

WE DEFINE
FUTURE IMPACT

TECHNOLOGY
SOFTWARE
CONSULTING

**P3 BUSINESS
AS UNUSUAL**

P3 **AD** Market Insights

Edition #1/2026

February 2025

We analyze global autonomous driving ecosystems in Mobility-as-a-Service, Privately Owned Vehicles and Goods Transport.

Created by:

Ricco Kämpfer
P3 automotive GmbH
Schlosserstraße 8
38440 Wolfsburg
Germany

Last update: **February 24, 2026**



www.p3-group.com



Source: HOLON

Autonomous Driving
Market Intelligence
MaaS / TaaS / POV

Contact



Ricco Kämpfer

Principal | Autonomous Driving Market & Strategy

T: +49 151 441 387 95

@: ricco.kaempfer@p3-group.com

Personal LinkedIn



Personal WeChat



P3 autonomous mobility



Address

P3 automotive GmbH

Schlosserstraße 8
38440 Wolfsburg

Germany

DISCLAIMER

This document and all information contained herein are the sole property of P3. No intellectual property rights are granted by the delivery of this document or the disclosure of its content. This document shall not be reproduced or disclosed to a third party without the express written consent of P3. This document and its content shall not be used for any purpose other than that for which it is supplied.

P3 & P3 autonomous mobility.

Short Introduction



Portfolio as unusual.

TECHNOLOGY

- Autonomous Driving
- Battery technology
- Electric Powertrain
- Energy Solutions
- Industrialization
- Charging infrastructure
- Operations Excellence
- Task Force Management
- Testing & Engineering

SOFTWARE

- Android Automotive
- Business Intelligence
- Cloud migration
- Cyber Security
- Data analytics
- Enterprise Solutions
- Financial Systems
- IT architecture
- Certification

CONSULTING

- Agile transformation
- Digital Product Lifecycle
- Artificial intelligence
- Life Sciences
- Marketing & Design
- M&A strategy
- Sustainability
- Project management
- Product Process Compliance
- Public Sector
- Organizational strategy
- Systems Engineering
- Transformation

P3 advises leading international OEMs, suppliers, technology and insurance companies in the field of autonomous driving and autonomous mobility.



AUTONOMOUS MOBILITY
/AS UNUSUAL

>9

years of international experience in autonomous driving consulting

>100

customers worldwide and more than 300 successful AD projects

>50

employees around the globe in the autonomous driving space

75%

of the employees are engineers and software developers

We approach autonomous driving from many different perspectives. We understand the markets, know the players, but also have the technological know-how and the necessary software expertise.

Market & Strategy

- Go-to-market strategy
- Global market and competitive analysis for AD MaaS, TaaS & ownership
- MaaS & TaaS business model development incl. business case & TCO
- Competence analysis, assessment of “best-fit” partners
- (SDS) partnerships models and joint venture agreements
- AD shuttle / robotaxi and ADAS in-field testing & benchmarking

Technology & Regulation

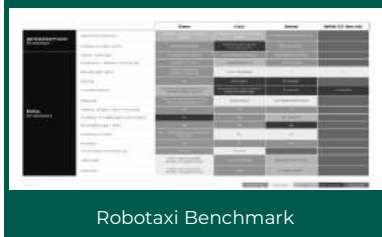
- End-to-end architecture assessment and customization
- Cybersecurity, Functional Safety & SOTIF
- Regulation Implementation (AD SMS, SUMS & CSMS for SAE L3 & L4)
- Test Strategies & Management & Tool Confidence
- Sensor set evaluation and platform fortification strategies
- Support for Homologation (Type approval ODD and operation area)

Operations & Scaling

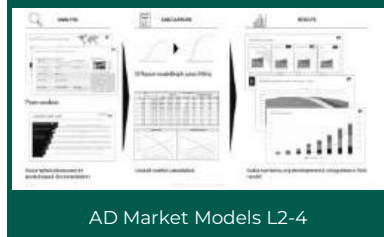
- AD Program Management incl. strategic setup, operations strategy, organizational build-up, project conduction & benchmarking
- Scaled Pilots: setup and management of runup schemes for AD pilot projects
- AD Product Lifecycle Management AD Logistics Concepts - Conceptualization of market-ready TaaS products



Overview | Market & Strategy Portfolio



Robotaxi Benchmark



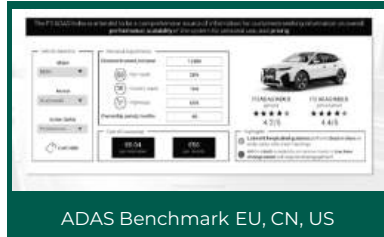
AD Market Models L2-4



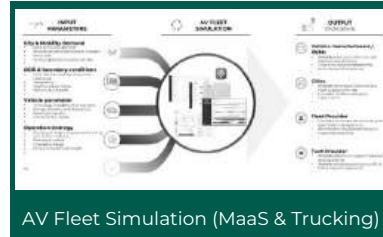
AD Partner Scouting & Analysis



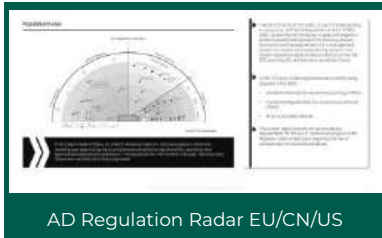
Go-to-Market Strategy



ADAS Benchmark EU, CN, US



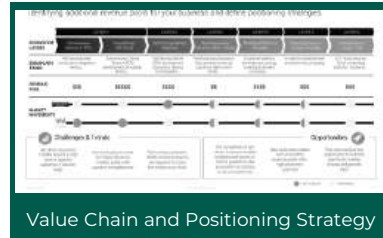
AV Fleet Simulation (MaaS & Trucking)



AD Regulation Radar EU/CN/US



TCO for MaaS, TaaS, and Trucking



Value Chain and Positioning Strategy

P3 AD market, strategy, and technology intelligence portfolio

Working closely with our Technology & Regulation and Operations & Scaling teams, we provide holistic market, competitor, and technology intelligence and strategy development for your specific needs.

Our unique (autonomous) mobility market insights at a glance – for you, for free

P3 AD Market Insights

The most comprehensive AV market and competitor analysis at no cost. Explore global AD markets for **MaaS, personally owned vehicles, and goods transport**. The ecosystem analysis employs a layered approach: 5-Layer for MaaS and goods transport, and 4-Layer for POV.

In this comprehensive report you'll find:

- ✓ In-depth analysis of **47 MaaS, 51 POV, and 40 autonomous goods transport companies** in North America, China, and Europe.
- ✓ A comprehensive **overview of use cases** for MaaS, POV, and goods transport.
- ✓ The latest **company updates, L4 roadmaps**, and a high-level profile for each company.

P3 ADAS Market Insights

Fascinating insights into L2/2+ and L3 ADAS function packages of **global OEMs and their ADAS capabilities across North America, Europe, and China**, with focus on driving functions, revealing the strategies manufacturers are using to stay competitive in this fast-evolving market.

In this comprehensive report you'll find:

- ✓ Detailed **competitor analysis, including OEM ADAS functions, supplier overviews, sensor setups and market availability**
- ✓ An overview of **the essential components driving ADAS performance**
- ✓ Exclusive **insights into the latest company-specific news** with P3's expert assessment

P3 SDV Market Insights

Landscape, advancements, and key trends in the SDV market, highlighting how **OEMs & suppliers stay competitive** in this **rapidly changing industry**. By leveraging the P3 SDV stack approach, the report provides a structured view of the **SDV supplier ecosystem** across multiple layers in NAR, EU, and Asia.

In this comprehensive report you'll find:

- ✓ Detailed **competitor analysis**, covering **12 OEMs** and their suppliers, along with a classification of **AI applications and market availability**.
- ✓ A detailed **breakdown** of the **fundamental components** driving the **SDV market** forward.
- ✓ Insider perspectives on the **latest company-specific updates**, complemented by P3 **expert evaluations**.



P3 AD Market Insights.



Let's start: P3 AD Market Insights Introduction.



Companies focusing on autonomous **MaaS**



Companies focusing on **privately owned vehicles**



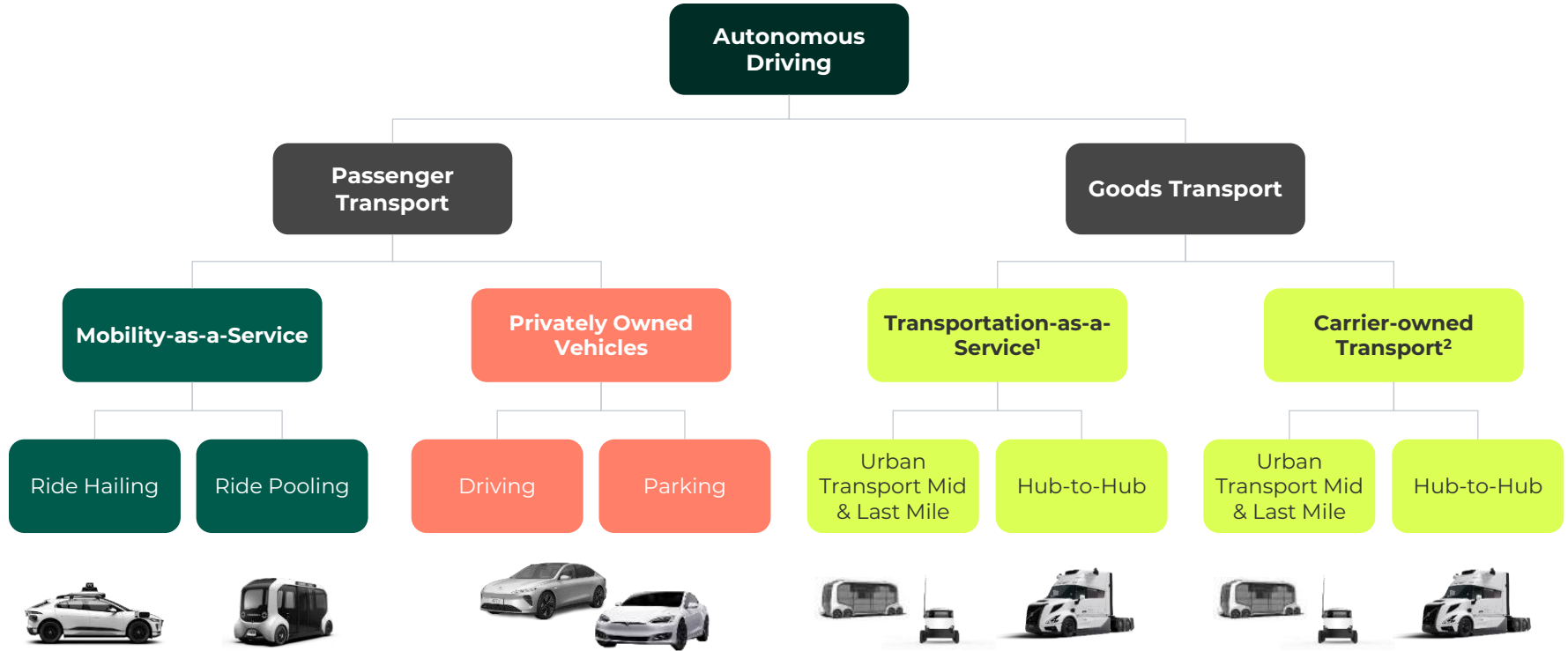
Companies focusing on **goods transport and TaaS**

We **analyze** global Autonomous Driving **value creation networks and ecosystems** using **Layer Models** and **provide overviews** of **MaaS, privately owned vehicles & goods transport use cases**

Based on their respective **core business**, we identify **(strategic) partnerships, investments** or **acquisitions** of **specific market players** and place them in the layer model. We focus on **North America, Asia** (China, Japan and Korea) and **Europe**

All **insights are based on publicly available sources**. Project knowledge or other **undisclosed information is not considered**. Any image rights of logos or images shown here are held by the respective companies

Autonomous Driving Use Cases.



¹ Self-driving truck provider owns and operates the truck and offers transport / capacity on demand
² Customer / carrier owns and operates trucks and pays a per-mile fee to the SDS / truck provider

What you'll find in this report.

1 Mobility-as-a-Service (MaaS)

MaaS | **Intro**

MaaS | **NAR**

MaaS | **Asia**

MaaS | **Europe**

2 Privately Owned Vehicles (POV)

POV | **Intro**

POV | **NAR**

POV | **Asia**

POV | **Europe**

3 Goods Transport & Transport-as-a-Service (TaaS)

Goods Transport & TaaS | **Intro**

Goods Transport & TaaS | **NAR**

Goods Transport & TaaS | **Asia**

Goods Transport & TaaS | **Europe**



AGENDA
AGENDA
AGENDA
AGENDA
AGENDA
AGENDA



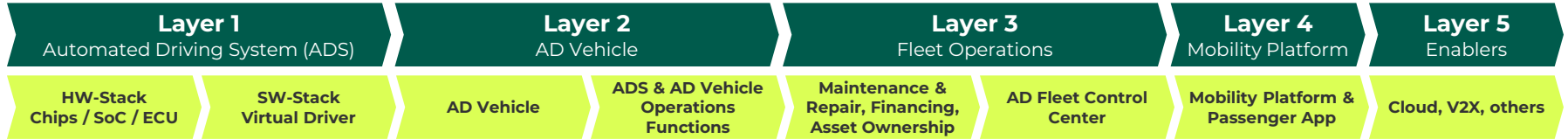
Mobility-as-a-Service.

Intro | Use Cases & Layer Description

MaaS | Use Cases

			 Gated Area Airport, factories, yards, harbors, ...	 Highway Highways, freeways, ...	 Urban City center, designated streets, ...	 Suburban Federal highway, residential areas, ...	 Rural Rural roads, gravel road, ...
Ride Hailing	SM				Robotaxi		
	M				Robotaxi		
Ride Pooling	SM		low speed autonomous shuttle (<25km/h)	-		low speed autonomous shuttle (<25km/h)	
	M				Roboshuttle		
	L				Roboshuttle		
	XL				Robobus		

MaaS | Layer Model Description



The **Automated Driving System (ADS)** encompasses SW and HW required to achieve Level 4 autonomy. The HW-Stack involves activities such as hardware development, production, testing, automotive approval, and safety compliance. The SW-Stack focuses on self-driving software development and includes activities such as testing & simulation, ODD (Operational Design Domain) management, SDS licensing, mapping, sensor data processing, E2E integration, and safety compliance.

AD Vehicles are considered L4-ready vehicle platforms. This layer centers on the development and design and include tasks such as platform & system architecture, regulatory compliance, safety concept, homologation, logistics, and production.

ADS & AD Vehicle Operations Functions describe all functions and interfaces required for AD-MaaS specific tasks performed by the AD Fleet Control Center and Remote Operator such as remote vehicle control, cabin and rider monitoring, operator & emergency call and remote ADS control/assistance.

