

EasyWay



Annual Forum 2010



Shortcut to the future.

Lisbon • November 16th-18th



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SISCOGA – Sistemas COoperativos GALicia

David Sánchez (CTAG) – Ramiro Martínez (DGT)



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Introduction

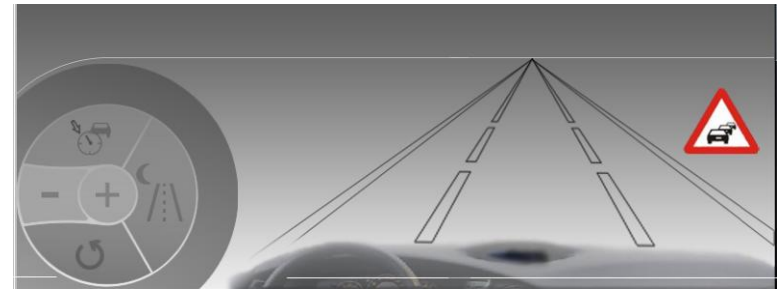
- SISCOGA is a Cooperative Systems Field Operational Test (FOT)
- Partners:
 - CTAG (Centro Tecnológico de Automoción de Galicia)
 - DGT (Dirección General de Tráfico)
- SISCOGA is the follow-up of C2ECom project, aiming at the development of safety and efficiency related cooperative applications





C2ECom



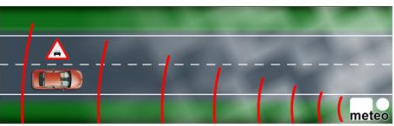

- Project launched in 2007 (2007 – 2010)
- Objectives:
 - Develop safety & efficiency applications based on C2X technologies
 - Implementation in research vehicle
 - Validation
- Usage of 802.11p
- Implemented in two research vehicles and one RSU








C2ECom

- Applications

Accident / Traffic Jam information	
Floating Car Data (FCD)	
Adverse weather information	
Variable Speed limit	

Road Works information	
Merge Assistant	
Alternative route information	



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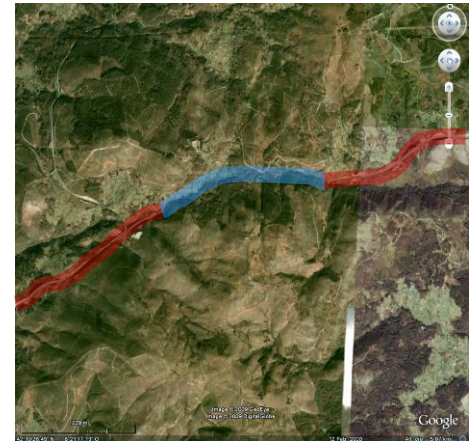
- Project launched in 2009, as a follow-up of C2ECom
- Objectives:
 - Preparation of an intelligent corridor for C2X FOT purposes
 - Pilot testing of the corridor with C2ECom functions
 - Definition and implementation of evaluation methodologies applied to cooperative systems (FESTA follow-up)
 - Interoperability assessment between different C2X technology providers and vehicles
 - Final FOT with around 20 vehicles / users and assessment of results





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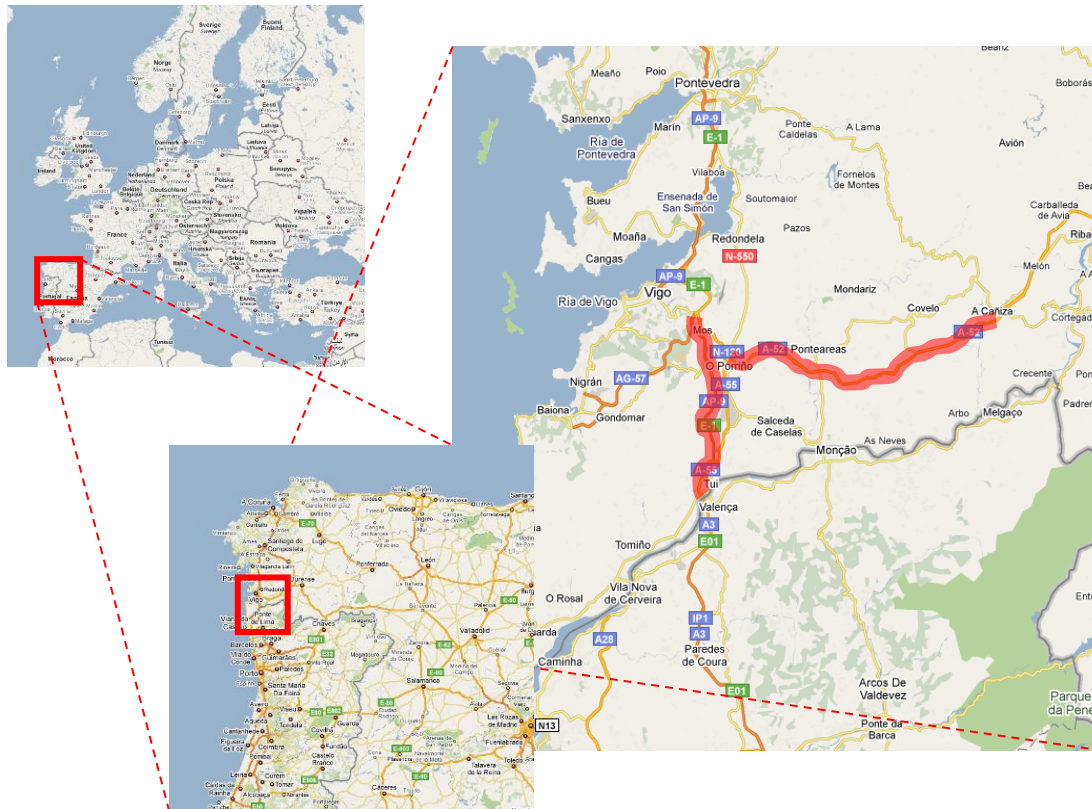
- Intelligent Corridor (I)
 - The intelligent corridor includes around 60 km. of motorway roads, controlled by the Traffic Management Center of Galicia (DGT)
 - It includes city exits, sharp bends and tunnel sections
 - Rest areas in motorways
 - Traffic signal controlled intersections
 - Cross Border (Portugal Autoestradas) possibilities
 - RSU equipment: NEC LinkBird (30+ units)
 - 3G coverage in the whole area





