EverCore ISI AutoTech & AI Forum

Antoine Lafay
Research & Innovation Director, Driving Assistance

VALEO RESERVED

VALEO STRATEGY ALIGNED WITH ADAS AND ELECTRIFICATION ACCELERATIONS

#1 in ADAS

Comfort & Driving Assistance

Order intake in ADAS

3X

2022 ADAS OEM sales

vehicles equipped with our Advanced Driver-Assistance solutions

#1 in Electrification

Powertrain + Thermal

Order intake related to high-voltage EV

2/3

of 2022 Powertrain + Thermal order intake

vehicles equipped with our Thermal & Electric solutions

VALEO LEADER IN ADAS WITH THE FULL STACK COMBINING SENSORS, CONTROL UNITS AND SOFTWARE

Best in Class Software Parking & Driving

30 years as leader in Parking
Driving Policy to L2+

End to End Integration Partner

SW and System Integration
System Validation

Market Leader in Camera Technology

100+ million cameras shipped
Strong CV expertise

Automotive Grade Lidar Solutions

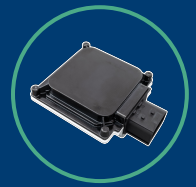
~12.5 million points/second
Enabling Level 3 @ 130kph

Superior Ultrasonic Sensor Performance

20+ million systems per year
AI enabling data interface

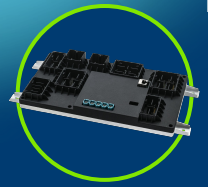
Complete Radar Solution Portfolio

Offering Corner, Front and HD Radar technology



ADAS Control Units for all Segments

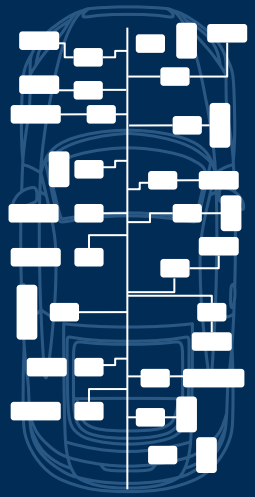
From entry SVS to HPC and Zone Controllers



Valeo

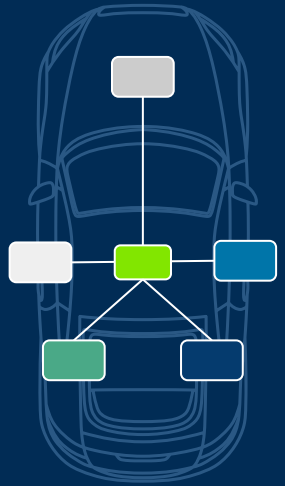
SOFTWARE DEFINED VEHICLE
FROM DISTRIBUTED TO CENTRALIZED ARCHITECTURE

TODAY

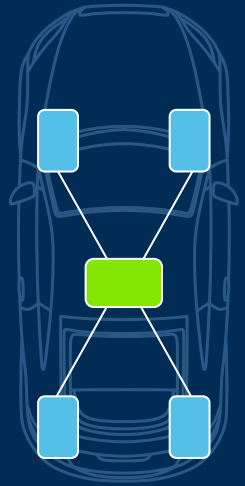


DISTRIBUTED

2023-2028



2028+



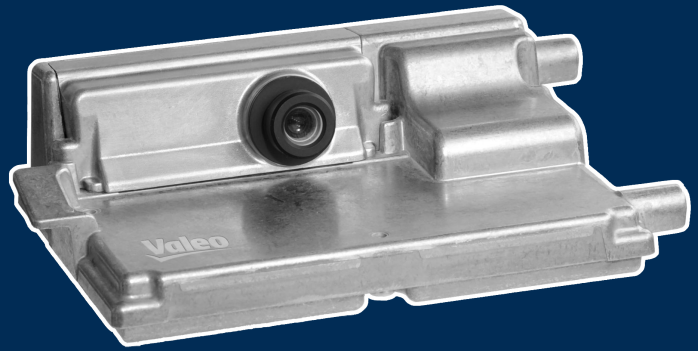
CENTRALIZED

DOMAINS

ZONAL

LEADING TO COMPONENT STANDARDIZATION...