Fleet Operations covers operational activities for AV fleets. Tasks include maintenance, service and repair, financing, concessions, charging, training, cleaning or parts supply.

Moreover, AD Fleet Control Center tasks include the execution of ADS & AD Vehicle Operations Functions (e.g., cabin and rider monitoring or remote ADS assistance) in a fleet management tool / user interface. It also includes typical fleet management tasks such as mission management, health monitoring or maintenance & charging scheduling of the AV fleet.

The **Mobility Platform** is the rider frontend. It is point of sale and provider of the primary communication and interaction channel with the user. Tasks include booking, pricing, payment as well as vehicle assignment and dynamic routing (fleet intelligence features). Rider experience (e.g., music, entertainment) may also be covered by mobility platforms.

Enablers especially include cloud infrastructure and data centers for processing and storing large amounts of AV data. Furthermore, particularly in China, V2X is a key pillar in pilot zones, enabling faster AV deployment and collaborative decision-making






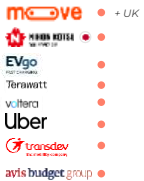

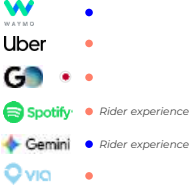







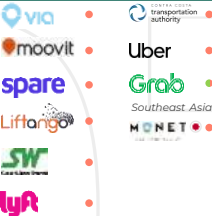







MaaS | Layer Model Description

Layer 1 Automated Driving System (ADS)		Layer 2 AD Vehicle		Layer 3 Fleet Operations		Layer 4 Mobility Platform	Layer 5 Enablers
HW-Stack Chips / SoC / ECU	SW-Stack Virtual Driver	AD Vehicle	ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center	Mobility Platform & Passenger App	Cloud, V2X, others
HW Development	SW Development	Design & development	Remote vehicle control	Hub Setup	Execution of ADS & AD Vehicle Operations Functions in UI	Rider App	V2X
HW Production	Testing & Simulation	Quality assurance	Rider authentication	Financing / Insurance		Booking	3rd party HD maps
Sensor Integration	ODD Management	Redundancy	Cabin & rider monitoring	Concessions	AD Vehicle Real-Time Tracking and Monitoring	Pricing	Cloud Infrastructure
Automotive approval	SDS Licensing	X-by-Wire	Departure control	Charging	Incident Management	Payment	
Sensor testing & approval	SW Testing & Approval	Regulatory compliance	Rider interfaces & assistance	Maintenance, Service, Repair	AD vehicle Maintenance Scheduling	Dynamic Routing & Optimization	
Sensor fusion	Mapping	Homologation	Operator & emergency call	Small Repair	AD Vehicle Charging Scheduling	Demand Prediction	
Calibration and Integration Support	Verification & Validation	After sales / aftermarket	ADS mission control	Washing & Cleaning	Emergency Response Coordination	Pooling Algorithms	
Safety & Compliance	E2E Integration	Safety concept	Telemetry, Monitoring & Diagnostics	Parts supply	AD Vehicle Mission Dispatch	API / Integration	
...	Sensor Integration and Data Processing	AD requirements	Remote ADS Assistance	In/De-fleeting	Safety Driver Management	Customer Support	
	Safety & Compliance	Logistics	Remote ADS Troubleshooting	Training	Data Analytics and Reporting	3rd Party connection	
		Production	Data Management	In-field support	Customer interaction	Data Analytics	
		Battery & charging concept	E2E integration				









































Mobility-as-a-Service. NAR.









































































Partnering & Value Chain, Level 4 Target & Latest News

































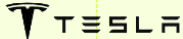







Layer 1				Layer 2			Layer 3		Layer 4		Layer 5			
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3 rd party Maps	Cloud	V2X & others		
												Undisclosed		
														
														

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update ● Partner outside US

Layer 1				Layer 2			Layer 3		Layer 4		Layer 5		
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center	Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience		3 rd party Maps	Cloud	V2X & others
							Uber 		Uber 				
						Undisclosed		Undisclosed				Undisclosed	
  	 			 	 				   			   	
 	 			   					  				Undisclosed

Layer 1		Layer 2		Layer 3		Layer 4		Layer 5								
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions		Maintenance & Repair, Financing, Asset Ownership		AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3rd party Maps	Cloud	V2X & others			
 				 			     	     	   	  			 			
		        	 	   			    	    								
<p>Covered by ADS & OEM partners</p>		    				<p>Vehicles of ADS and OEM partners</p>	  		 							

Layer 1		Layer 2			Layer 3		Layer 4	Layer 5								
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions		Maintenance & Repair, Financing, Asset Ownership		AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3 rd party Maps	Cloud	V2X & others				
 		<p>COAST</p>							<p>Undisclosed</p>							
  				    			  	  								
	  															

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

At a glance

Latest news

L4 target



Waymo's virtual driver is the world's **most experienced one**. The fully driverless I-PACE fleet in Phoenix, SF and LA impresses with a **terrific system performance**. In our view and bases on our benchmark rides, Waymo is **currently ahead of competition** in the AV space. Meanwhile, Waymo seems to be able to accelerate scaling by integrating E2E modules.

Waymo raises \$16B to scale robotaxi fleet internationally.

(02.02.2026)

Update

Read

L4 achieved in Phoenix by **2020**.



May's fleet is already **available to the general public** in many cities. The **SDS is designed for multiple vehicle platforms** and used in the Toyota Sienna Autono-MaaS vehicles, among others. By end of 2024, May launched the first autonomous e-Palette deployment at a Toyota Motor factory in Japan announced a 30-seater bus cooperation by 2025.

May Mobility to expand Its AV technology into Southeast Asia with Grab investment.

(23.10.2025)

Read

L4 achieved in Sun City by late **2023**.



Nuro **has been a pioneer in last-mile deliveries** with a special purpose vehicle. In September 2024, Nuro announced to **start licensing its L4 technology** to manufacturers of personally owned vehicles and mobility providers, like ride-hail and delivery companies. By 2025, a **major robotaxi deal with Uber and Lucid** was signed.

Lucid, Nuro, and Uber unveil global robotaxi at CES, announce autonomous on-road testing.

(05.01.2025)

Update

Read

Not announced



Avride is the **rebranded, international division** of the robotaxi and delivery robot company **Yandex Self-Driving Group**. While international assets have been separated from Yandex assets, Avride is testing AVs in diverse ODDs across the globe, focusing on safety. **Uber will be a key partner for MaaS and delivery**.

Uber and Avride launch robotaxi service in Dallas.

(03.12.2025)

Update

Read

Not announced

At a glance

Latest news

L4 target



JV of Hyundai and Aptiv, while the latter reduced its common equity interest from 50% to about 15% by end of March 2024. In this course, **Hyundai has agreed to invest nearly \$1 billion in Motional by 2024**. The demise of Motional has thus been averted for the time being.

Motional puts AI at center of robotaxi reboot as it targets 2026 for driverless service.

(11.01.2026)

2026

[Update](#) [Read](#)



Zoox is testing its purpose-built robotaxi on **public roads in the Bay Area and Las Vegas**. After starting employee rides in late 2024, Zoox began offering early rider access via waitlists in San Francisco's SoMa and along the Las Vegas Strip. Zoox built its robotaxis from scratch, deliberately eliminating the steering wheel to create a **purpose-built AV**.

Zoox to begin offering robotaxi rides to public in San Francisco.

(18.11.2025)

L4 achieved in Las Vegas in **2025**

[Read](#)



Unlike most MaaS providers, ADASTEC is not focusing on robotaxis but developing an **AV stack for transit buses**, which marks a USP in the market. ADASTEC has **deployed buses in several locations** including the US and Europe.

MVG tests autonomous midibus.

(18.12.2025)

2026

[Update](#) [Read](#)



Uber's self-driving unit was sold to Aurora in 2020. Instead of developing its own autonomous driving technology, Uber now forms **partnerships with a variety of leading robotaxi companies worldwide**, granting them access to a **massive customer base**.

Uber wants to be a Swiss Army Knife for robotaxis (23.02.2026)

L4 achieved in Austin with Waymo in **2025**.

[Update](#) [Read](#)

At a glance

LYFT



Lyft's self-driving unit was sold to Toyota's Woven Planet in 2021. Similar to Uber, Lyft **established partnerships with various AV providers** - and in combination with its Flexdrive subsidiary, it now has a **clearer value proposition for additional and existing partners.**

COAST



The company provides MaaS solutions for cities, theme parks, campuses, airports, rail yards, and other private sites. In the meantime, **COAST seems to be focusing primarily on use cases other than passenger transport** (e.g., harvesting, ports).

PERRONE ROBOTICS



Perrone been **developing autonomous vehicle solutions since 2003**. Apart from its low-speed shuttles, Perrone claims to have **outfitted over 30 vehicles types with its retrofit kit**. Despite its experience, we don't believe Perrone will become a leading market player.

TESLA



Tesla launched its **first robotaxi deployment in June 2025** in Austin. The fleet is limited to 10 vehicles, operating only a **few hours a day in good weather**. A safety operator is onboard, and teleoperations are likely heavily used. A promising start for Tesla, but many questions remain. We're eager to see what's next.

Latest news

Uber and Lyft to test Baidu robotaxis in London next year, joining Waymo".

(22.12.2025)

Update

Read

COAST Autonomous announces collaboration with the city of Winter Haven, Florida to explore deployment of autonomous transportation solutions.

(30.03.2022)

Read

Perrone Robotics surpasses one year of autonomous transit operations in Detroit.

(12.11.2025)

Read

Tesla launches robotaxi rides in Austin with no human safety driver.

(22.01.2026)

Update

Read

L4 target

Not announced

Not announced

Not announced

2026 – high reliance on teleops expected

At a glance



Tensor is the first company ever to **introduce a robocar specifically designed for private ownership**, built from the ground up for a dual operating mode – both manual and autonomous. **Evolving from AutoX**, Tensor is now bringing that expertise to the consumer market. However, **partnerships with Lyft and other fleet operators** are already set up.

Latest news

Autoliv and Tensor introduce world's first foldable steering wheel for autonomous driving.

(12.12.2025)






































































































[Read](#)



































L4 target

2026

Mobility-as-a-Service. Asia.





























Partnering & Value Chain, Level 4 Target & P3 Assessment













Layer 1		Layer 2			Layer 3		Layer 4		Layer 5							
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions		Maintenance & Repair, Financing, Asset Ownership		Mobility Platform & Passenger App		Cloud, V2X, others				
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions		Maintenance & Repair, Financing, Asset Ownership		Fleet Control Center & Remote Assistance UI		Mobility Platform, MaaS Intelligence, Rider Experience		3rd party Maps	Cloud	V2X & others
HESAI	 NVIDIA			 ARGFOX	 HFCO	 Baidu apollo		 Swiss Re		 Baidu apollo		 Apollo Go	 EARMERA	 Microsoft	 NP	
robosense	 NXP	 Baidu apollo		 ARGFOX	 CATL			 Baidu apollo				 滴滴出行	 tomtom		 SAMSUNG	
 ZEVION				 JINBEI				 Uber				 Grab			 中国铁塔	
 ON		 ETRI		 BAIC				 Lyft				 Uber				
 SAC				 SAC				 EP				 Lyft				
HESAI	 NVIDIA			 YUTONG		 WeRide		 WeRide	 RTA	 WeRide		 WeRide	 ioxi			
robosense	 Horizon Robotics			 Renault Group				 beti	 RAKTA	 ST Engineering		 WeRide	 Grab			
	 Lenovo	 WeRide 文远知行		 G				 4G	 AMAP			 AMAP	 COMFORTDELGO			
				 FARIZON				 COMFORTDELGO	 Allianz			 ON TIME	 Txi			
				 Exeed				 Allianz	 Allianz			 Uber	 Ke			
LUMINAR	 NVIDIA			 TOYOTA		 pony.ai		 TOYOTA	 Bolt	 pony.ai		 pony.ai	 Alipay	 NAVINFO		
HESAI	 pony.ai			 GAC				 Jia Jia	 COMFORTDELGO		 ON TIME	 ON TIME	 Bolt			
robosense		 pony.ai		 ARGFOX				 COMFORTDELGO	 RTA			 COMFORTDELGO	 T3出行			
				 HYUNDAI EU fleet				 RTA	 Allianz			 COMFORTDELGO	 AMAP			
				 ISAIAC				 MOLINSAL				 Uber				
				<p>Gen7 on Toyota, BAIC, and GAC platforms only</p>									 AMAP			
				 STELLANTIS												

Layer 1				Layer 2				Layer 3		Layer 4		Layer 5					
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions		Maintenance & Repair, Financing, Asset Ownership		AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others			
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions		Maintenance & Repair, Financing, Asset Ownership		Fleet Control Center & Remote Assistance UI		Mobility Platform, MaaS Intelligence, Rider Experience		3 rd party Maps	Cloud	V2X & others	
HESAI ●  ●  ●  ●				 ● CATL ●  ●			 ●		 ●		Undisclosed				 ●		
 ●  ●		 ●		 ●  ●	 ●		 ●		●				● ●				
HESAI ●  ●				 ●	 ●		 ●		●								
 ●				 ●													
 ●				 ●													
 ●  ●				 ●			Undisclosed		 ●		●		●				
 ●				 ●			Undisclosed		 ●		●		●				
 ●							Undisclosed		 ●		●		●				
















Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update ● Partner outside Asia

Focus on L2+ and L3

Layer 1		Layer 2			Layer 3		Layer 4	Layer 5							
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions		Maintenance & Repair, Financing, Asset Ownership		AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others	
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3 rd party Maps	Cloud	V2X & others			
		 					Undisclosed	Undisclosed							
Not relevant		 		   ONTIME integrates 3 rd party fleets		Undisclosed	Undisclosed					Undisclosed			
HESAI	  TIER IV	TIER IV 		   Innovation by Chemistry	TIER IV   Engineering	TIER IV	  	TIER IV	 						

Layer 1				Layer 2			Layer 3		Layer 4		Layer 5		
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center	Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience		3 rd party Maps	Cloud	V2X & others
    		   					Undisclosed	Undisclosed		 			
		 		 		Undisclosed	Undisclosed	Undisclosed	Undisclosed	Undisclosed	Undisclosed	Undisclosed	Undisclosed
 				   		Undisclosed		Undisclosed	 			Undisclosed	Undisclosed

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

Layer 1		Layer 2			Layer 3		Layer 4		Layer 5				
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center	Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3 rd party Maps	Cloud	V2X & others	
						Undisclosed	Undisclosed	Undisclosed				Undisclosed	
Covered by WeRide's suppliers												Undisclosed	
						Undisclosed	Undisclosed	  				Undisclosed	



