

**PRE-
LARGE-SCALE
DEMONSTRATION
PROJECT**

Large-scale Demonstration and AI – Taking the next steps on automated driving in Europe

06 October 2026 | 35th Aachen Automotive Colloquium

Aria Etemad – Volkswagen AG

Pre-LSDemo Consortium

Partners

VOLKSWAGEN AKTIENGESELLSCHAFT	STELLANTIS	Mercedes-Benz	HONDA	Renault Group	TOYOTA	BMW GROUP	
IVECO	DAIMLER TRUCKS	DAIMLER TRUCK Daimler Buses	MAN	DAF	VOLVO VOLVO GROUP	TRATON	

CARIAD	BOSCH	Valeo	FEV.io	QUEEN'S UNIVERSITY BELFAST	ika RWTH AACHEN UNIVERSITY	CTAG	RISE	VTT	TNO
AUMOVIO	APTIV	MAGNA	fka	DLR	TU/e	vti	vicomtech MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE	UNIVERSITY OF LEEDS	

alice Alliance for Logistics Innovation through Collaboration in Europe	ERTICO	POLIS CITIES AND REGIONS FOR TRANSPORT INNOVATION	CEDR	PAVE EUROPE	RDW	ITS Norway	AGENTSCHAP WEGEN & VERKEER	Supported by eucar EUROPEAN COUNCIL FOR AUTOMOTIVE R&D
FIA	UITP	AIS FII NIA G	CLEPA	HOCHBAHN	Arplus+ IDIADA	Hamburg	eicc	

Associated partners

	SEAT	VOLVO	MOIA	rms	austriatech	DB	Vejdirektoratet	bast Bundesanstalt für Straßen- und Verkehrswesen
GRUBER LOGISTICS	Ruter#	AVL	CARNET FUTURE MOBILITY RESEARCH HUB	GROUPE RATP	PFA FILIÈRE AUTOMOBILE & MOBILITÉS	einride	easymile	TRAFIKVERKET