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- Intelligent Corridor (II)





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- Intelligent Corridor (III)

City Entrance



RoadWorks



Sharp Bends



Slopes





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- Intelligent Corridor (IV)

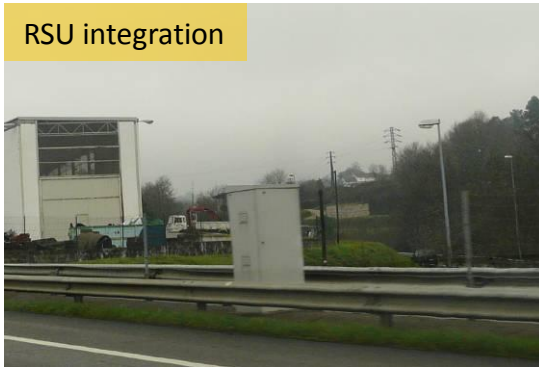
Tunnel



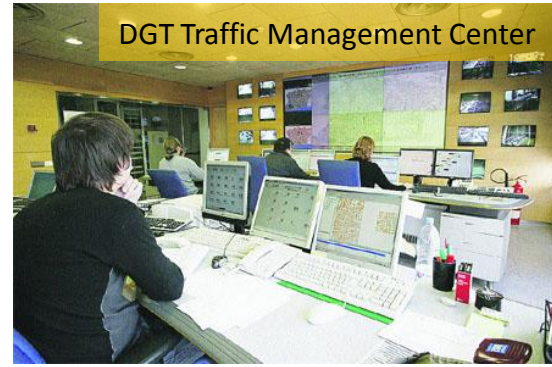
Climatic Conditions



RSU integration



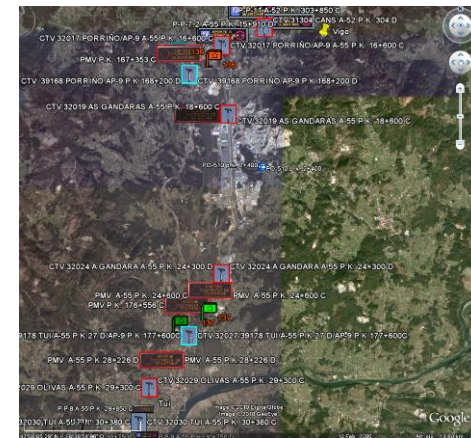
DGT Traffic Management Center





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- Traffic Management Center
 - Real time traffic monitoring through integrated TV cameras (21 units)
 - Panning
 - Zooming
 - Inductive wiring for real time monitoring of:
 - Traffic density per lane
 - Media speed per lane
 - Real-time Variable Message Sign control (19 units)
 - High-precision real time Weather Stations (7 units)
 - Traffic management center control application, allowing information retrieval and visualization
 - Can be done independently for each remote station
 - Fiber optics communication with ring architecture in all the test area





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- Equipment

RSU & Vehicle C2X Units



Driving Simulator



Datalogger



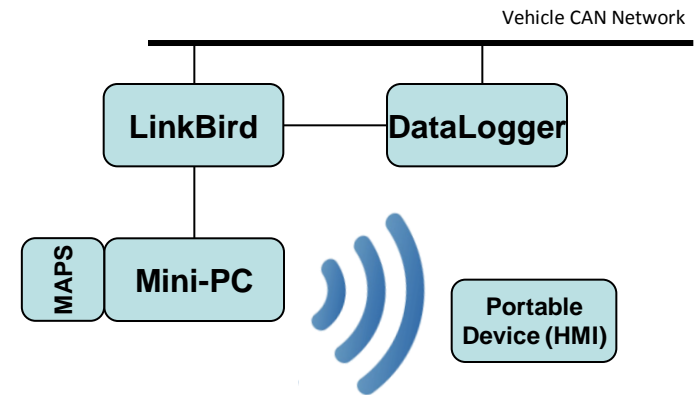
Vehicles





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- The Vehicles / The Drivers
 - 20 fully equipped vehicles
 - NEC Linkbird Communication Unit
 - Specific HMI
 - GPS with specific application maps
 - UMTS
 - CTAG Datalogger
 - Non-professional drivers will be recruited through an already existing CTAG database and taking into account a fair representation of the population





CONCLUSIONS

- C2ECom & SISCOGA → development & testing of C2X-based functions
- 60 km of intelligent corridor available for further tests – FOTs
- Development & implementation of a FESTA-based methodology for C2X based FOT
- Testing & analysis of the whole data-chain
- Results expected by first half of 2012 → be patient!