Layer 1				Layer 2			Layer 3		Layer 4		Layer 5			
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI		Mobility Platform, MaaS Intelligence, Rider Experience		3 rd party Maps	Cloud	V2X & others
<ul style="list-style-type: none"> LUMINAR AISIN DENSO <i>Crafting the Core</i> ZF robosense 	<ul style="list-style-type: none"> NVIDIA QVOC WAY Mobility IqA Level 5 momenta WAYMO 	<ul style="list-style-type: none"> Aurora Applied Intuition pony V.d.l parallel domain Apex.AI Waymo momenta WAYMO 	<ul style="list-style-type: none"> Applied Intuition parallel domain Apex.AI 	<p>TOYOTA</p>	<p>Undisclosed</p>	<p>Undisclosed</p>	<p>Undisclosed</p>	<ul style="list-style-type: none"> RIDECELL 	<ul style="list-style-type: none"> Grab Uber DiDi 	<ul style="list-style-type: none"> here tomtom NTT DATA MAXAR HERE HERE 	<ul style="list-style-type: none"> aws 	<ul style="list-style-type: none"> PERCEPTIVE AUTOMATA 		
<ul style="list-style-type: none"> APTIV OUSTER ZENDAR Opsys Technologies 	<ul style="list-style-type: none"> APTIV NVIDIA IONQ 	<ul style="list-style-type: none"> WAYMO Motional Aurora pony V.d.l 42dot Baidu 百度 AVRIDE 	<ul style="list-style-type: none"> Motional 	<p>HYUNDAI MOTOR GROUP</p>	<p>Undisclosed</p>	<ul style="list-style-type: none"> Motional 	<ul style="list-style-type: none"> Motional 	<ul style="list-style-type: none"> Motional 	<ul style="list-style-type: none"> Grab AIRIS i.M 	<ul style="list-style-type: none"> here 	<ul style="list-style-type: none"> here 	<ul style="list-style-type: none"> aws 	<ul style="list-style-type: none"> PERCEPTIVE AUTOMATA 	
<ul style="list-style-type: none"> BOSCH robosense HESAI 	<ul style="list-style-type: none"> NVIDIA Qualcomm Imborella 	<ul style="list-style-type: none"> momenta 	<ul style="list-style-type: none"> Mercedes 	<p>momenta</p>	<p>Undisclosed</p>	<ul style="list-style-type: none"> Uber LUMO 	<ul style="list-style-type: none"> Uber LUMO Grab 	<ul style="list-style-type: none"> Uber LUMO Grab 	<ul style="list-style-type: none"> Uber LUMO Grab 	<ul style="list-style-type: none"> here 	<ul style="list-style-type: none"> here 	<ul style="list-style-type: none"> aws Tencent 腾讯 	<ul style="list-style-type: none"> PERCEPTIVE AUTOMATA 	

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update ● Partner outside Asia

At a glance



Baidu Apollo Go reported fully driverless weekly rides as of end of October 2025 have surpassed **250,000 orders**. Baidu is an absolute heavyweight in the Chinese AD market and among the strongest robotaxi players in China. Moreover, Baidu has expanded its footprint to Middle East and Europe.



WeRide was the **first company in CN** to operate a fleet with **>100 vehicles** for AD testing and was permitted to test **fully driverless** both in **China** and the **USA**. Considering >20mn autonomous kilometers, WeRide is among the strongest AD players. By beginning of 2025, WeRide announced the 3rd deployment in Europe, showing their ambitions in this market.



Pony.ai is an **industry leader in the development and commercialization of robotaxi services** in China and is currently preparing to enter the European market. Pony.ai has formed partnerships with leading OEMs, including Toyota, and GAC Group. Pony.ai is among the strongest AD players.



In 2025, Hello, a Chinese bike-sharing and ride-hailing firm, **launched its first mass-produced Robotaxi**, the HR1, **aiming for large-scale production by 2026** in over 10 cities. It partnered with Venucia (Dongfeng), Alibaba Cloud, Horizon Robotics, and Hesai Technology to drive R&D, manufacturing, and commercialization.

Latest news

Apollo Go, Uber to bring fully driverless ride-hailing service to Dubai.

(10.02.2026)

Update

Read

WeRide brings Robotaxi services to WeChat as autonomous mobility moves closer to daily life.

(15.01.2026)

Update

Read

Pony.ai and Toyota advance robotaxi commercialization with mass-produced bZ4X robotaxis.

(09.02.2026)

Update

Read

Hello Robotaxi, ComfordDelGro China team up on commercialization, global applications of autonomous driving tech.

(26.11.2025)

Update

Read

L4 target

L4 reached in Guangzhou by **2021**

L4 reached in Guangzhou by **2022**

L4 reached in Beijing and Guangzhou by **2023**

2026

At a glance

Latest news

L4 target



Following an 18-month suspension by the Chinese authorities, Didi was permitted to sign up new users by 2023. Its **active user base was >500m** in 2023. This means great market power - however, it has become **quiet around DiDi's AV division**.

DiDi begins 24/7 fully driverless ride-hailing trials in Guangzhou.

(02.12.2025)

[Update](#) [Read](#)

L4 reached in Guangzhou by **2025**



DeepRoute pursues a **mapless approach**. In the meantime, DeepRoute has covered **10 million autonomous kilometers** on public roads by 09/23 and holds permission to carry passengers in China. The current focus seems to be rather on L2+ ADAS than robotaxis.

DeepRoute.ai to begin robotaxi service by year-end.

(03.11.2025)

[Read](#)

2025



Horizon Robotics is particularly strong in the POV segment, with many OEM and Tier 1 partnerships regarding their Journey chips as well as smart driving solutions. Horizon only has a **small footprint in the robotaxi / MaaS segment**, while NVIDIA is the dominant market player.

Horizon Robotics partners with Hello for Robotaxi development.

(12.09.2025)

[Read](#)

Not announced



ONTIME (Ruqi Mobility) was founded by GAC Group and Tencent. Its business scope in terms of robotaxis is an **operation platform including remote supervision, remote management, remote control and remote evaluation**. ONTIME integrates fleets from partners such as GAC and Pony.ai and had a fleet of >280 vehicles by December 2023.

GAC-backed mobility service platform ONTIME launches 'Robotaxi+' strategy.

(24.07.2025)

[Read](#)

Not announced

At a glance

Latest news

L4 target

TIER IV



TIER IV is a Japan-based company **specializing in Autoware-based AD solutions**. The company aims to make autonomous mobility technology scalable and accessible, collaborating globally to **advance AVs for different industries**. TIER IV participates in projects such as METI aimed at deploying robotaxis for transportation and autonomous trucks for logistics.

TIER IV forms capital and business alliance with JR Central to support regional development through rail and autonomous driving integration.

(26.12.2025)

[Update](#) [Read](#)

Not announced

SAIC



By August 2022, SAIC accumulated **400,000km of automated driving testing** in China. SAIC has **partnered with well-known SDS providers**, such as Momenta and Pony.ai, to develop self-driving vehicles.

SAIC Motor set to launch autonomous driving services in Shanghai by August.

(25.07.2024)

[Read](#)

2025

FAW GROUP



FAW's focus is primarily on privately owned vehicles. However, **its EV brand Hongqi** and its **3rd-generation robotaxi** rides on the same platform as its mass-produced vehicle to achieve economies of scale. FAW **co-developed the Hongqi robotaxi with Baidu** and additionally **invested in tech company Pony.ai**.

Hongqi's 3rd-gen L4 Robotaxi allowed for unmanned road tests in Beijing.

(10.07.2024)

[Read](#)

Not announced

PIX



PIX Moving shares the vision of rebuilding the city with a special form of vehicles called **Moving Spaces**. These **multi-functional pods** can serve as moving working spaces or vending machines, among others. Great concept for technology-driven Asian markets and beyond.

RoboSense, PIX Moving form strategic partnership to accelerate global scale deployment of RoboBus, RoboShop.

(31.10.2025)

[Read](#)

Not announced

At a glance

Latest news

L4 target



Nissan plans to offer **autonomous mobility services starting in Japan by 2027**, working closely with third parties such as local authorities and PTAs and relying on its **inhouse-developed, autonomous-drive system**. Initial trials started in 2024 with the goal so have 20 supervised demonstration vehicles on the roads between 2025 and 2026.

Nissan's autonomous mobility service pilot program to commence in Kobe City.

(05.12.2025)

[Update](#) [Read](#)

2027



Yutong is China's top bus manufacturer and the world's largest one. For the AD MaaS Case, Yutong provides its **purpose-built electric robobus**, which is already operating driverless on public roads in cooperation with SDS provider WeRide. Yutong **will thus remain true to its core business**.

WiTricity and YuTong Bus revolutionize public Transportation with Wireless Charging for Autonomous E-Buses.

(10.02.2023)

[Read](#)

L4 reached by **2022** jointly with WeRide.



Acquired by Hyundai Motor Group in 2022, 42dot is the **groups' global software center**. 42dot and Hyundai showcased SDV technologies under development to lead to a **'Software-defined Everything' (SDx) ecosystem beyond mobility** at CES 2024.

Geotab, Kia, and 42dot join forces to drive the future of fleet management.

(12.09.2024)

[Read](#)

Not announced



In the AD MaaS space, Toyota is **focusing primarily on partnerships, investments and acquisitions**. The extensive portfolio includes, for example, Lyft Level 5, Momenta, Pony.ai or May Mobility. Toyota and Pony.ai are developing a robotaxi fleet of about 1,000 vehicles. A partnership with Waymo is set to explore future vehicle platforms for both ride hailing and POVs.

Waymo and Toyota outline strategic partnership to advance autonomous driving deployment.

(29.04.2025)

[Read](#)

Not announced

At a glance



Hyundai and Aptiv jointly established **Motional** to develop robotaxis. Moreover, the **acquisition of 42dot** is **intended to strengthen capabilities**. We are curious to what extent Hyundai, apart from Motional, will therefore position itself in the AD business in the future.



Momenta's shifted focus is on advanced L2+ solutions for OEMs in all key markets. However, **in 2025, major collaborations with Uber and SAIC Mobility were announced to deploy robotaxi fleets**. The partnership with Uber aims to launch international robotaxi services, starting in Europe by 2026.

Latest news

Hyundai Motor Group launches 'Pleos' software brand, unveiling new SDV technologies and collaborations.

(27.03.2025)

[Read](#)

Momenta teams up with Grab to accelerate autonomous driving rollout in Southeast Asia.

(18.12.2025)

[Update](#)

[Read](#)










































































L4 target

2026 (Motional)

























2025

Mobility-as-a-Service. Europe.







































Partnering & Value Chain, Level 4 Target & P3 Assessment


















Layer 1				Layer 2			Layer 3		Layer 4		Layer 5		
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center	Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience		3 rd party Maps	Cloud	V2X & others
 				 Commercial Vehicles		ADMT 	MOIA  Uber   BVG  holo  	MOIA  EMOTION3D  MOIA partnership holo 	MOIA  Uber   Ruter#  	Undisclosed			
 				HOLON  EDAG 		valtech mobility 	beep   HOCHBAHN  BENTELER  charterUP 	beep   HOCHBAHN 	beep   charterUP   MOIA  lyft  BLACKLANE  IOKI  	Undisclosed			
 				NIO  HOLON  Commercial Vehicles  verne 	ADMT  HOLON 	DB  holo  beep   SIXT  Marubeni 	MOIA  holo  moovit  beep 	MOIA  moovit  Ruter#  IOKI  lyft   EMT 	Undisclosed				








































Moved from US chapter
Primary focus on EU

Layer 1		Layer 2			Layer 3		Layer 4		Layer 5					
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3 rd party Maps	Cloud	V2X & others		
 				 										
Undisclosed												Undisclosed		
Undisclosed				 								Undisclosed		

NEW

Layer 1		Layer 2			Layer 3		Layer 4		Layer 5							
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions		Maintenance & Repair, Financing, Asset Ownership		AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3 rd party Maps	Cloud	V2X & others				
Undisclosed		 		Renault Group		Undisclosed		Undisclosed	Undisclosed	Undisclosed	Undisclosed	Undisclosed				
  	   		 	  			Executed by several public transport operators.	  	  	Undisclosed						
  				  			Executed by several public transport operators.	  	 	Undisclosed						

Layer 1				Layer 2			Layer 3		Layer 4		Layer 5		
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions	Maintenance & Repair, Financing, Asset Ownership	AD Fleet Control Center	Mobility Platform & Passenger App		Cloud, V2X, others		
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience		3 rd party Maps	Cloud	V2X & others
 •	 •	 •	 •			Undisclosed	 •	 •	 •				Undisclosed
 Drivers to save lives	 •			 •  •		Undisclosed	 •  •	Undisclosed		 •	Undisclosed		
 •				 •  •	 •	Undisclosed		 •  •	 •				 •

Layer 1		Layer 2		Layer 3		Layer 4		Layer 5							
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		ADS & AD Vehicle Operations Functions		Maintenance & Repair, Financing, Asset Ownership		AD Fleet Control Center		Mobility Platform & Passenger App		Cloud, V2X, others	
Sensors	Chips, SoC, ECU, DCU, ...	Virtual Driver	Simulation, V&V, Dev Tools, ...	AD Vehicle	Components	Cabin Monitoring, Vehicle Control & Remote Assistance Functions	Maintenance & Repair, Financing, Asset Ownership	Fleet Control Center & Remote Assistance UI	Mobility Platform, MaaS Intelligence, Rider Experience	3 rd party Maps	Cloud	V2X & others			
  	 		 	   		Undisclosed	   	 	 		 				
		 				Undisclosed			 						
 						Undisclosed	 		 						

Focus on industrial autonomy

At a glance



Of all the European OEMs in the AD MaaS space, the **partnership of VWCV, ADMT, and MOIA** is the most ambitious and advanced one. The **ID. Buzz AD prototype vehicles with integrated Mobileye Drive ADS** are **hitting the roads in Germany and the US**. The series vehicle was unveiled in 2025..



Benteler established **HOLON as its AD business unit**. Powered by Mobileye, the company has already established **various global partnerships** for its HOLON urban deployments, including USA, the Middle East, and Europe. By end of 2025, HOLON received approval for testing on German roads.



Mobileye is **testing its AV fleet in various locations around the globe**, including complex European traffic. **Initial pilot projects with various vehicle partners** are underway and will allow the L4 capabilities and MaaS features to be further developed and tested. Mobileye is currently the only well-known AV company with a **clear focus on Europe**.



Verne creates an AV ecosystem consisting of three pillars: an **autonomous electric vehicle** for ride hailing, specialized **infrastructure**, and a mobility **service platform**. The goal is to reshape future mobility and create a unique user experience. While Europe's focus is on pooling, Verne will nevertheless find its place in the mobility ecosystem.

Latest news

Ruter and Holo enter partnership with MOIA for next phase of autonomous public transport in Oslo.

(10.12.2025)

[Update](#) [Read](#)

HOLON and CharterUP advance autonomous mobility in the US.

