EATA
European Automotive and Telecom Alliance

Codecs at Brussels

19/05/2017

EATA members

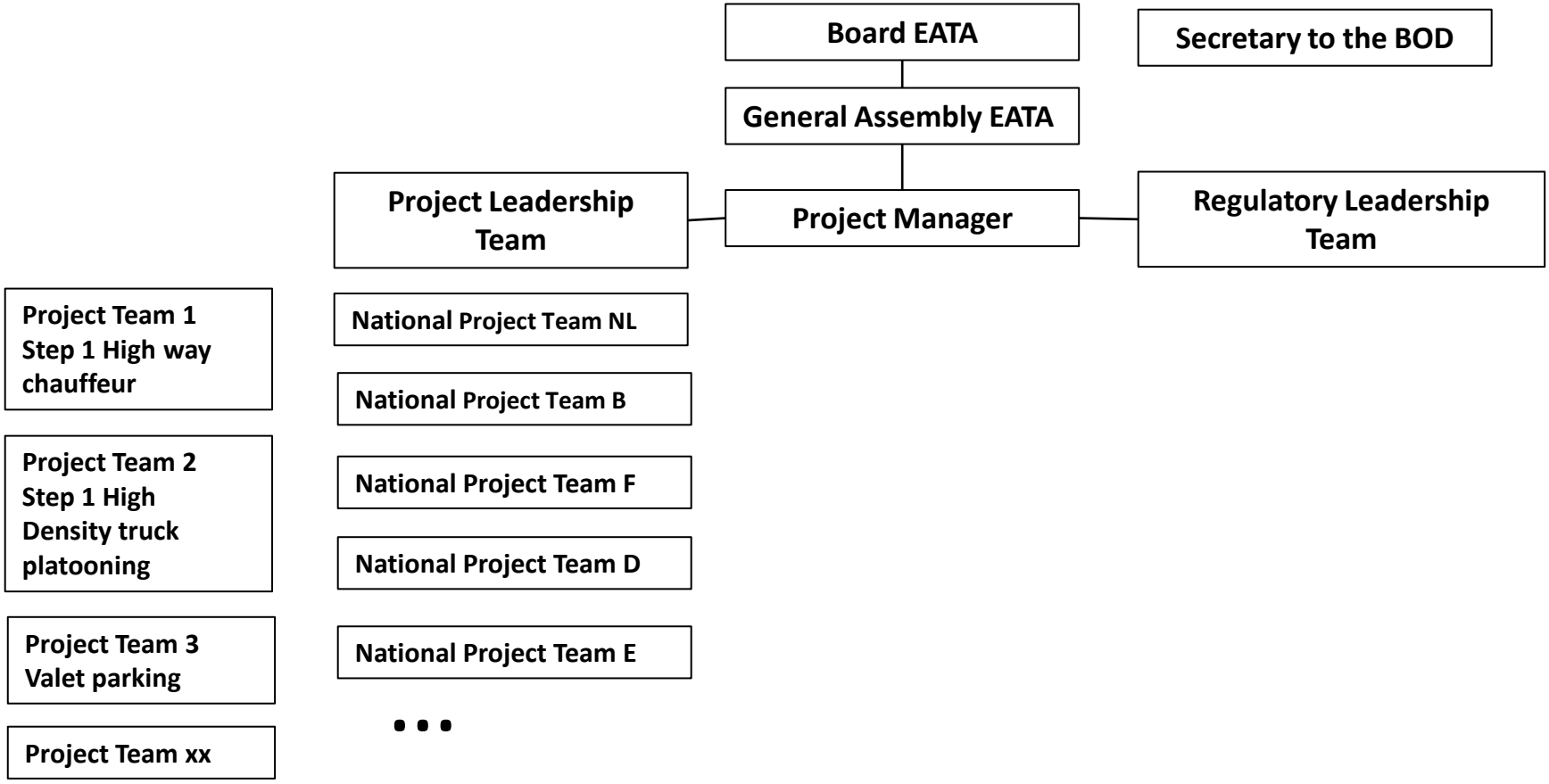
- Founded by six associations:

- Operational roll-out through companies: 38 members
- Telco network operators: Deutsche Telekom, Eurofiber, KPN, Orange, Play, Post Luxembourg, Proximus, Vodafone, Telefonica, Telecom Italia, Telenor
- Telco suppliers: Nokia, Huawei, Ericsson
- Automotive OEMs: BMW, DAF, Daimler, Fiat Chrysler, Ford, Hyundai, Iveco, Jaguar Land Rover, Opel, PSA, Renault, Toyota, Volkswagen Group, Volvo Cars, and Volvo Group
- Automotive suppliers: Autoliv, Bosch, Continental, Denso, Delphi, Hella, Valeo
- Project management: ERTICO

