



SISCOGA^{4CAD}
SISCOGA TEST-BED FOR CONNECTED & AUTOMATED DRIVING

“SISCOGA^{4CAD} TEST-BED”

18/05/2017

**Workshop on Automation Pilots on Public Roads
Brussels**

1. INTRODUCTION TO SISCOGA⁴CAD TEST BED

2. NEXT ACTIVITIES AND PILOTS AT SISCOGA⁴CAD

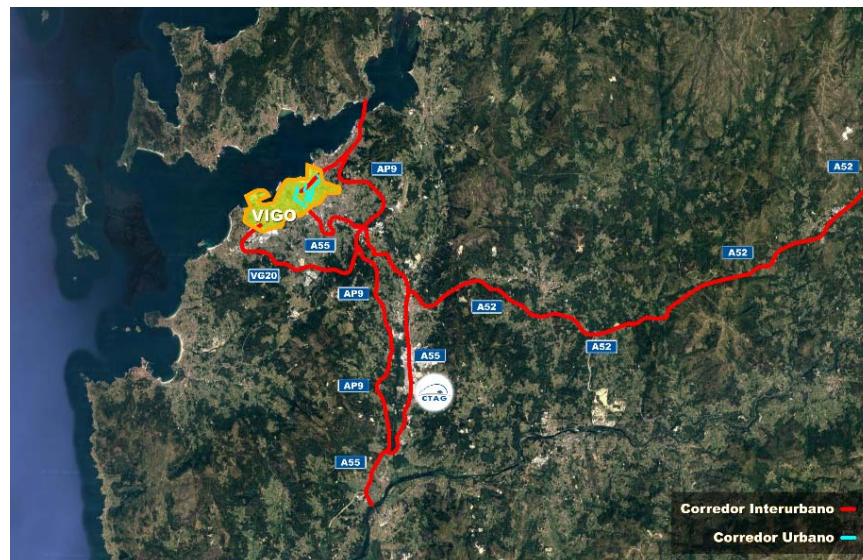
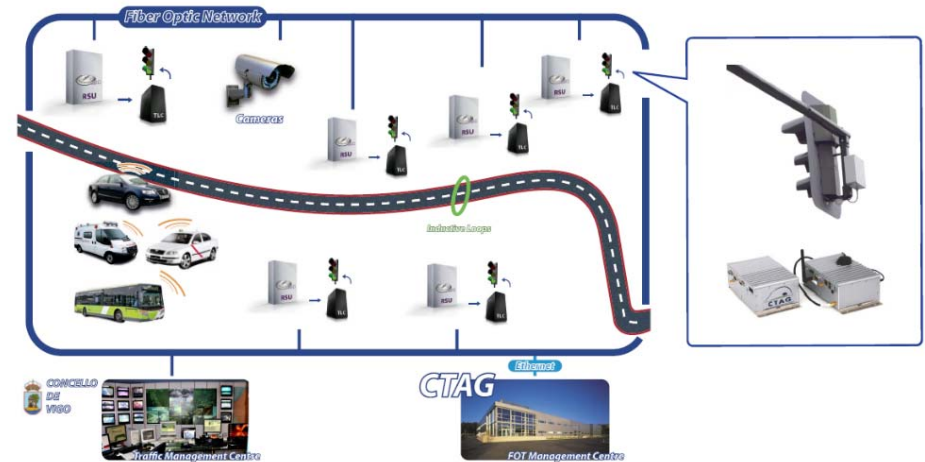
3. SUMMARY

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SISCOGA⁴CAD Test bed. Location



