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# CCAM In-Kind contributions to Additional Activities 2021-2022

How CCAM members' additional activities enhance the CCAM Partnership

In addition to the CCAM projects funded under Horizon Europe, the members of the CCAM Association actively contribute to the achievement of the Partnership objectives through their own activities, known as In-Kind contributions to Additional Activities (IKAA). The Memorandum of Understanding (MoU) signed between the CCAM Association and the European Commission specifies that the CCAM members envisage to dedicate up to €500 million for the period 2021-2030 to the Partnership, including the IKAA, to complement and match the overall Union contribution.

These individual activities help advance the goal of CCAM to create a more usercentered and inclusive mobility system, increasing road safety while reducing congestion and environmental footprint.

In 2021-2022, these contributions represented an estimated total of at least €262 million, which is more than half of the EU funding of the Partnership for the whole period 2021-2030 and exceeded the Union contribution in the same period by around €100 million.



## Ensuring inclusive mobility and goods access for all

CCAM activities aim to ensure that future mobility solutions are designed to be inclusive, accessible, and responsive to the diverse needs of all individuals and communities.

In 2021-2022, additional activities consisted for example of:

- Extending **automated shuttle** service and conducting **public engagement** and awareness raising activities around it (in Sweden).
- Survey on Advanced Driver Assistance Systems (ADAS), with a focus on citizens and their knowledge on, and attitude towards, ADAS (in Austria).
- Creation and dissemination of a website for the general public, with technical and legal information on the safe use of ADAS (in Austria).
- Online platform and informative videos about 5G application in CCAM illustrating different usage scenarios (in Luxembourg).
- Creation and dissemination of a video to help users better understand the added value of higher levels of automated and autonomous driving (in Germany).

These activities contribute value to projects funded in parallel under Horizon Europe, such as **Drive2theFuture**, **MEDIATOR**, and **SHOW**.

### Reducing negative impacts from road transport on environment

Other activities performed in 2021-2022 underscored the CCAM Partnership's commitment to environmental sustainability by developing technologies, practices, and systems that mitigate the negative impacts of road transport on the environment. For instance:

- Testing and demonstration of technologies for urban mobility projects, improving safety and efficiency of travel, mobility data management.
- R&I on cooperative mobility, using data from traffic sensors, PDI elements, and external services (i.e. weather services) to generate real-time air quality maps.

Some of these activities partially contributed to or derived from Horizon 2020 projects such as **L3Pilot** and **Hi-Drive**. They will add value to Horizon Europe projects like **AUGMENTED CCAM**.

# Increasing safety in road transport

As CCAM members continue **to innovate and collaborate**, they hold the potential to reshape the future of road mobility with a **strong emphasis on safety**.

Notable examples of IKAAs that contribute to the achievement of the road safety objectives include in 2021-2022:

- R&I activities on vehicle technologies such as perception, situation-awareness, V2X, driver/occupant state monitoring, on simulation and validation, and on road traffic management and infrastructures.
- SAE Level 4 test drives to challenge new technologies and equipment in urban, as well as highway settings.
- Development of cockpit electronics for advanced HMI solutions for safe onboard experience enrichment and user interactions.
- Contribution to the development of standards in new type approval procedures and in road equipment.



Engaging in such activities enhances the value of Horizon Europe projects, such as **ROADVIEW**, **EVENTS**, **SUNRISE** and **AWARE2ALL**.

#### Strengthening competitiveness of European industries

CCAM members invested **in start-ups** (e.g. on vehicle and cloud technologies), **patenting**, and other initiatives to **turn innovation into business opportunities**.

Notable achievements include the automated, driverless parking function (SAE Level 4) that Bosch contributed to develop. In 2022, this automated valet parking system received official approval for regular operation with private vehicles, in one of the parking garages at Stuttgart airport in Germany. Following this success, the technology is now being introduced in 15 additional parking garages in Germany. Important foundations for the improvement of the Automated Valet parking use case were laid in European R&I projects.

In addition, CCAM members contribute to the **development of standards and regulations**, promoting safety and interoperability across the CCAM landscape. Participation in UNECE working groups, national and international standards organisations, and collaborative projects enhances the regulatory framework and paves the way for a harmonized future.

### Capitalising knowledge to accelerate development and deployment of CCAM solutions

- Synergies between projects at different levels steer the Partnership towards its objectives. CCAM members are actively engaged in national collaborative projects across Europe, fueling innovation and research. Some research activities performed at national level will be used in the CCAM Partnership's projects, and vice-versa. For example, the methods and simulation models that are used in the Horizon Europe project AWARE2ALL come from VuV4NGC project, a German project to which some CCAM members actively contributed. Likewise, important foundations for the improvement of the Automated Valet parking use case were laid in other national R&I projects involving CCAM members in Europe.
- Additionally, the members of the CCAM Association supported the adaptation of academic schemes in the field of CCAM, by developing new courses, university lectures and seminars on CCAM aspects, and supervising bachelor and master theses, and PhD dissertations on CCAM topics.
- Finally, additional activities contributed to **developing synergies with other European, transnational and national R&I initiatives**, as well as knowledge sharing with national or **regional technology clusters and living labs**.
- In 2022, the Chairman of the CCAM Association was nominated co-chair of International Communication and Cooperation Committee of ICV Roadmaps, which includes technology and standardization bodies from the EU, UK, US, Japan, South Korea and China. This nomination is a recognition of the visibility and reliability of the Partnership. It will provide even more international recognition and opportunities for **international collaboration**.

CCAM IKAAs and the EU funded activities enhance each other. The overarching goal of CCAM will be realized through this collaborative effort.

Through synergies, investments, and proactive collaborations, the stakeholders involved in the CCAM Partnership chart a course toward a more connected, cooperative, and sustainable future of road transport.