SEAT S.A.

22/11/2022 – IESE Mobility Dialogues

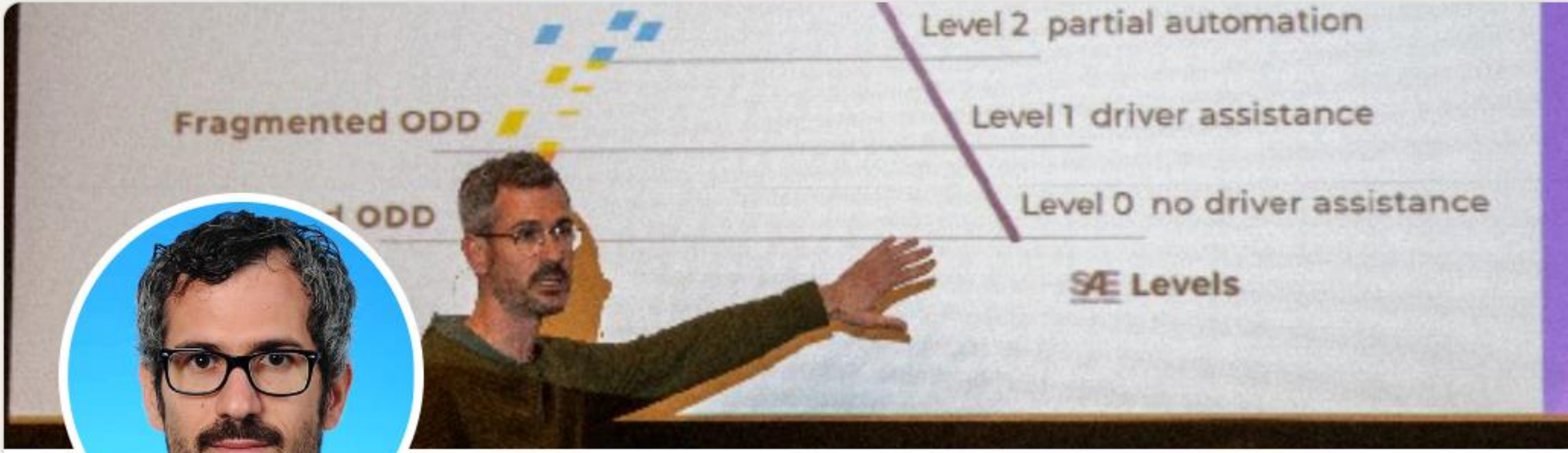
DIANA Projects:

CELESTE

HI-DRIVE

Oriol Mas Bosch (SEAT/Cupra)

Innovation ADAS



Oriol Mas Bosch (He/Him)