Large-Scale Demonstration project

**Field Operational Tests – FOTs in Living Labs (TRL 7-8)
and Technology pilots (TRL 4-6)**

Personal Mobility



**Public Transport
and Shared Mobility**



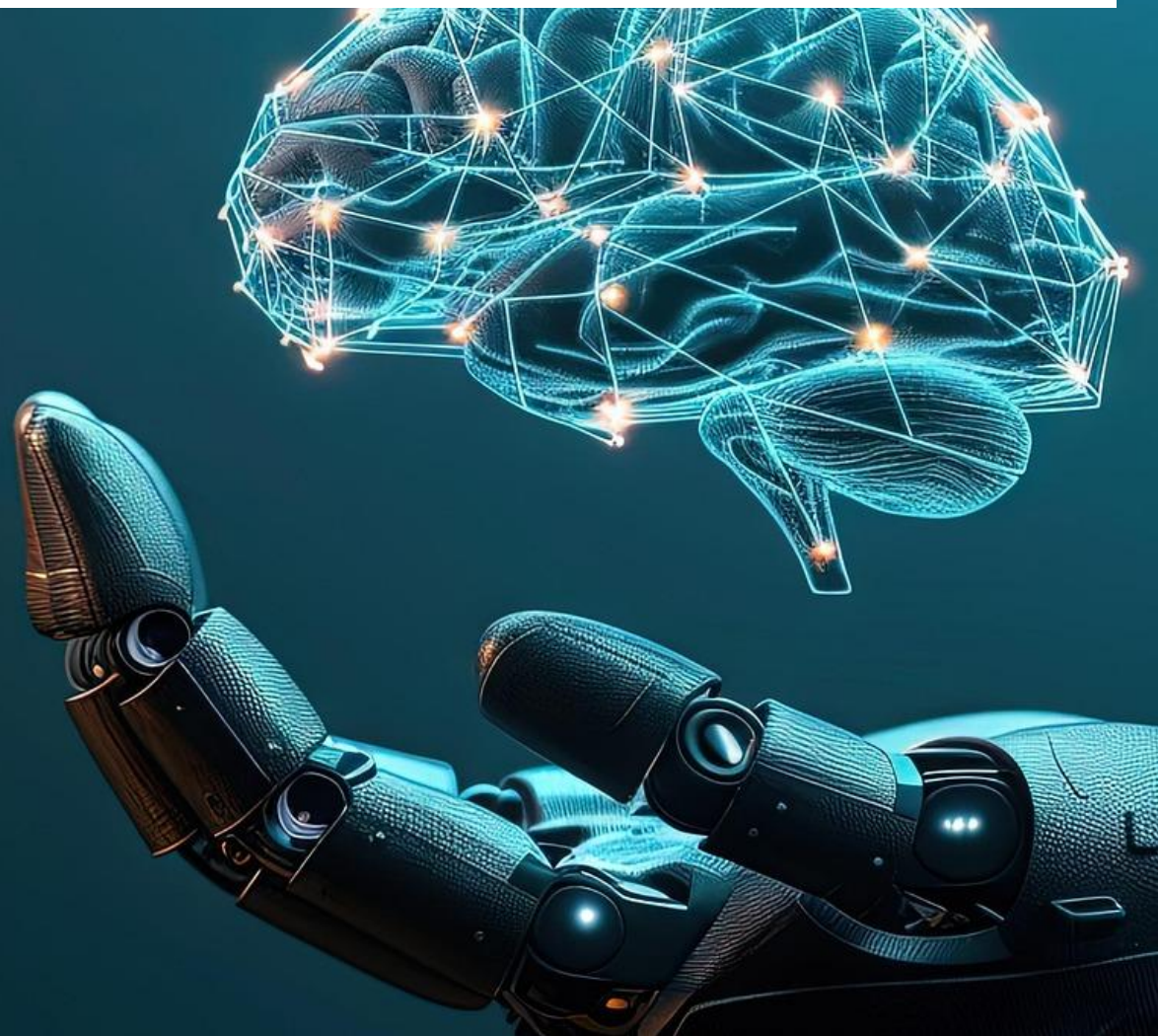
Freight Transport



Enhancing CCAM Technology

IPCEI AI

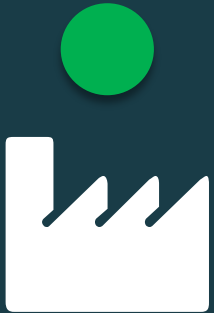
Important
Project of
Common
European
Interest
on
Artificial Intelligence



A European point of view:

IPCEI Approach Aligns with European Industry Strengths

Industrial knowledge



Adoption of AI Technology



Competitive Advantage



Traditional Strengths

Europe has world-class process expertise and industrial data across multiple sectors

IPCEI “Boost”

Enhancing data processing, orchestration, and provisioning across the entire value chain

Contributing to EU Growth

Reaching industrial development goals incl. long-term job creation and prosperity

Potential
EU partner focus

100B+ parameters



General Foundation Model
with general world knowledge
(e.g. Mistral, GPT-5, LLaMa3, Gemini, Qwen)

Pretraining
with internet-scale data

trillions of tokens



Internet-Scale Data
(optionally with European context)

IPCEI-AI Focus for the Automotive Industry

Core IPCEI-AI deliverable

100B+ parameters



Automotive Base Model
w/o instruction-following behavior

Continued Pretraining

trillions of tokens



Large Scale Automotive Data
(vehicle data, environment data, in-cabin information, user interactions)

100B+ parameters



Automotive Foundation Model
for general use in automotive domain

Fine-Tuning + Alignment
for usefulness, safety, EU conformity

billions of tokens



Labelled Automotive Data
(e.g. scene descriptions)

100B+ parameters



Task-specific Models
(such as VLA)

Fine-Tuning + Alignment
for usefulness, safety, EU conformity

thousands of tokens



Labelled Task-Specific Data Sets
(e.g. intended vehicle behavior)

1B - 10B param.