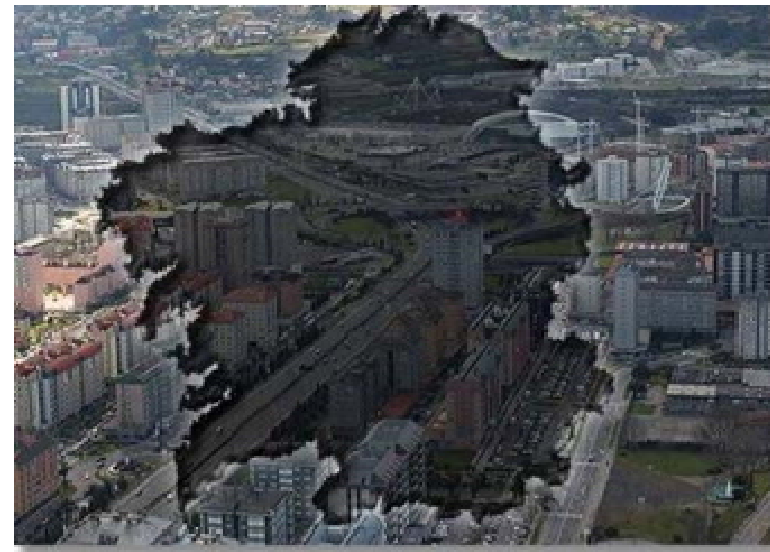
Vigo,
España

SISCOGA⁴CAD Test bed. Main Objectives



- To establish **SISCOGA⁴CAD** test bed **as a permanent ITS corridor** and as a living-lab located in South West Europe, to strongly **support** research, development and **deployment** of connected and **CAD functions**, following a harmonised European multi-stakeholder approach, and being part of the European reference CAD Test-beds.
- To perform different **FOTs and Pilots**, to test and to assess from different perspectives (technical, user acceptance, HMI, impact studies, public awareness, infrastructure needs, business models, ...):
 - **Day-1 and Day-1,5 cooperative services**
 - **Connected & Automated Driving Applications**
- To perform **cross-tests** with the **Portuguese ITS Corridor** to assure interoperability at different Member States
- To contribute to the **European leadership** position in the **CAD** domain and to support National Mobility Strategies
- To include different **communication** technologies in a **hybrid approach** and **different road environments** (urban, interurban, rural, dedicated)