Head of ADAS Parking & Innovation

SEAT,SA

Sant Joan Despí, Catalonia, Spain · Contact info

500+ connections

DIANA

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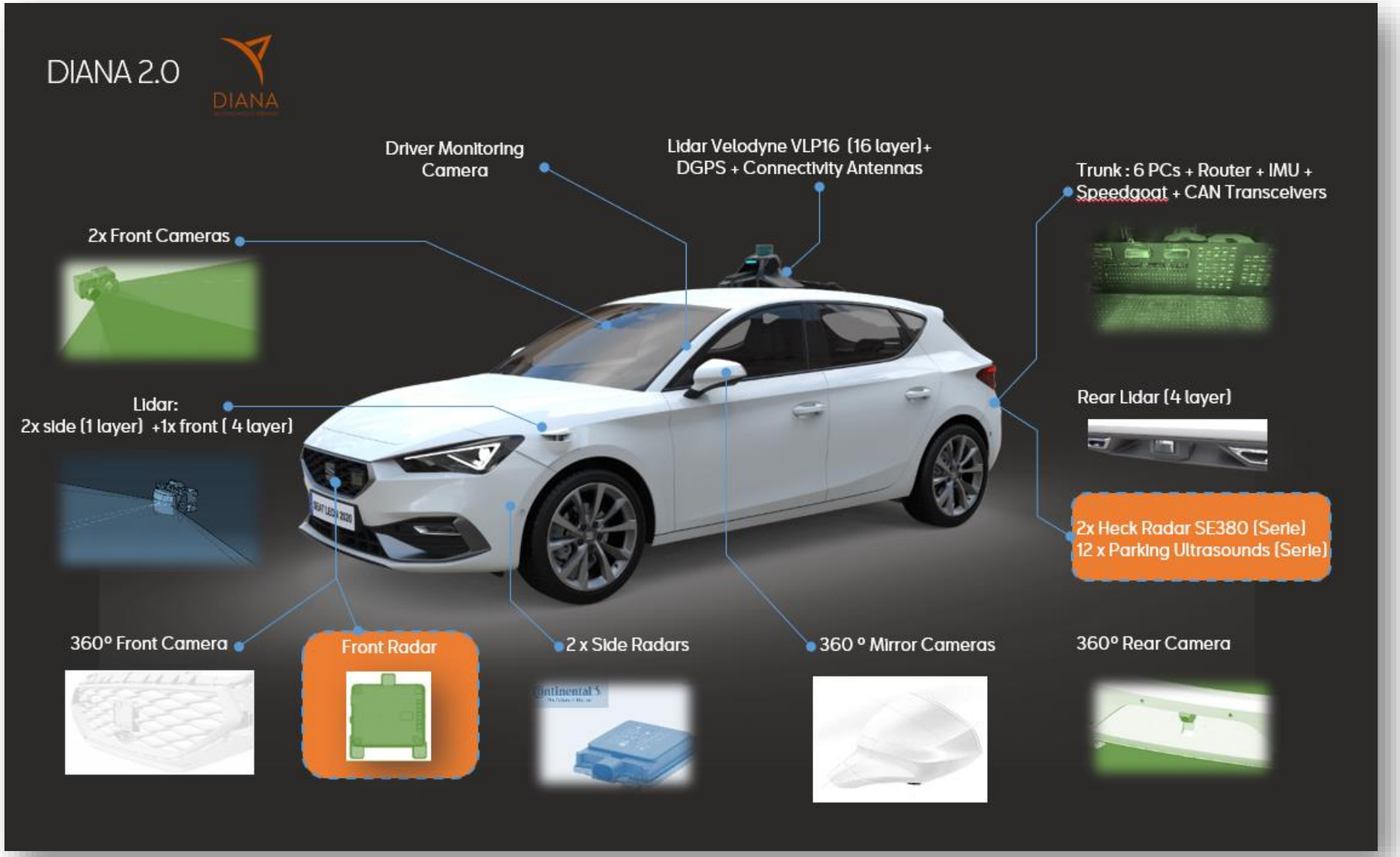
DIANA Prototype

DIANA
AUTONOMOUS DRIVING

DIANA Prototype

DIANA
AUTONOMOUS DRIVING



DIANA – Participation in EU Projects

DIANA
AUTONOMOUS DRIVING

2021	2022	2023	2024	2025

EIT UM - CELESTE

HI-DRIVE

Dynamic Speed Limit Adaptation

Time plan
2021-2022

CELESTE

EIT Urban Mobility

eit Urban Mobility
Funded by the European Union

Leader
CTAG & BCN City Council

Description
Autonomous Connected Car to help Traffic Mgmt. decide the optimal Speed Limit

HI-DRIVE

Time plan
2021-2024

Hi-Drive
Designing Automation

EU Project – H2020

Leader
VW Research

Description
Autonomous Connected Car to gather Data for European Research Purposes

