

Beti, PTO to cover white spots of mobility in rural areas with AV



Val de Drôme
(Phase 2 et 3)

1st inclusive Automated Mobility Network deployed in a rural area to cover white spots of mobility (up to 7 AVs project)



Escrennes

2 AV in full L4 in a private site. Hypervision center is located 500km away



EDF Nuclear center

Deployment in 3 stages as part of the horizontal mobility of the CRUAS MEYSSE nuclear power plant.



Val Thorens

World first with the deployment of an automated shuttle in a ski resort at an altitude of 2300 meters.



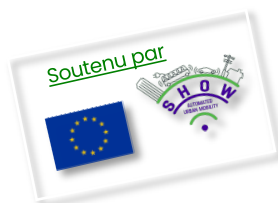
E-Valley

Pilot within the framework of the E-Valley project, restructuring of the 203 military air base in Cambrai in a logistical platform.



Lacnanou

Pilot deployment for a seaside resort to link the car parks with the ocean front.



+ (2024 à 2027)
2 L4 on dedicated road coming soon

Paired with Hypervision standard

To ensure performance & safety of an Automated Mobility Network ? A Human / Machine interaction

Automated mobility: **THE 5 LEVELS OF HYPERVISION**

SUPPORT

REACT

ANTICIPATE

	LEVEL 0 No Hypervision	LEVEL 1 Light Hypervision Help the vehicles to go from A to B (mission management only)	LEVEL 2 Partial Hypervision Manage Incidents	LEVEL 3 Intelligent Hypervision Manage incidents with automated alerts & operational procedures	LEVEL 4 Full Hypervision Anticipate field incidents to meet security & quality of service expectations for Public Transport	LEVEL 5 Full AI Hypervision Operate a service piloted by AI under Human Oversight
	SUPPORT		REACT		ANTICIPATE	
Manage service		Send missions to vehicles	Monitor plannings and frequencies, generate KPIs and stats Start/End service		Dynamically regulate, re-route and provide service's KPIs	Fully integrated in local MaaS platform (Mobility as a Service)
Manage events	N.A	N.A	Display alerts to hypervision operator (health status, emergency brake, pass emergency stop...)	On alerts, automatically: • Push procedures to operators or trigger actions on the vehicle • Record data	Connect to external data (e.g traffic, weather, emergency, public works...) and anticipate dangerous situations (e.g. blocked road, riot, ...)	Assisted by Artificial Intelligence agents
Manage passengers		Assist via intercom Display trip information	Manage passenger security and comfort : Assist passengers remotely by all means (via intercom, screens, audio), manage access (doors, ramp), ...		Automatically detect in-cabin events (lost luggage, aggression) and trigger appropriate procedures	Continuous improvements based on Artificial Intelligence and multi-sites data space
Support driving	The on-board operator or field-operator can operate the vehicle if the vehicle is blocked or need an MRM		Clear the vehicle remotely or trigger security manoeuvres		Send stop request or limitations requirements (max veh. speed, no-go zone...) to vehicles. Clear the vehicle remotely or trigger security manoeuvres	
	The driving responsibility is dispatched between the automated vehicle and the on-board operator		Dispatched between AV & Hypervision operator		Driving responsibility is under the Automated Vehicle only	



Manage service



Manage events



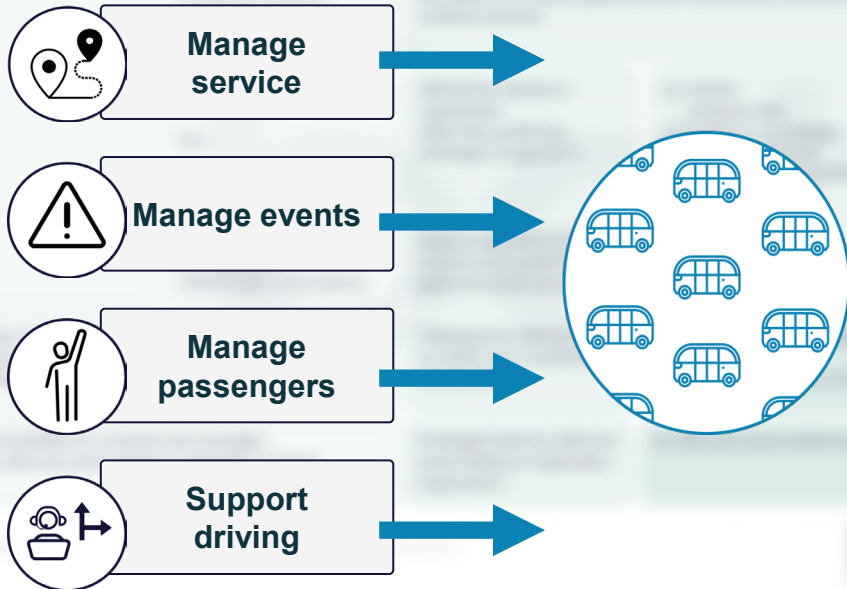
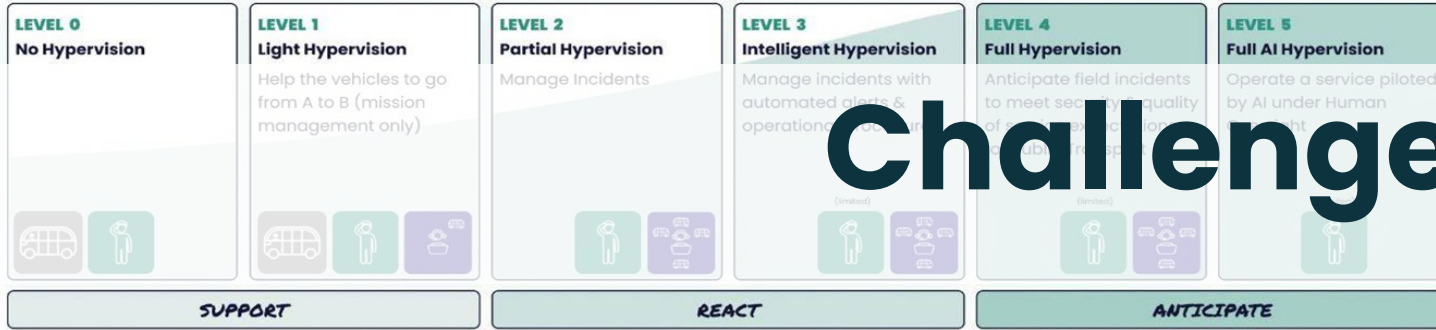
Manage passengers



Support driving

Automated mobility: **THE 5 LEVELS OF HYPERVISION**

Challenges



- ✓ **Keep EU in the innovation race**
- ✓ **Incremental realistic approach**
- ✓ **Safety & Safety concept across the whole system**
- ✓ **A common Taxonomy / standard to secure operations**
- ✓ **Avoid multiplicity of legal frameworks** (GDPR, Digital act,...)