FROM



SMART COMPONENTS

TO

SATELLITE COMPONENTS

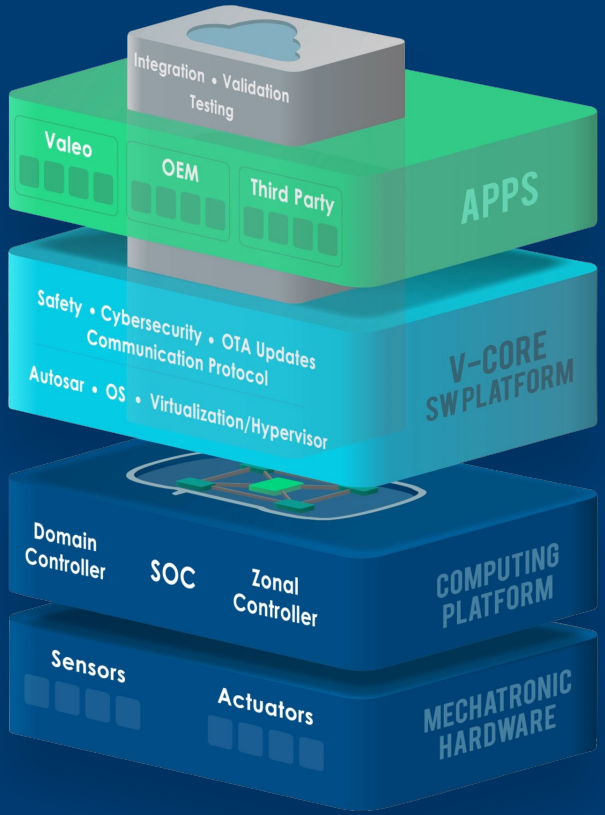
… POWERFUL COMPUTING DEVICES / ZONAL AGGREGATORS …

CENTRAL CONTROLLER

ZONAL CONTROLLER

TOP CROSS COMPETENCIES AND TECHNOLOGIES
IN ELECTRONICS AND THERMAL MANAGEMENT
LEADING TO A UNIQUE PRODUCT OFFERING

… AND SOFTWARE AS A PRODUCT



Full ADAS Software Stack including core software, tool chain, data management and system validation.

