

CCAM WORK PROGRAMME 2025

CCAM Cluster	Topic title	Type of action	Budget (EUR million)	# of projects expected to be funded
	Advancing remote operations to enable the sustainable and smart mobility of people and goods based on operational and societal needs – Societal Readiness Pilot	RIA	12	2
1	Preparing for large-scale CCAM demonstrations – Societal Readiness Pilot	CSA	4,5	1
	Next-generation environment perception for real world CCAM operations: Error-free and secure technologies to improve energy-efficiency, cost-effectiveness, and circularity	RIA	8	2
3	Integration of human driving behaviour in the validation of CCAM systems	RIA	5	1
5	Approaches, verification and training for Edge-AI building blocks for CCAM Systems	RIA	4	1
7	Federated CCAM data exchange platform	IA	4	1





Organisation name	FZI Research Center for Information Technology
Interest in the call and / or expertise to be brought into a consortium	 Background and expertise Control center for (small) AV fleets, management tools for fleet vehicles Game-theoretic planning under belief space for dynamic interactions Several L4 test vehicles (2 shuttles, 4IV, cargo bikes) with own AD stack Public Test Area for AD incl. >24 smart intersections Distributed inference (vehicles + infrastructure) including EdgeAI Winner of the Grand Cooperative Driving Challenge (GCDC) 2011 and second place in the GCDC 2016; strong expertise in trajectory planning. Interactive motion prediction on the Waymo Motion Prediction challenge. Interests and ideas Intelligent Control Center learning from fleet and infrastructure data to enhance monitoring and remote operation Predicting problem cases and alerting remote operators before they occur Giving suggestions to the remote operator on how to solve problem cases (suggest trajectories or actions); monitoring and assessing outcomes Quantifying, monitoring, and communicating driving decisions in foundational model-based systems (e.g., End-to-End driving). Integration of Smart Infrastructure (Sensors, V2X-Communication) into Remote Operation for Traffic Surveillance and Situation Recognition
Contact details	Alexander Viehl, Division Manager, viehl@fzi.de; +497219654414



Organisation name	TECNALIA
Interest in the call and / or expertise to be brought into a consortium	 Development of ADAS for remotely operated vehicles using shared control Development of novel remote operation/assistance interfaces considering Human-centered design. Safe and effective transitions between automated and teleoperated modes. Fleet optimization for delivery of goods of autonomous and remote operated vehicles. Fallback strategies in case of degradation of the remote driving performance (e.g. due to latency effects, etc). Generation of digital twin to support remote driving as well as validating the developments. Improvement in the robustness of the video and audio transmission. Related projects: HADRIAN, AWARE2ALL, AugmentedCCAM
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Hypervisoul	
Expertise to be brought into a consortium:	Our Vision
Hypervisoul brings together the right vision, expertise, and technological capabilities to drive the transformation of road traffic systems.	 Future road traffic will be managed strategically. Vehicles will act as tactical agents. A centralized intelligence will provide strategic guidance & tactical commands. Our Role in Horizon Europe
Our system provides both strategic guidance and tactical commands to optimize vehicle manoeuvres, ensuring efficiency, safety, and sustainability.	 ✓ Pioneering traffic orchestration – Developing the first steps towards a fully coordinated traffic orchestration system. ✓ Innovative solutions – Enabling smarter vehicle manoeuvring & decision-making. ✓ Expert team – Visionary, skilled & ready to implement intelligent road solutions. Our solution Today, we replicate CAV behaviour by providing recommendations to human drivers. The
	next step is to deliver strategic guidance directly to connected and fully automated vehicles.
Contact details	José Triano jose.triano@hypervisoul.com



Organisation name	Navya (French OEM)
Interest in the call and / or expertise to be brought into a consortium	 Develop and set up a remote control center with safe teleoperation and safe communication. Safe Geofencing Safe V2X (MaaS & LaaS) Understanding and anticipation scenarios Lane change "Cybersecurity by design" HD map use case with "floor management" Delegate the communication, dissemination and societal readiness pilot to a private company or research institution with expertise on these topics
Contact details	Emilie Blotière (emilie.blotiere@navya-mobility.com)