EATA Objectives

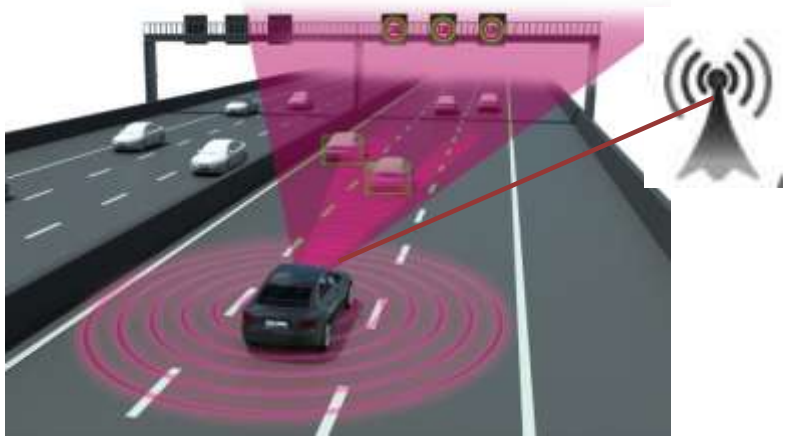
- Facilitate and accelerate the EU-wide deployment of connected and automated driving:
  - Remove potential roadblocks and highlight needed technical and regulatory measures
  - Identify the business models underlying connected and automated driving
  - Help make Europe a global leader in this field
  - Provide a platform for knowledge-sharing between the automotive and telecommunications sectors to develop a ‘common language’
- Create societal benefits by improving road safety and traffic efficiency
- Promote the European digital economy