APPLICATIONS

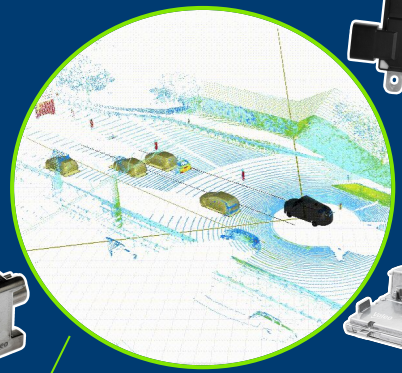
AUTOMATED DRIVING SYSTEM SUPPLIER
VALEO FULL STACK FOR L2+ VEHICLE AUTOMATION

1x
DMS CAMERA

12x
ULTRASONIC SENSOR

4x
SURROUND CAMERA

SOFTWARE STACK
ADAS PARKING & DRIVING



4x
CORNER RADAR

1x
FRONT RADAR

1x
FRONT CAMERA

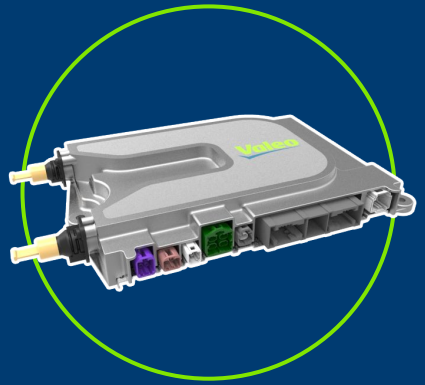
1x
DOMAIN CONTROLLER

SEVERAL CUSTOMERS PROGRAMS ON-GOING

Valeo

VALEO & BMW TO JOINTLY DEVELOP
THE FIRST L4 PARKING EXPERIENCE IN THE MARKET

1x | 4x



12x | 4x

+ SOFTWARE STACK

Automated Valet Parking
+ Trained Parking

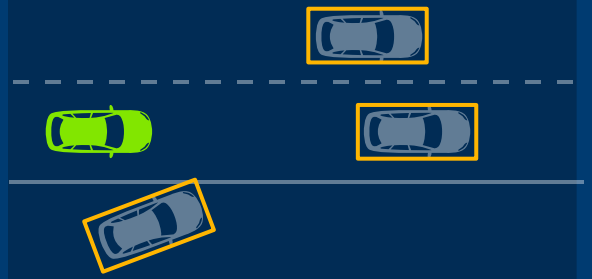
SOP 2026-2028

- Embedded Arch. & Integration
- Level 4 Dependability
- Safety Cocoon
- Map Aggregation
- AVP Services
- Test & Validation
- Deployment

ARTIFICIAL INTELLIGENCE IS MANDATORY TO …

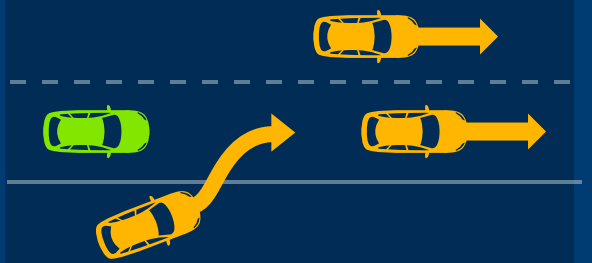
UNDERSTAND

where am I?
what's around me?



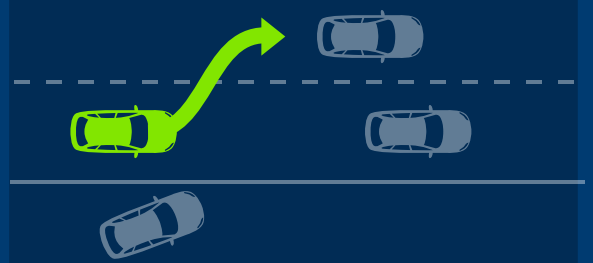
PREDICT

what would happen next?



DECIDE

what should I do?



