



### BUSINESS

### TAMPERE AWARD-WINNING SMART CITY

#### Why Tampere?

2nd largest economic region in Finland, a hub of industry, research, and innovation.

Cost-efficient business environment – competitive costs vs. Helsinki, Stockholm, Munich. High quality of life – safe, sustainable, and well-connected region

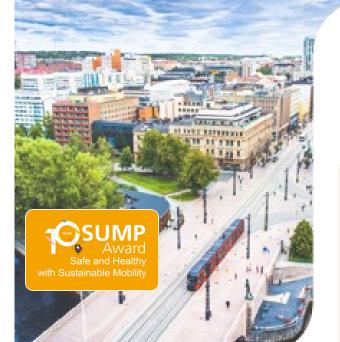
World-class **talent pool: 35,000 higher education students**, strong ICT and engineering base.

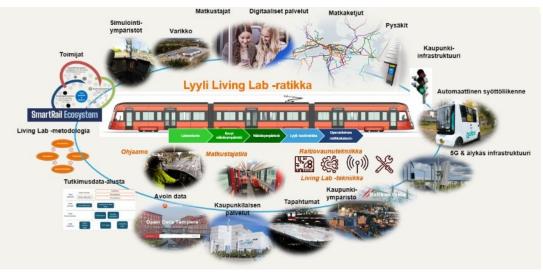
**Strong industrial heritage** – transforming into smart machines, AI, cleantech, semiconductors and new generation work machines.















# Destination 6: Safe, Resilient Transport and Smart Mobility services for passengers and goods

- In 2025 a total of 15 calls, 4 closed Sept 2025, 11 with DL Jan 2026
- 4 CCAM Partnership calls for Jan 2026 DL
- 7 other calls: Innovative construction of transport infrastructure, Logistics digital innovation, Safety of VRUs, Predicting and avoiding road crashes with AI, Innovative air mobility and services
- Calls open 16.9.2025 20.1.2026
- Typical budget €3,5M-€11M per project





### **CCAM Partnership calls**

- HORIZON-CL5-2026-01-D6-03: Next-generation environment perception for real world CCAM operations: Error-free and secure technologies to improve energyefficiency, cost-effectiveness, and circularity
- HORIZON-CL5-2026-01-D6-04: Integration of human driving behaviour in the validation of CCAM systems
- HORIZON-CL5-2026-01-D6-05: Approaches, verification and training for Edge-Al building blocks for CCAM Systems
- HORIZON-CL5-2026-01-D6-06: Federated CCAM data exchange platform





### Other calls (1/2)

- HORIZON-CL5-2026-01-D6-07: Innovative construction and maintenance, with the use of new materials and techniques, for resilient and sustainable transport infrastructure
- HORIZON-CL5-2026-01-D6-08: Accelerating freight transport and logistics digital innovation
- HORIZON-CL5-2026-01-D6-09: Reliable data and practices to measure and calculate transport emissions in multimodal transport chains
- HORIZON-CL5-2026-01-D6-10: Integrating inland waterway transport in smart shipping and multimodal logistics chains





### Other calls (2/2)

- HORIZON-CL5-2026-01-D6-13: Safety of Cyclists, Pedestrians and Users of Micromobility Devices
- HORIZON-CL5-2026-01-D6-14: Predicting and avoiding road crashes based on Artificial Intelligence (AI) and big data
- HORIZON-CL5-2026-01-D6-15: Icing in the context of sustainable aviation



