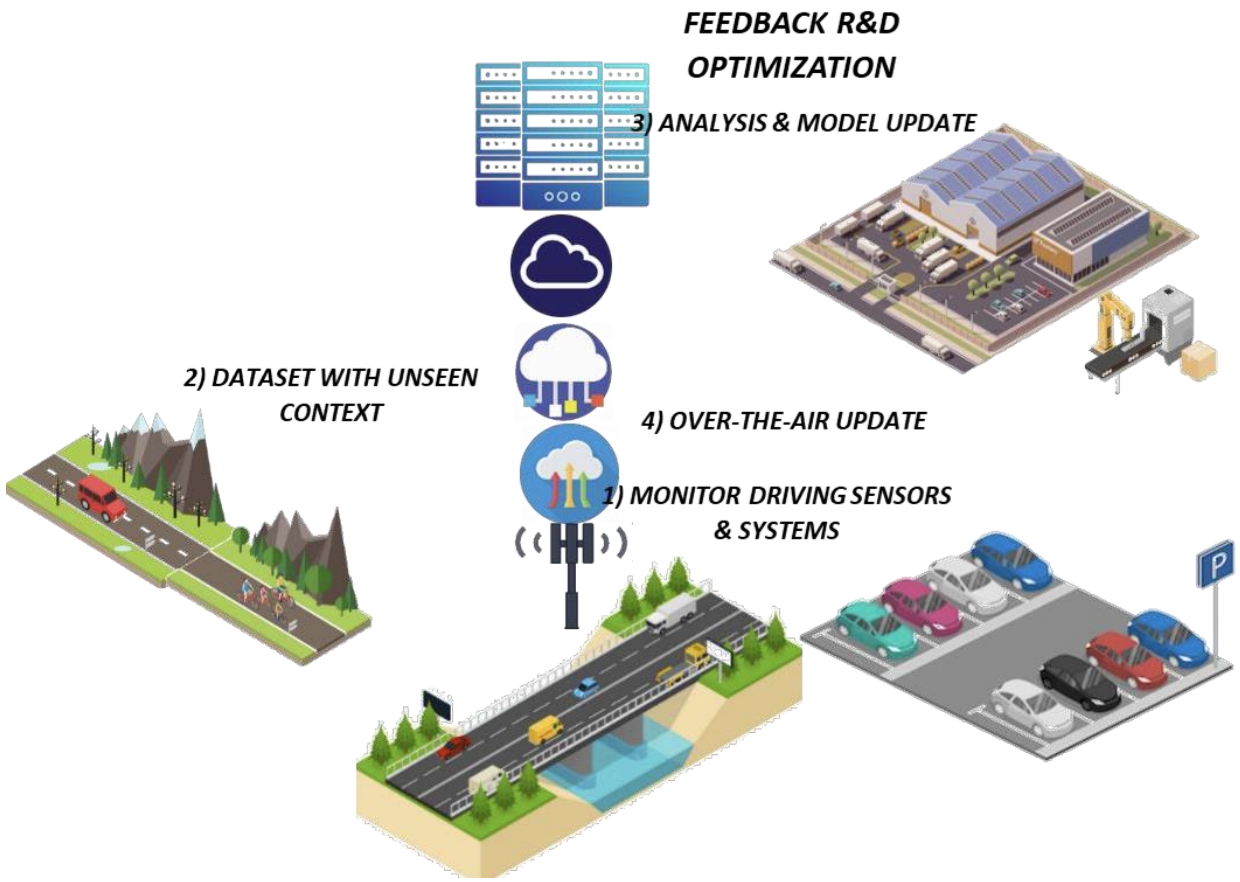
Use Case: *R&D Live Training Loop*

Value proposition model: This use case aims to accelerate the testing and training loop of new autonomous driving and mobility systems. Dataset feeds from real driving conditions will reduce costs of the R&D activities.