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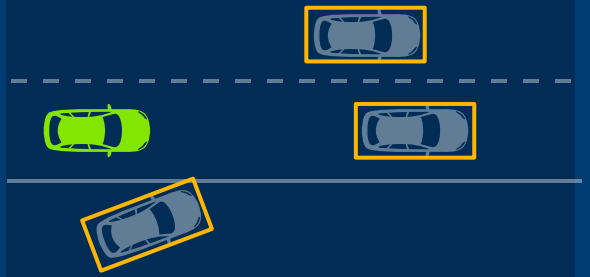
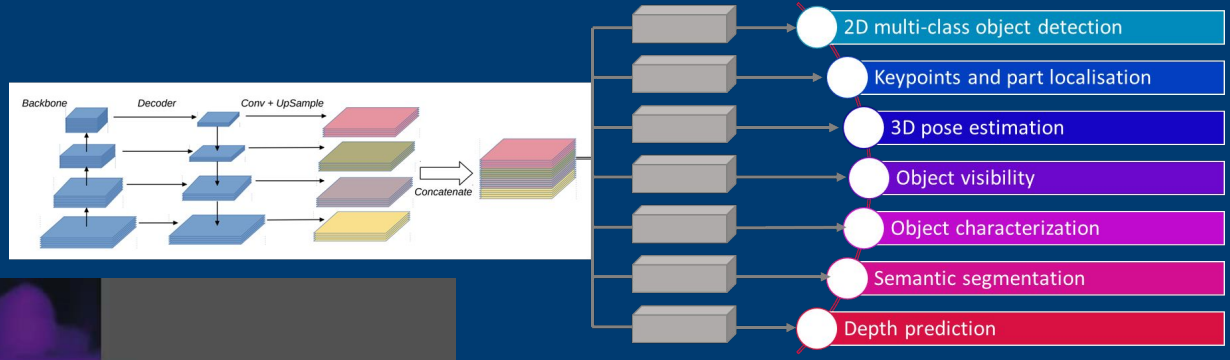
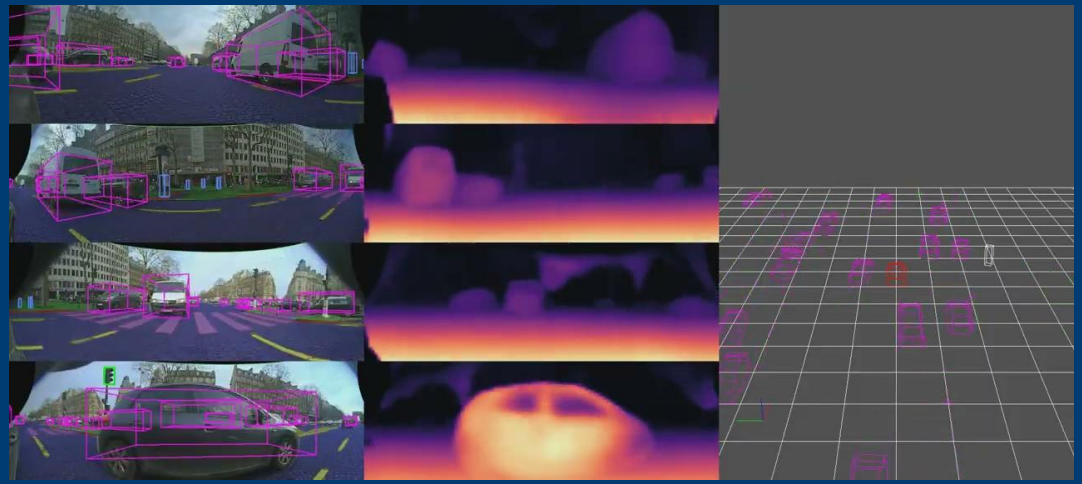