			Topic	No of
·	Action	Deadline	budget	projects
Next-generation environment perception for real world CCAM operations: Error-free and secure technologies to improve energy-efficiency, cost-effectiveness, and circularity (CCAM Partnership)	RIA	20.1.2026	8M	2
Integration of human driving behaviour in the validation of CCAM systems (CCAM Partnership)	RIA	20.1.2026	5M	1
Approaches, verification and training for Edge-Al building blocks for CCAM Systems (CCAM Partnership)	RIA	20.1.2026	4M	1
Federated CCAM data exchange platform (CCAM Partnership)	IA	20.1.2026	4M	1
Innovative construction and maintenance, with the use of new materials and techniques, for resilient and sustainable transport infrastructure	IA	20.1.2026	22M	2
Accelerating freight transport and logistics digital innovation	IA	20.1.2026	15M	2
	and secure technologies to improve energy-efficiency, cost-effectiveness, and circularity (CCAM Partnership)  Integration of human driving behaviour in the validation of CCAM systems (CCAM Partnership)  Approaches, verification and training for Edge-AI building blocks for CCAM Systems (CCAM Partnership)  Federated CCAM data exchange platform (CCAM Partnership)  Innovative construction and maintenance, with the use of new materials and techniques, for resilient and sustainable transport infrastructure  Accelerating freight transport and logistics	Next-generation environment perception for real world CCAM operations: Error-free and secure technologies to improve energy-efficiency, cost-effectiveness, and circularity (CCAM Partnership)  Integration of human driving behaviour in the validation of CCAM systems (CCAM Partnership)  Approaches, verification and training for Edge-Al building blocks for CCAM Systems (CCAM Partnership)  Federated CCAM data exchange platform (CCAM Partnership)  Innovative construction and maintenance, with the use of new materials and techniques, for resilient and sustainable transport infrastructure  Accelerating freight transport and logistics	Next-generation environment perception for real world CCAM operations: Error-free and secure technologies to improve energy-efficiency, cost-effectiveness, and circularity (CCAM Partnership)  Integration of human driving behaviour in the validation of CCAM systems (CCAM Partnership)  Approaches, verification and training for Edge-Al building blocks for CCAM Systems (CCAM Partnership)  Federated CCAM data exchange platform (CCAM Partnership)  Innovative construction and maintenance, with the use of new materials and techniques, for resilient and sustainable transport infrastructure  Accelerating freight transport and logistics  IA 20.1.2026	Next-generation environment perception for real world CCAM operations: Error-free and secure technologies to improve energy-efficiency, cost-effectiveness, and circularity (CCAM Partnership)  Integration of human driving behaviour in the validation of CCAM systems (CCAM Partnership)  Approaches, verification and training for Edge-Al building blocks for CCAM Systems (CCAM Partnership)  Federated CCAM data exchange platform (CCAM Partnership)  Innovative construction and maintenance, with the use of new materials and techniques, for resilient and sustainable transport infrastructure  Accelerating freight transport and logistics  Action Deadline budget  Budget  20.1.2026  8M  20.1.2026  8M  20.1.2026  5M  20.1.2026  4M  20.1.2026  2M

Call identifier	Topic	Action	Deadline	Topic budget	No of projects
HORIZON-CL5-2026-01-D6-09	Reliable data and practices to measure and calculate transport emissions in multimodal transport chains	CSA	20.1.2026	3.5M	1
HORIZON-CL5-2026-01-D6-10	Integrating inland waterway transport in smart shipping and multimodal logistics chains	IA	20.1.2026	16M	2
HORIZON-CL5-2026-01-D6-13	Safety of Cyclists, Pedestrians and Users of Micromobility Devices	RIA	20.1.2026	10M	2
HORIZON-CL5-2026-01-D6-14	Predicting and avoiding road crashes based on Artificial Intelligence (AI) and big data	RIA	20.1.2026	10M	2
HORIZON-CL5-2026-01-D6-15	Icing in the context of sustainable aviation	RIA	20.1.2026	4M	1

### Expression of interest of some Pirkanmaa region companies



	D6-03	D6-04	D6-05	D6-06	D6-07	D6-08	D6-09	D6-10	D6-13	D6-14
	RIA	RIA	RIA	IA	IA	IA	CSA	IA	RIA	RIA
Budget M€	8	5	4	4	22	15	3,5	16	10	10
# of projects	2	1	1	1	2	2	1	2	2	2
Per project €M	4	5	4	4	11	7,5	3,5	8	5	5
City of Tampere										
Citynomadi						1	1		1	
Fintraffic				1		1				1
Tamk										
Nodeon			1	1						1
Solita			1	1		1				1
Moovy				1			1			
Scanwai									1	1
Remoted										
Wapice				1						1
Tuni/Verne				1		1	1		1	
Sitowise										
Vinka										
VTT	1	1	1	1		1	1	1		1







# HORIZON-CL5-2026-01-D6-03: Next-generation environment perception for real world CCAM operations: Error-free and secure technologies to improve energy-efficiency, cost-effectiveness, and circularity (CCAM Partnership)

- Availability of validated prototypes of next-generation vehicle and infrastructure-based environment
  perception technologies for robust, reliable and trustworthy CCAM operations to anticipate and avoid
  foreseeable risks and unexpected safety-critical situations in complex real-world conditions (e.g., at
  pedestrian crossings, in construction sites, during interactions with emergency vehicles, etc.);
- Understanding the degree (and limits) to which automated CCAM perception systems can anticipate, process, and respond to on-site 'early-warnings' (e.g., street design, sounds, smells and other signals from the environment, intentions of pedestrians, cyclists, and other active mobility users, etc.);
- Improvement of the energy-efficiency of the sense-think-act systems of CCAM considering the vehicle, the infrastructure, the cloud at-the-edge, while at the same time increasing the performance to guarantee security and error-free reliability; these developments will contribute to the reduction of the potential climate and environmental footprints of CCAM systems;
- Standardisation and adoption of modular, reusable, and upgradable software and hardware platforms, investigating scalable deployment concepts that lead to cost reduction and improved affordability while adopting a circular, eco-design approach (including efficient materials use, reduced waste, and the repair and reuse of components where feasible).