SISCOGA⁴CAD Test bed. DGT North West TMC



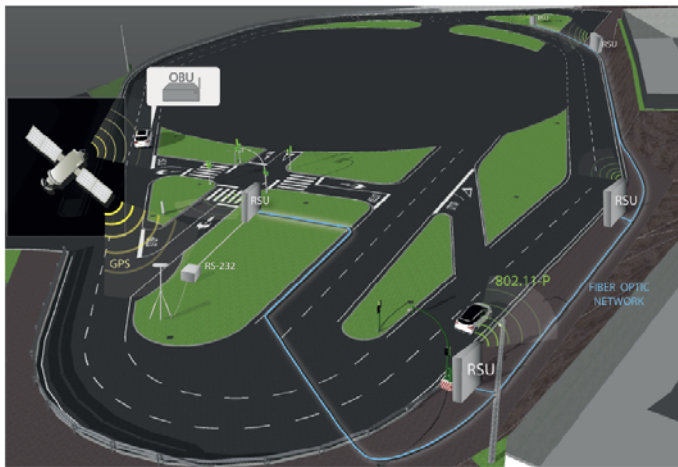
SISCOGA⁴CAD Test bed. Vigo Council TMC



SISCOGA⁴CAD Test bed. CTAG as R&D Centre



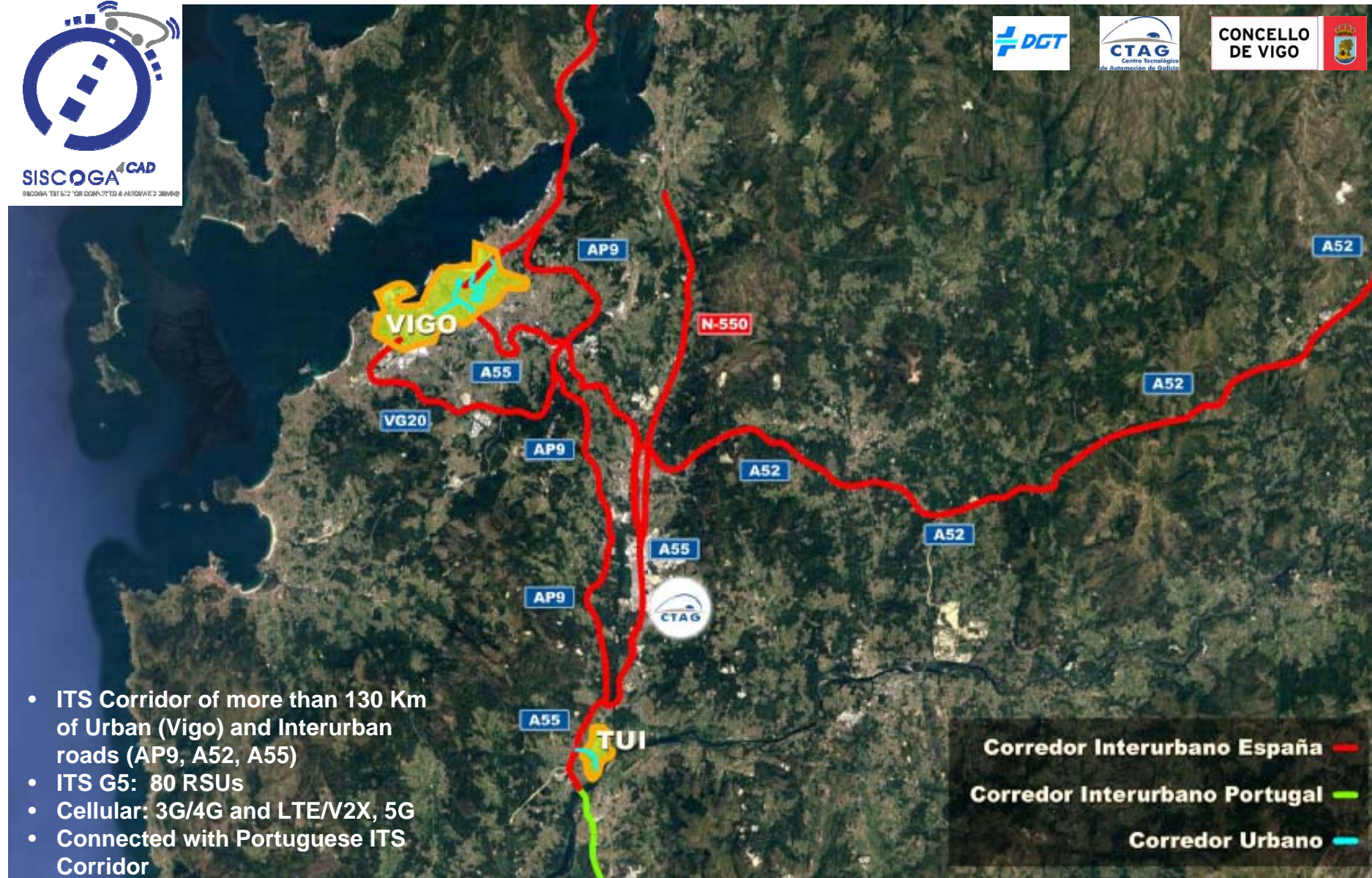
SISCOGA⁴CAD Test bed. Proving Grounds



SISCOGA⁴CAD Test- bed. ITS Corridor



CONCELLO
DE VIGO



SISCOGA⁴CAD – FOTs and Pilots



C2ECOM



SISCOGA
NATIONAL FOT



SISCOGA
DRIVE-C2X FOT



COMPASS4D PILOT



CO-GISTICS



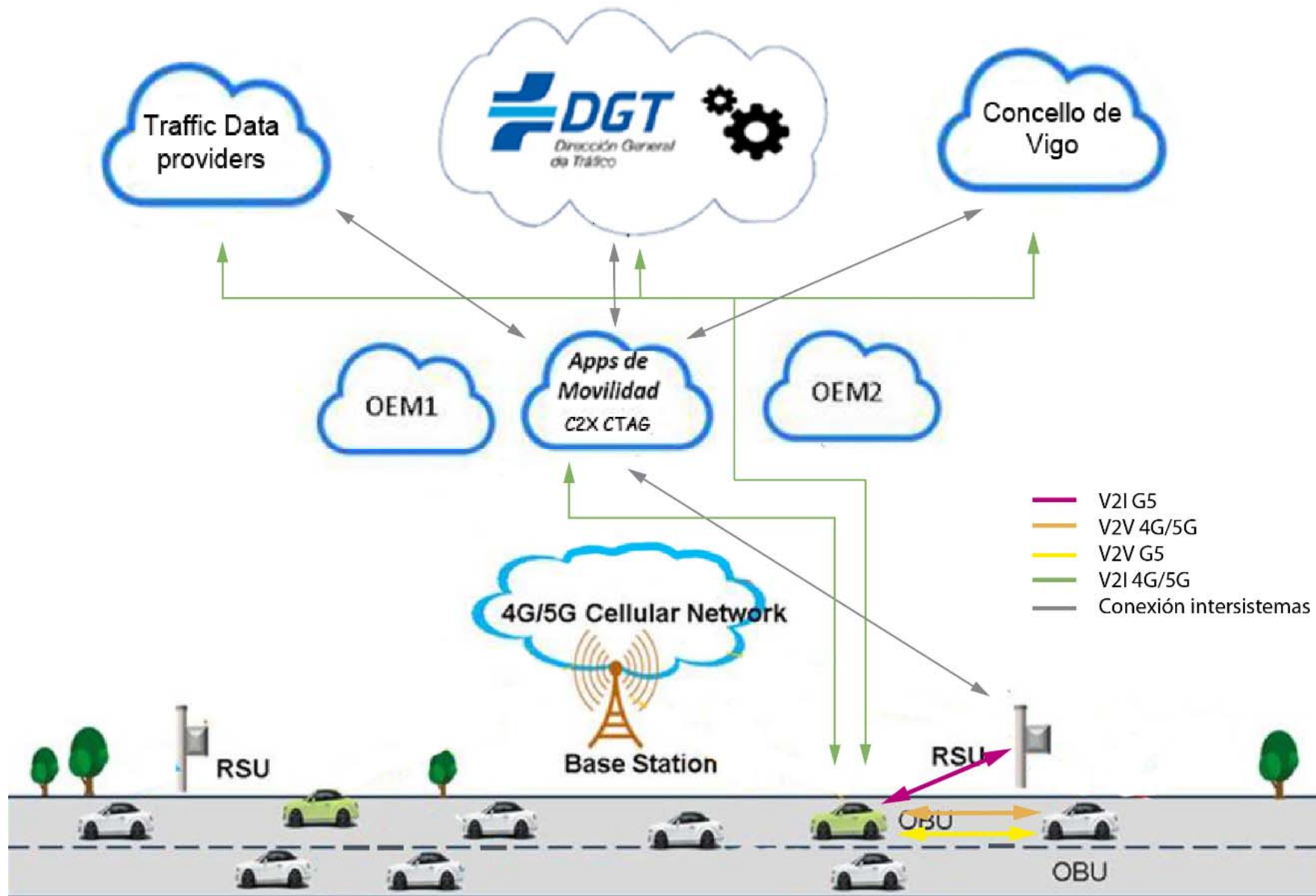
SCOOP

SISCOGA⁴CAD – Examples of Results

Prioridad vehículos de emergencia



SISCOGA⁴CAD Hybrid Architecture



SISCOGA⁴CAD – Stakeholders and Partners



DGT Instruction to test Autonomous Prototypes in Spain

LEGAL ISSUES



INSTRUCTION 15/V-113: *Authorization to conduct tests or research trials of automated vehicles on roads open to general Traffic.*

- Applicant must provide a **system certification**, complying with the Annex I requirements.
- The authorization procedure is really **swift and flexible**.
- **Mutual recognition** with other Member States



Autonomous vehicles
are being tested

Future: Type approval → Software certification

SISCOGA⁴CAD Strong cooperation with Portuguese Corridor



Adapt//Ve



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SISCOGA⁴CAD – Present and next Pilots and activities



January 2016 – December 2018

Functions:

- Selected Day 1 Cooperative Services

Fleet: 10 Connected Vehicles

Location: SISCOGA⁴CAD Interurban and Portuguese Corridor



July 2017 – June 2020

Functions:

- AUTOMATED VALET PARKING
- URBAN AUTOPILOT

Fleet: 4 CAD Vehicles

Location: SISCOGA⁴CAD Urban (Vigo)

CONCORDA PROPOSAL

July 2017 – December 2020

Functions:

- HIGHWAY CHAUFFEUR

Fleet: 5 CAD Vehicles

Location: SISCOGA⁴CAD Interurban



June 2017 – November 2020

Functions:

- Traffic Efficiency (Green priority, GLOSA, Dynamic Speed Limits, Probe Vehicle Data)
- Infrastructure To Vehicle Safety (RWW, RHW, EVW, Signal Violation Warning, Warning System for Pedestrian)
- Vehicle to Vehicle Safety (Urban ACC, Emergency Brake Light, SVW, VRUs Warning)

Fleet: 20 Trucks, 10 Buses, 30 Cars, 10 Emergency Vehicles, 10 motorcycles

Location: SISCOGA⁴CAD Urban (Vigo) and Interurban



July 2017 – June 2020

Functions:

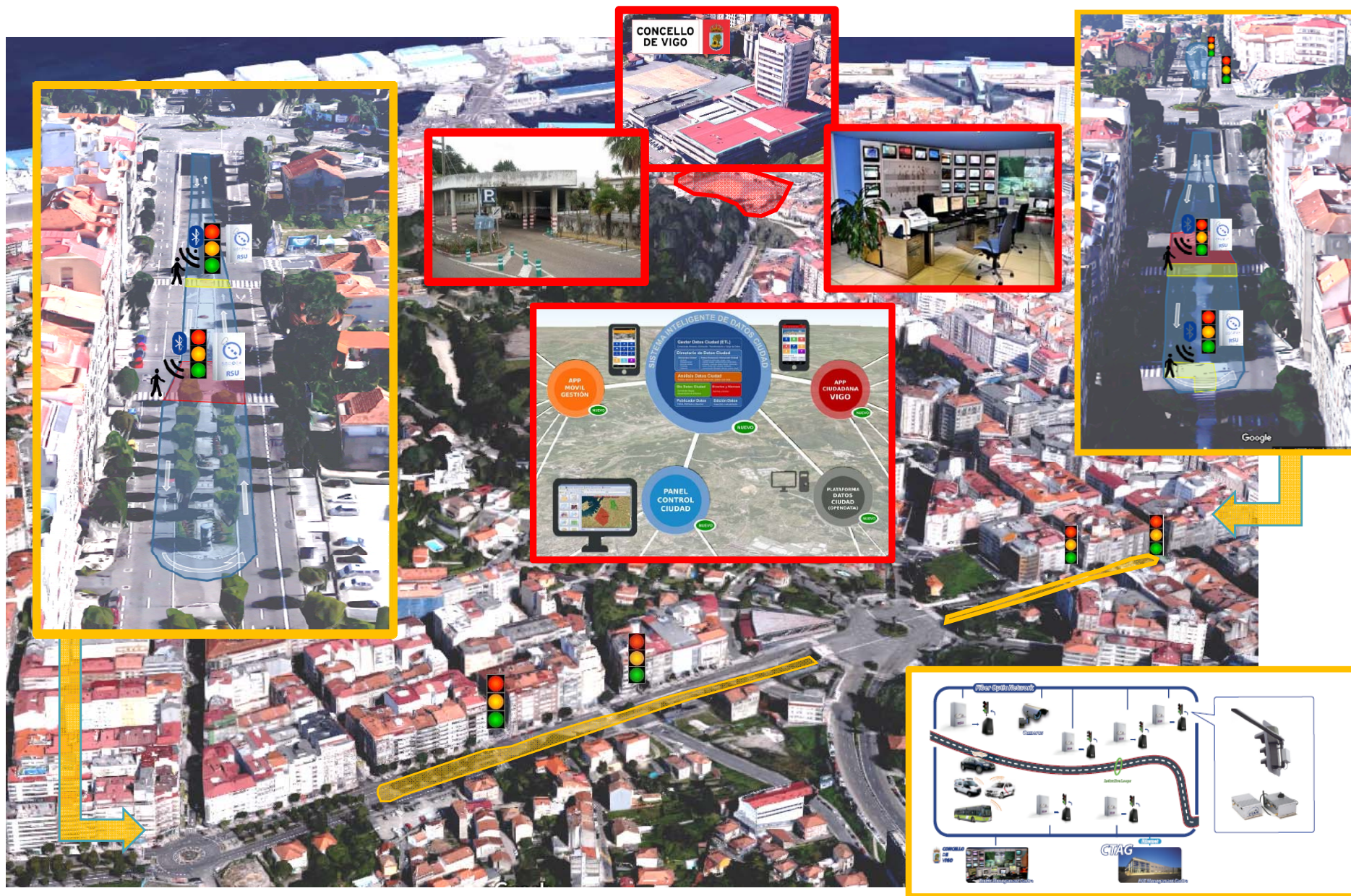
- Day 1, Day 1,5 cooperative services
- Urban Autopilot
- Automated Valet Parking
- Highway Chauffeur
- Last Mile Autonomous Shuttle Services

