

European Partnership under Horizon Europe
Connected, Cooperative and Automated
Mobility (CCAM)

*European leadership in safe and sustainable road transport
through automation*

ETNA2020 webinar on Partnership in HE Cluster 5: focus on Mobility

16 June 2020

Outline

- Background
- Stakeholder community
- Partnership Proposal
- CCAM vision and expected Impacts for Society
- Sectors and stakeholders in the CCAM Partnership
- Developing the SRIA (Strategic Research & Innovation Agenda)
- CCAM Clusters

Background of CCAM Partnership preparation

- 24 January: at CCAM Platform meeting, EC called for the preparation of the Proposal
- 17 February: public workshop to gather stakeholders interests
- 13-23 March: stakeholders public consultation on draft Proposal
- End March - beginning April: stakeholders feedback was used to further strengthen the Proposal
- 13 April: submission of the Partnership Proposal to the EC
- May/June: drafting the SRIA and building the stakeholder community
- 18-19-20 May: first stakeholders meetings for the SRIA on the CCAM 7 clusters
- 3 June: Member States Advisory Board preparation meeting
- Early June: distribution of draft SRIA to stakeholders and collection of feedback
- 16-17-18 June: second stakeholders meetings for the SRIA on the CCAM 7 clusters
- End of June: objective of SRIA finalisation

Stakeholder Community - status on 13 April - has been much extended since then => 250 contacts

CCAM stakeholders supporting the Partnership development

Research providers	AVL, AIT, CEA, Cerema, DLR, Eurecat, Everis, FEV, fka, Fraunhofer, ICCS, ICOOR, IDIADA, IFPEN, Lero, Ricardo, RISE, SAFER, SINTEF, TNO, VTI, VTT
Universities	Aachen, Budapest, Chalmers, DTU, Eindhoven, Florence, Galway, Istanbul, Leeds, Leuven, Milano, Modena, Mondragon, Paris, Warsaw, Zilina
Automotive	Akka, BMW Group, Bosch, Continental, DAF Trucks, Faurecia, FCA, Irizar, JLR, Renault, Valeo, Volkswagen, Volvo Group
ITS	Bestmile, DinniQ, HERE, TomTom, PTV, Swarco, Ubiwhere, TTS Italia
Telecom/IT	ELMOS, Ericsson, EVERIS, Huawei, NXP, Vicomtech
Infrastructure	Asfinag, Sanef, Vinci
Freight & Logistics Services and Users	ALICE, Colruyt Group, Gebruder Weiss, IDIT, Procter & Gamble
Member States	Austria, Belgium, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Spain, Sweden, UK
Regions, cities and public transport operators	Flanders, Gothenburg, Helmond, Paris/Ile-de-France, Madrid, Stuttgart, Vienna
Representative bodies	ALICE, AMICE, ANEC, CEDR, CLEPA, CONEBI, EARPA, ECTRI, EPoSS, ERF, ERTICO, ETNO, ETRMA, EUCAR, Eurocities, EuroRap, FEMA, FIA, GSMA, IRU, POLIS, UITP, 5GAA
Cluster and test centres	AIPSS, Aurora Snowbox, Austriatech, CARA, Catapult, Drive Sweden, Moveo, PTCarrereta, Tempere, Vedecom, Zalazone

Developing the CCAM Partnership Proposal

- Combining **connectivity, cooperative systems and automation** will enable automated and fully orchestrated manoeuvres, bringing us closer to **Vision Zero**.
- The goal is to create more **user-centred, all-inclusive mobility**, while increasing **safety, reducing congestion** and contributing to **decarbonisation**.
- CCAM will also enable the provision of **new mobility services for passengers and goods**, fostering benefits for users and for the mobility system as a whole.