- Robustness and accuracy
- Scene complexity and variability
- The long tail

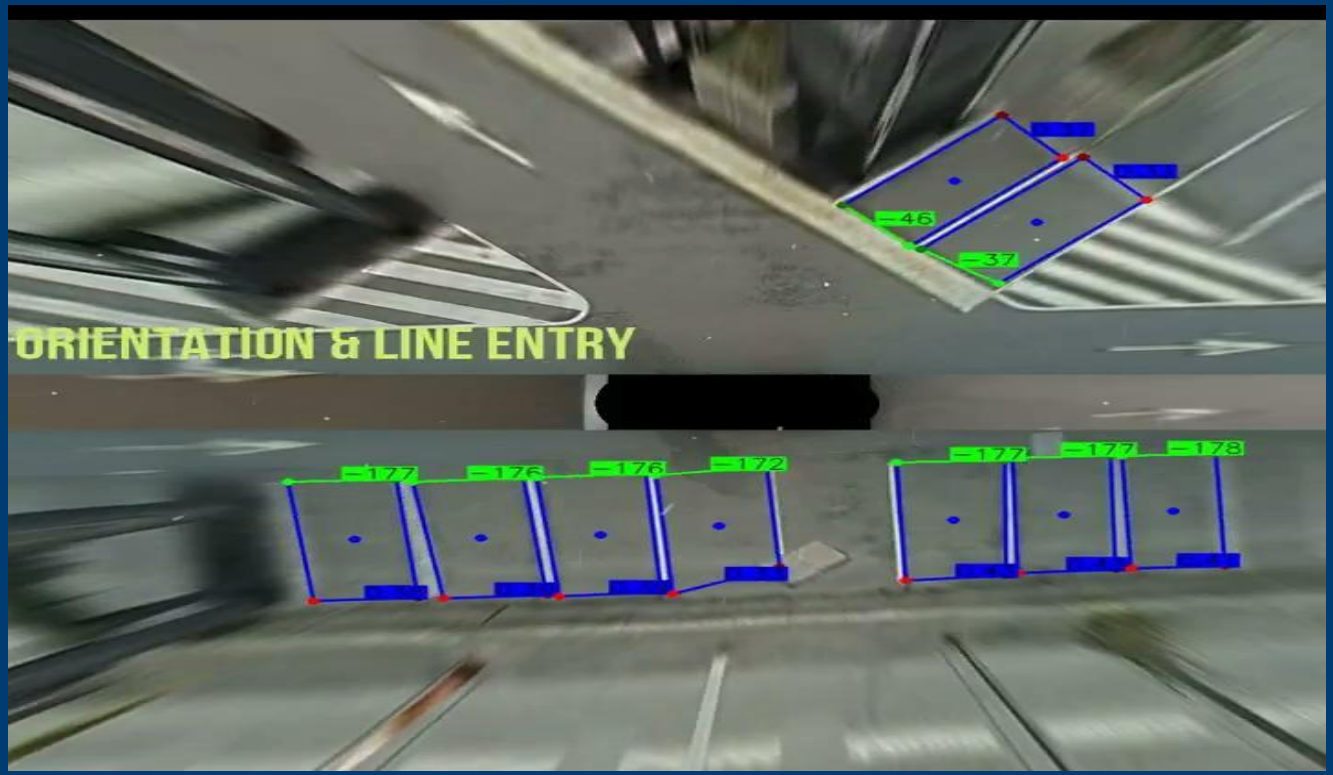
AI Multi-task Perception applied to Surround View Cameras