5G enabled scenario: 5G **eMBB** feature as the cars need to continuously upload data to the cloud service which analyse new data to detect unseen conditions and trigger training processing

Use case specific 5G KPIs:

- Peak data rate (>100Mb/s = 1 car producing 5x20Mbps video streams of last minute + diagnosis data)
- Connection density (<10/km2 = 100m highway distance, to cover 1km we need 10 cars)



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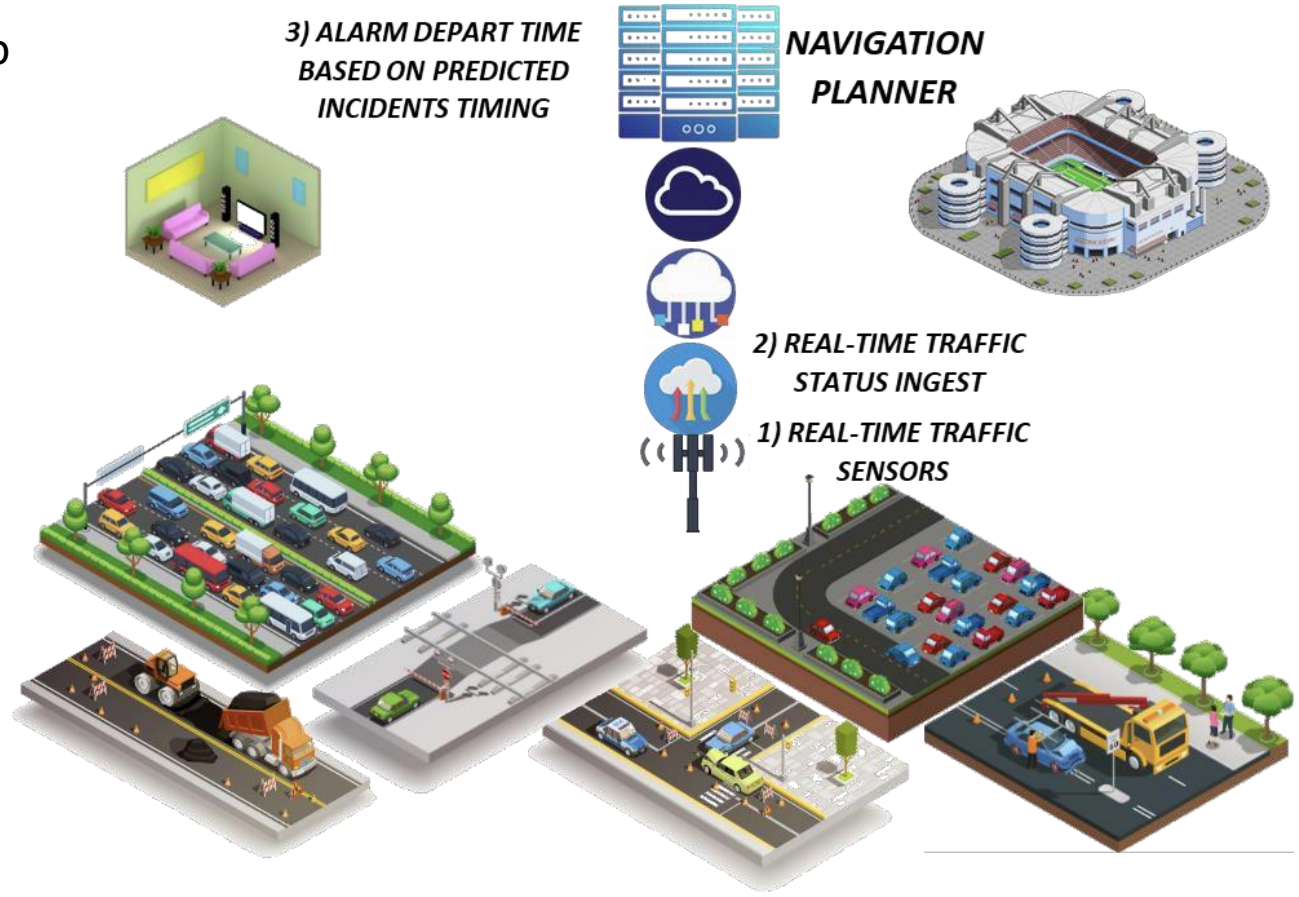
Use Case: *Use Case Networking Parking*

Value proposition model: revenues from a sensible added value to the users of an eHailing and parking service application which are re-scheduled in real-time to avoid any incident and parking navigation that could produce a late arrival.