(20.02.2026)

[Update](#) [Read](#)

Project update KIRA: Passengers can access autonomous driving shuttles in Darmstadt.

(02.09.2025)

[Read](#)

Construction of Verne autonomous EV production facility kicks off at VGP Park Zagreb.

(11.02.2025)

[Read](#)

L4 target

2027

2027

Not announced

2026

At a glance

Bolt



Bolt is **Europe's flagship mobility platform** operating in 600+ cities across 50+ countries. The company aims to speed up the shift from private cars to shared mobility and has **strategic partnerships with Stellantis and Pony.ai to integrate Level 4 autonomous vehicles** and launch large-scale driverless ride-hailing and robotaxi services.

motorai



MOTOR Ai develops a **full-stack software solution for L4, relying on raw sensor data**. The SW stack aims to be **SOTIF compliant and meet AFGBV regulations**. The company also **developed a retrofittable Drive-by-Wire system**. We look forward to seeing the first vehicles on public roads and if the ambitious timeline can be met.

Renault Group



Renault teamed up with Waymo on autonomous driving back in 2019 – no further announcements yet. Also, **Renault is partnering with WeRide on self-driving public transit** in France. While a first showcase was deployed in 2024, we expect more to come.

EASY MILE



EasyMile has been deployed vehicles >30 countries and >300 locations. the **EZ10 is the most widely used autonomous shuttle**. **ODD and SDS capabilities must be enhanced** to remain competitive in autonomous MaaS. However, EasyMile also provides driverless goods transportation solutions.

Latest news

Stellantis and Bolt partner to advance large-scale deployment of driverless mobility in Europe.

(09.12.2025)

[Read](#)

MOTOR Ai gets \$20M for autonomous driving software that will fast track global deployment of safe autonomous cars.

(14.07.2025)

[Read](#)

Renault Joins Forces with WeRide for Low-Carbon Public Transit Practice in Europe.

(15.05.2024)

[Read](#)

MicroSys and EasyMile collaborate on the development of safety-critical technology for autonomous driving.

(02.04.2024)

[Read](#)

L4 target

Not announced

Not announced

Not announced

L4 permission on one public road in France.

At a glance

Latest news

L4 target

navya



Navya Mobility's (ex-GAMA) focus is SDS development, vehicle implementation and operation. As the technology is limited to **fixed routes** and **low speed applications**, it will be quite challenging to compete with more mature AV players. Gated areas seem to be the only promising use case in the future.

Navya Mobility launches EVO 3, its new autonomous shuttle for passenger transport.

(07.10.2025)

Read

Not announced

MAN



MAN has not yet made an appearance in the bus segment in the context of autonomous driving. The **MINGA** project, in which MAN has a **strong partner at its side in SDS provider Mobileye**, is the first step. MAN needs a clear roadmap as demand among European transport companies for automated buses is growing.

MAN Truck & Bus to make city buses autonomous with Mobileye.

(17.05.2023)

Read

Not announced

Imagry



Imagry's technology relies on **multiple 360° cameras** and is based on a **deep neural network** that learns to drive by imitating human behavior. At the end of 2025, the **first partnership in Europe** (Latvia) was announced, with the AV stack being integrated into passenger vehicles instead of buses.

Imagry and eVersum announce partnership to offer autonomous driving buses in Japan and Europe.

(23.12.2025)

Update

Read

Not announced

auvetech



The Estonian startup offers autonomous and sustainable last-mile solution and claims to develop the **first autonomous hydrogen vehicle** in the world. Although there are already pilot projects, it will be tough to prevail against the well-known shuttle providers.

MiCa 2.0 and Auve Stack 2.0 launching in May.

(19.05.2025)

Read

Not announced

At a glance

OXI



Oxa is **one of the few remaining autonomous technology provider in Europe**. First robo shuttle deployments in the US have been accomplished. The **partnership with eVersum** in particular is generating growing interest in Oxa among European transport companies.

WAYVE



Wayve does **not rely on HD maps** and **hand-coded rules** but **focuses on its deep and self-learning AI technology** based on cameras. The company raised \$1bn in 2024 to take its Tesla-like technology for self-driving to many carmakers. With regard to AD MaaS, we only expect serious activities in the long term.

STELLANTIS



Stellantis partners with NVIDIA, Uber and Foxconn to develop Level 4 robotaxi vehicles, aiming for production in 2028 and an initial deployment of 5,000 units in the US. **Stellantis also teamed up with Pony.ai in Europe** to integrate Pony.ai's autonomous-driving software with Stellantis' BEV van platform for testing in Luxembourg and broader rollout starting in 2026.

Latest news

Northern Ireland's Harlander AV Pilot completes operations.

(07.11.2025)

Read

Wayve acquires Quality Match to strengthen data quality and safety for AI driving systems.

(01.12.2025)

Update

Read

Stellantis and Bolt partner to advance large-scale deployment of driverless mobility in Europe.

(09.12.2025)

Update

Read

L4 target

Not announced

Not announced

2028+

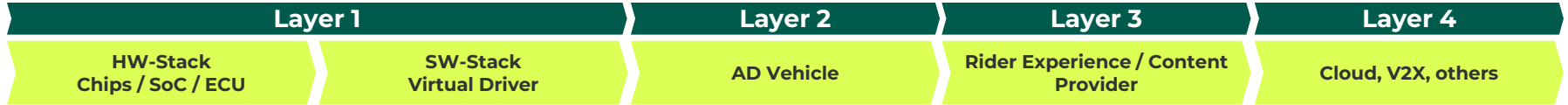
Privately Owned Vehicles.

Intro | Use Cases & Layer Description

Privately Owned Vehicles | Use Cases

		Private Ground	Highway	Urban	Suburban	Rural
		Airport, factories, yards, harbors, ...	Highways, freeways, ...	City center, designated streets, ...	Federal highway, residential areas, ...	Rural roads, gravel road, ...
POV	Parking	P2P navigation/parking, trained parking	-	P2P navigation/parking, trained parking		
	Driving	-	pilot (L2+), pilot (L3), chauffeur (L4)	Urban NOA/NOP (L2++, L3), city chauffeur (L4)	Commuter pilot (L2+, L2++, L3), chauffeur (L4)	

POV | Layer Model Description



The **Automated Driving System (ADS)** encompasses SW and HW required to achieve Level 4 autonomy. The HW-Stack involves activities such as hardware development, production, testing, automotive approval, and safety compliance. The SW-Stack focuses on self-driving software development and includes activities such as testing & simulation, ODD (Operational Design Domain) management, SDS licensing, mapping, sensor data processing, E2E integration, and safety compliance.

AD Vehicles are considered L4 ready vehicle platforms. This layer centers on the development and design and include tasks such as regulatory compliance, safety management, homologation, logistics, and production.

Rider Experience enhances user experience through entertainment and connectivity. Tasks include in-vehicle advertisement, shopping, education, gaming, and multimodal connectivity features. May also be covered by the Mobility Platform provider.

Provides necessary supporting infrastructure. Tasks include V2X infrastructure, 3rd party HD maps, and cloud infrastructure and backend.

POV | Layer Model Description

Exemplary tasks

Layer 1		Layer 2	Layer 3	Layer 4
HW-Stack Chips / SoC / ECU	SW-Stack Virtual Driver	AD Vehicle	Rider Experience / Content Provider	Cloud, V2X, others
HW Development	SW Development	Design & development	In-vehicle advertisement	V2X
HW Production	Testing & Simulation	Quality assurance	Shopping	3 rd party HD maps
Sensor Integration	ODD Management	Redundancy	Education	Cloud Infrastructure
Automotive approval	SDS Licensing	X-by-Wire	Working	
Sensor testing & approval	SW Testing & Approval	Regulatory compliance	Multimodal connectivity	
Sensor fusion	Mapping	Homologation	Gaming	
Calibration and Integration Support	Verification & Validation	After sales / aftermarket	...	
Safety & Compliance	E2E Integration	Safety management	...	
...	Sensor Integration and Data Processing	AD requirements	...	
...	Safety & Compliance	Logistics	...	
...	...	Production	...	
...	...	E2E integration	...	
...	

Privately Owned Vehicles. NAR.

Partnering & Value Chain, Level 4 Target & Latest News





LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
								 China		
								 UAE		
						Undisclosed				

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update



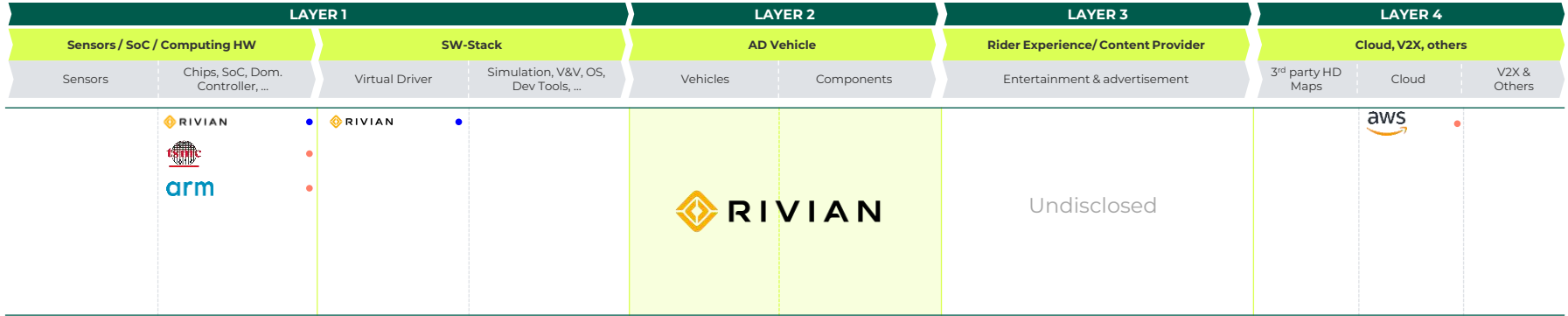
LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
mobileye Valeo	mobileye Valeo Valeo	mobileye	ecarx	Ford HONDA GWM BMW PORSCHE ZEEKR STELLANTIS gm Mahindra VOLKSWAGEN		Undisclosed		VOLKSWAGEN GROUP		
OUSTER	NVIDIA	helm.ai		HONDA		Undisclosed		Undisclosed		
AUMOVIO BOSCH	NVIDIA	LUCID	NVIDIA	LUCID		Undisclosed		here 		

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update



LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
Undisclosed	<ul style="list-style-type: none"> NVIDIA Lenovo 	<ul style="list-style-type: none"> Ike 	<ul style="list-style-type: none"> foretellix 	<ul style="list-style-type: none"> TOYOTA 		Undisclosed		<ul style="list-style-type: none"> Google 		
<ul style="list-style-type: none"> TENSOR BROADCOM AMD Micron MARVELL SONY 	<ul style="list-style-type: none"> TENSOR NP NVIDIA TEXAS INSTRUMENTS RENESAS 		TENSOR		<ul style="list-style-type: none"> TE Autoliv veoneer BOSCH 	<ul style="list-style-type: none"> TENSOR 		<ul style="list-style-type: none"> ORACLE 	<ul style="list-style-type: none"> SAMSUNG 	<ul style="list-style-type: none"> Onboard storage
Undisclosed		<ul style="list-style-type: none"> EMBARK GHOST 	<ul style="list-style-type: none"> Replika 			Undisclosed		Undisclosed	Undisclosed	Undisclosed

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update



NEW





At a glance

Latest news

L4 target



Tesla **collects a huge amount of data** and build a unique ecosystem around the fleet. While there are still legitimate discussions about the robustness of vision-only approaches, the **performance of FSD in the US is already impressive**. Nevertheless, it is still an L2 system.

Tesla will only offer subscriptions for Full Self-Driving (Supervised) going forward.

(14.01.2026)

[Update](#) [Read](#)

No binding roadmap for FSD



GM has combined its former Ultra Cruise system with its Super Cruise program. By the end of 2024, GM announced to **cease funding the development of Cruise's robotaxi business**. Instead, the company plans to **integrate Cruise with its own efforts to advance driver-assistance systems**.

GM to introduce eyes-off, hands-off driving system in 2028 .

(22.10.2025)

[Read](#)

Not announced



After getting off the robotaxi business with Argo.AI, Ford said to **focus on developing differentiated L2+ and L3 applications** for privately used cars. By 2023, Ford established Latitude to develop future automated driving technology.

Ford targets affordable Level 3 autonomy by 2028.

(08.01.2026)

[Update](#) [Read](#)

Not announced



Mobileye is the **leading supplier for camera-based driver assistance systems**. In addition to L4 technology for robotaxis, **SuperVision is its state-of-the-art L2+ (eyes on) system**. Also, first **OEMs teamed up with Mobileye to integrate its Chauffeur (eyes off) solution**. We are very much looking forward to testing it on European roads.

Mobileye Surround ADAS adds second Top 10 automaker.

(05.01.2026)

[Update](#) [Read](#)

Not announced

Definition L4 target: an automated driving system that does not require the driver to take over at any time in a specific ODD. Hands-off, eyes-off, brain-off.



At a glance

helm.ai



Helm.ai employs an AI-first approach to building AD software using an **unsupervised learning technology**. This technology allows to **train on vast volumes of data** without the need for large scale fleets or human annotation. Helm.ai will **power Honda 0 Series** models. Moreover, Helm.ai develops AI-generated video and simulation tools.

Lucid



Lucid is advancing from its DreamDrive Pro driver assistance system **toward full Level 4 autonomy** by integrating **NVIDIA's DRIVE AV and AGX Thor platforms**, enabling a seamless progression from hands-free (L2++) to fully autonomous "eyes-off, hands-off, mind-off" driving in its future vehicles.

nuro



Nuro **has been a pioneer in last-mile deliveries** with a special purpose vehicle. In September 2024, Nuro announced to **start licensing its L4 technology** to manufacturers of personally owned vehicles and mobility providers, like ride-hail and delivery companies. A smart move to monetize its tech end create a viable business case.

TENSOR



Tensor is the first company ever to **introduce a robocar specifically designed for private ownership**, built from the ground up for a dual operating mode – both manual and autonomous. **Evolving from AutoX**, which made its mark operating large robotaxi fleets in China, Tensor is now bringing that expertise to the consumer market with a focus on privately owned vehicles.

Latest news

Honda to release AI-equipped autonomous HV and EV developed with Helm.ai.

(06.01.2026)

Update

Read

HERE Technologies supports Lucid's advanced EV navigation and driver assistance features.

(05.01.2026)

Read

Nvidia is latest investor to back AV startup Nuro in \$203M funding round.

(21.08.2025)

Read

Tensor receives federal approval for Level 4 autonomy in the UAE.

(02.02.2026)

Update

Read

L4 target

>2027

Not announced

Not announced

2026

Definition L4 target: an automated driving system that does not require the driver to take over at any time in a specific ODD. Hands-off, eyes-off, brain-off.