CELESTE

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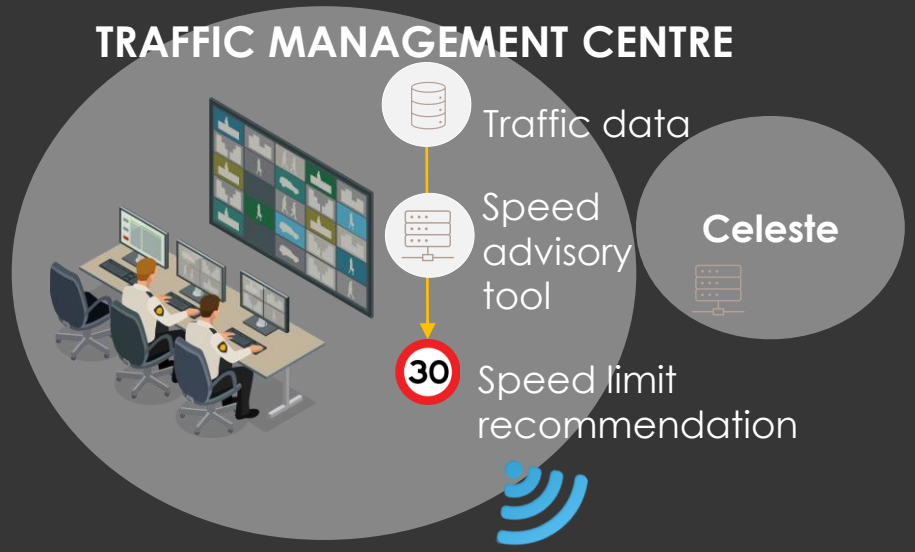
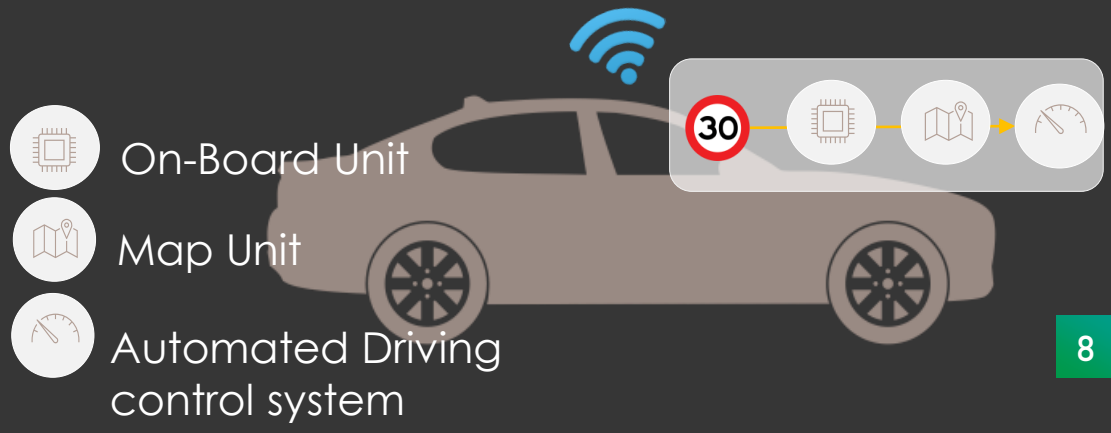
The goal & system overview

- ✓ **Recommendation of dynamical speed limits**
- ✓ **Data, Communications, Operation**





How does it work?

DATA

- Weather Info
- Traffic Data
- VRU Data

OPERATION

- Traffic Management Center
- CELESTE Speed Manager

USERS & INFRASTRUCTURE

- Dynamic Signals
- Mobile APPs
- Vehicle HMI

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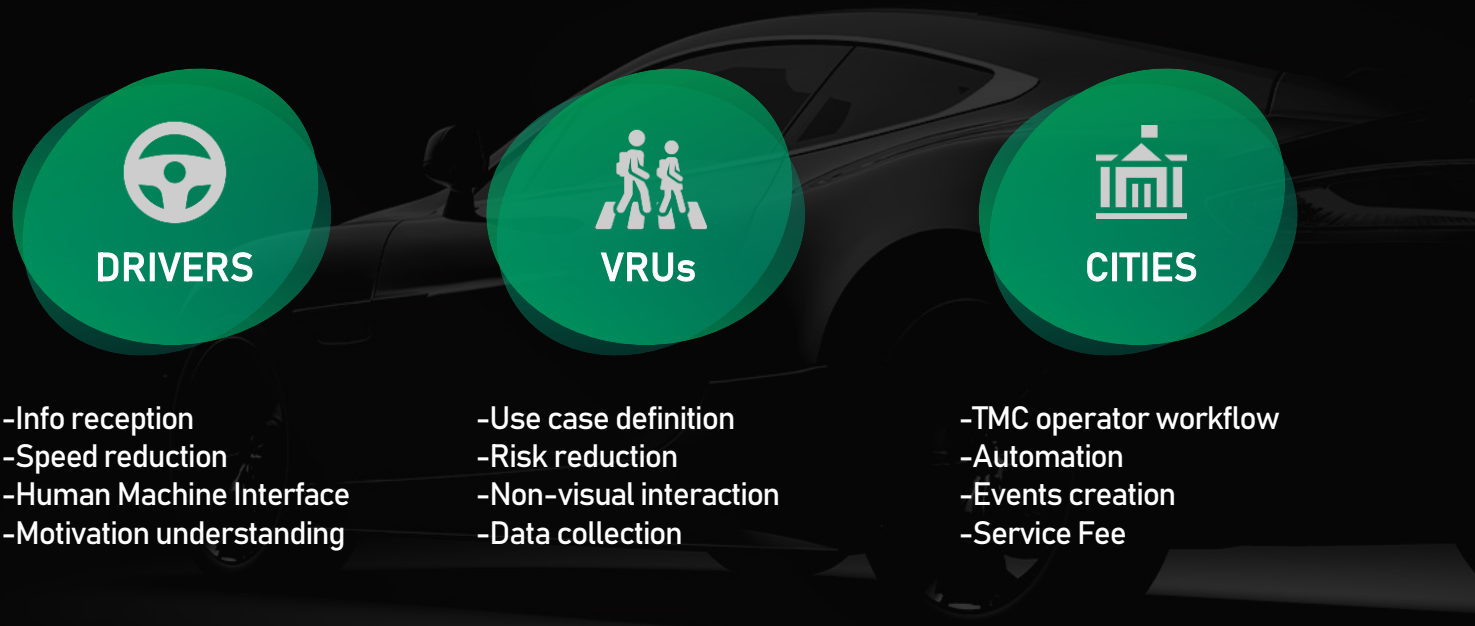
Co-funded by the European Union