EATA Structure

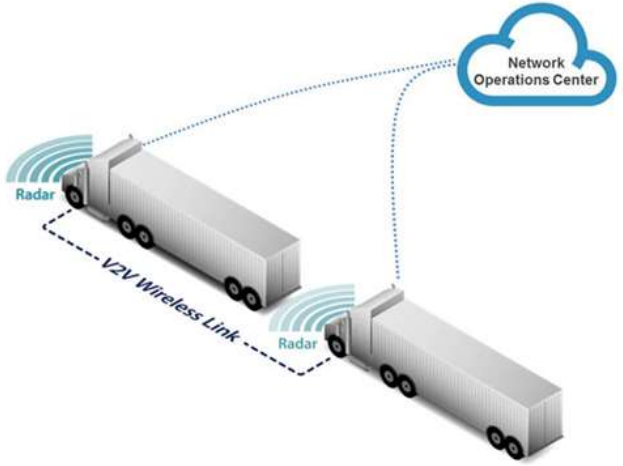


EATA Connected Automated Driving

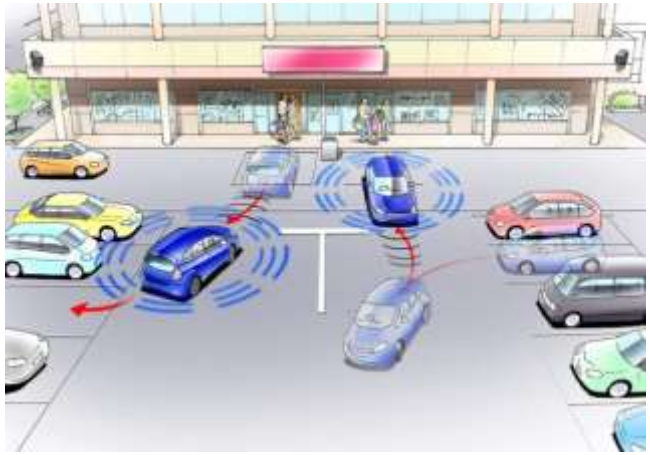
High way chauffeur L3 & L4



High Density truck platooning

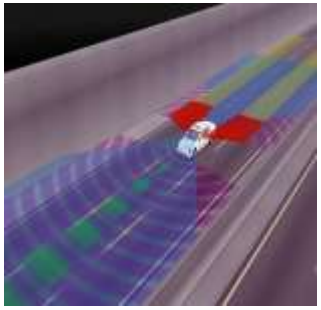


Automated Valet parking

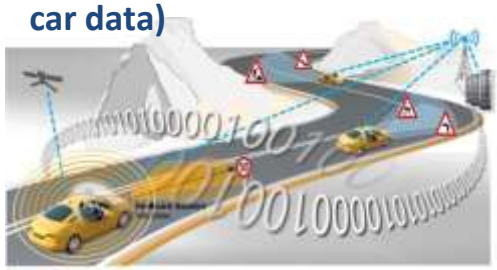


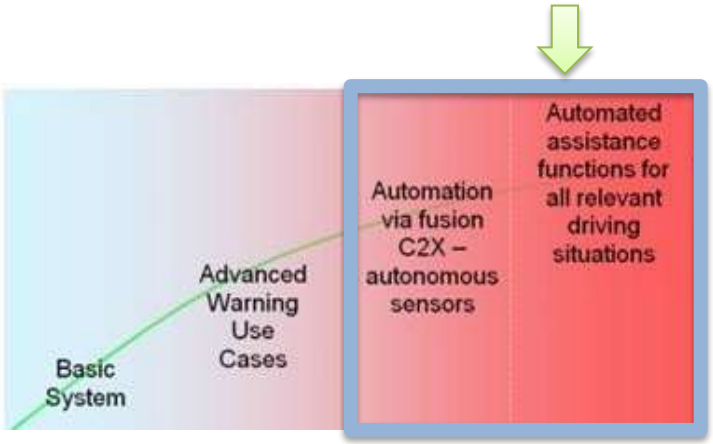
New challenges for automated driving

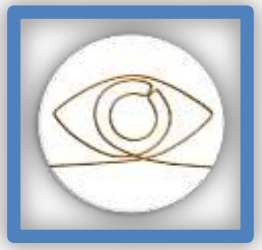
Car sensors



Connected data
(road sensors and cooperative car data)







SENSE

PLAN

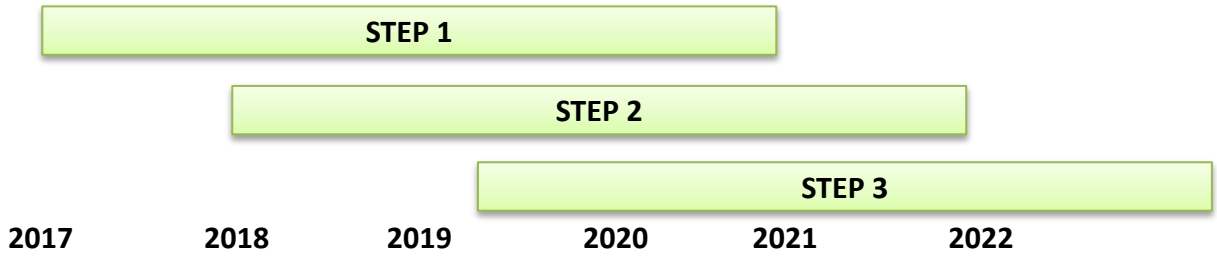
ACT

The connected data as additional car sensor:

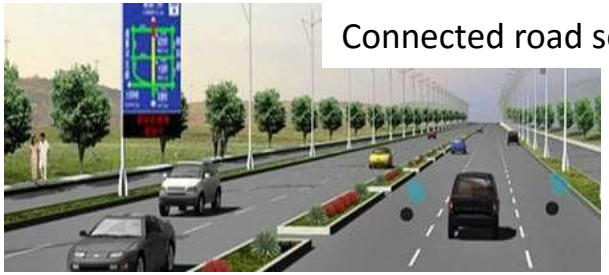
- **New messages and attributes to messages** (e.g. trust , confidence levels)
- **Safety relevant applications need redundancy via the hybrid communication channels.**
- **Network slicing, priority for AD vital messages**
- **Application of certain safety rules on digital infrastructure (tbc)**
- **More accurate and safety relevant localization : GNSS correction**

3 step approach

	Use case	Technologies	Sites
STEP1	Enabling services for - Highway chauffeur (L2/3) - High density truck platooning	<u>Pre Deployment:</u> - hybrid communication : LTE, ITS G5 + LTE V, Mobile Edge Computing applications - Network slicing - LTE Broad casting: GNSS offset, hazards and HD-map updates <u>Studies</u> : business models responsibilities, safety concepts, Quality of service, Security and data protection Regulation and standardization	20..40 km tracks DE, FR,NL, ES, BE 
STEP2	As step 1 + Valet parking	<u>Application above technologies and studies</u>	Cross border motorways networks 
STEP3	As step 2 Automated driving	Industrialization	Commercialisation on AD authorized motorways



Concorda system overview



Connected road sensors

LTE – 5G

V2V : 11p & &LTE V

MEC V2V

Low latency data aggregation / casting GNSS corrections, etc.

