

Future mobility industries

Promoting sector transformation and new investments

Barcelona, 23rd October 2018

- Catalonia, an **outstanding** automotive region ...



... In a **changing** world



- **Future mobility industries** in Catalonia. A diverse approach:

CAV CATALONIA

Connected - Automated

EV CATALONIA

Electric

MaaS CATALONIA

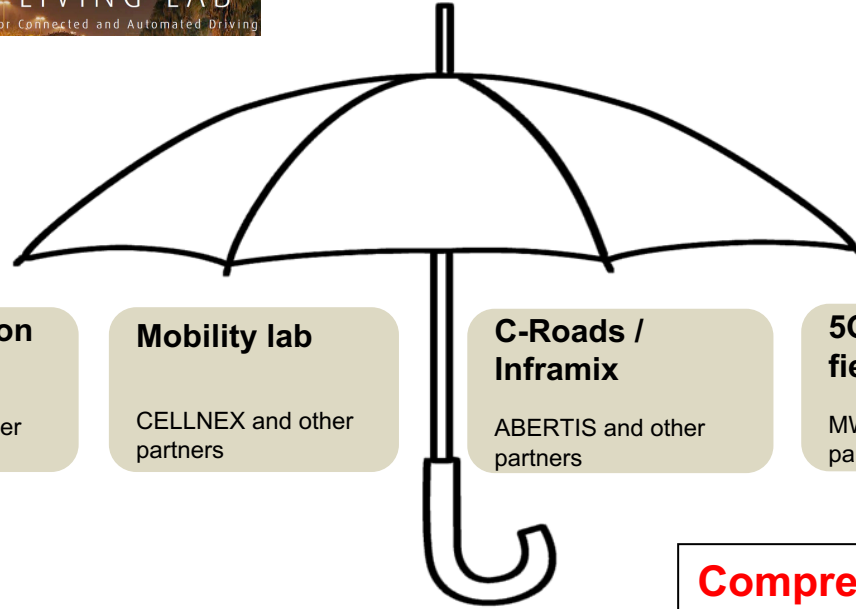
Shared - Combined

- Some recent investments





- **Cover all needs** for the development and testing of CAV technologies both on close scenarios and public roads
- **Talent creation** for CAV industry



CAV testing on public roads

IDIADA and other partners

Mobility lab

CELLNEX and other partners

C-Roads / Inframix

ABERTIS and other partners

5G Barcelona field & lab trials

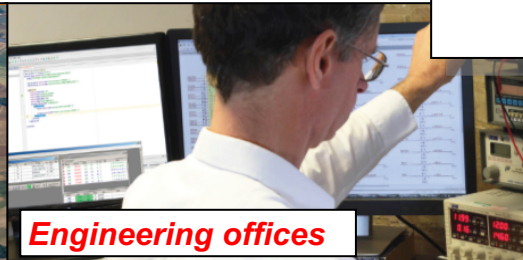
MWC and other partners

Other Projects
...

Comprehensive Test Environments and Services



Proving grounds



Engineering offices



Laboratories



Virtual simulation

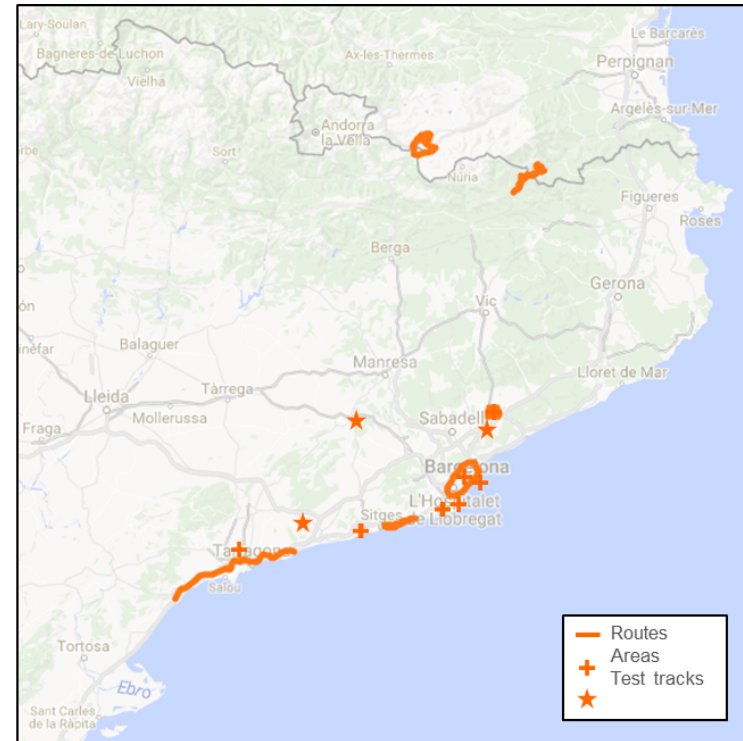


Public roads

CAV Testing on public roads project defines procedure and test locations

Location criteria from the industry:

- Presence of sensor blockers
- Presence of sky blockers
- Presence of road obstacles
- Presence of communication issues
- High road user density
- High traffic sign density
- Varying road characteristics
- Different intersections
- Parkings
- High speed road entries and exits



Test locations

Legal framework

Since 2015, a legal framework allows for public road testing of highly automated vehicles in Catalonia (L3, L4, L5)



Subject: Authorization for tests or research studies carried out with automated vehicles on roads open to general traffic.

INSTRUCCION 15-V.