360° detection without blind spots





AI Holistic Slot detection
Improving Parking with better scene understanding

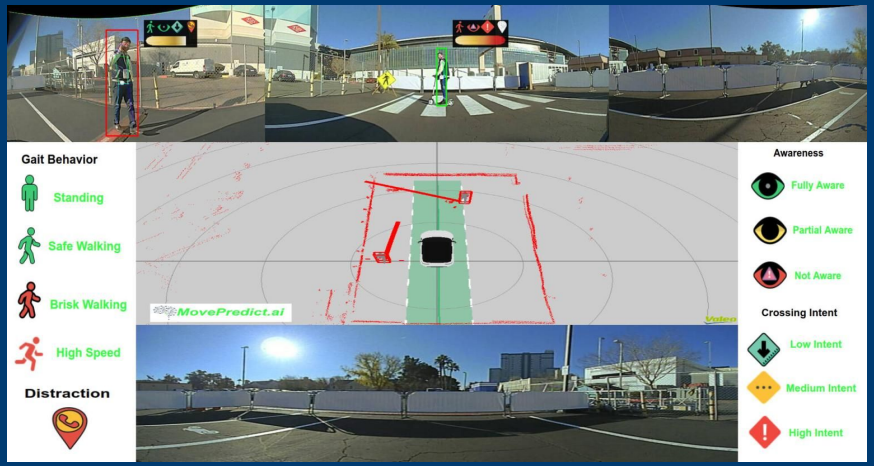


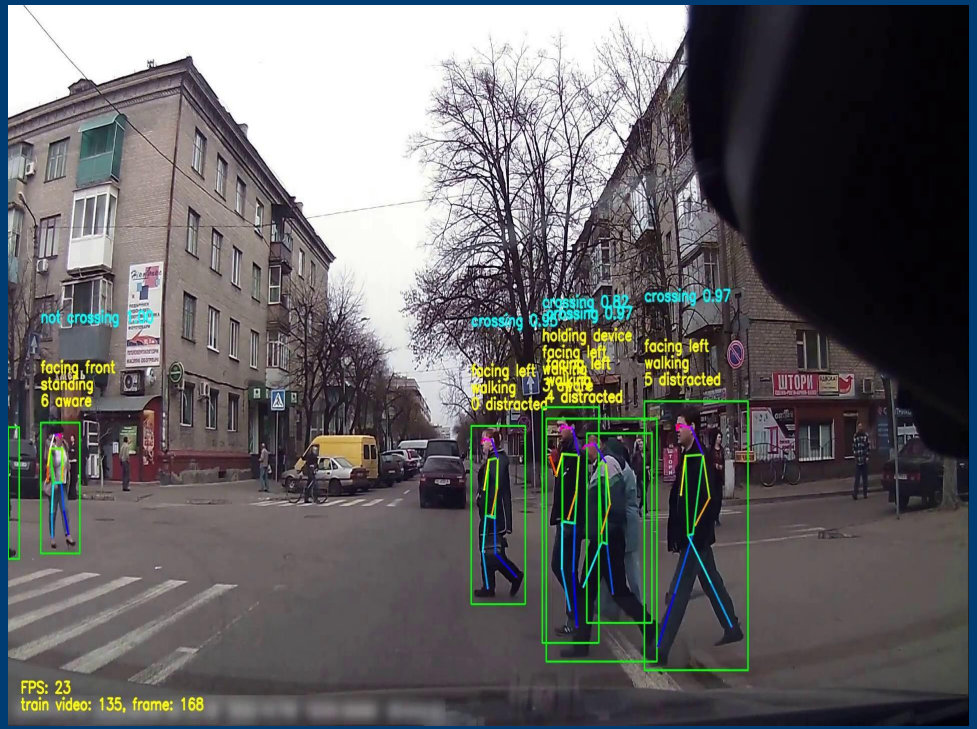
3 KEY DECISION-MAKING CHALLENGES

- Complexity of multi-actors interaction
- Scene Handling safely unexpected situations
- Uncertain future - Decision affect the environment

Move.Predict: predicting pedestrians intent is key for safety

Predicting what will happen next





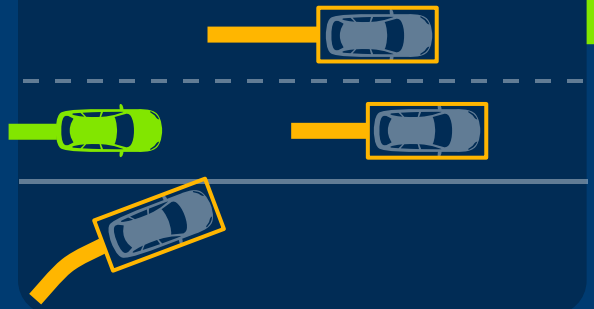
PLOP: Probabilistic poLynomial Objects trajectory Planning