# HORIZON-CL5-2026-01-D6-04: Integration of human driving behaviour in the validation of CCAM systems (CCAM Partnership)

- Validated human behavioural models representing the variety of human driving behaviour in safety-relevant scenarios, shared through a common repository and to be used:
  - to define pass criteria/ assessment criteria for CCAM systems in type approval schemes, consumer testing campaigns and industrial development processes;
  - to design safe, human-like behaviour of CCAM systems that can be anticipated easily by other road users and is acceptable to both occupants and other road users.
- Application of such human behavioural models in the virtual safety validation of CCAM systems to realistically represent the behaviour of human-driven vehicles in closed loop simulations of mixed traffic, thereby reflecting the variety of human driving behaviour, including behaviour in complex real-world and emergency conditions.





## HORIZON-CL5-2026-01-D6-05: Approaches, verification and training for Edge-AI building blocks for CCAM Systems (CCAM Partnership)

- CCAM solutions in hardware and software with reduced power consumption, latency, and improved speed and accuracy, as domain specific adaptions of sector agnostic advancements in e.g. Al and/or cloud-edge-IoT technologies;
- Enhanced levels of safety, (cyber) security, privacy and ethical standards of data-driven CCAM functionalities by using e.g. edge-Al applications for CCAM;
- Approaches for well-balanced distributions of AI calculations for expanding use cases (e.g. collective perception, decision making and actuation) for connected, cooperative and automated driving applications (using a balanced mix of edge-based solutions, cloudenabled solutions and vehicle-central solutions), balancing speed and latency, energy use, costs, data sharing and storage needs and availability;
- Validated approaches incorporating Edge-Al solutions into the action chain from perception and decision-making up to actuation of advanced CCAM functionalities - both on-board and on the infrastructure side - for systemic applications such as traffic management and remote control, as well as tools and approaches for training of such

BUSINESS ionalities, which require optimised and verified edge-Al models.



# HORIZON-CL5-2026-01-D6-06: Federated CCAM data exchange platform (CCAM Partnership)

- Overview of CCAM-specific limitations of current data exchange solutions and existing dataspaces related to interfaces, harmonised ontologies and taxonomies, standards, formats, monetisation / compensation;
- Mapping of information and reference data needs for KPIs collected by Member States and Associated Countries (where relevant and to the extent possible), related to impacts of CCAM technologies and solutions;
- Federated sustainable CCAM Data Exchange Platform that facilitates sharing of data for both large-scale demonstrations and deployment, interfacing existing data spaces and improving the exchange, availability, and accessibility of data for the development, testing and deployment of CCAM services (including but not limited to Digital Twins, digital scenario representations, safety assurance and validation, ADS regulation monitoring, driver behaviour, AI model training, and the collection of national/EU level statistics and Key Performance Indicators);
- Proposed governance structure for the Data Exchange Platform with a sustainability plan **BUSINESS** viable business model.

15



# HORIZON-CL5-2026-01-D6-07: Innovative construction and maintenance, with the use of new materials and techniques, for resilient and sustainable transport infrastructure

- At least 50% of the construction materials used are recycled or sourced from recycled materials;
- Reduced pollutant emissions by at least 30% considering the entire life cycle of the infrastructure;
- Reduced degradation of ecosystems and fragmentation of habitats during construction, maintenance, operation and decommissioning of transport infrastructure (thereby contributing to maintaining biodiversity);
- Increased climate resilience of infrastructure to extreme weather and human caused events, assuring at least 80% capacity at network level during the disruptions;
- Structured analysis and recommendations on the need for EU standards in construction, inspection, maintenance and deconstruction, contributing to the decarbonisation and increased resilience of transport infrastructure;
- Guiding document on the necessary adaptations to public procurement rules that contribute to including clear sustainability and resilience award criteria.





### HORIZON-CL5-2026-01-D6-08: Accelerating freight transport and logistics digital innovation

- Extended functionalities of electronic Freight Transport Information (eFTI) platforms beyond the required actions forming part of the implementation of Regulation 2020/1056 for:
  - new use cases, solutions and applications, enabling harmonised electronic business-to-business (B2B) information sharing and exchange in multimodal logistics chains and hubs such as those related to GHG reporting, sustainability claims and other actions leveraging efficient and green freight operations in the supply chain;
  - complementary applications and services for electronic business-to-authority (B2A) information sharing aimed to support the implementation by businesses of relevant Union regulatory frameworks in transport or in other relevant policy fields, such as in the context of smart enforcement, statistics, customs, e-invoicing, , sustainability reporting, data spaces, GHG and external costs calculators;
- Best practices to boost and accelerate the adoption of eFTI framework and data sharing innovations by companies and in particular by SMEs are established;
- Improved efficiency in operations and freight transport, through the provision of advanced digital connectivity and interoperability of the information shared electronically between actors in both B2B and B2A perspective, compared to the baseline defined in the start of the project, is demonstrated and quantified:
- Reduced administrative burden and costs associated with B2B data sharing and B2A regulatory and non-**Be**tory reporting are demonstrated and quantified.