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Interest in the call and / or expertise to be brought into a consortium







- Multi-operator remote assistance platform and V2X connectivity to extend the ODD for L4 ADS
 - ASPI and Movyon (technological subsidiary) are interested in the industrialization of an integrated remote assistance platform with dedicated views and functionalities for different operators, including fleet managers overseeing L4 vehicles, law enforcement, road operators managing traffic, and public administrations for urban applications
 - Utilization of V2X technologies (both RSU and OBU) to ensure reliable, low-latency connectivity, enabling bidirectional data exchange between automated vehicles and remote operators.
 Definition of a regulatory and technical framework for integrating remote operations into intelligent mobility systems
- Future adoption of Remote operations with ASPI
 - Enhance patrolling and logistics support by enabling remote assistance for the RMO vehicle
 - > ASPI can provide its control room for monitoring operations and vehicles
 - ➤ Leverage ASPI's C-ITS infrastructure, with 34 ITS-G5 roadside units deployed along 52 km of the A1 between Bologna and Florence, to enable connected and automated mobility

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Organisation name	RATP
Interest in the call and / or expertise to be brought into a consortium	 Interest in joining a consortium for working on: How to interact in RO with first line intervention personnels: police, ambulance, firefighters, etc. ? Stops and passenger exchange management (how to be sure you can continue your course without having someone stuck in the doors)
RATP GRQUP	 Security & security feeling on board (only as an interest). Our expertise: RATP Group has operated 15+ projets of autonomous mobility, transported 200,000+ passengers over 10,000+kms. Member of the CCAM Delegation, as Public Transport Operators Delegate
Contact details	Gilles TAUZIN – Innovation Director - gilles.tauzin@ratp.fr



Organisation name	Fondazione LINKS
Interest in the call and / or expertise to be brought into a consortium	 Remote operations for UGVs involved in last-mile delivery of goods using e.g. the new ETSI ITS Automated Vehicle Marshalling* (or other standards) and with a strong connection to CCAM infrastructure (e.g. trafficl igths) to improve efficiency LINKS is currently testing an autonomous UGV on public roads in Turin, having obtained ministerial authorizations for autonomous vehicles
	* ETSI TS 103 882
Contact details	Daniele Brevi, Enrico Ferrera daniele.brevi@linksfoundation.com, enrico.ferrera@linksfoundation.com



Organisation name	IN-MOVE
Interest in the call and / or expertise to be brought into a consortium	 Capabilities to develop viability studies to implement a remote operations service linked to mass public transportation (i.e., eBUS, micro-bus, bus on demand) Providing testing facilities (including vehicles) to conduct remote operations pilot to enhance public transport services (i.e., move Direxis staff from hub-to-hub or move workers from PT hub to Industrial area with bus on demand service) and logistics (i.e., operations at bus depot)
Contact details	Vicent Pastor otp@railgrup.net IN-MOVE



Organisation name	IDEMIA
Interest in the call and / or expertise to be brought into a consortium	As a Road Safety Equipment provider, IDEMIA can provide infrastructure support, be it for environment Al-based perception capabilities, secure communication, back-end systems, etc. We believe that for reliable and safe remote operations, in-vehicle
	perception and decision making is not enough. IDEMIA can provide critical contextual information to help human operators in their remote operations: traffic and weather conditions, scene understanding from infrastructure point of view, traffic management, etc.
	This infrastructure support could also be used to increase the trust of vehicle passengers.
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Łukasiewicz Research Network – Automotive Industry Institute

Interest in the call and / or expertise to be brought into a consortium

- 1. **Certification and Training**: Establishing a certification pathway and training for remote operators, focusing on technical requirements, research on occupational health risks, and candidate qualifications.
- 2. **Research and Technology Development**: Utilizing **PIMOT's** automated research platform to develop and test communication between operators and ADS under various conditions while analyzing road infrastructure data by AI.
- 3. **Validation**: Creating testing methodologies and scenarios for vehicle remote control validation, aligned with EU regulations, and performing controlled tests in a specialized environment to ensure safety and reliability.
- 4. **Legal and Social Research**: Investigating the legal feasibility and societal acceptance of remote operations technology in Poland and the EU (workshops).
- 5. **Business Models and Requirements**: Exploring potential business models for ADS deployment in diverse geographical and cultural contexts and developing operator requirements based on simulations and experimental data.
- 6. **Testing Facilities**: Leveraging research and development facilities for rigorous testing of communication technologies and operator interactions with ADS in both simulated and real-world environments.