APP#1 APP#2 APP#m

MEC

Services
- Day 1
- Probe data
- Match making
- Etc.

RSU 11p

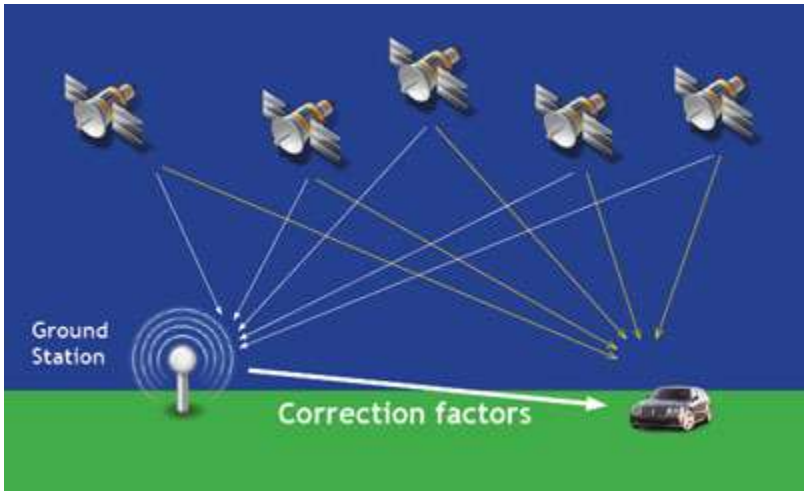
RSU 11p

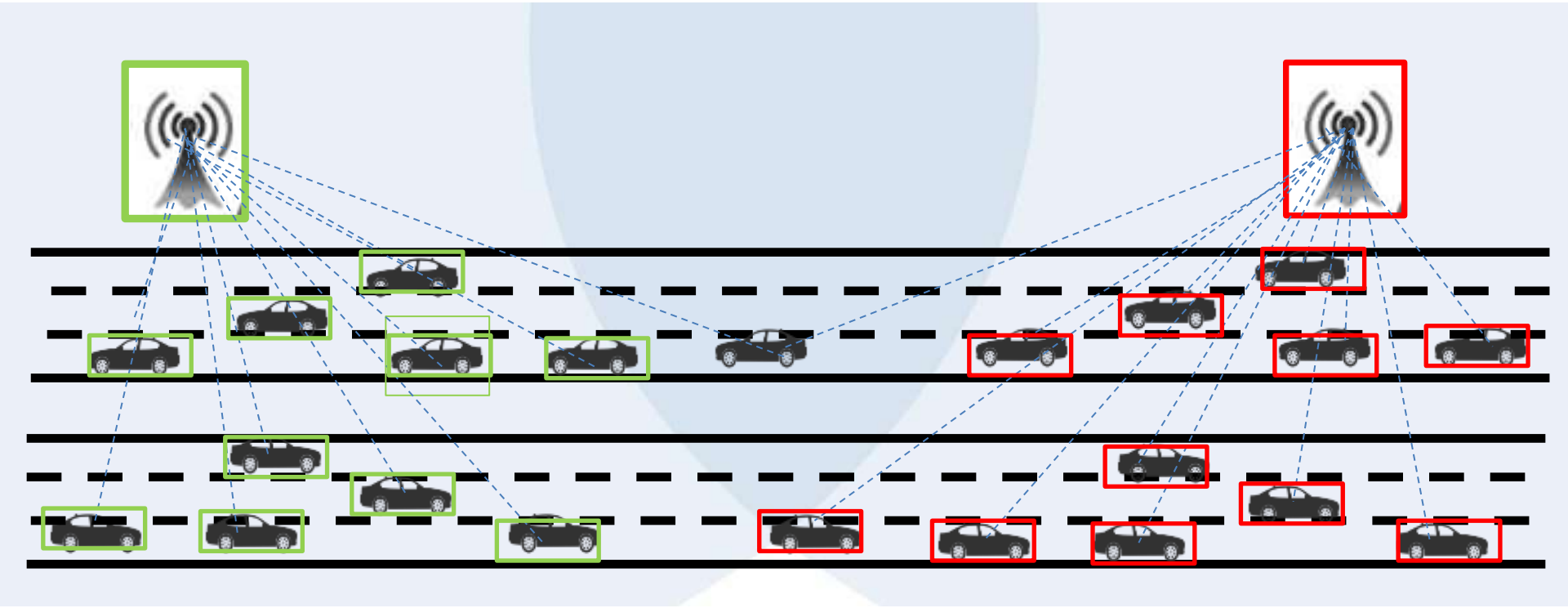
RSU LTE V

RSU LTE V

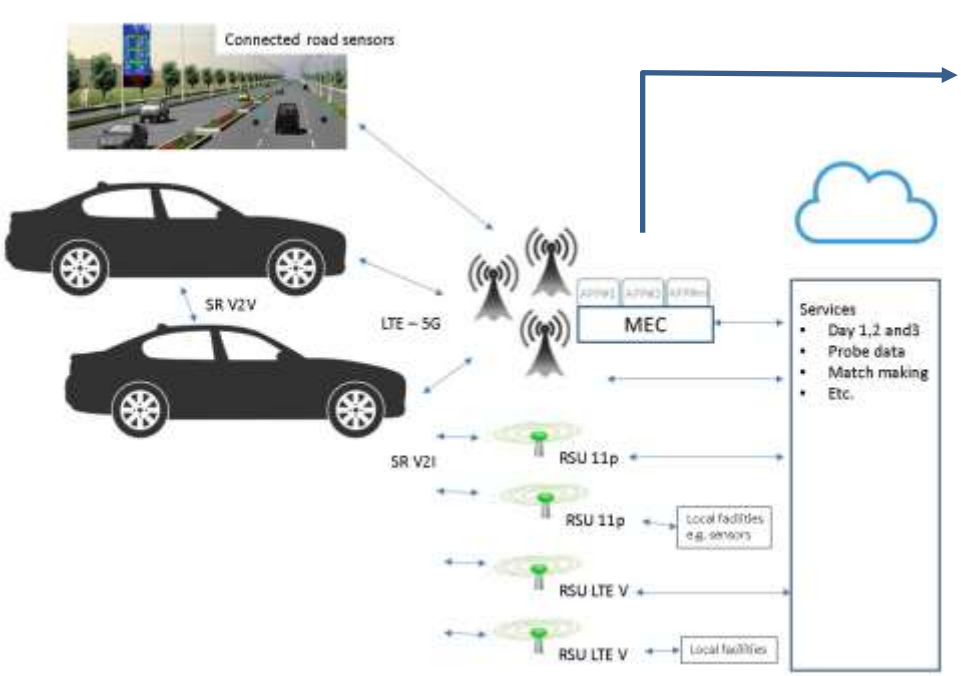
STEP 1 : GNSS correction factor broadcasting