# HORIZON-CL5-2026-01-D6-09: Reliable data and practices to measure and calculate transport emissions in multimodal transport chains

- Input is provided for the implementation of the existing and forthcoming Union's regulatory initiatives related to measurement, calculation and reporting of emissions in transport, such as Regulation (EU) 2023/1805 (FuelEU Maritime), Regulation (EU) 2023/2405 (ReFuelEU Aviation), and the recent Commission's proposal for the Regulation on the accounting of greenhouse gas emissions of transport services (CountEmissions EU). Consistency with data and methodologies in current energy legislation such as Directive (EU) 2023/2413 (Renewable Energy Directive) must be ensured;
- Methodological components are developed and proposed to complement the methodology for accounting emissions provided under the Commission's proposal on CountEmissions EU.





# HORIZON-CL5-2026-01-D6-10: Integrating inland waterway transport in smart shipping and multimodal logistics chains

- Enhanced solutions and tools to better integrate inland waterway transport (IWT) into the
  overall logistic chains and increase the modal share of inland waterway transport, are
  developed and demonstrated in use cases in line with the objectives set up in NAIADES III;
- Gains (compared to the baseline defined in the beginning of the project) in terms of operational efficiency, as well as environmental and social impact from the integration of IWT in multimodal logistics chains, are clearly identified, demonstrated and measured;
- Recommendations for an EU regulatory framework on harmonised smart shipping at EU level, as well as input for related standardisation, harmonisation and amendments to Inland Water Transport Digitalisation Vision to reflect findings from the project;
- Stakeholder engagement and communication campaigns and events to increase visibility and use of IWT are organised.





### HORIZON-CL5-2026-01-D6-13: Safety of Cyclists, Pedestrians and Users of Micromobility Devices

- Improved (compared to the current figures for the locations selected for the pilot testing) road safety
  (actual and perceived) for pedestrians, cyclists, e-cyclists and users of other micro-mobility devices,
  considering that the safety of these users is not only at risk from motorised vehicles, but also from their
  interaction with road users with higher masses or operating speeds (e.g. between e-bikes and
  pedestrians);
- An in-depth analysis and assessment of the safety associated with the emergence of electrically assisted small vehicles such e-bikes, e-cargo bikes, e-scooters, to be referred to as micromobility modes, that may be shared or own, and are used for personal mobility (e.g. commuting) and the transportation of goods (e.g. parcel delivery);
- Increased (compared to the current figures for the locations selected for the pilot testing) use of active and micromobility modes in all age and socioeconomic groups as a result of improved safety;
- Standardisation guidelines for the authorities (cities authorities, police, and hospitals) on how to report crashes that involve micromobility modes with the objective to avoid under- and/or misreporting;
- Guidelines for the city authorities on how to incorporate micromobility modes in their Sustainable Urban Mobility Plans (SUMPs) and account for the safety and convenience of all road users;
- Development of mitigating solutions for the adverse impact on the safety of cyclists, pedestrians, and other users of the changing car fleet towards bigger and heavier vehicles;





# HORIZON-CL5-2026-01-D6-14: Predicting and avoiding road crashes based on Artificial Intelligence (AI) and big data

- Knowledge of high-risk locations along the road network becoming available, before crashes actually
  occur, enabling road authorities to deploy appropriate countermeasures proactively;
- Predictive identification of safety-critical situations based on data from multiple sources and enabling real-time interventions to avoid crashes;
- Determination of the optimal sample size to allow for reliable real-time crash occurrence prediction;
- Enhanced monitoring of traffic flows and incorporation of traffic flow variations and patterns in real-time crash prediction, which will also lead to more effective traffic management by foreseeing unexpected or disruptive events.





#### HORIZON-CL5-2026-01-D6-15: Icing in the context of sustainable aviation

- Expected Outcome: The need to perform research in the field of icing, to ensuring safety and efficiency of proposed new solutions (TRL 3-5), is justified by the increasing incidence of weather hazards caused by climate change, the new generation of low carbon dioxide (CO2) aircraft with associated disruptive configurations, and the stringency of new policies and certification rules.
- In the mid-term, project results are expected to contribute to the following outcomes:
  - Generating scientific expertise to develop means of compliance for the certification of icing systems;
  - Generating scientific knowledge to be able to develop new prototypes of ice detection and protection.