At a glance



Applied Intuition provides an ADAS/AD development platform, a vehicle software platform, and an autonomy stack aimed at off-highway autonomy and trucking. In 2025, the company announced its proprietary **L2+ E2E SDS stack for automotive**. Due to the acquisition of full stack providers like Ghost and Embark, this move is not surprising.



Rivian's hands-free driver-assistance software works on about 135,000 miles of road (2025). The company says it will expand to **over 3.5 million miles across the U.S. and Canada in early 2026**, adding surface streets and **point-to-point hands-free** (eyes-on) driving, backed by custom silicon and lidar ambitions.

Latest news

Applied Intuition unveils SDS for automotive: End-to-End ADAS that continuously learns and improves.

(19.08.2025)

[Read](#)

Rivian rolls out new 'Universal Hands-Free' driving feature.

(18.12.2025)

[Read](#)

L4 target
















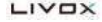




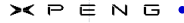















Not announced

Not announced



































Privately Owned Vehicles. Asia.

Partnering & Value Chain, Level 4 Target & Latest News
































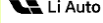





LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
  	 				  	 				
    								  		
  	 	 								








































Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

LAYER 1				LAYER 2		LAYER 3	LAYER 4		
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider	Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement	3 rd party HD Maps	Cloud	V2X & Others
robosense HESAI 	  					Undisclosed			
in mobileye ibeo robosense HESAI	    	     				Undisclosed	 		 
robosense  arbe		  		 		Undisclosed	 		

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

LAYER 1				LAYER 2		LAYER 3	LAYER 4		
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider	Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement	3 rd party HD Maps	Cloud	V2X & Others
    	    	   				Undisclosed	 		
	 			 		Undisclosed			
  	  	 				Undisclosed			












































Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
<p>HESAI</p> 	    <p>WNRDRV</p>	 	<p>QNX</p> 	 	<p>Undisclosed</p>	<p>Undisclosed</p>				
  <p>OFILM 欧菲光</p> 	 	  		 	<p>Undisclosed</p>	<p>Undisclosed</p>		 		
<p>robosense</p> 	     <p>Qualcomm</p>	   		 <p>FAW GROUP</p> 	<p>Undisclosed</p>	<p>Undisclosed</p>				








































Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update






































LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
 	 	  DEEPAL & Avatr		  		 DEEPAL				
   	    	       		     			  			
  	 	    		 		Undisclosed		  		

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
		 HUAWEI		       		Undisclosed		 		 
	      	 nulimax AI		     		Undisclosed				
  	   	 轻舟智航 QCRAFT		 		Undisclosed				















































Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

LAYER 1				LAYER 2		LAYER 3		LAYER 4			
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others			
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others	
 OUSTER  Valeo  mobileye	 RENESAS  mobileye  Qualcomm	 helm.ai  momenta		 HONDA		 SONY		 HERE  Baidu  apollo			
Undisclosed		 MAVC	 Applied Intuition	 NISSAN		Undisclosed		Undisclosed			
 BOSCH robosense  HUAWEI HESAI  Valeo	 NVIDIA  Qualcomm  HUAWEI  Zemvee  Valeo	 momenta		 NIO  ESACI  TOYOTA 东风日产  DWD  GM  HONDA  上汽大众 VW VOLKSWAGEN  SAIC  CHERY  GAC  AKORN		Undisclosed		 here	 Tencent 腾讯  aws		


LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
robosense 	 			 GEELY LYNK & CO	  	Undisclosed			 LOTUS ROBOTICS 	
 HESAI robosense	  	  	 文远知行 QNX	  EXEED		Undisclosed				
 HESAI robosense	  	  		Undisclosed		Undisclosed				

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

Probably no focus anymore

LAYER 1				LAYER 2		LAYER 3	LAYER 4		
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider	Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement	3 rd party HD Maps	Cloud	V2X & Others
  	  					<p>Undisclosed</p>	 	  	
  	  			   		<p>Undisclosed</p>	   		
  	    	     		 		<p>Undisclosed</p>	 		

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

LAYER 1				LAYER 2		LAYER 3	LAYER 4		
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider	Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement	3 rd party HD Maps	Cloud	V2X & Others
ZHUOYU	<ul style="list-style-type: none"> NVIDIA ZHUOYU Qualcomm ecarx siengine 芯擎科技 	ZHUOYU		<ul style="list-style-type: none"> GWM ARGFOX DONGFENG DEEV FAW RED BYD China 		Undisclosed		<ul style="list-style-type: none"> Alibaba.com 	<ul style="list-style-type: none"> ZHUOYU Liability Insurance
robosense	<ul style="list-style-type: none"> Qualcomm ESR 	HAOMO.AI		<ul style="list-style-type: none"> GWM HYUNDAI 		Undisclosed	NAVINFO		

At a glance

Latest news

L4 target

 NIO



While NIO premium EVs are **hitting several markets outside China**, ADAS capabilities and functions of other competitors in China seem to be slightly more advanced and widely available. In 2024, NIO announced to rely on **end-to-end large models** for ADAS development. In doing so, they are following the fundamental trend of Chinese OEMs and tech suppliers.

Start of series production for Steer-by-Wire steering at Chinese car manufacturer NIO.

(17.02.2025)

[Read](#)

Not announced

 XPENG



XPENG announced that its XNGP urban intelligent driving system has achieved **100% HD map-free operation** with the goal to achieve full coverage of XNGP functions in major urban road networks across China by the end of 2024. In 2025, XPENG secured a L3 road test license.

XPENG secures L3 road test license in Guangzhou, accelerates push toward higher autonomy.

(17.12.2025)

[Update](#)

[Read](#)

Not announced

 ZEEKR



Geely's announced to integrate Mobileye's SuperVision system for privately owned vehicles. However, this cooperation seems to struggle as Zeekr officially launched its **G-Pilot intelligent driving system** by March 2025, including a L3 smart driving architecture-

ZEEKR unveils G-Pilot intelligent driving system.

(19.03.2025)

[Read](#)

Not announced

 BYD



In December 2021, **BYD and Momenta**, one of China's major SDS developers, formed a **joint venture for autonomous driving**. In 2025, BYD unveiled its "God's Eye" ADAS which will be integrated in its entire model lineup.

Horizon Robotics' Journey® 6 series in-car computing solution debuts on BYD's God's Eye C smart driving system.

(13.02.2025)

[Read](#)

Not announced

At a glance

Latest news

L4 target



GWM aims to provide complete mobility ecosystems with dedicated brands for the European markets. **Regarding AD**, GWM has been working with companies such as **Mobileye, Qualcomm** or Nullmax. By end of 2024, GWM **announced the roll out of its all-scenario HD map-free NOA** functions nationwide

AutoNavi, Great Wall Motor inaugurate 'Mobility Joint Innovation Lab'.

(07.01.2025)

[Read](#)

Not announced



While BAIC teamed up with Baidu to develop robotaxis, one of its EV brand **Arcfox** models was **approved as one of the first L3 autonomous passenger cars** for limited public deployment in Beijing.

ARCFOX Alpha S becomes China's first L3 autonomous vehicle model to receive official road plates.

(23.12.2025)

[Update](#)

[Read](#)

Not announced



China's largest carmaker intends to equip premium electric vehicle models with **Momenta-developed intelligent driving technology**. SAIC may not seem as 'fancy' in its outward appearance as some startups from China – that's why they co-founded IM Motors in a JV with Alibaba.

Huajing S Pilot vehicle officially rolls off assembly line.

(28.01.2026)

[Update](#)

[Read](#)

Not announced



IM Motors, **co-founded by SAIC Motor, Zhangjiang Hi-Tech, and Alibaba** pushes its AD capabilities through **joint development with Momenta**. While urban NOA was implemented swiftly, IM also obtained the official AV testing license for highway/expressway in Shanghai for L3 testing.

IM Motors, NVIDIA, Momenta to co-pioneer DRIVE AGX Thor chip in mass-produced intelligent driving systems.

(18.11.2024)

[Read](#)

Not announced

Definition L4 target: an automated driving system that does not require the driver to take over at any time in a specific ODD. Hands-off, eyes-off, brain-off.

At a glance

Latest news

L4 target

Li Auto



Li Auto is another EV company aiming for autonomous driving. Just like its main competitors, Li Auto also relies **on end-to-end architectures** for its smart driving capabilities. Li Auto **teamed up with company QCraft** to provide advanced driving features.

Hesai secures exclusive Lidar design wins for Li Auto's New-Generation assisted driving platform.

(11.11.2025)

Read

Not announced

NETA



NETA Auto, a Hozon Auto brand, is one of several Chinese OEMs that has entered into **in-depth cooperation with Huawei**. Furthermore, teaming of with Hesai for future vehicle models shall further enhance automated driving capabilities.

Wind River powers NETA Auto's intelligent controller.

(19.07.2024)

Read

Not announced

mi



Xiaomi sets sight on several autonomous electric vehicle brands by **substantially investing in smart car technology**. The unveiled **Xiaomi SU7 offers great user experience at lower cost** than Western OEMs – the ADAS has still some weaknesses but is about to catch up with competition.

Xiaomi stresses safety-first philosophy as it unveils upgraded driver-assistance tech at Auto Guangzhou 2025.

(24.11.2025)

Update

Read

Not announced

FAW GROUP



FAW Group established several **partnerships along the AD ecosystem – tech providers such as DJI or Mobileye** are about to integrate their smart driving solutions into FAW Group's vehicles, usually starting with FAW's Hongqi brand.

Horizon Robotics joins hands with FAW Bestune in smart driving field.

(24.02.2025)

Read

Beyond **2025**

Definition L4 target: an automated driving system that does not require the driver to take over at any time in a specific ODD. Hands-off, eyes-off, brain-off.

At a glance

Latest news

L4 target



CHANGAN is working closely with Huawei on its advanced driving capabilities. In 2025, **one Changan model was approved as one of the first L3 autonomous passenger cars** for limited public deployment in Beijing.

China's first large-scale L3 autonomous fleet enters public roads as DEEPAL begins real-world trials.

(29.12.2025)

Update

Read

Not announced



In March 2025, Chery introduced its "**Falcon" smart driving system**, which will be implemented across all brands and models in 2025. Falcon 500, an integrated driving & parking system for highway NOA or urban memory navigation; Falcon 700, w/ enhanced compute for full-scenario navigation; and Falcon 900, a L3 system using VLA and a world model for advanced autonomy.

Chery unveils intelligent strategy, aiming for global smart driving expansion.

(19.03.2025)

Read

Not announced



GAC is the fifth largest car manufacturer in China and sells its vehicles under various brands. The company has always **worked closely with Huawei**. In March 2025, GAC announced plans to release China's first L3 autonomous production vehicle equipped with ADiGO GSD (**GAC Self-Driving**) in 2025.

GAC Group, Huawei deepen alliance to accelerate intelligent mobility.

(06.01.2026)

Update

Read

Not announced



Dongfeng's **VOYAH brand vehicles** are about to be equipped with **Baidu's intelligent driving system**, offering features like Navigation on Autopilot. By end of 2024, **Dongfeng Nissan teamed up with Momenta**, while Dongfeng's **VOYAH announced a partnership with PhiGen Robotics**

VOYAH, Yinwang agree to deepen strategic cooperation on smart driving/smart cockpit technologies.

(12.01.2026)

Update

Read

Not announced

At a glance

Latest news

L4 target



Horizon Robotics has **partnerships with many well-known OEMs and Tier1s** with whom they are jointly developing autonomous driving functions based on their Journey chip. Additionally, Horizon offers a variety of **smart driving solutions** ranging from basic assistance systems to **full-scenario NOA** and parking.

Horizon Robotics registers "Horizon Super Driving" trademark.

(21.01.2026)

[Update](#) [Read](#)

Not announced



During our benchmark drives in China, **Huawei's ADS 2.0 performance was stunning**. ADS 3.0 is about to be unveiled by the end of 2024 and promises another leap in performance. Also, the solution has been integrated in different EV models. Huawei had the goal to become China's Bosch – towards **SW capabilities, it's already much more advanced in China**.

Huawei Qjankun ADS5, HarmonySpace 6 to be released in April.

(20.01.2026)

[Update](#) [Read](#)

Not announced



Nullmax pursues a '**Machine Learning First**' approach and has **teamed up with several OEMs, chip suppliers and other companies**. While the depth of cooperation is often unclear, you should keep an eye on Nullmax and its **vision-based, multi-sensor fusion and perception technology** route.

Nullmax signs MOU with leading European automaker to launch new era of "AI-Defined Vehicles".

(27.08.2025)

[Read](#)

Not announced



Qcraft's robobus operates in 18 cities, 18 cities, including Beijing, Suzhou, Wuhan, and Chongqing. The company's focus is on both **L4 robotaxis and delivery solutions as well as L2++ ADAS**. At IAA 2025, Qcraft officially announced globalization and establishment of a European HQ.

Autonomous driving innovator Qcraft globalizes with European HQ and forms partnership with Qualcomm.

(08.09.2025)

[Read](#)

Not announced

Definition L4 target: an automated driving system that does not require the driver to take over at any time in a specific ODD. Hands-off, eyes-off, brain-off.



At a glance



Honda has not also invested in **Helm.ai**, but both parties have also stepped into a **multi-year ADAS joint development for mass production consumer vehicles**. Honda also teamed up with Momenta do deploy ADAS solutions in China.



Nissan has a history of collaborating with tech partners. The company introduced its ProPILOT system in 2016, followed by a 2nd generation version in 2019 designed to enhance highway driving. **In 2025, Nissan announced plans to launch its next-gen ProPILOT technology**, which will feature **Wayve's AI Driver software**.



While still running s small robotaxi fleet, Momenta shifted **focus is on advanced L2+ solutions for OEMs** in all key markets. Momenta **teamed up with several automakers** including SAIC VW, BMW, Mercedes, Honda, GM and IM Motors to develop and roll out end-to-end intelligent driving large model driving solutions.



Lotus Robotics, the intelligent driving arm of Lotus Technology, provides comprehensive intelligent driving solutions, including advanced platform software, cloud toolchains, and operation solutions. While the company may be relatively unknown in Europe and the USA, its **AD capabilities are seen by local experts as among the best in the Asian market**.

Latest news

Honda to release AI-equipped autonomous HV and EV developed with Helm.ai.

(06.01.2026)

[Update](#) [Read](#)

Nissan and Wayve Sign Definitive Agreements to Deliver Next-Generation Driver Assistance Technology.

(10.12.2025)

[Update](#) [Read](#)

BMW and Momenta's co-developed driver-assistance system to debut on next-generation BMW iX3.

(17.11.2025)

[Read](#)

Lotus Robotics and HERE Technologies collaborate on Highway Navigation Pilot for Automated Driving.