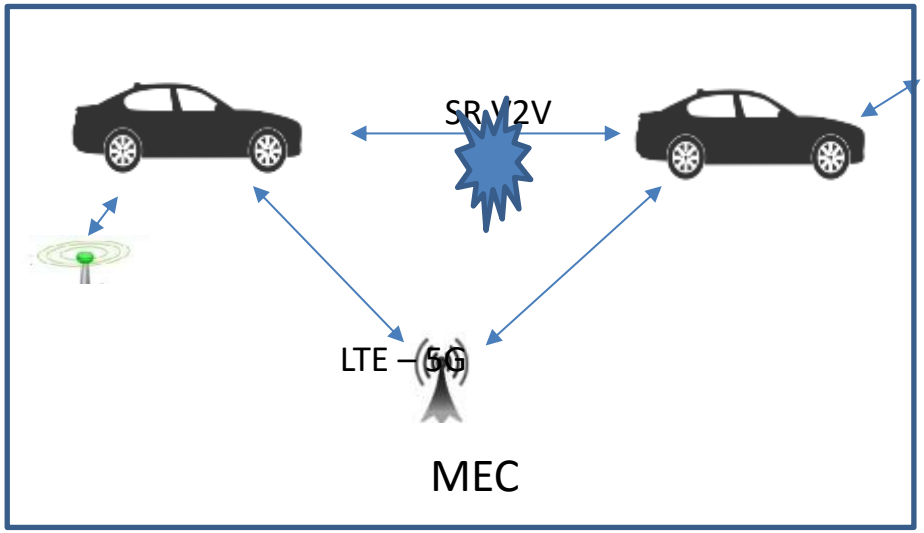
Satellite state space representation

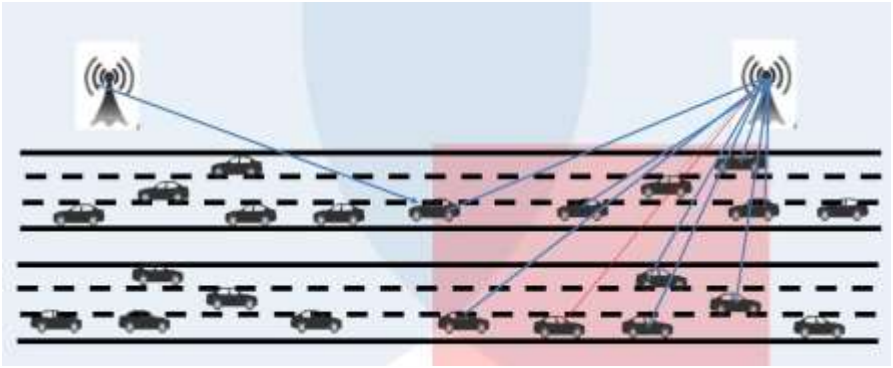




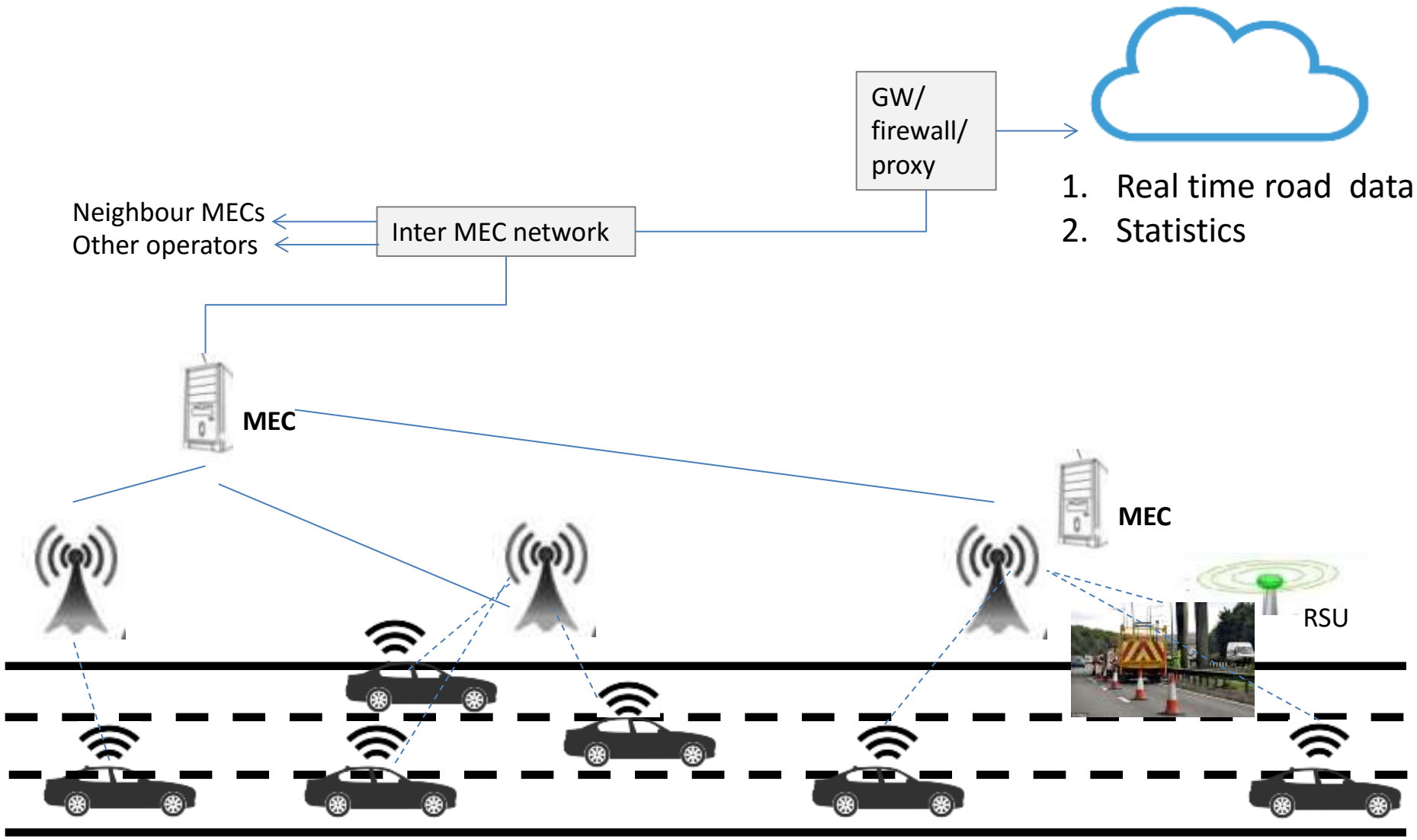
MEC as back for CAM, DENM





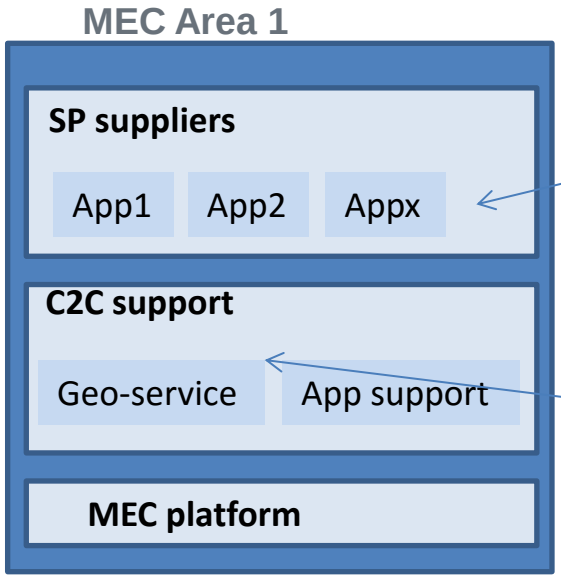


MEC architecture



STEP 1 : MEC architecture

Under discussion

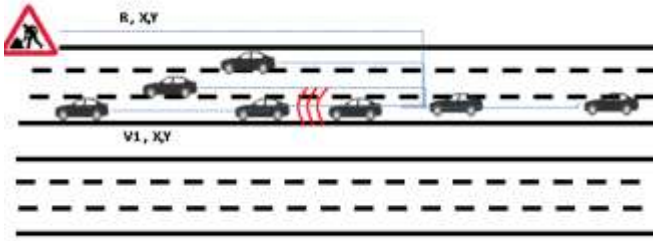


Apps:

- Generating DENMs
- GNSS corrections
- Environmental perception models (EPM)
- Logging for evaluations
- Data agregation to GW