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Organisation name	University of Zilina (UNIZA)
Interest in the call and / or expertise to be brought into a consortium	 behavioural modelling, computational modelling of users' acceptance of technologies for predicting changes in demand patterns co-creation and co-design framework development assessing the reliability of communication systems for remote operations under different communication conditions and scenarios review of the local legislation landscape and policy recommendations infrastructure readiness assessment involvement of local stakeholder ecosystem – ministries, public transport operators, service providers, automotive industry
Contact details	tibor.petrov@uniza.sk



Organisation name	Chalmers
Interest in the call and / or expertise to be brought into a consortium	Experience from maritime operations with shared decision control with different automation systems. Research experience with simulator based operator performance and linked simulators to address fleet applications. Access to maritime simulators and access to vehicle simulators. Relevant research projects include AUTOBARGE (MarieCurie ETN) – Autonomous Barges for Smart Inland Shipping, SAFE-MODE maritime and aviation human factors assessment
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Organisation name	IKERLAN
Interest in the call and / or expertise to be brought into a consortium	 Ensuring Safety and Security of remote operations: Identification and design of safe remote operations, alignment with Functional Safety standards (ISO 26262), EU AI ACT and cybersecurity (CRA, IEC 62443). Methodology for the ODD definition and evaluation, considering safety and cybersecurity implications. Contribution to ODD validation methodologies, focusing on functional safety and security. Definition of frameworks and metrics for validation and verification of ODD for safety and security. Secure communication protocols and postquantum cryptographic resilient PKI implementation to ensure secure and tamper-resistant data exchange. Cyber-resilience framework for remote operations. Simulation of realistic environments: use of generative AI to create diverse, realistic, and dynamic virtual environments for safe and efficient training under challenging scenarios.
Contact details	Iñigo Odriozola, <u>iodriozola@ikerlan.es</u>



Organisation name

NAITEC - Mobility and Mechatronics Technological Center Navarra, Spain

Interest in the call and / or expertise to be brought into a consortium







NAITEC Urban Test Bed in Pamplona, Spain, offers a **unique real-world testing environment in Europe**. Our 2.3 km urban circuit is fully sensorized for controlled testing scenarios, with a control room that receives and analyses all data. This environment is ideal for **recreating complex real-world conditions**.

- Refrigerated last-mile delivery autonomous electric vehicle. It sends real-time information to the cloud and the service provider to monitor the delivery status.
- Advanced environment perception: Fiber optic, radar, LiDAR, pollution, and noise sensors.
- · Data interoperability: FIWARE-based platform for secure and efficient global data sharing.
- V2X communication infrastructure with roadside units (RSU) and onboard units (OBU).
- **Virtual validation** environments for ADAS and V2X testing, including Software-in-the-Loop (SIL), Hardware-in-the-Loop (HIL), and virtual reality.
- Autonomous vehicle testing: autonomous vehicle, small rover and drones. Expertise in traffic management, V2X testing.
- Close relationship with the City Council and Government of Navarra, facilitating collaboration and project implementation.