(03.04.2025)

[Read](#)

L4 target

>2027

Not announced

Not announced

Not announced

At a glance

Latest news

L4 target



Apart from L4, WeRide's portfolio also includes **ADAS for passenger vehicles using L2+ and L3**. The company formed a **partnership with Bosch**, combining its SW stack with Bosch's industrialization and engineering capabilities. The joint solution, **WePilot AiDrive**, was launched in August 2025.

WeRide, Bosch achieve SOP for one-piece end-to-end ADAS solution.

(06.11.2025)

[Read](#)

Not announced



Pony.ai offers OEMs & Tier 1 its proprietary **POV solution, "Xiaoma Shitu,"** which supports high-speed and urban NOA. It's available in three configurations: **PonyClassic, PonyPro, and PonyUltra**. PonyClassic is equipped with 6 cameras and 1 millimeter-wave radar, while the advanced PonyUltra version features a setup of 11 cameras, 5 millimeter-wave radars, and 3 LiDAR sensors.

RoboSense, Pony.ai announce all-around partnership expansion.

(13.01.2025)

[Read](#)

Not announced



Baidu Apollo **provides OEMs and Tier 1s** with an AD platform called **Apollo Pilot**. Its AI-driven solutions focus on scalability and safety, collaborating with global automakers. The first production model of Baidu's and Geely's joint venture Ji Yue relied on solely visual perception algorithms. **In 2024, Ji Yue filed for bankruptcy.**

Baidu launches Apollo Open Platform 10.0 to advance autonomous driving development.

(05.12.2024)

[Read](#)

Not announced



DeepRoute initially focused on L4 robotaxi and delivery van deployments but **shifted in 2022 to L2+ and L3** technology. In late 2024, it **raised \$100 million** in a Series C1 funding round to **boost R&D in its DeepRoute IO "end-to-end" model**, expand collaborations with global automakers, explore future robotaxi opportunities, and recruit more AI-native talent.

Black Sesame Technologies, DeepRoute.ai forge integrated hardware–software alliance for next-gen driver assistance.

(12.12.2025)

[Update](#)

[Read](#)

Not announced

Definition L4 target: an automated driving system that does not require the driver to take over at any time in a specific ODD. Hands-off, eyes-off, brain-off.

At a glance



Geely is advancing AD for POVs through **partnerships and in-house development**. It collaborates with companies like Mobileye, integrating these technologies into models from brands like Volvo, and Polestar. Geely's and Baidu's joint venture, **Ji Yue, filed for bankruptcy in 2024**.



ZHUOYU provides **intelligent driving systems and self-developed core components**, such as sensing modules and domain controllers. As of April 2025, **over 30 new models are in development** under the company's ClixPilot program. At Auto Shanghai 2025, ZYT introduced its **VLA large model**, which supports both ADAS and in-cabin intelligent applications.



Haomo.ai is **backed by GWM** and develops its urban navigation-assisted Hpilot for mass-production. Haomo.ai still exists as of mid-2025, but it's facing increasing turbulence and uncertainty

Latest news

CES 2026: Geely Debuts Full-Domain AI 2.0, Accelerating G-ASD Toward L3 and L4.

(07.01.2026)

[Update](#) [Read](#)

ZYT forges two major partnerships in one day.

(02.02.2026)

[Update](#) [Read](#)

Haomo.AI hits crossroads amid leadership shakeup and tech setbacks.

(19.06.2025)

[Read](#)

L4 target

Not announced



Not announced

Not announced


















Privately Owned Vehicles. Europe.

Partnering & Value Chain, Level 4 Target & Latest News


















































LAYER 1				LAYER 2		LAYER 3		LAYER 4		
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
<ul style="list-style-type: none"> LUMINAR BOSCH Valeo veoneer 	<ul style="list-style-type: none"> NVIDIA brainchip* Qualcomm TI 	<ul style="list-style-type: none"> NVIDIA China 				<ul style="list-style-type: none"> Mercedes me ZYNC 		<ul style="list-style-type: none"> DEEPMAP here 		<ul style="list-style-type: none"> Tencent 腾讯
<ul style="list-style-type: none"> INNOVIZ APTIV MAGNA veoneer Valeo 	<ul style="list-style-type: none"> Qualcomm 	<ul style="list-style-type: none"> Arriver Valeo AUTOSRAINS STELANTIS TATA KATA TECHNOLOGIES China 	<ul style="list-style-type: none"> TTTech QNX EDGE CASE 			<ul style="list-style-type: none"> BMW CONNECTED DRIVE AirConsole 		<ul style="list-style-type: none"> here aws 		<ul style="list-style-type: none"> ottopia
<ul style="list-style-type: none"> in mobileye INNOVIZ Valeo HESAI Audi China 	<ul style="list-style-type: none"> NVIDIA Qualcomm CARIAD China Horizon Robotics China in mobileye 	<ul style="list-style-type: none"> VAIVA Safe Mobility UAV Horizon Robotics BOSCH ZHUOYU SW models in CN SWW and Audi models in CN 	<ul style="list-style-type: none"> CARIAD QNX Luxoft TTTech Applied Intuition INTENTA 	<p>VOLKSWAGEN GROUP</p>		<p>Undisclosed</p>		<ul style="list-style-type: none"> tomtom in mobileye here 高德 NIRA 		<ul style="list-style-type: none"> Microsoft verizon HUAWEI

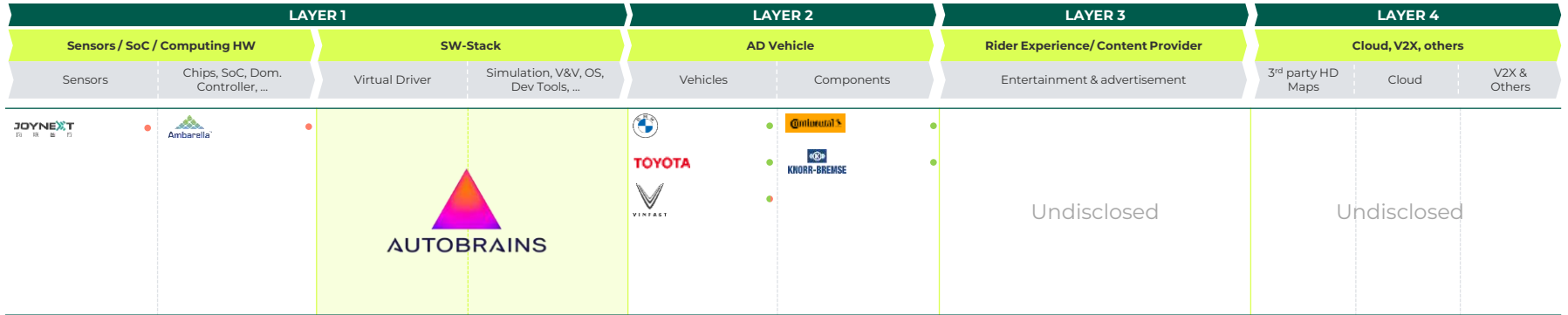
Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

LAYER 1		LAYER 2		LAYER 3		LAYER 4				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement		3 rd party HD Maps	Cloud	V2X & Others
 	 <ul style="list-style-type: none"> Qualcomm FOXCONN 					Undisclosed		 		
  LeddarTech • APTIV •		 	 WNDVR				Undisclosed			
 	         	        	Apex.AI			Undisclosed		 		

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

LAYER 1				LAYER 2		LAYER 3	LAYER 4		
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Rider Experience / Content Provider	Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Entertainment & advertisement	3rd party HD Maps	Cloud	V2X & Others
<ul style="list-style-type: none">  BOSCH  HESAI  Webasto 	<ul style="list-style-type: none">  RECOGNI  NVIDIA  QVOC  Ambarella  BOSCH  Horizon Robotics 	<ul style="list-style-type: none">  UAD  momenta  WeRide China  FIVE AI  CARIAD  Microsoft  BOSCH 	<ul style="list-style-type: none">  KOCNIC 	<ul style="list-style-type: none">  China: <ul style="list-style-type: none">  ZEEKR  DONGFENG  BAIC  LYNK&CO 	<ul style="list-style-type: none">  BOSCH  NEXT 	<p>Undisclosed</p>	<ul style="list-style-type: none">  tombom  DEEPMAP  here  atlatoc 	<ul style="list-style-type: none">  Microsoft 	
<ul style="list-style-type: none">  LUMINAR 	<ul style="list-style-type: none">  mobileye  NVIDIA 	<ul style="list-style-type: none">  mobileye 		<ul style="list-style-type: none">  GEELY  		<ul style="list-style-type: none">  polestar  Google 	<ul style="list-style-type: none">  Google 		
	<ul style="list-style-type: none">  NVIDIA 	<ul style="list-style-type: none">  	<ul style="list-style-type: none">  QUALITY MATCH  	<ul style="list-style-type: none">   		<p>Undisclosed</p>	<ul style="list-style-type: none">  Microsoft 	<ul style="list-style-type: none">  S.RIDE Data collection  Admiral Group PLC Insurance of test fleet 	

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update



At a glance

Latest news

L4 target



Drive Pilot is the world's first ADAS to gain type approval for a L3 system and available in Europe and the US. Initially, the supported speed was limited to 60 km/h. In 2024, an upgrade was announced, enabling the system to follow a vehicle on the motorway at up to 95 km/h. In China, Momenta is Mercedes' ADAS partner.

Mercedes-Benz Unveils New S-Class Built on NVIDIA DRIVE AV, Which Enables an L4-Ready Architecture.
(29.01.2026)

[Update](#) [Read](#)

Not announced



During our regular ADAS benchmark drives, BMW's driver assistance systems consistently deliver the strongest performance among European OEMs. In 2025, **BMW and Qualcomm announced a partnership towards a new driver-assist system, enabling hands-free driving** on approved roads.

Following Mercedes, BMW also abandons Level 3 automated driving.
(23.02.2025)

[Update](#) [Read](#)

Not announced



CARIAD is primarily responsible for software development in the **private ownership** segment. There is also a development partnership (Automated Driving Alliance) with Bosch. Moreover, Volkswagen Group is strongly working with Mobileye in the European market.

Volkswagen Group and Qualcomm partner for next-gen driving experiences.
(12.01.2026)

[Update](#) [Read](#)

Not announced



Stellantis is working on **L3 solutions with technology partners** - especially **BMW**. In 2025, Stellantis announced STLA AutoDrive, its first in-house-developed L3 automated driving system.

Stellantis unveils STLA AutoDrive, hands-free and eyes-off autonomous technology for a new era of driving comfort.
(20.02.2025)

[Read](#)

Not announced

Definition L4 target: an automated driving system that does not require the driver to take over at any time in a specific ODD. Hands-off, eyes-off, brain-off.

At a glance



Aptiv is a leading company in the development of ADAS for and invested a huge amount of money in Motional, a JV with Hyundai, before reducing its common equity interest from 50% to about 15% by end of March 2024. **Aptiv has acquired or at least invested in software companies to strengthen in-house capabilities** towards ADAS and AD.



Aumovio, Continental's former Automotive unit spun off in 2025, builds ADAS and automated-driving technology. Due to tough competition from software-first players, Aumovio is **strengthening in-house software and leaning on partnerships** (e.g., with Ambarella) to stay competitive.



Bosch acquired AV company Five AI to strengthen its AD capabilities and **teamed up with CARIAD** to jointly develop automated driving functions. In **China, Bosch is collaborating with WeRide**, among others, and achieved SOP for a one-piece end-to-end ADAS solution by the end of 2025.



Polestar is a renowned EV player in the EU market. While ADAS of both Polestar 1 and 2 can't compete with many competitors, there is supposed to be a **significant leap with Polestar 3 and 4**. With **NVIDIA, Luminar and Mobileye**, they have solid technology partners at their side.

Latest news

Horizon Robotics, Aptiv join forces to develop localized intelligent driving solutions.

(03.07.2023)

[Read](#)

AUMOVIO presents the latest version of its central high-performance computer with NXP's newest vehicle processor.

(06.01.2026)

[Update](#)

[Read](#)

WeRide, Bosch achieve SOP for one-piece end-to-end ADAS solution.

(06.11.2025)

[Read](#)

Polestar 4 to integrate Luminar LiDAR with Mobileye Chauffeur.

(09.11.2023)

[Read](#)

L4 target

Not announced

Not announced

Not announced

Not announced

At a glance



Wayve is a London-based autonomous-driving AI company building **end-to-end, self-learning “embodied AI”** driving software that learns from real-world driving data and can run primarily on camera sensors (with flexibility to use other sensors). It's a shooting star in autonomy, gaining fast momentum with major industry partners and pilots.



Autobrain, pursuing an **End-to-End AI approach**, provides scalable automated driving solutions from single front camera vision to advanced AD solutions. While Autobrain has **well-known investors**, an **ADAS design win in China** and a **collaboration with top OEM on a L4 project** have already been announced, without disclosing the customers.

Latest news

Nissan and Wayve Sign Definitive Agreements to Deliver Next-Generation Driver Assistance Technology.

(10.12.2025)

[Update](#) [Read](#)

Vinfast and Autobrain announce strategic partnership on developing autonomous driving technology and affordable robo-car.

(27.01.2026)

[Update](#) [Read](#)

L4 target

Not announced

Not announced

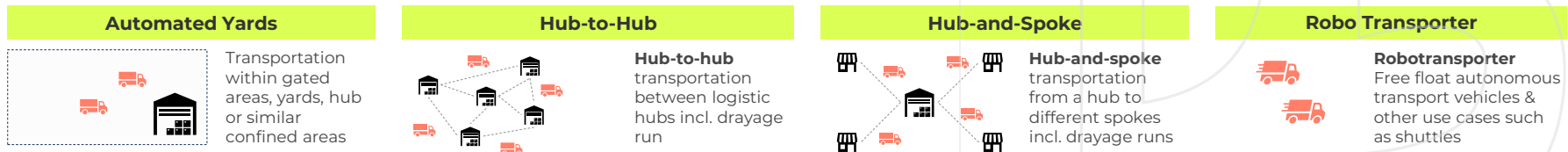
Goods Transport & TaaS.