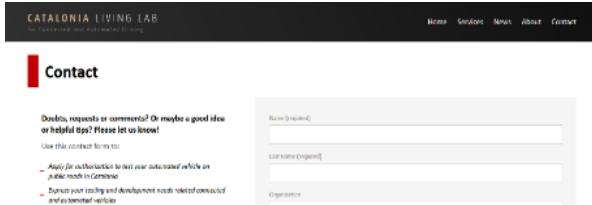
Royal Decree 2022/1998 of 23 December, approving the General Vehicle Regulation (hereinafter GVR), in Article 47 granted the Directorate General of Traffic, hereinafter (DGT) the power to grant special authorizations for extraordinary tests or research tests conducted by manufacturers, bodybuilders and official laboratories. Likewise, Instruction 10T-V-08 set out the specific procedure for application to and granting of such authorizations.

However, technological progress in the automotive industry has enabled the design and development of devices and vehicles, which due to their nature and operation, go beyond the current regulation. Some of these technologies propose different levels of automation, which at their latest extend oltre fully-automated driving.

In order to ensure the improvement possibilities that these tests will bring to road safety and safe and sustainable mobility in Spain, and at the same time to contribute to boosting the automotive industry and investment in research in our country, the Instruction is aimed at regulating the granting of special authorizations for testing and research tests conducted with automated vehicles on roads open to general traffic.

Apply on website

catalonialivinglab.com/contact



CAV authorization: One-stop-shop

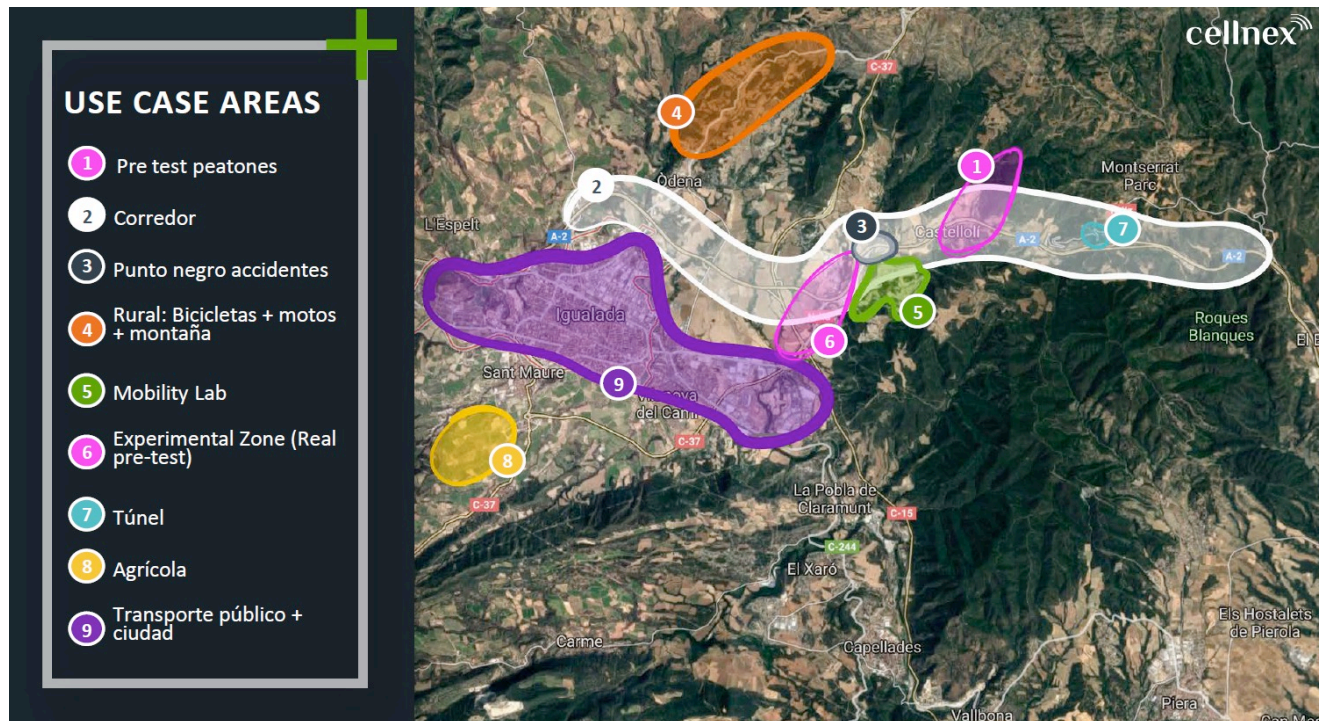
1. License plate application
2. Documentation & Plan
3. Additional requirements
4. Technical inspection
5. Dynamic check
6. Final decision

Catalan Traffic Authority (SCT)



Fast track: Equivalent test authorization from other EU member states is valid

Mobility lab project implements innovative testing space for the development of ITS technological solutions, particularly in the field of vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications



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Study "EV Opportunities for Catalonia"



Experts' table on EV in Catalonia



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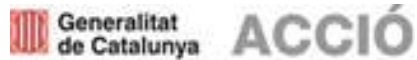
- A **public-private Forum** launched with the main goal to foster Mobility-as-a-Service deployment in Catalonia: Vision and pilot projects



Sergi Barbens

Mobility Industries Coordination Manager

Directorate General for Industry α ACCIÓ Catalonia Trade & Investment
Generalitat de Catalunya (Government of Catalonia)



Passeig de Gràcia, 129

08008 Barcelona

Tel. +34 93 551 7406

sbarbens@gencat.cat

ACCIÓ



Generalitat de Catalunya
Government of Catalonia

catalonia.com

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