Who are the Users?

USERS & INFRASTRUCTURE

- Dynamic Signals
- Mobile APPs
- Vehicle HMI



DRIVERS

-Info reception
-Speed reduction
-Human Machine Interface
-Motivation understanding

VRUs

-Use case definition
-Risk reduction
-Non-visual interaction
-Data collection

CITIES

-TMC operator workflow
-Automation
-Events creation
-Service Fee

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SWOT analysis

Overall Risk Reduction Scalability & Accesibility Flexibility	Legal status Human behaviour
STRENGTHS	**WEAKNESSES**
OPPORTUNITIES	**THREATS**
ISA regulations LEZ & ZEZ OEMs as potential users	Market youth History non-existence

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HI-DRIVE

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Our history of automated driving: Long lasting successful collaborations

Hi-Drive

Hi-Drive
Designing Automation

PUSH TOWARDS HIGHER AUTOMATION.

- Robust and reliable automated driving
- Extended and defragmented ODDs
- Interoperability across countries and brands

OPERATIONAL DESIGN DOMAIN (ODD)

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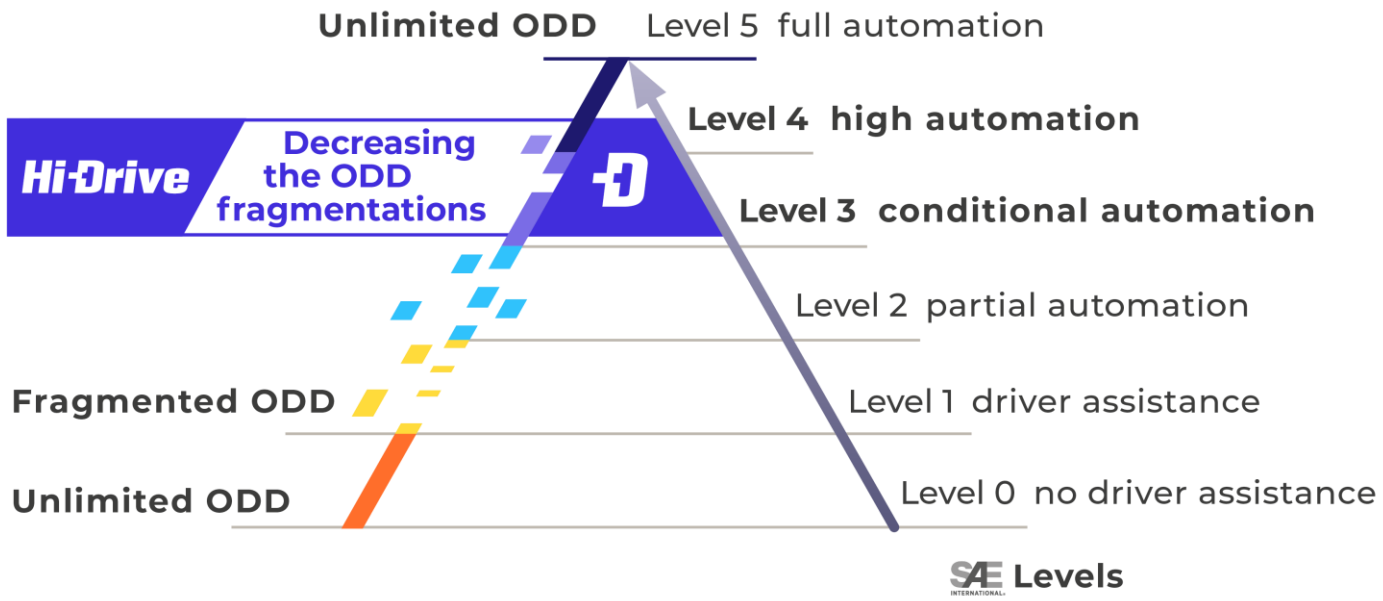
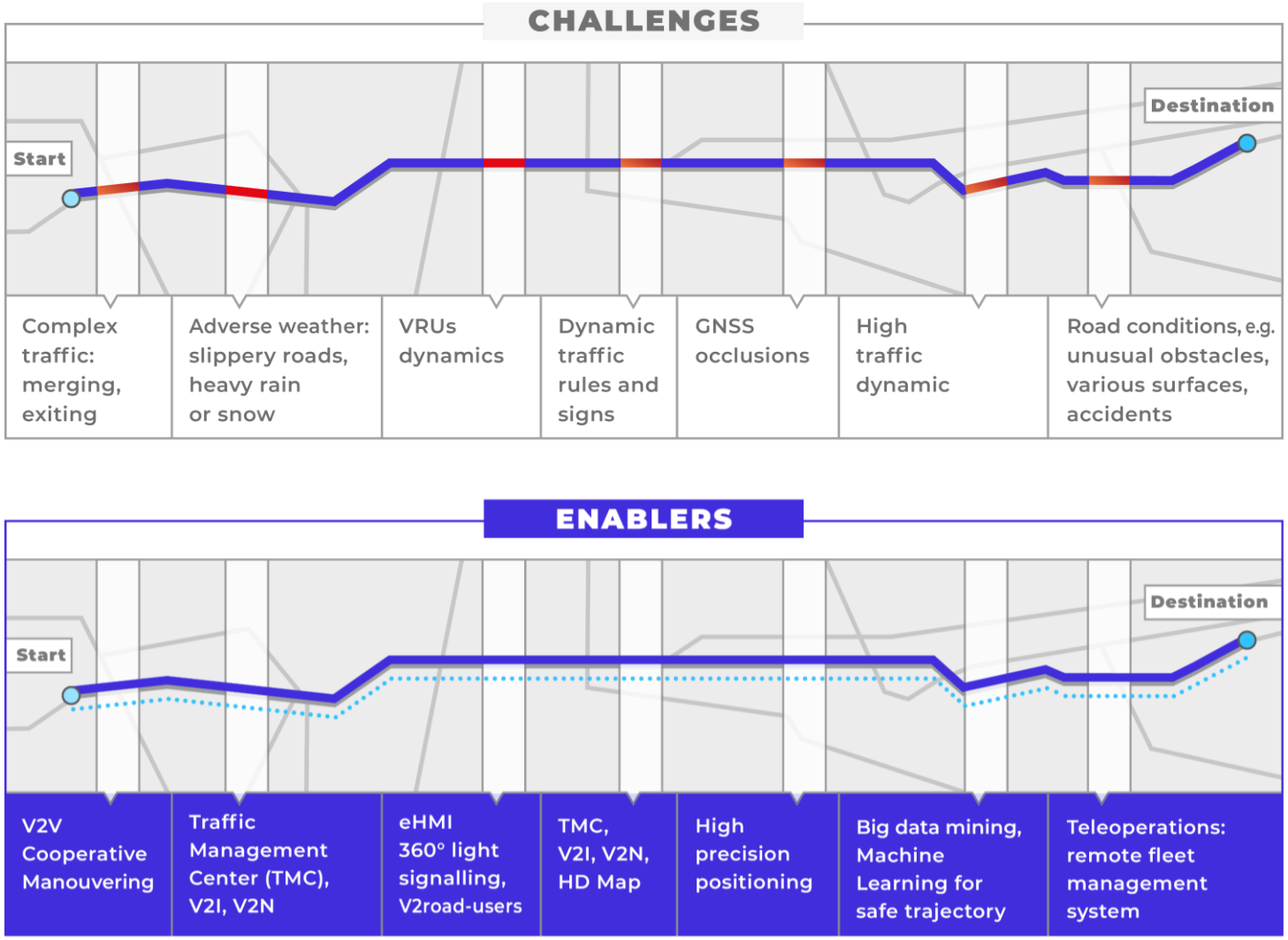