Intro | Use Cases, Market Insights & Layer Description



Goods Transport & TaaS | Use Cases

		Gated Area	Highway	Urban	Suburban	Rural
		Airport, factories, yards, harbors, ...	Highways, freeways, ...	City center, designated streets, ...	Federal highway, residential areas, ...	Rural roads, gravel road, ...
Transport	S	last mile delivery	-	last mile delivery	last mile delivery	last mile delivery
	ML	automated yards, e.g., intralogistics trucks (L4)	-	hub-and-spoke robo transporter	hub-and-spoke robo transporter	robo transporter
	XL	automated yards, e.g., intralogistics trucks (L4)	hub-to-hub self-driving truck	-	-	-
Platooning		automated yards, e.g., intralogistics trucks (L4)	hub-to-hub self-driving truck	-	-	-
Off-Highway / Gated Area		e. g. snow clearing (L4), robo harvesters	-	e. g., street sweeping machines (L4)	e. g., street sweeping machines (L4)	e.g., robo tractor



Goods Transport & TaaS | Longlist

Transport	S										
	ML	P 				P 				G/P 	
	XL	P 	P 	P 	P 		P 	P 	P 		P
Platooning				P 			P 	P 		P 	
Off-Highway / Gated Area		G/P 		P 					G/P 		G

Activities
 No activities
 Stopped activities
 G=Gated Area
P=Public road

Goods Transport & TaaS | Longlist

Transport	S		P 		P 						
	ML	P 		P 		P 					
	XL					P 	P 	P 	P 	P 	P
Platooning					P 	P 	P 				
Off-Highway / Gated Area											

Activities
 No activities
 Stopped activities
 G=Gated Area
P=Public road

Goods Transport & TaaS | Longlist

		STARSHIP	STACK	TORC	MARS	SAIC	NEOLIX	HYUNDAI MOTOR GROUP	PACCAR	Applied Intuition	阿里巴巴 Alibaba.com
Transport	S	G/P 						P 			
	ML						P 				G/P
	XL		P 	P 	P 	G/P 				P 	P Da Man Lv - No picture available yet
Platooning							P 	P 			
Off-Highway / Gated Area											

Activities
 No activities
 Stopped activities
 G=Gated Area
P=Public road

Goods Transport & TaaS | Longlist

Transport	S								P 		P
	ML		P 	P 			P 	P 		Stopped activities 	
	XL	G 			G 	P 					
Platooning											
Off-Highway / Gated Area		G/P 					P 				

Activities
 No activities
 Stopped activities
 G=Gated Area
P=Public road

Goods Transport & TaaS | Longlist

Transport	S		P 	P 							
	ML					P 		P 			
	XL				P 		P 		P 	P 	P
Platooning											
Off-Highway / Gated Area		P 									

Activities
 No activities
 Stopped activities
 G=Gated Area
P=Public road

Goods Transport & TaaS | Longlist

		driveblocks	robione	tiR ZELOS		TIER IV	Outrider	embotech*		FERNRIDE	
Transport	S										
	ML		P 	P 	P 						
	XL	P 				P 					
Platooning											
Off-Highway / Gated Area		G 					G 	G 	G 	G 	G

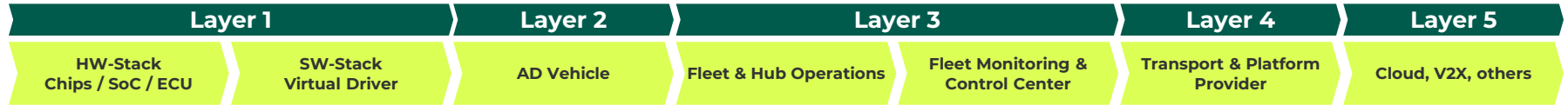
Activities
 No activities
 Stopped activities
 G=Gated Area
P=Public road

Goods Transport & TaaS | Longlist

		CLEVON	LOXO	宏景智驾 HONG JING	pinkbot	OTTONOMY.IO™	NEUBILITY	DOORDASH	MINIEYE
Transport	S	P 			P 	P 	P 	P 	
	ML		P 						P
	XL			P 					
Platooning									
Off-Highway / Gated Area									

Activities
 No activities
 Stopped activities
 G=Gated Area
P=Public road

Goods Transport & TaaS | Layer Model Description



The **Automated Driving System (ADS)**

encompasses SW and HW required to achieve Level 4 autonomy.

The HW-Stack involves activities such as hardware development, production, testing, automotive approval, and safety compliance.

The SW-Stack focuses on self-driving software development and includes activities such as testing & simulation, ODD (Operational Design Domain) management, SDS licensing, mapping, sensor data processing, E2E integration, and safety compliance.

AD Vehicles

are considered L4 ready vehicle & truck platforms. This layer centers on the development and design and include tasks such as regulatory compliance, safety management, homologation, logistics, production, and provision of TaaS and remote operations functions and components.

Fleet Operations

covers operational activities for AV fleets. Tasks include hub setup, financing, concessions, charging, maintenance, training, cleaning or parts supply.

Moreover, Fleet Monitoring & Control Center tasks include goods and vehicle monitoring, remote vehicle control, departure checks, and remote assistance.

Transport providers

(i.e., carriers) carry goods from shippers (e.g., grocery stores) to B2B or B2C customers using autonomous vehicles.

Freight matching may be executed by

Platform providers

that connect shippers and carriers or transport demand and supply. They are responsible for order management or disposition planning based on data analysis and simulation.

Provides necessary

supporting infrastructure. Tasks include V2X infrastructure, 3rd party HD maps, and cloud infrastructure and backend.

Goods Transport & TaaS | Layer Model Description

Exemplary tasks

Layer 1		Layer 2		Layer 3		Layer 4		Layer 5					
HW-Stack Chips / SoC / ECU		SW-Stack Virtual Driver		AD Vehicle		Fleet & Hub Operations		Fleet Monitoring & Control Center		Transport & Platform Provider		Cloud, V2X, others	
HW Development	SW Development	Design & development	Hub Setup	Execution of ADS & AD Vehicle Operations Functions (e.g., remote assistance) in UI	Logistics platform	V2X							
HW Production	Testing & Simulation	Quality assurance	Financing / Insurance	AD Vehicle Real-Time Tracking and Monitoring	Booking	3 rd party HD maps							
Sensor Integration	ODD Management	Redundancy	Concessions	Incident Management	Pricing	Cloud Infrastructure							
Automotive approval	SDS Licensing	X-by-Wire	Charging	AD vehicle Maintenance Scheduling	Payment								
Sensor testing & approval	SW Testing & Approval	Regulatory compliance	Maintenance & Service	AD Vehicle Charging Scheduling	Disposition planning								
Sensor fusion	Mapping	Homologation	Washing & Cleaning	Emergency Response Coordination	Fleet Intelligence (e.g., fleet & load optimization)								
Calibration and Integration Support	Verification & Validation	After sales / aftermarket	Training	AD Vehicle Mission Dispatch	Order management								
Safety & Compliance	E2E Integration	Safety management	In/De-fleeting	Safety Driver Management	API / Integration								
...	Sensor Integration and Data Processing	AD requirements	Parts supply	Data Analytics and Reporting	Customer support								
	Safety & Compliance	Production	...	Customer interaction	Customer authentication (delivery services)								
		ADS & AD Vehicle Operations Functions (e.g., for remote assistance)				Data Analytics							
		E2E integration				E2E Integration							

Goods Transport & TaaS. NAR.

Partnering & Value Chain, Level 4 Target & Latest News



Goods Transport & TaaS NAR

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
									Undisclosed			

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update
 ● Partner outside US

Goods Transport & TaaS NAR

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
						Undisclosed				Undisclosed		

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS NAR

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
			 	 	 	 		 	 	Undisclosed		
Undisclosed	 	 		 				 		Note: Logistics partners before strategy shift		
 		 					Undisclosed	 		Undisclosed		

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

Goods Transport & TaaS NAR

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
• 	•	•		 • •		•		• • • • •		•		
Undisclosed		• •		• • •		Undisclosed					•	
• •		•				Undisclosed		Undisclosed		Undisclosed		


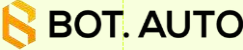





Core Business
• Partnership or supplier deal
 • Investment
 • Acquisition
 • Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS NAR

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
<p>Whale Dynamic AV stack consists of 3rd party HW</p>										Undisclosed		
Undisclosed						Undisclosed		Undisclosed		Undisclosed		
						Undisclosed				Undisclosed		

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS NAR

LAYER 1		LAYER 2		LAYER 3		LAYER 4	LAYER 5					
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider	Cloud, V2X, others			
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
						 		 	Undisclosed			

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update
 ● Partner outside US



Goods Transport & TaaS **NAR**

At a glance



The Waymo Driver has **over a decade of deep AD experience** including **millions of miles on public roads** and **billions of miles in simulation**. Waymo has **reduced trucking efforts to a minimum** in order to focus on the ride hailing case. Also, the existing fleet is used for food delivery via Uber Eats.



Torc is an independent **subsidiary of Daimler Truck AG** and the **first AV company to enter an integrated partnership** with a **truck OEM**. Torc and DT are ramping up development and testing in the US. Go-to-market is targeted for 2027.



PlusDrive follows an **evolutionary path from L2++ to L4**. **Global initiatives in cooperation with IVECO, TRATON Group, and Hyundai have been announced**. In contrast to competitors, Plus is already testing its self-driving and highly automated trucks on European roads.



Kodiak Robotics develops autonomous technology for long-haul trucking and carried the **first commercial freight just eight months after being founded**. After long considering Kodiak as an acquisition candidate, they meanwhile became **one of the strongest players in the market**.

Latest news

Your DoorDash order, delivered by Waymo.

(16.10.2025)

[Read](#)

Daimler Truck and Torc Robotics select Innoviz Technologies as LiDAR partner for series production of Level 4 autonomous trucks.

(02.12.2025)

[Update](#)

[Read](#)

T2 and PlusAI team up to accelerate the deployment of Level 4 autonomous trucks in Japan.

(14.01.2026)

[Update](#)

[Read](#)

Kodiak taps Bosch to scale its self-driving truck tech.

(05.01.2026)

[Update](#)

[Read](#)

L4 target

Focus on ride hailing and urban delivery with I-PACE fleet

2027

2027

2025

Goods Transport & TaaS **NAR**

At a glance

Latest news

L4 target

waabi



Toronto-based Waabi is renowned for both its founder and its **closed-loop simulator**, Waabi World, which targets an **AI-first approach**. Waabi has entered promising partnerships with Volvo and Uber Freight. Moreover, following an investment by Uber, Waabi will also pursue robotaxi development and deployment.

Waabi raises \$1B and expands into robotaxis with Uber.

(28.01.2026)

[Update](#) [Read](#)

2025

Aurora



Instead of deploying robotaxis, Aurora is **focusing primarily on TaaS** and has already entered into truck **collaborations with PACCAR, Volvo and Continental**. These **collaborations promise to scale their test fleet** to get their product ready for production.

Aurora triples driverless freight network across Sun Belt.

(12.02.2026)

[Update](#) [Read](#)

2026

Gatik



Gatik focuses on **short-haul, B2B logistics** for the **retail industry**. More specifically, hub-and-spoke supply chain operations. The vehicles are restricted to **fixed, repeatable routes**. Gatik has found a niche that no other market player is dedicated to now.

Gatik becomes first U.S. company to operate fully driverless trucks at scale for commercial deliveries.

(27.01.2026)

[Update](#) [Read](#)

L4 target reached in Arkansas by 2021

nuro



Nuro **has been a pioneer in last-mile deliveries** with a special purpose vehicle. In September 2024, Nuro announced to **start licensing its L4 technology** to manufacturers of personally owned vehicles and mobility providers, like ride-hail and delivery companies. A smart move to monetize its tech end create a viable business case.

Nvidia is latest investor to back AV startup Nuro in \$203M funding round.

(21.08.2025)

[Read](#)

Not announced

Goods Transport & TaaS **NAR**

At a glance

Latest news

L4 target



After Argo's shutdown, it's unclear how Ford will proceed for urban delivery and trucking. Nevertheless, **Ford Otosan is cooperating with AVL** in this area. We believe they can't keep up with the leading self-driving truck companies.

Developing ADAS with high-fidelity vehicle models and integrated controllers.

(17.11.2025)

[Read](#)

Not announced



Udelv has been doing **commercial deliveries for Walmart** for some time. With the **'Transporter'** they now have their own **versatile special purpose vehicle**, equipped with Mobileye's promising SDS. It's been quite around Udelv for a while – as other companies, Udelv seem to struggle towards industrialization of its vehicle.

Ziegler orders autonomous and electric delivery vehicles from the company Udelv.

(05.01.2022)

[Read](#)

Not announced



Amazon has **invested in Aurora and conducted road tests with Embark, which later didn't survive market consolidation**. Amazon's vision could be to cover the entire logistics chain - in the future also with autonomous trucks, delivery vehicles and last mile delivery solutions.

Amazon stops field tests of its delivery robot Scout.

(07.10.2022)

[Read](#)

Not announced



Little is still known about Tesla's Semi Truck and targeted automated driving capabilities. According to the company, it will be the first vehicle to drive fully autonomously. The truck is to be equipped with **'enhanced' autopilot functionalities for automated highway driving**. At least we still have doubts.

Tesla Semi with sensor rig spotted potentially ground truth calibrating for FSD.

(30.09.2024)

[Read](#)

Not announced

Definition L4 target: commercial self-driving service operated within a specific ODD without a safety driver.

Goods Transport & TaaS NAR

At a glance

Latest news

L4 target



Robomart has teamed up with a couple of companies to establish the **Autonomous Retail Collective (ARC)**, an ecosystem aimed at developing and advancing self-driving shops. Collaboration is key in the autonomous mobility space – therefore, Robomart is worth to 'watch-out'.

Robomart unveils new delivery robot with \$3 flat fee to challenge DoorDash, Uber Eats.

(25.08.2025)

[Read](#)

Not announced



Applied Intuition provides various solutions for its customers, including an ADAS and AD development platform, a vehicle software platform, and an **autonomy stack aimed at off-highway autonomy and trucking**. In 2023, the company **acquired Embark's trucking assets**, which may serve as the basis for their autonomy stack.

Isuzu to begin autonomous driving demonstration on parts logistics route in Japan - Accelerating testing on public roads toward the Level 4 autonomous truck and bus business in FY2028 -.

(18.11.2025)

[Update](#)

[Read](#)

Not announced



Avride is the **rebranded, international division** of the robotaxi and delivery robot company **Yandex Self-Driving Group**. While international assets have been separated from Russian-owned Yandex assets, Avride said it's testing AVs (and probably the rover as well) in diverse ODDs across the globe, focusing on safety.

Grubhub expands robot delivery partnership with Avride to its marketplace.

(23.10.2025)

[Read](#)

L4 achieved



Founded in 2023 by a former TuSimple CEO, Houston-based Bot Auto has grown its autonomous trucking fleet to eight vehicles. The company currently operates with safety drivers, **targets driverless deliveries in 2025**, and named **Steves & Sons its first shipping partner** through a deal with J.B. Hunt..

Marsh backs Bot Auto with specialty driverless trucking insurance.

(12.11.2025)

[Read](#)

2025

Definition L4 target: commercial self-driving service operated within a specific ODD without a safety driver.

Goods Transport & TaaS. Asia.