European leadership in safe and sustainable road transport through automation

CCAM Vision and Expected Impacts for Society

The development of CCAM shall provide benefits to **all citizens**. With full integration of CCAM in the transport system, the **expected positive impacts** for society will be:

- **Safety:** Reducing the number of road fatalities and accidents caused by human error;
- **Environment:** Reducing transport emissions and congestion by optimising capacity, smoothing traffic flow and avoiding unnecessary trips;
- **Inclusiveness:** Ensuring inclusive mobility and goods access for all; and
- **Competitiveness:** Strengthen competitiveness of European industries by technological leadership, ensuring long-term growth and jobs.

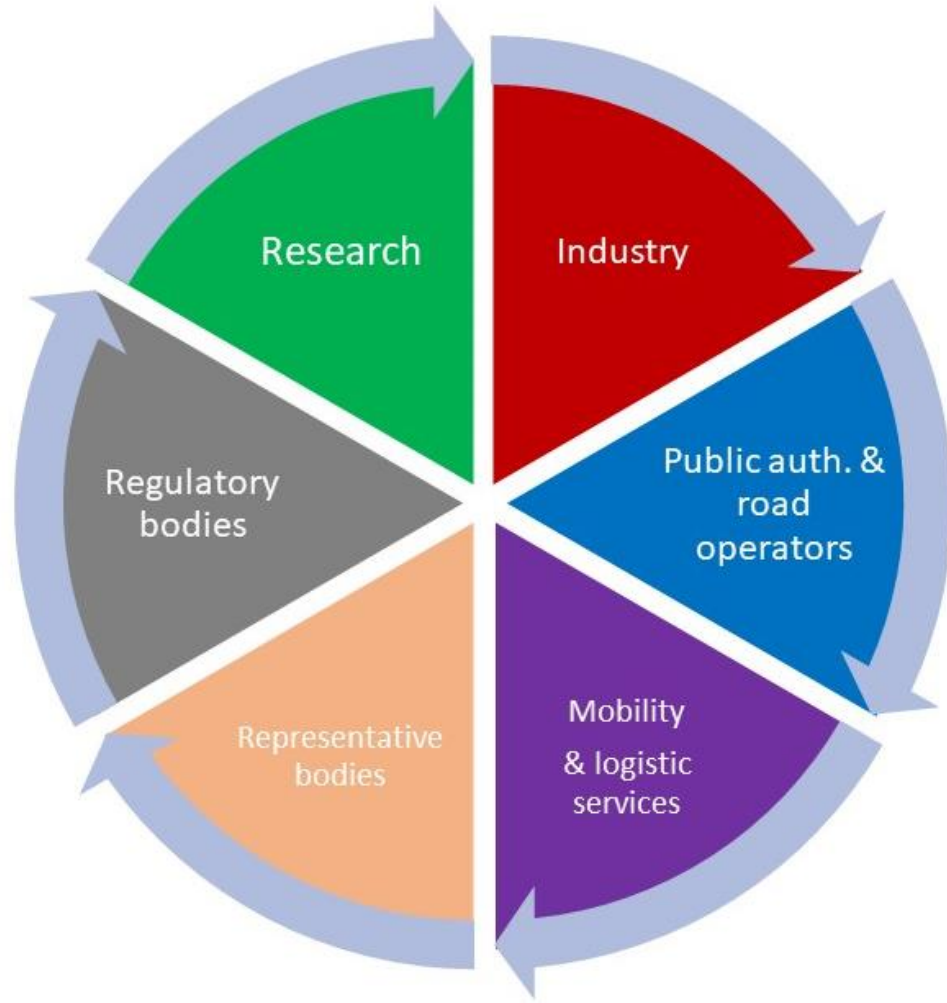
Risks and problem drivers hindering innovation

- **Insufficient demand** as society is not yet prepared to accept the transition to CCAM enabled mobility. Potential implications and impacts of integration of CCAM solutions into the mobility system are not well understood.
- CCAM solutions are **not yet sufficiently mature** for market take-up, and current investment levels in CCAM R&I are inadequate to maintain and extend EU industrial leadership.
- Current **R&I efforts are fragmented** and lack a coherent, longer-term vision and strategy for targeting systemic solutions.
- **Demonstration and scale-up is limited**, since a well organised, extensive and complex cross-sectorial value chain is still required to build complete CCAM solutions.