Task-specific Models
(in-vehicle)

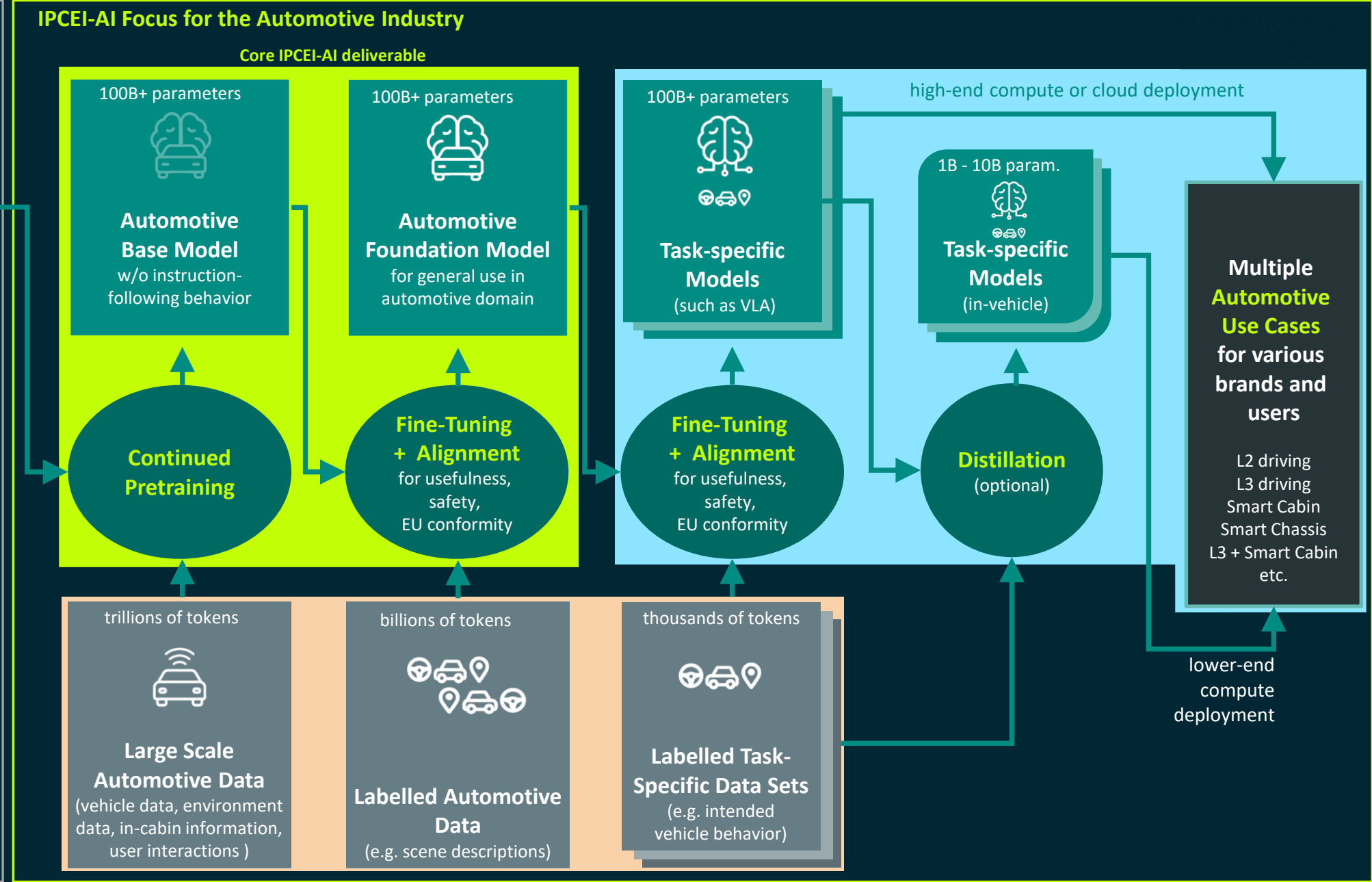
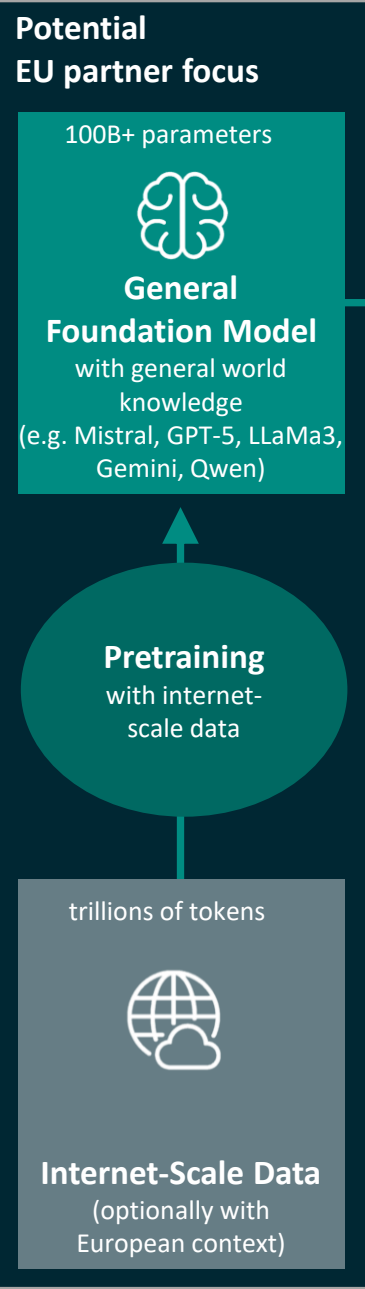
Distillation
(optional)