Contact details

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Organisation name	ISTANBUL OKAN UNIVERSITY (OKAN)
Interest in the call and / or expertise to be brought into a consortium	OKAN TTIS (Transportation Technologies and Intelligent Automotive Systems Application & Research Center) have concluded the OPINA project for open source autonomous vehicle research, with support of EU within the IPAII budget. TTIS research team consists of engineers working on autonomous driving and mobility as well as lawyers and psychologists working on application of transportation technology in daily life with The OLATECHUB (Okan Law and Technology Application & Research Center.) Both TTIS and OLATECHUB, using the OPINA infrastructure, can contribute setting guidelines, defining safety validation methodologies, understanding human factors, legal requirements and working conditions, societal readiness, policy and governance reccomendations etc.
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Organisation name	TNO
Interest in the call and / or expertise to be brought into a consortium	SHH aspects on remote operations Supporting a use case in The Netherlands in combination with a technical combination and remote operator centre
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Organisation name	Forum Virium
Interest in the call and / or expertise to be brought into a consortium	From city perspective we already have remotely operated autonomous fleets - not just individual pilot vehicles - in our streets. If the diversity of different CCAMs in the future means multiple remote operation centres of different types managing the fleets, it may quickly become a challenge for cities' traffic management to cooperate with all of them. Hence these new projects should look at the broader picture and address the future state of remote operations and their integration with traffic management Aside the roughly 10 CCAM pilots since 2015, a new project CHORUS (HEU, 07/25-12/28) focuses on orchestration of autonomous fleets, Helsinki focus is on traffic management of off-street CCAM vehicles
Contact details	Sami.Sahala@forumvirium.fi



Organisation name	LIST (Luxembourg Institute of Science and Technology)
Interest in the call and / or expertise to be brought into a consortium	Use cases related to teleoperated driving, focusing on cooperative awareness, perception, and maneuvering Support the design, simulation, and testing of algorithms and strategies to enhance wireless communication technologies - such as V2X communications over 5G or Wi-Fi networks, along with satellite communication support - for remote operations, ensuring seamless and low-latency connectivity between vehicles and remote operators. We can focus on innovative handover mechanisms for satellite communications. Proposed solutions can be initially tested in simulations, followed by deployment within laboratory testbeds (e.g., via Open-Air-Interface) or in a more realistic environment using the 5G private network available at the LIST campus in Belval.
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	Polytechnic University of Bari, Italy - POLIBA	
Interest in the call and / or expertise to be brought into a consortium	POLIBA has a long experience in EU HORIZON projects on transport of people and goods (CO-GISTICS, AEOLIX, FENIX, optiTruck), CCAM (IN2CCAM, CHORUS), as well as on related fields, like Electric Mobility (NEMO, eCharge4Drivers) and communications (6G-TWIN). On these projects, POLIBA develops several activities, such as project, WPs and Tasks management, design and implementation of tools using modelling, simulation, AI, optimization, automation, Digital Twins, etc., management of Living Labs in Bari, involvement of different types of stakeholders, development of Use Cases and definition and use of evaluation methodologies and assessment of KPIs. For this call, POLIBA is interested in use cases, in particular for the last mile transport of goods, possibly exploiting similarities with the work of air traffic controllers, in the use of AI, and in the prerequisites in technology and communication (advanced cell network systems), in a System-Of-Systems approach. Furthermore, POLIBA could contribute to the evaluation activities within the project, exploiting its experience as project leader in IN2CCAM and WP leader in 6G-TWIN.	
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Organisation name	EIT Urban Mobility
Interest in the call and / or expertise to be brought into a consortium	 Knowledge from EIT Urban Mobility portfolio of projects (lessons learned, best practices, technologies/innovations, impact, etc). Bringing uses cases from EIT Urban Mobility partners (cities and solution providers in passenger and logistics' mobility). Communication and dissemination leveraging on EIT Urban Mobility community (1,100 organisations from industry, startups, local authorities, research/universities; 50,000+ followers on LinkedIn; organisers of the Tomorrow.Mobility event (25,000+ attendees); MobilityTalks (series of workshops); Mobility Innovation Marketplace (11,000+ subscribers). Business modelling of the 2 viable cases, developing business plans and commercialization strategies for the innovations and measures tested. Knowledge exchange among use cases and transferability of project measures/solutions.
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Organisation name	ETRA I+D	
Interest in the call and / or expertise to be brought into a consortium	 ETRA's possible contributions to the project would be: Definition of technology requirements and prerequisites to support the implementation of remote operation (communications, safety, security, interoperability), focused on the infrastructure perspective. Definition of the role of Physical and Digital Infrastructure and Traffic Management Systems in the future of remote operation activities. Development of strategies to integrate remote operations with urban traffic management systems. Possible implementation and validation of a pilot in Spain, potentially in a controlled environment, such as a port or a commercial area, in which a disrupting situation will be induced (emergency, system malfunctions, ODD limitation). Addressing transport of people, transport of goods or a combination. Assessment of remote operation and ADS readiness from the infrastructure point of view. Contribution to a holistic approach to assess social and ethical impacts. 	
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Organisation name	IMEC
Interest in the call and / or expertise to be brought into a consortium	 Regulatory & legal framework expertise: Undefined liability and cross-border complexity Human factor & operator performance expertise: trust in handshake between operational & autonomous ODD Business Model Research expertise: no validated 1-N business model at scale, research on transition pathways (rem ops as pillar in CCAM or temporary patch), cost benefit analysis Expertise on real world testing to increase awareness & trust (Mobilidata proloog project on Tele-operated testing: private vehicles as trucks) Technical expertise on tele-communication through articiation on 5G-Bleuprint project Assets to leverage: Mobilidata (C-ITS deployed roads), relation with relevant RemOps ecosystem & transport communities (ITS.be, VIL, link with Cities & Regions, etc.)
Contact details	IMEC: Sven.vlassenroot@imec.be