CCAM Vision and Expected Impacts for Society

Expected Impact	General objectives (GO)
Improving safety and security of the transport system drastically	<ul style="list-style-type: none">• (GO1) Reduced number of fatalities and injuries in road transport• (GO2) Safe and efficient co-existence between automated and non-automated “conventional” traffic for a long transition period of mixed traffic
Meeting societal needs for mobility while reducing environmental impacts and strengthening our economy	<ul style="list-style-type: none">• (GO3) High public acceptance and adoption of CCAM with clear understanding of its benefits and limits• (GO4) Increased efficiency of transport flows (people and goods) leading to better use of infrastructure capacity and preservation of public space• (GO5) Reduced transport emissions and congestion
Maintain and extend industrial leadership for new jobs and economic growth all over Europe	<ul style="list-style-type: none">• (GO6) Making Europe a world leader in the deployment of connected and automated mobility for people and goods• (GO7) More focused and long-term investments in R&I, development and pre-deployment of CCAM.
Strengthen leadership in all technological and societal aspects of CCAM through targeted knowledge and capacity building	<ul style="list-style-type: none">• (GO8) Support the creation, dissemination and capitalisation of knowledge to accelerate the development and improvement of CCAM enabled solutions

CCAM Partnership Sectors and Stakeholder



Industry	<ul style="list-style-type: none">- Automotive industry, including supply chain- ITS solutions, telecom providers, connectivity- Data handling and storage industry, ...
Public authorities & road operators	<ul style="list-style-type: none">- Cities and regions- Transport authorities, road authorities and operators- Member States
Mobility & logistic services	<ul style="list-style-type: none">- Public transport providers- Mobility and logistics service providers- Insurance, maintenance, ...
Representative bodies	<ul style="list-style-type: none">- Road users- Stakeholder associations- Road safety, society, the environment, ...
Regulatory bodies	<ul style="list-style-type: none">- National, European and international
Research	<ul style="list-style-type: none">- Universities- Public research institutes- Private research institutes

SRIA Strategic Research & Innovation Agenda

Drafting process

- Start on the basis of the CCAM Proposal document and additional available material/roadmaps: CCAM Platform, STRIA, ARCADE, ERTRAC,...

Timeline

First stakeholders meetings 18-19-20 May

Second stakeholder meetings :