5G enabled scenario: 5G **mMTC** as the volume of data coming from vehicles in a congested and parking areas is huge and has to be instantly uploaded to edge services, which get context awareness from cameras using CV

Use case specific 5G KPIs:

- Connection density (>20/km2 = 50m range camera FOV, to cover 1km we need 20 cars)
- Traffic capacity (1Mb/s/m2 = car 4mx2m ~ 8mx3m in traffic jams producing 20Mbps)
- Peak data rate (>60Mb/s = 3 cars producing 20Mbps video streams)



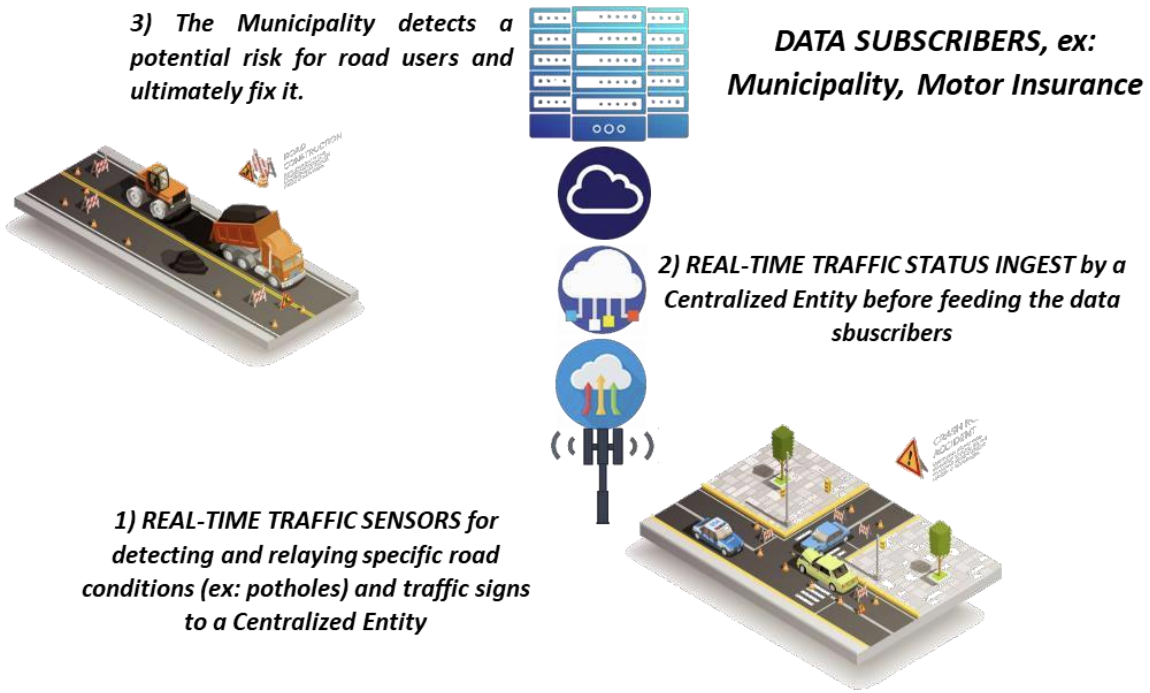
Use Case: *Driving Safety & Awareness*

Value proposition model: increase the safety/security of road users by increasing the in-vehicle safety in one hand (making an emergency call), and the out-vehicle driving safety/awareness via the collect of data related to road conditions/ traffic signs on other hand.

5G enabled scenario: 5G **URLLC** since the vehicle is supposed to prevent surrounding vehicles to avoid any possible collisions and ultimately make an emergency call. eMBB is also needed as the vehicle will collect a significant volume of data regarding its immediate environment

Use Case specific 5G KPIs:

- Latency (< 5ms, the lower latency we reach the more we increase the chance of survival)
- Peak data rate (>50Mb/s = 1 car multiple embedded cameras video streams + aggregated/fused data)



Thank you!

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