Organisation name	- International Road Union
Interest in the call and / or expertise to be brought into a consortium	 The commercial road transport sector is undergoing a transformation driven by digitalisation and automation, yet the adoption of remote operation technologies presents significant challenges in terms of regulatory frameworks, operational feasibility and societal acceptance. Experience in HORIZON 2020 – project AWARD delivering recommendation related to the role of the driver and teleoperator; work with UN on the update of the Vienna Convention to accommodate automated driving. The AWARD project delivered remote operated systems for the Austrian UC. Our network of members (transport operators and national associations) can provide regulatory information on the legal framework and the business needs in Europe and beyond. Identifying the key barriers to adoption, supporting the development of governance models for remote operations and ensuring that solutions align with real-world operational needs. Facilitate pilot demonstrations by engaging relevant stakeholders across the supply chain, assessing the impact on drivers, fleet operators and customers; promoting best practices for integrating remote operation technologies into existing mobility and logistics services. Conduct cost-benefit analysis to assess the economic benefit; develop exploitation plan; elaborate roadmaps for successful exploitation and commercialization. Dissemination activities and stakeholders' engagement.
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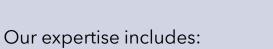
Organisation name

Toulouse University, FR

Interest in the call and / or expertise to be brought into a consortium

The **autOCampus** platform, deployed on the campus of the University of Toulouse, serves as a **continuum** of experimentation dedicated to autonomous and connected mobility. It combines **onboard perception** (vehicles equipped with advanced sensors) and **remote perception** (infrastructure featuring LiDARs, cameras, and computing units) to enhance environmental awareness. With an infrastructure integrating V2X communications, edge computing, and private 5G, it enables real-world testing. This **technological continuum** drives innovation by exploring solutions for autonomous vehicles, last-mile logistics, and traffic management.







Remote & Onboard Perception; Connectivity & Data Processing (V2X, MEC, and real-time decision-making solutions).

Smart Mobility Applications and last-mile logistics.

We seek to join a consortium, providing a real-world testbed, supporting remote operations, and contributing to cooperative intelligence and societal readiness.

Contact details

Rahim.Kacimi@irit.fr Co-head of autOCampus platform , https://www.irit.fr/autocampus/



Organisation name	F6S Network https://innovation.f6s.com/
Interest in the call and / or expertise to be brought into a consortium	The F6S Network leverages the reach and assets of the F6S platform of +5.7 stakeholders via www.f6s.com Communication & Dissemination We go beyond traditional methods, integrating social media, project websites, webinars, podcasts, events and innovative outreach in high impactful promotion & dissemination strategies. Stakeholder Engagement F6S drives stakeholder engagement through high-impact campaigns, global community building, and interactive co-design workshops.We are experienced in implementing an efficient multi actor approach and building synergies/ clustering activities among projects and EU initiatives. Exploitation, Sustainability & Impact F6S accelerating projects teams and value proposition towards market We provide guidance in exploitation pathways for Key Exploitable Results
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