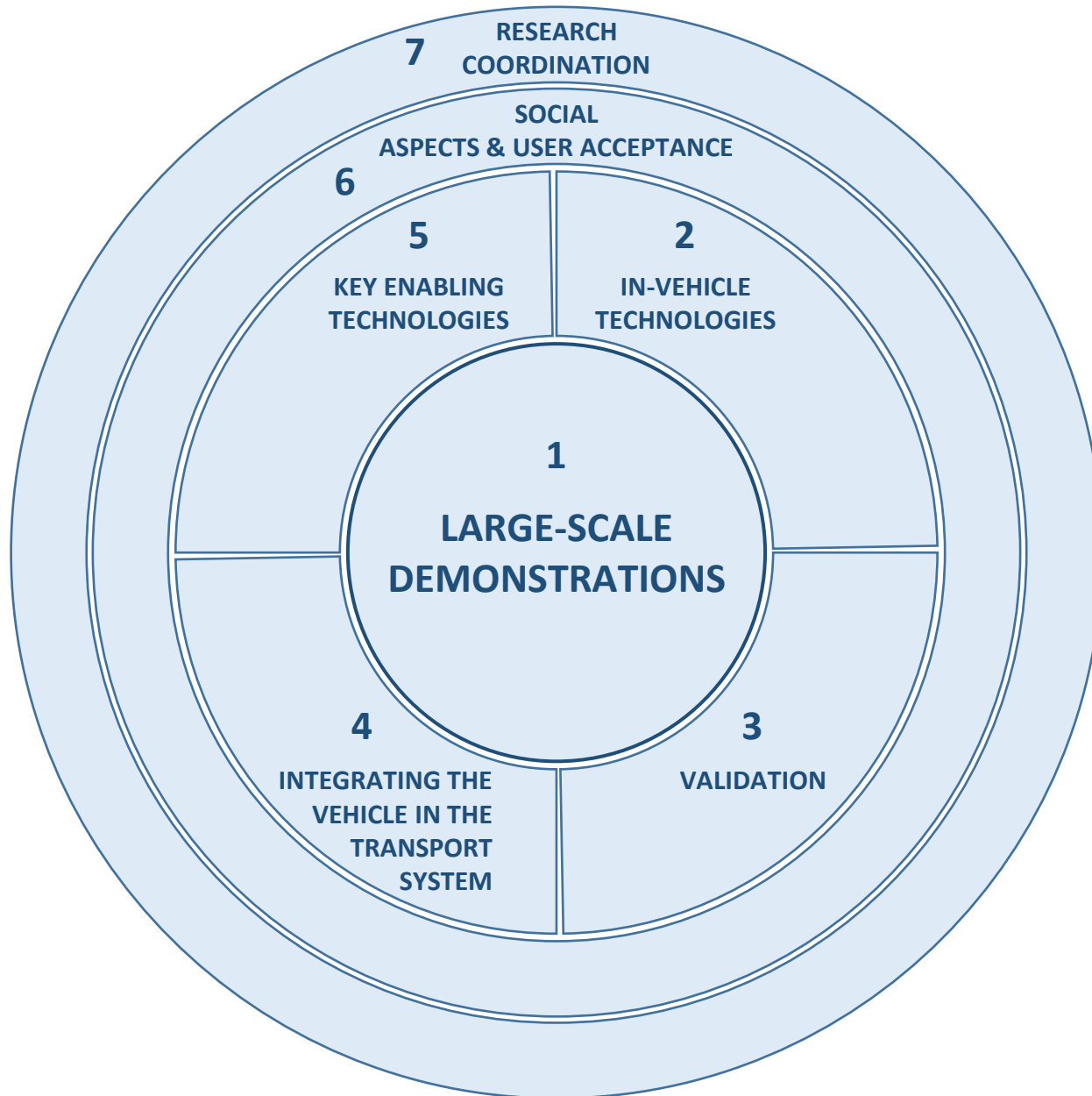
- 16/06 10:00-12:00 cluster 1 / 13:30-15:30 cluster 2 / 16:00-18:00 cluster 3
- 17/06 10:00-12:00 cluster 6 / 13:30-15:30 cluster 5 / 16:00-18:00 cluster 4
- 18/06 10:00-12:00 cluster 7

Register by email to info@ertrac.org



CCAM Cluster Overview

CCAM - 7 Clusters



1 Shared automated mobility solutions (11)
Highly automated passenger vehicles (13)
Automated commercial/freight vehicles (14)