Fleet: 30 Private Vehicles, 15 Taxis, 30 Buses, 5 Emergency Vehicles, 5 CAD Vehicles

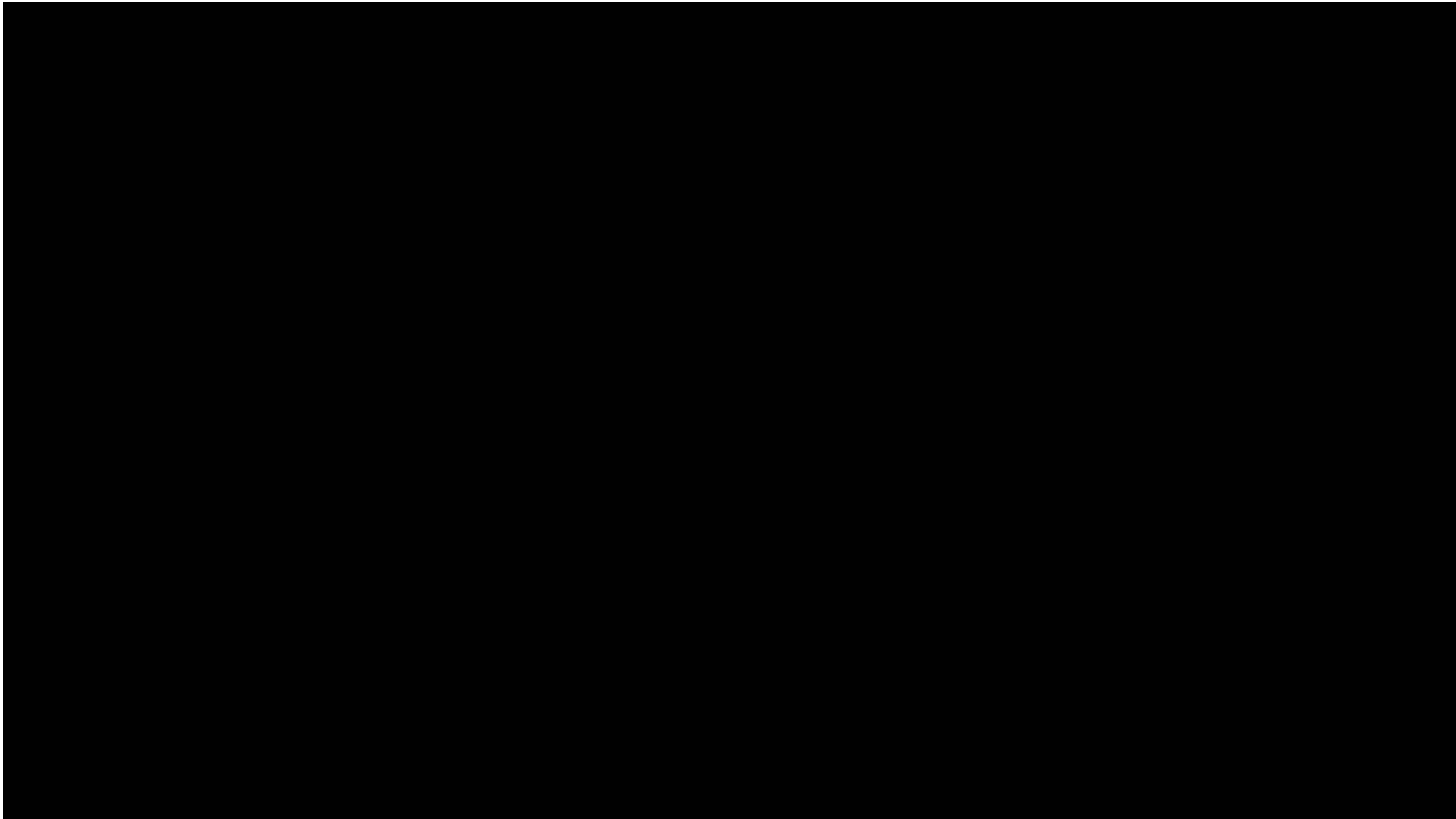
Location: SISCOGA⁴CAD Urban and Interurban and Portuguese Corridor (cross-tests)