Multiple Automotive Use Cases
for various brands and users

L2 driving
L3 driving
Smart Cabin
Smart Chassis
L3 + Smart Cabin
etc.

high-end compute or cloud deployment

lower-end compute deployment



Large-Scale Demonstration project

**Field Operational Tests – FOTs in Living Labs (TRL 7-8)
and Technology pilots (TRL 4-5)**

Personal Mobility



**Public Transport
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Freight Transport



Enhancing CCAM Technology

Large-Scale Demonstration project

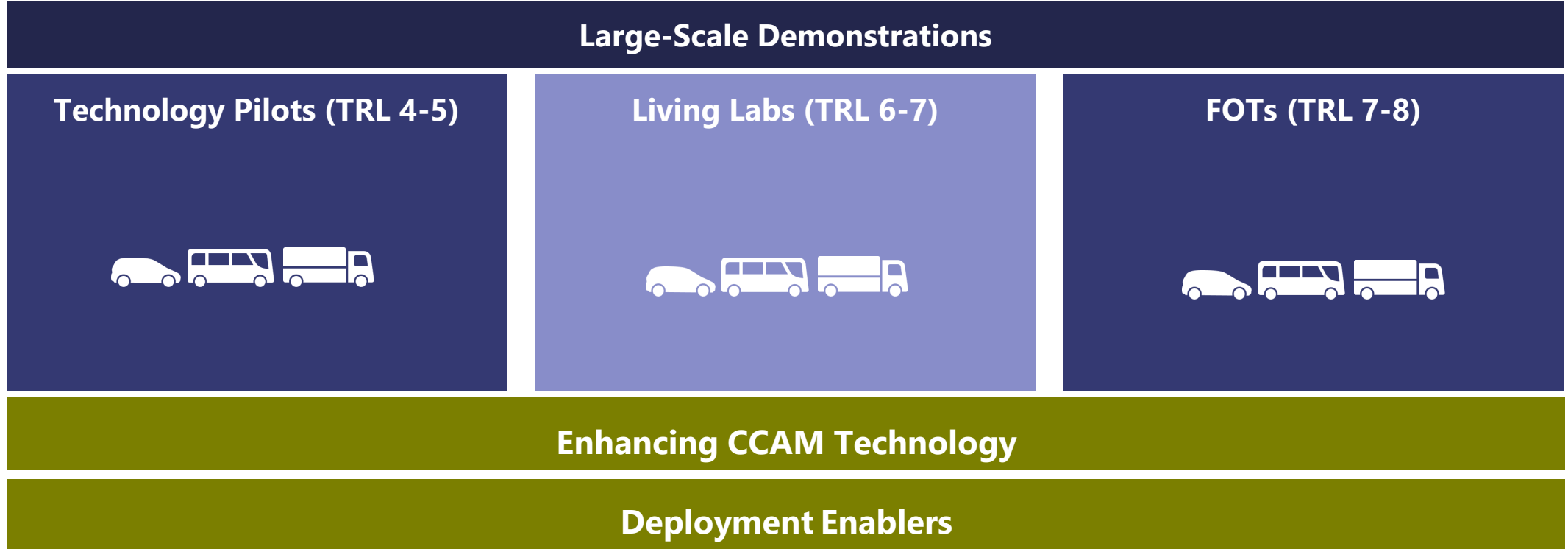
**Field Operational Tests – FOTs in Living Labs (TRL 7-8)
and Technology pilots (TRL 4-5)**