2 Environment perception (1)
Passive & active safety (3)
On-board decision making (4)
Human Factors requirements (6.1)

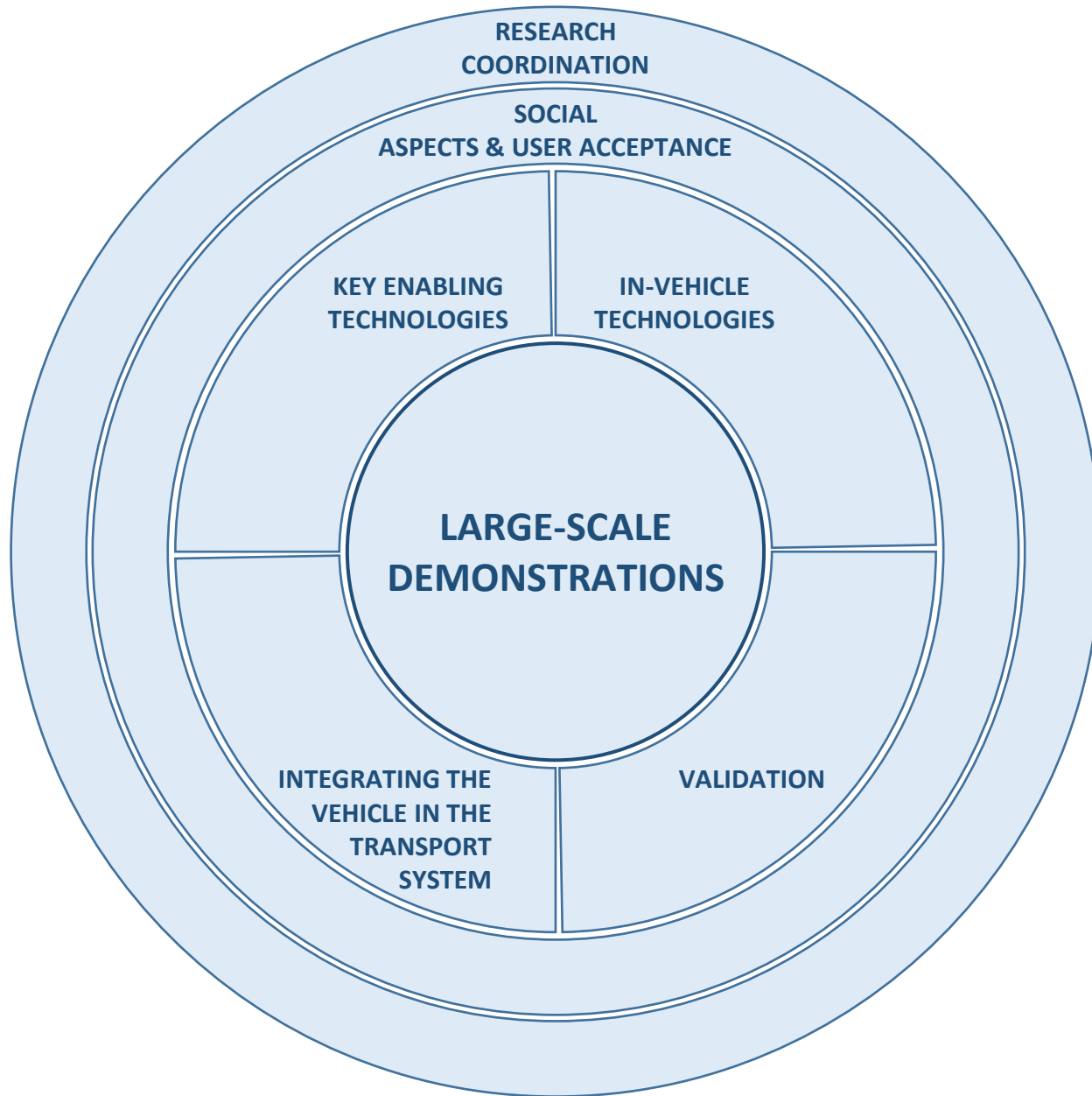
3 Validation of CCAM systems (5)
Validation of Human Factors (6.2)

4 Remote operation and surveillance (7)
Physical and digital infrastructure (8)
Connectivity / Cooperative Systems (9)
Fleet and (mixed) traffic management (12)

