Contact
Avenue de Cortenbergh 66
1000 Brussels
marzena.jougounoux@ccam.eu
ccam.eu

CCAM
CONNECTED, COOPERATIVE & AUTOMATED MOBILITY

CCAM In-Kind contributions to Additional Activities 2024

How CCAM members' additional activities enhance the CCAM Partnership

The IKAA (In-Kind Additional Activities) Report 2024 showcases how members of the CCAM Association are advancing automated mobility through strategic in-kind activities. With over €107.5 million in reported contributions—more than twice the EU funding for the same year—the report reflects the high level of commitment from across the partnership.
This edition also marks a transition to a biennial format, with the 2024 data forming the first half of a consolidated report covering 2024–2025, which will be out in 2026.

What stands out in 2024

• Testing CCAM in the real world

Many members invested in large-scale testing and real-life pilots that brought automated mobility to urban streets, rural roads, and controlled environments. These included trials of automated shuttles and buses, logistics applications, and highway driving, often combined with public transport integration. Demonstrations didn't just test technology, they addressed user acceptance, operational viability, and public sector engagement.

• Advanced validation and digital twins

A major area of innovation was the development of digital validation ecosystems, including scenario databases, simulation environments, and virtual testbeds. These platforms enabled members to test automated driving functions under a wide range of traffic and environmental conditions, improving safety assurance and reliability, essential for future regulation and certification. Another pool of activities included predictive software development of upgradeable vehicles, software-based reconfigurability of flexible mobility systems, and over-the-air updates.

• Breakthroughs in perception systems and AI

Several members reported significant progress in AI-powered perception systems, including the use of neuromorphic vision chips, edge AI computing, and energy-efficient processing. These technologies aim to reduce latency, increase robustness, and enable real-time decision-making, which are all critical for high-level automation in dynamic environments. Members were also exploring emerging sensing technologies, such as 4D radars and quantum sensors.

• Infrastructure and system integration

Investments were made to prepare physical and digital infrastructure for CCAM deployment. This included connected traffic lights, roadside sensing, V2X communication setups, testbeds for integrated mobility, and next generation tolling systems. Members also contributed to the development of robotic charging and interoperability of systems, a key requirement for scaling up CCAM solutions across Europe. Additionally, members conducted international tests on jamming, spoofing and meaconing of GNSS.

• Policy and standardisation

Several initiatives contributed directly to the development of standards, policy recommendations, and regulatory frameworks for testing and deploying automated vehicles. Members worked on topics like remote operation safety, data governance, validation harmonisation, and functional safety, offering inputs at national, European and international levels.

• Upskilling and talent development

Training was another priority, with dedicated programmes for professionals, engineers, and students. These ranged from internal workshops and upskilling on standards and software, to university courses and MOOC platforms focused on automated driving. This continuous learning is helping to build the future CCAM workforce.

• Strategic collaboration and ecosystem building

Many members played a central role in coordinating with other partnerships, national platforms, and industrial ecosystems. Activities included shaping joint R&I roadmaps, developing go-to-market strategies, and supporting startups and SMEs through living labs and test environments. These efforts ensure that CCAM innovation doesn't happen in isolation, but as part of a broader, sustainable mobility transformation.

• Success stories gathered for 2024

As part of the IKAA process, participants are also invited to share success stories that showcase relevant and impactful activities in the CCAM field. In 2024, several highlights emerged. The NimbleAI project, coordinated by Ikerlan, is developing a neuromorphic, event-driven vision chip that mimics the human eye, enabling real-time perception with lower energy use and faster responses: an innovation with strong potential for safer and more efficient automated driving.

The ACDC course on Automated and Connected Driving Challenges, delivered on the edX platform by RWTH Aachen University, received the 2024 Global MOOC Alliance award, combining online learning with student research projects linked to CCAM, and building valuable talent for the sector.

The C-ROADS initiative advanced cross-border deployment of Cooperative Intelligent Transport Systems (C-ITS), showing that services like hazard warnings and congestion alerts can function reliably across countries, operators, and vehicle brands, offering a scalable model for Europe. The Finnish Transport and Infrastructure Agency also coordinated a project clarifying the role of authorities, establishing real-time data exchange between vehicles and traffic systems, and fostering cooperation with Sweden.

The 2024 IKAA contributions demonstrate that CCAM members are not just innovating: they are deploying, validating, and enabling real-world change. The level of coordination and complementarity with EU-funded activities confirms the strategic maturity of the ecosystem.

As we move into 2025, these in-kind contributions will continue to support the delivery of the CCAM Partnership's mission: enabling a European mobility system that is safer, smarter, and more inclusive.