ODD - “Operating conditions under which a given driving automation system [...] is specifically designed to function [...] to environmental, geographical, and time-of-day restrictions, and/or the requisite presence or absence of certain traffic or roadway characteristics.” *

*SAE J3016 (2021)

Defragmentation of the Operational Design Domain (ODD)



ODD

MANUAL DRIVING

AUTOMATED DRIVING

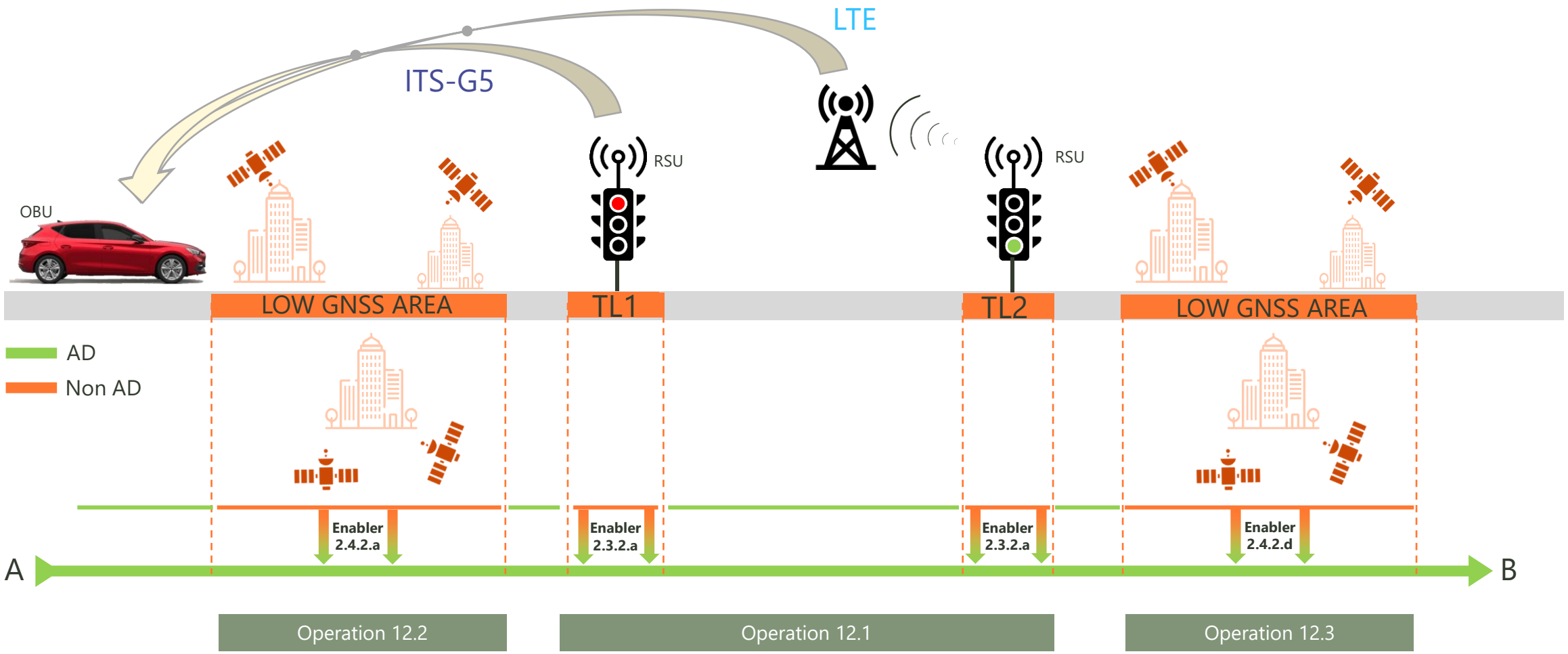
Cybersecure, interoperable, interactive and **user-aware vehicles**

Hi-Drive

HI-DRIVE – SEAT Use Case

1. ADF - Urban Chauffeur with GLOSA support and handling of low GNSS sections

Automated driving defragmented thanks to HI-Drive Enablers



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