5 Cyber-secure electronics (2)
Artificial Intelligence (10)
Data Storage and sharing (21)

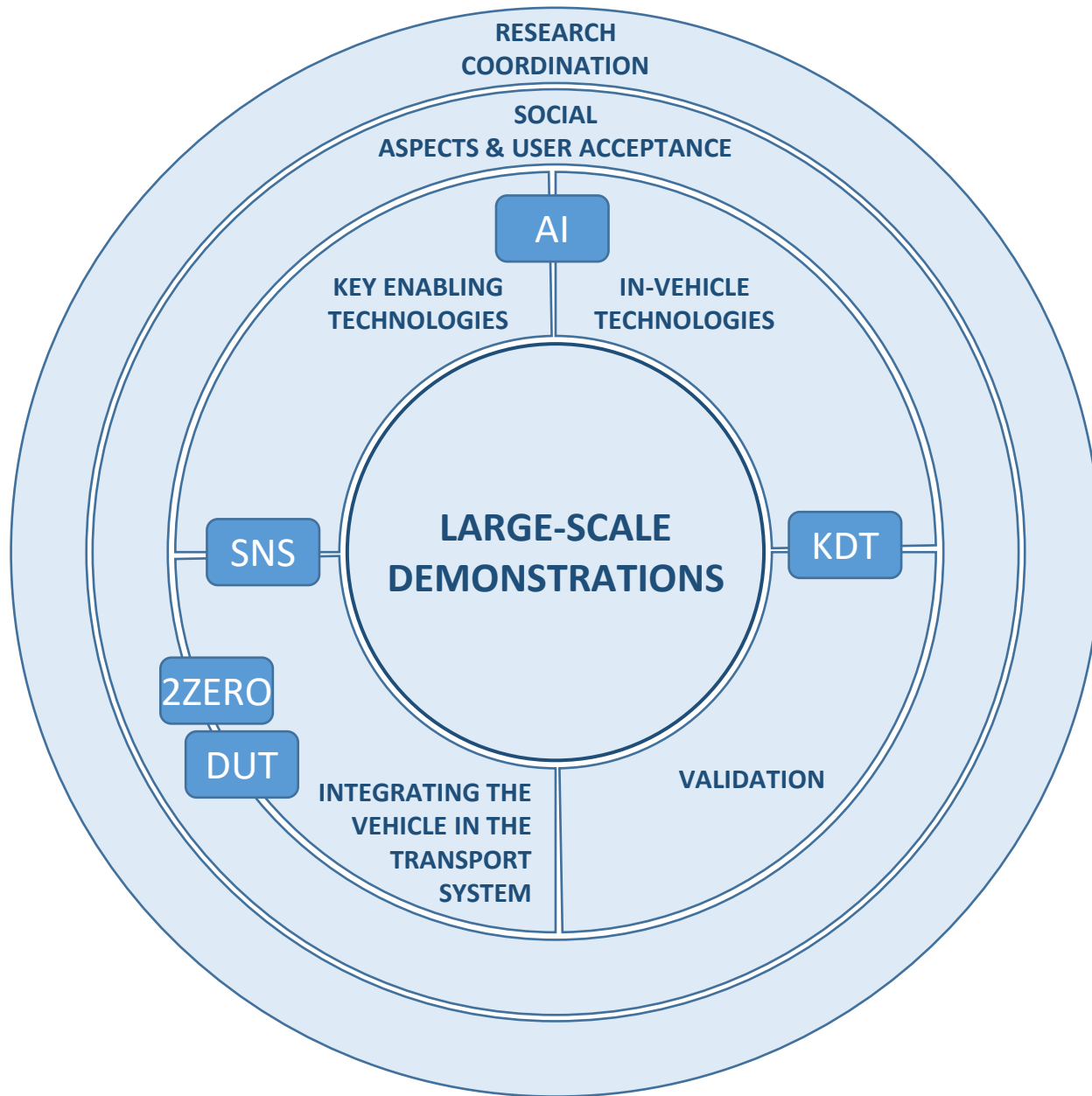
6 Societal needs analysis (15)
Socio-economic and environmental impact analysis (16)
Workforce development (22)

7 European framework for testing on public roads (17)
Data exchange platform (18)
EU-wide knowledge base (19)
Common evaluation framework (20)



CCAM - 7 Clusters

- Partnership under Horizon Europe
⇒ Research & Innovation only, but
- R&I will feed input to policy, regulatory needs and European harmonization activities
- R&I will feed input to technical standardization (ISO, ETSI, etc.)
- R&I activities will link with pre-deployment (e.g. CEF)



Other partnerships

- 2ZERO – towards zero emissions
- DUT – driving urban transition
- KDT – key digital technologies
- SNS – smart network services
- AI – artificial intelligence, data & robotics
- ... Collaborative calls



CCAM PARTNERSHIP

- Thank you

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ERTICO – ITS Europe