Predicting what will happen next

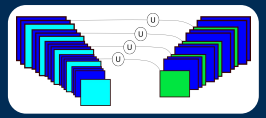
Inputs

raw data

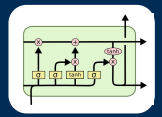
previous vehicles' positions

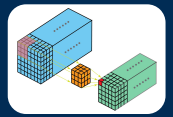


end-to-end trajectory prediction



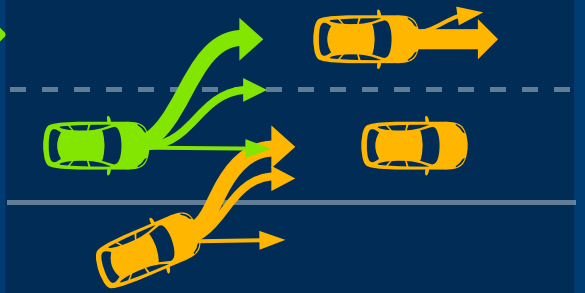
PLOP



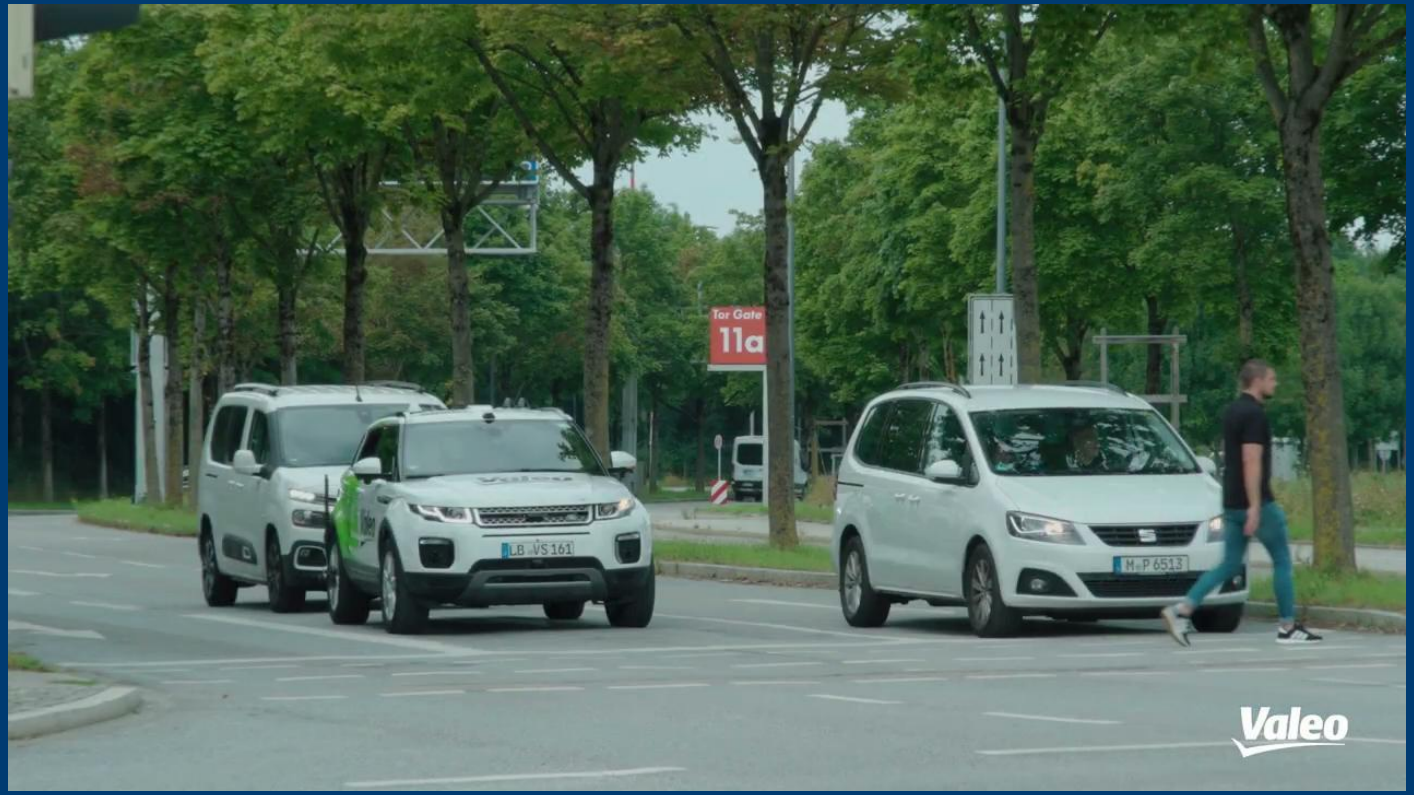


Outputs

multiple feasible future trajectories for both the ego-vehicle and its neighbors



Drive4U® demonstrates how Valeo integrates these bricks into an Autonomous Vehicle in Urban Areas