More to come ...

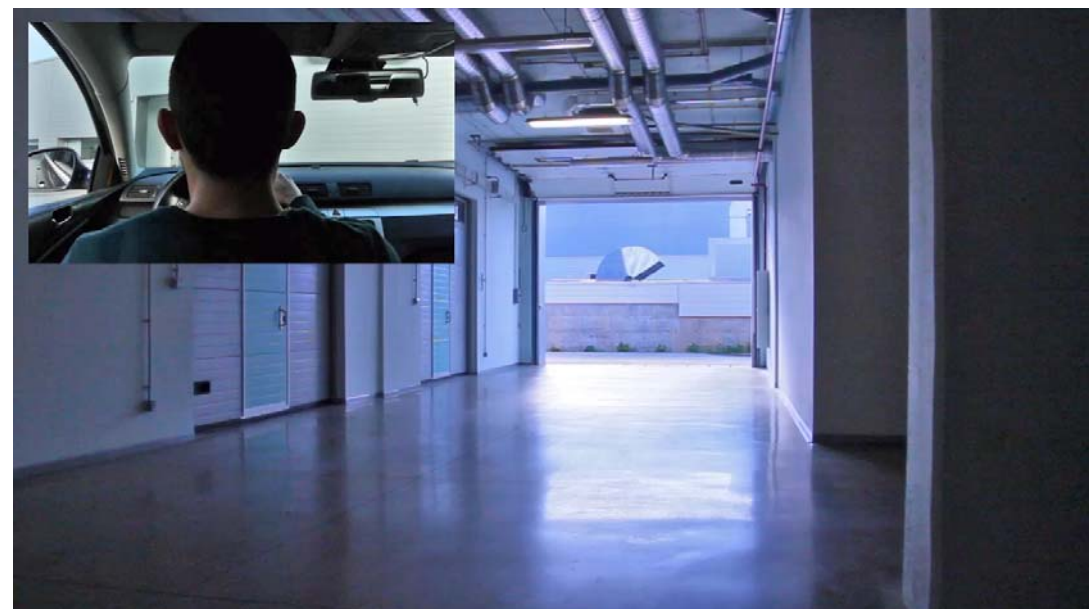
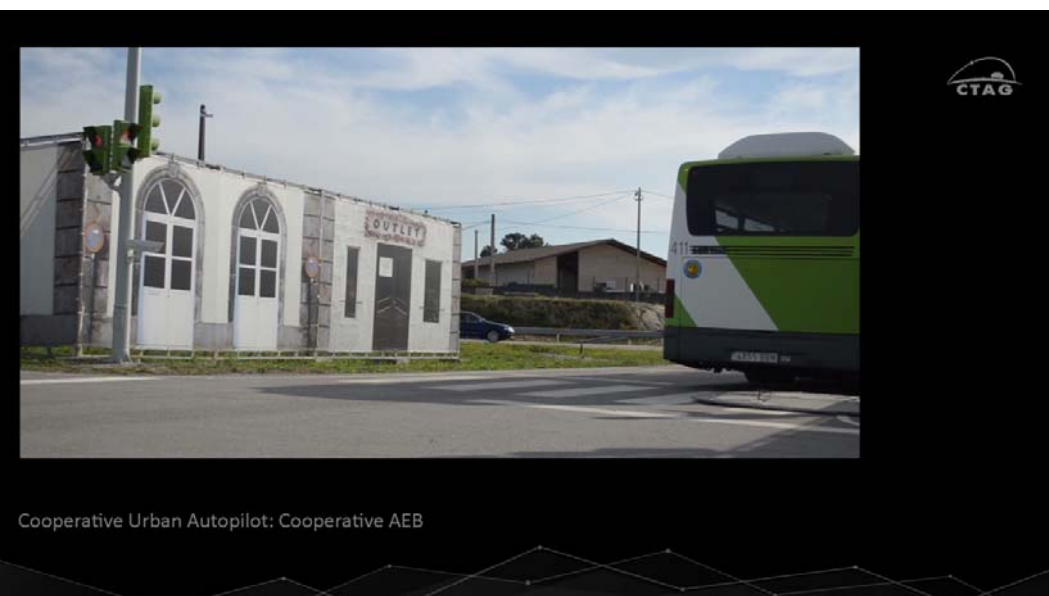
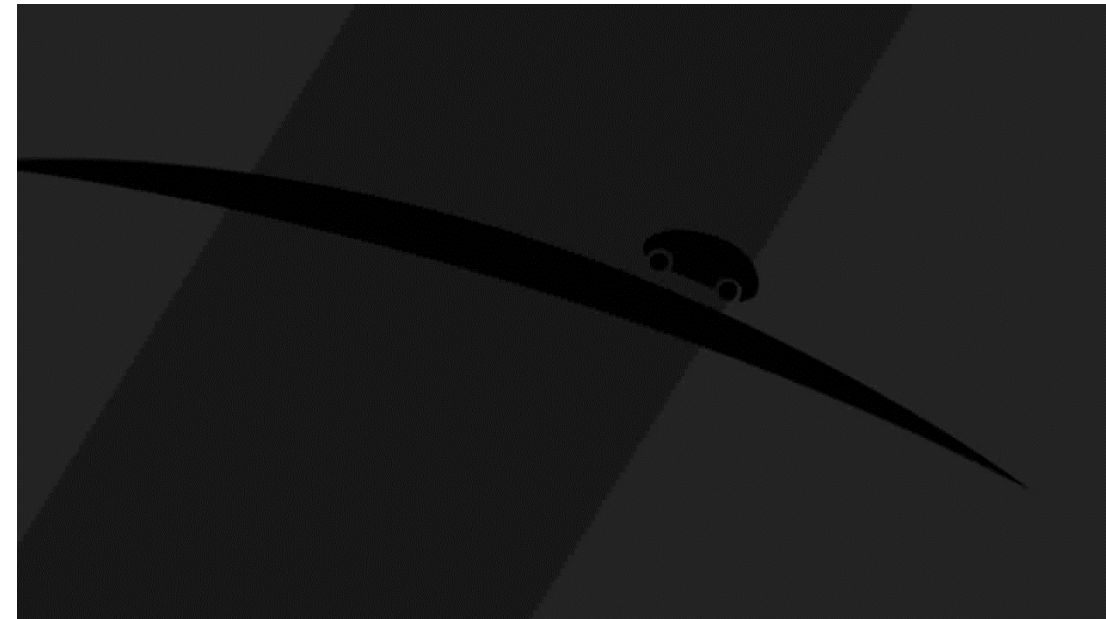
Example AUTOPILOT location within SISCOGA⁴CAD



Example CAD Functions – Cooperative Highway Chauffeur



Example CAD Functions in Urban Scenarios



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Muchas Gracias