CCAM for people and goods



Enhancing CCAM Technology

Large-Scale Demonstration - implementation



Large-Scale Demonstration project

Large-Scale Demonstrations

Technology Pilots (TRL 4-5)

- ▶ **Integrate** a number of technological enablers in prototype vehicles for extending ODD
- ▶ **Demonstrate safe functioning** of the solution with test drivers in operational environments.
- ▶ **Extensive Testing and validation** campaigns in real-world scenarios.



Living Labs (TRL 6-7)

- ▶ **Create** settings where users and communities engage with small-series vehicles featuring fully integrated functions and interfaces.
- ▶ **Showcase** solutions in real mixed-traffic environments with full infrastructure and connectivity
- ▶ **Integrate** quality-of-service, usability, and societal impact considerations to reflect citizens' everyday mobility needs.
- ▶ **Gather comprehensive data** on usability and impacts on everyday life of citizens



Field Operational Test – FOT (TRL 7-8)

- ▶ **Conduct FOTs** with hundreds of vehicles (SAE L2 – L4) at multiple test sites and corridors for a minimum of 12 months.
- ▶ **Operate in mixed traffic:** urban, suburban, motorway, and rural settings.
- ▶ **Gather comprehensive data** for the assessment of the efficiency, quality, robustness and acceptance of CCAM.
- ▶ **Provide real-world evidence** on the effects, impacts, and long-term implications.



Enhancing CCAM Technology

Deployment Enablers

Consortium

VOLKSWAGEN AKTIENGESELLSCHAFT		AMPERE		MAN		STELLANTIS		DAIMLER TRUCK Daimler Buses		Mercedes-Benz		HONDA		TOYOTA		BMW GROUP		MINI	
IVECO		DAF		VOLVO		STELLANTIS		CRF		SCANIA									
GRUBER LOGISTICS		PLANZER		île de France		OASA S.A.		REMOVED		LJN									
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AUMOVIO		MAGNA																	
Valeo		FEV.io		BOSCH															
bast		AISIFIINIAIG		AGENTSCHAP WEGEN & VERKEER		brussels airport the heart of Europe		REGION Hovedstaden		BADEN-AIRPARK® FLUGHAFEN KARLSRUHE / BADEN-BADEN		Port of Antwerp Bruges		Applus® IDIADA		Gemeente Helmond		TÜVRheinland	
QUEEN'S UNIVERSITY BELFAST		RI SE		vti		TNO		WIVW		FZI		ika RWTH AACHEN UNIVERSITY		INSTITUT VEDECOM		vicomtech		FUTURE MOBILITY CAMPUS IRELAND	
fka		VTT		CTAG		DLR		UNIVERSITÀ DEGLI STUDI DI GENOVA		CHALMERS UNIVERSITY OF TECHNOLOGY		UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH		UNIVERSITY OF LEEDS		TU/e			
ERTICO		PAVE EUROPE		UITP		POLIS		CLEPA		alice		new mobility solutions Hamburg		CAR 2 CAR COMMUNICATION CONSORTIUM		CEDR		FIA	
ITS Norway		eicc																	
Associated:		NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE		SUSS SINGAPORE UNIVERSITY OF SOCIAL SCIENCES															
Supported by:		eucar EUROPEAN COUNCIL FOR AUTOMOTIVE R&D		RDW		DAIMLER TRUCKS		Ruter#		European Commission		Joint Research Centre		DB					

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THANK YOU FOR YOUR ATTENTION.

Contact

Aria Etemad | Volkswagen AG

aria.etemad@volkswagen.de

Hristiyan Stoyanov | eict

hristiyan.stoyanov@eict.de



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www.pre-lsdemo.eu

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