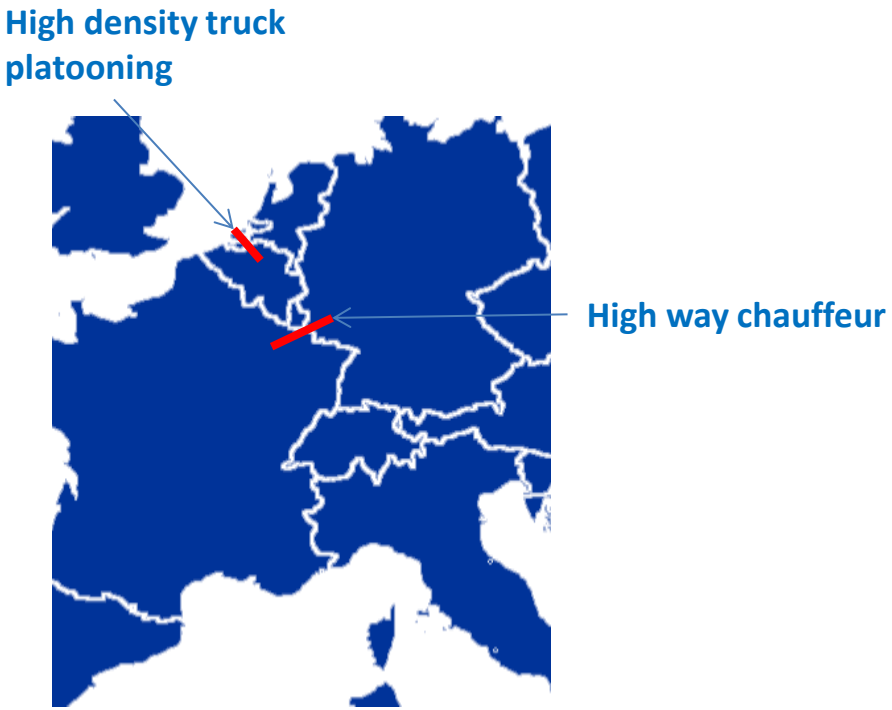
Geolocalized Transfer CAMs, DENMs

EPM

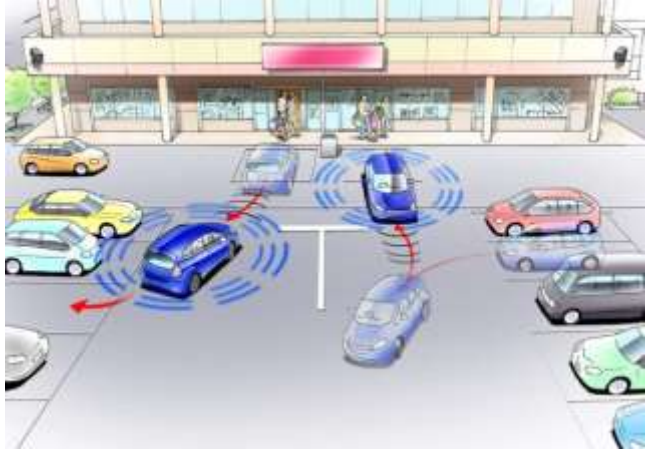


STEP 2

- Main Objective : cross border testing
- Starting with
  - DE-FR for High way chauffeur : Metz – Merzig
  - NL-BE for high density truck platooning : Rotterdam - Antwerpen
- Content carry over STEP1
- Define fleet and architecture

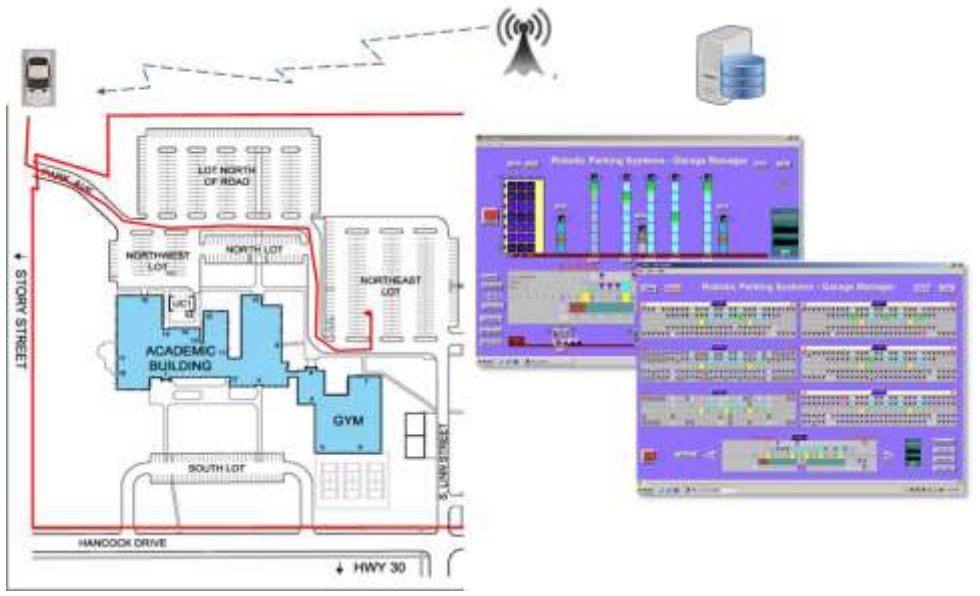


Valet parking proposal



Content:

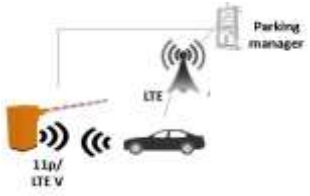
- Parking management/ control system
- HD map
- Communication with infrastructure
- Sensor fusion
  - Using car sensors
  - Register leaving cars
  - P-slot sensors
  - Cameras
- Communication : NB IoT , Broadband (100% coverage)
- Localization, Slam (Simultaneous Localisation And Mapping)
- Security
- Inter parking connection



Current partners: Autoliv, Bosch, CEA, Continental, DT, Huawei, Orange , RISE, MDH

Open issues:

- Need OEMs (deadline end of May)
- Project needs to be complementary with the project “V-Parking”



Regulation working group

Approach

- List of issues identified and agreed upon 
- One pager per topic -> Mid May 
- Concertation with 5GAA 
- Common deck towards Frankfurt RT with VP Ansip/Comm. Oettinger 
- Where needed, common advocacy 

Thank you for your attention

Luc JANSSEUNE Ertico for EATA
l.jansseune@mail.ertico.com
+32 2 400 07 42
Avenue Louise 326 B1050 Brussels
www.ertico.com