Partnering & Value Chain, Level 4 Target & Latest News

Goods Transport & TaaS ASIA

LAYER 1				LAYER 2		LAYER 3		LAYER 4		LAYER 5		
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
<ul style="list-style-type: none"> LUMINAR HESAI robosense 	<ul style="list-style-type: none"> Horizon Robotics NVIDIA pony.ai 	<ul style="list-style-type: none"> pony.ai 		<ul style="list-style-type: none"> SANY NEOLIX DONGFENG 	<ul style="list-style-type: none"> ZE 		<ul style="list-style-type: none"> CYANTRON 	<ul style="list-style-type: none"> Yamibuy 中通快递 Meituan 				Undisclosed
<ul style="list-style-type: none"> HESAI 	<ul style="list-style-type: none"> NVIDIA 			<ul style="list-style-type: none"> JMC 				<ul style="list-style-type: none"> 中通快递 		<ul style="list-style-type: none"> Tencent 腾讯 Tencent 腾讯 		
<ul style="list-style-type: none"> OUSTER TRUNK 主线科技 BOSCH 	<ul style="list-style-type: none"> Horizon Robotics 			<ul style="list-style-type: none"> 中国重汽 SINOTRUK 北汽集团 BAIC Group NIO 			<ul style="list-style-type: none"> TRUNK 主线科技 	<ul style="list-style-type: none"> 德邦 STO 申通快递 express 韵达 京东物流 	<ul style="list-style-type: none"> 招商局 			Undisclosed

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

Goods Transport & TaaS ASIA

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3rd party HD Maps	Cloud	V2X & Others
 	 			 		Undisclosed		 	 			
HESAI		 				Undisclosed		Undisclosed		Undisclosed		
 	 	 				Undisclosed		 	 	 		



















Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS ASIA

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3rd party HD Maps	Cloud	V2X & Others
OUSTER HESAI HESAI robocon ZVISION	NVIDIA	DEEPROUTE.AI		ISUZU			Undisclosed	Alibaba 德邦快递 DEPPON EXPRESS		Tencent 腾讯 SD maps – probably consumer vehicles only		
HESAI arbe WEIFU 威孚	Horizon Robotics	KARGOBOT		SINCAN CHANGAN		Elenergy		中国重汽		Undisclosed		
Undisclosed		Baidu 百度 apollo		DEEPWAY		Undisclosed		LIONRIDGE		SAP Qualcomm		

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

Goods Transport & TaaS ASIA

	LAYER 1		LAYER 2		LAYER 3		LAYER 4	LAYER 5					
	Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
	Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
LIVOX	•		 		 FAW GROUP		Undisclosed		Undisclosed			•	
HESAI	  TIER IV	•	TIER IV    		    Trailers				Undisclosed		Undisclosed		
NEW	Undisclosed		TIER IV  		ISUZU			•		•		Undisclosed	

Core Business
• Partnership or supplier deal
 • Investment
 • Acquisition
 • Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS ASIA

At a glance



Pony.ai is a leading player in L2+ solutions for OEMs as well as L4 robotaxi deployments. However, Pony **will jointly develop premium autonomous heavy-duty truck with SANY and Sinotrans**. They are among the pioneers in the Chinese self-driving truck market.



WeRide unveiled **China's very first L4 self-driving cargo van** in September 2021 and also has other products like robo sweepers in its portfolio. In February 2025, WeRide launched **Robovan W5**, a purpose-built delivery solution.



Investments from Bosch, Nio and BAIC made Trunk.Tech known outside China. It is without question **one of the most promising startups** in the Chinese self-driving truck / freight haulage space.



Chinese startup with the **aim to build a nation-wide freight network** using autonomous trucks. Unlike other AV truck companies, **Inceptio initially focuses on L3**. However, it could possibly be a hidden champion among autonomous trucks with regard to full autonomy - at least in China.

Latest news

Pony.ai partners with SANY TRUCK, DFLZM to co-develop 4th-gen autonomous trucks.

(19.11.2025)

[Update](#)
[Read](#)

WeRide launches Robovan W5, pioneering new class of autonomous delivery vehicle.

(06.02.2025)

[Read](#)

Autonomous-truck developer Trunk Technology files for Hong Kong IPO.

(12.12.2025)

[Update](#)
[Read](#)

Inceptio's L2+ trucks log one million kilometers daily in China.

(04.11.2025)

[Read](#)

L4 target

Not announced

L4 achieved

Not announced

Not announced

Goods Transport & TaaS ASIA

At a glance



SAIC Hongyan, in collaboration with UTOPILOT, launched a 5G+L4 smart heavy truck that completed fully driverless testing & operations on public roads by 2023. Within 3 years, a fleet of ~300 truck was formed, making it the **world's largest commercial fleet of smart heavy truck**. By 7/2024, the fleet has accumulated **>10 million kilometers** of AD operation.



Nearly **1,000 Neolix delivery vehicles have been deployed** in nine countries and **over 40 cities worldwide**, with a cumulative mileage of more than 6 million kilometers by 2024. The shuttle may be compared with Nuro, which is currently focused exclusively on the US market.



DeepRoute.ai **announced an autonomous medium-duty truck business line for urban logistics**. Having started a first commercialization project with Deppon Logistics, DeepRoute is **backed by Alibaba and its huge network** of ecommerce, logistics & community shopping, among others. Reads well.



KargoBot was launched during Auto Shanghai 2023 by **MaaS giant DiDi** and focuses on a pilot vehicle approach with a human driver onboard and multiple L4 trucks following its lead. We will closely trace KargoBot's development.

Latest news

SAIC Hongyan's 5G+L4 Smart Heavy Truck to Begin Trial Operations in Danzhou.

(03.07.2024)

[Read](#)

Neolix surpasses 100M kilometers in L4 RoboVan operations.

(19.02.2026)

[Update](#)

[Read](#)

DeepRoute.ai showcases DeepRoute IO 2.0 platform, VLA model at IAA Mobility 2025.

(09.09.2025)

[Read](#)

KargoBot.ai, Horizon Robotics forge strategic alliance to scale L4 autonomous trucking in China.

(08.09.2025)

[Update](#)

[Read](#)

L4 target

Not announced

L4 achieved

Not announced

Not announced

Goods Transport & TaaS ASIA

At a glance

Latest news

L4 target



DeepWay - a **subsidiary of Baidu** - plans to offer heavy Level-3-trucks by June 2023. The vehicles will have a range of 300 km, and in addition to a fast-charging function, it will also be possible to swap batteries in 6 minutes. The integration of fuel cells is targeted for the future.

DeepWay secures 750 million yuan in Series B financing.

(26.12.2024)

[Read](#)

2024-2026



By 2020, FAW Jiefang and Zhito Technology unveiled the J7 L3 super-truck, marking the first mass production heavy-duty truck to use lidar. FAW Jiefang is **developing automated heavy-duty trucks based on Plus.ai's stack** while also having a **strong partnership with Huawei** in place.

Plus, FAW Jiefang Qingdao to co-develop autonomous gas-powered heavy-duty truck.

(10.07.2024)

[Read](#)

2025

TIER IV



TIER IV is a Japan-based company **specializing in Autoware-based AD solutions**. The company aims to make autonomous mobility technology scalable and accessible, collaborating globally to **advance AVs for different industries**. TIER IV participates in projects such as METI aimed at deploying robotaxis for transportation and autonomous trucks for logistics.

TIER IV invests in Taiwan-based autonomous driving startup Turing Drive.

(17.12.2025)

[Update](#)

[Read](#)

Not announced

ISUZU



Isuzu is a leading global automobile company based in Yokohama, Japan, focused on commercial vehicles, pick-up trucks, and diesel and natural gas engines. It has **strategic partnerships with Applied Intuition, Gatik, and TIER IV to develop and commercialize Level 4 autonomous commercial vehicles and logistics solutions**.

Isuzu to begin AD demonstration on parts logistics route in Japan - Accelerating testing on public roads toward the Level 4 autonomous truck and bus business in FY2028.

(18.11.2025)

[Update](#)

[Read](#)

2028

Goods Transport & TaaS. Europe.

Partnering & Value Chain, Level 4 Target & Latest News



Goods Transport & TaaS EUROPE

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
				DAIMLER TRUCK		Undisclosed		Undisclosed				
Undisclosed		 	 	TRATON		 		 				

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS EUROPE

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
	NVIDIA	Aurora waabi		VOLVO ISUZU			VOLVO	DFDS DHL Uber Freight ascend CONVOY				Undisclosed
INOVIZ AT&T			ROSAS	LOXO VW			NOVIV HEIA-FR	MIGROS Planger REWE				Undisclosed
	NVIDIA	Plus		IVECO			Undisclosed	DSV dm sesé !		here		Continental

Core Business ● Partnership or supplier deal ● Investment ● Acquisition ● Parent / Subsidiary ◆ Update

Goods Transport & TaaS EUROPE

LAYER 1		LAYER 2		LAYER 3		LAYER 4	LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider	Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport	3 rd party HD Maps	Cloud	V2X & Others
Undisclosed		 						 			
		 		 		Undisclosed		Undisclosed	Undisclosed		

Focus on off-road autonomy

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS EUROPE

LAYER 1		LAYER 2		LAYER 3		LAYER 4		LAYER 5				
Sensors / SoC / Computing HW		SW-Stack		AD Vehicle		Fleet Operations		Transport & Platform Provider		Cloud, V2X, others		
Sensors	Chips, SoC, Dom. Controller, ...	Virtual Driver	Simulation, V&V, OS, Dev Tools, ...	Vehicles	Components	Fleet & Hub Operations	Fleet Monitoring & Control Center	Logistics Platform / Transport		3 rd party HD Maps	Cloud	V2X & Others
	● ●	STARSHIP ●		STARSHIP		Undisclosed		● ● ● ●	● ● ● 	Undisclosed		
HESAI ●		●		● BMW GROUP ● ●		VOLKSWAGEN ● ●	Undisclosed		Undisclosed			
		embotech *		Probably focus on defense		Undisclosed		Undisclosed				
	●	●		● ●	●	● ●	●	Undisclosed				
		FERNRISE		Probably focus on defense		Undisclosed		Undisclosed				

Core Business
● Partnership or supplier deal
 ● Investment
 ● Acquisition
 ● Parent / Subsidiary
 ◆ Update

Goods Transport & TaaS EUROPE

At a glance

Latest news

L4 target

DAIMLER TRUCK



DTNA's **Cascadia trucks with an integrated Torc AV stack** are already **hitting the roads in the US** with a targeted go-to-market by 2027. Currently, there is **no disclosed roadmap for the European market** yet.

Daimler Truck and Torc Robotics select Innoviz Technologies as LiDAR partner for series production of Level 4 autonomous trucks.

(02.12.2025)

Update

Read

Not announced

TRATON



As TRATON's partnership with TuSimple came to an end, **Scania, MAN, and International will now work together with Plus** to intensify the development of L4 self-driving trucks. The companies will focus on hub-to-hub operations – using the **same AV stack across all major TRATON brands** is a reasonable approach.

International begins autonomous fleet trials, takes the next step in self-driving freight transport.

(08.09.2025)

Read

Not announced

einride



The **Einride Pod** is unique from other self-driving trucks as there is **no driver's cab**. The pod currently operated in gated areas on fixed routes. Towards L4 with higher speeds on public roads there need to be leaps in development. However, Einride's ecosystem is unique.

Einride and IonQ partnership uses quantum computing to optimize the logistics of electric and autonomous freight.

(10.12.2025)

Update

Read

Target reached in gated areas

VOLVO



The **"Volvo VNL Autonomous"** fully redundant truck was unveiled in 2024 and will be **powered by Aurora**. In addition, **Volvo has invested in Waabi** and thus betting on a second horse. The approach seems to make sense in order not to be dependent on an SDS provider in its self-driving roadmap.

Waabi unveils autonomous truck made in partnership with Volvo.

(28.10.2025)

Read

Not announced

Goods Transport & TaaS EUROPE

At a glance

Latest news

L4 target

LOXO



LOXO'S last mile delivery vehicle is reminiscent of some US and Chinese market players' solutions but is the **first vehicle of its kind made in Europe. Commercial success in Europe requires both a technically mature solution and a profitable business case.** In 2024, LOXO and Planzer announced a joint pilot based on an ID. Buzz, shifting away from the SPV.

We bring autonomous grocery delivery to Germany.

(18.11.2025)

[Read](#)

Not announced

IVECO



IVECO and Plus are jointly developing self-driving trucks and conducting test drives on European highways. Pilot projects have already been announced - so the two could be pioneers for autonomous trucks in Europe along TRATON.

PlusAI launches Southern Europe's first autonomous trucking program with IVECO.

(12.01.2026)

[Update](#)

[Read](#)

Not announced

WAYVE



Wayve does **not rely on HD maps and hand-coded rules but focuses on its deep and self-learning AI technology** based on cameras. The company raised \$1bn in 2024 to take its Tesla-like technology for self-driving to many carmakers. Let's see if delivery vehicles are still a targeted use case for Wayve in the future.

Wayve acquires Quality Match to strengthen data quality and safety for AI driving systems.

(01.12.2025)

[Update](#)

[Read](#)

Not announced

ZF



ZF offers a **comprehensive portfolio for commercial vehicle automation** such as sensors and high-performance computers. While ZF has already **supplied L4 truck companies**, we don't believe ZF will develop an own L4 SDS but rather focus on lower SAE levels and components.

Kodiak AI and ZF partner on steering for 100 Kodiak-powered driverless trucks.

(04.11.2025)

[Read](#)

Not announced

Definition L4 target: commercial self-driving service operated within a specific ODD without a safety driver.

Goods Transport & TaaS EUROPE

At a glance

Latest news

L4 target



driveblocks develops a **modular; scalable AD software stack** for commercial vehicles. **It allows OEMs/Tier1 to integrate it with their vehicles and solutions in an open and flexible way.** Meanwhile, the company is rather focused on off-highway solutions.

Developing a mapless architecture for Autoware.
(27.08.2025)

[Read](#)

Not announced



Starship delivery robots completed **>6mn autonomous deliveries.** It is **unlikely that these robots will become widely accepted for last mile delivery.** However, there could certainly be use cases in gated areas. Being a pioneer in the robot delivery space, more and more new players have entered the market.

Uber Eats and Starship Technologies launch robot deliveries in Leeds in time for festive feasting.
(12.12.2025)

[Update](#)

[Read](#)

Reached at various locations



Embotech, a Swiss ETH spin-off, develops AI-based decision software for autonomous driving. Their PRODRIVER system enables **Level 4 autonomy in logistics and industrial settings,** powering automation in car factories and ports

EUROGATE tests autonomous tractors in Hamburg terminal.
(17.02.2026)

[Update](#)

[Read](#)

Not announced



FERNRIDE **enables autonomous, electric trucking using human-assisted remote control.** Based in Munich, it serves major logistics clients like VW and DB Schenker, addressing driver shortages and sustainability with scalable yard automation solutions across Europe.

FERNRIDE launches comprehensive driverless testing.
(22.01.2025)

[Read](#)

Not announced

Definition L4 target: commercial self-driving service operated within a specific ODD without a safety driver.



**BUSINESS
AS UNUSUAL**



**WE EMPOWER
FUTURE IMPACT**



www-p3-group.com