Valeo
100 YEARS

KEY FIGURES

20.0BN
TOTAL SALES

109,900
EMPLOYEES

29
COUNTRIES

183
PRODUCTION SITES

65
R&D CENTERS

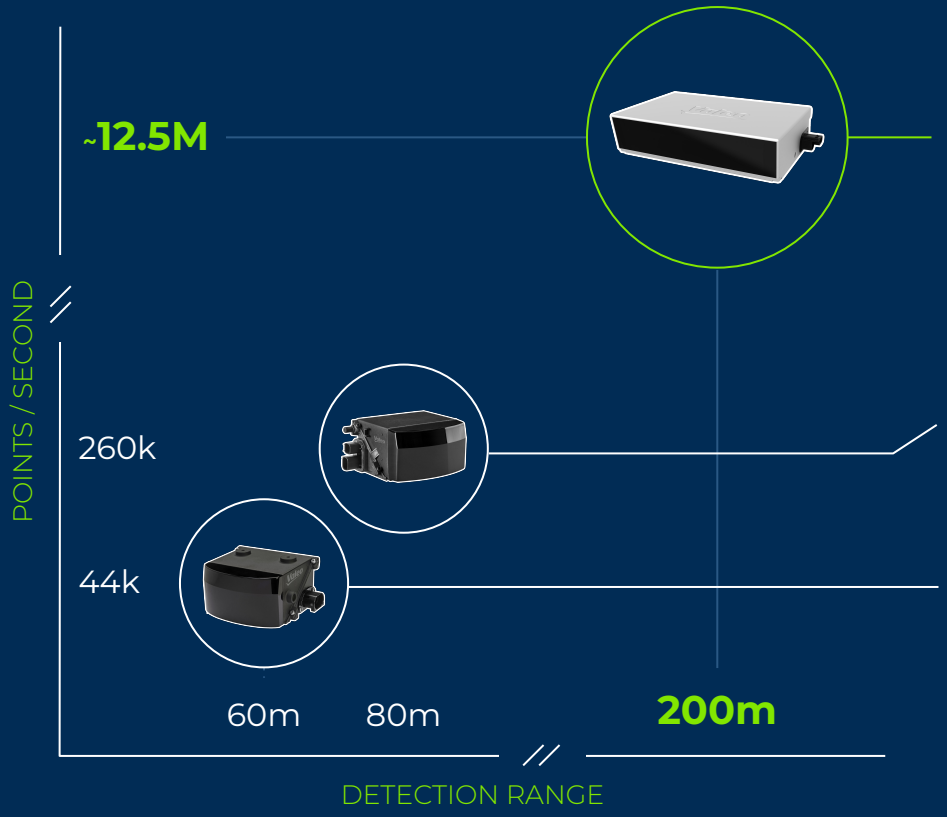
18
DISTRIBUTION PLATFORMS

All figures at end 2022

VALEO'S STRATEGY
FROM MOBILITY REVOLUTION TO VALUE CREATION

VALEO SCALA 3

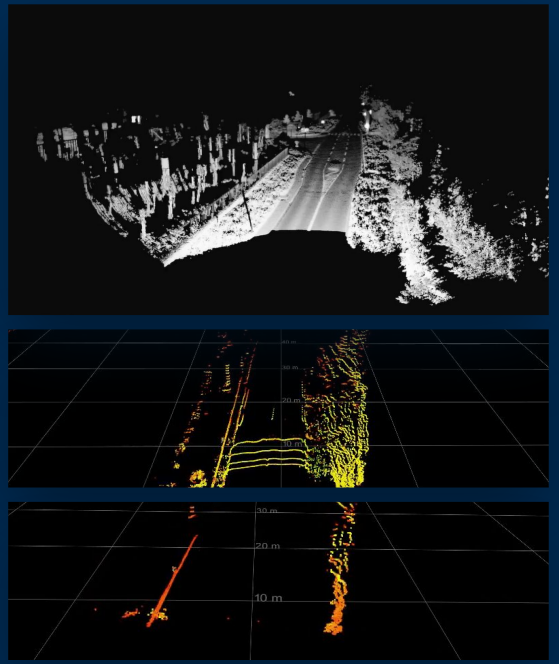
Long Range camera-like LiDAR



SCALA® GEN 3

SCALA® GEN 2

SCALA® GEN 1



More than 1 B$ Order Intake already achieved

Valeo
100 YEARS
A CENTURY OF INNOVATION
TO BUILD CLEANER, SAFER AND SMARTER MOBILITY