

Introduction on the selected Horizon Europe mobility related topics

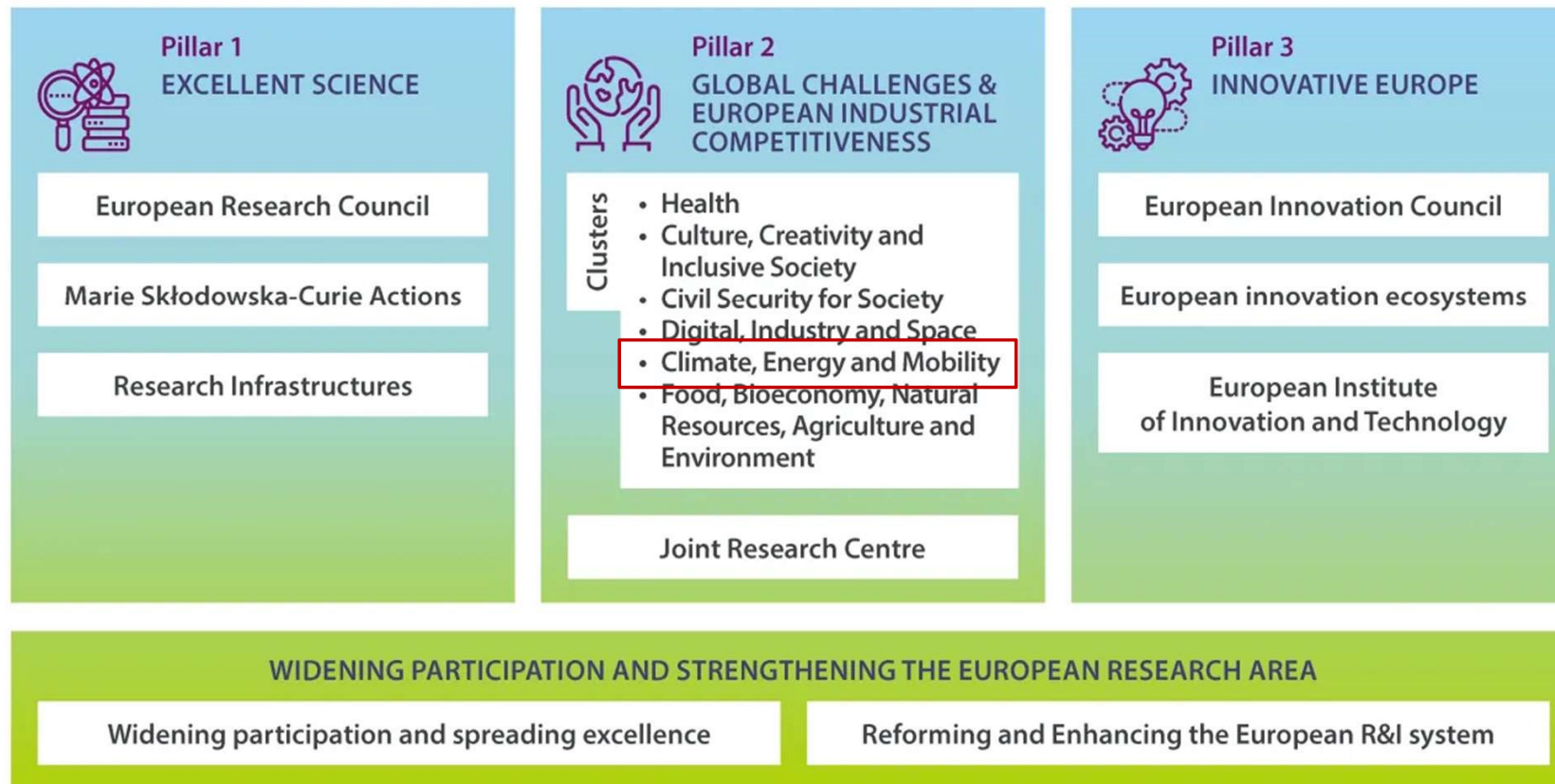
MOBILITY & TRANSPORT DAYS
virtual information & brokerage event
28th May 2021



HORIZON EUROPE 2021 - 2027

Budget: € 95.5 billion

THREE PILLARS FOR IMPLEMENTATION



CLUSTER 5 CLIMATE, ENERGY and MOBILITY

Destinations:

D1: Climate services and responses for the transformation towards climate neutrality

D2: Cross-sectoral solutions for the climate transition

D3: Sustainable, secure and competitive energy supply

D4: Efficient, sustainable and inclusive energy use

D5: Clean and competitive solutions for all transport modes

 D6: Safe, Resilient Transport and Smart Mobility services for passengers and goods

Topic title	Type of Action	Budget per project	Topic Budeget	Project funded
HORIZON-CL5-2021-D6-01-03: Physical and Digital Infrastructure (PDI), connectivity and cooperation enabling and supporting CCAM	IA	7 - 9 M€	18	2
HORIZON-CL5-2021-D6-01-05: Analysis of socio-economic and environmental impacts and assessment of societal, citizen and user aspects for needs based CCAM solutions	RIA	3 - 4 M€	8	2
HORIZON-CL5-2021-D6-01-07: More efficient and effective multimodal freight transport nodes to increase flexibility, service visibility and reduce the average cost of freight transport	IA	7 - 8 M€	15	2
HORIZON-CL5-2021-D6-01-08: New delivery methods and business/operating models to green the last mile and optimise road transport	IA	7 - 8 M€	15	2
HORIZON-CL5-2021-D6-01-10: Testing safe lightweight vehicles and improved safe human-technology interaction in the future traffic system	RIA	3.5 -4 M€	12	3

Topic HORIZON-CL5-2021-D6-01-03: Physical and Digital Infrastructure, connectivity and cooperation enabling and supporting CCAM (IA)

This topic implements the **co-programmed European Partnership** on ‘Connected, Cooperative and Automated Mobility’ (CCAM)

Funding rate: up to 60% of the eligible costs (except NON-PROFIT legal entities)

Proposal page limit: max. 70 pages

SCOPE:

2 AREAS (select only ONE!)

- A) Physical and Digital Infrastructure (PDI) supporting CCAM
- B) Connectivity and cooperation as enablers for CCAM and traffic management

Topic budget: 18 M€
Project budget: 7-9 M€
Innovation Action
TRL 6-7
Opening: 24th June 2021
Deadline: 19th October 2021

Topic HORIZON-CL5-2021-D6-01-03: Physical and Digital Infrastructure (PDI), connectivity and cooperation enabling and supporting CCAM

AREA A) Physical and Digital Infrastructure (PDI) supporting CCAM

Project activities:

- Develop a **service architecture** which improves the functionality of highly **automated vehicles** by supporting their „sense, plan and act ability“ and will provide PDI support and can further increase the functional safety and the traffic efficiency.
- **Analyse the risk, benefits and required investments in PDI support** and provide **guidance toward minimum adaptations of PDI** that provide a substantial and sustainable added value to CCAM.
- Develop potential needs for **standardisation or input for future regulatory action.**

International cooperation: US, Japan, Canada, South Korea, Singapore, Australia.

Topic HORIZON-CL5-2021-D6-01-03: Physical and Digital Infrastructure (PDI), connectivity and cooperation enabling and supporting CCAM

AREA B) Connectivity and cooperation as enablers for CCAM and advanced traffic management

Project activities:

- First concepts and message **designs** for next generation C-ITS (Cooperative Intelligent Transport Systems and Services)
- **Data provision through communication channels from external sources** increasing the functionality of CCAM services and traffic managements as well as road safety, traffic efficiency and environmental protection
- **Ensuring interoperability** and continuity of services, backwards compatibility of proposed solutions, supporting a mixed use or range of technologies while ensuring privacy and security for all, in all communication channels

Topic HORIZON-CL5-2021-D6-01-05: Analysis of socio-economic and environmental impacts and assessment of societal, citizen and user aspects for needs based CCAM solutions (RIA)

This topic implements the **co-programmed European Partnership** on ‘Connected, Cooperative and Automated Mobility’ (CCAM)

- involvement of **social and behavioral sciences** (SSH) experts and institutions
- **co-creation process** (authorities, municipalities, citizens, CCAM developers)
- solutions that are grounded in **social innovation!**
- **international cooperation** is advised (US, Japan, Canada, South Korea, Singapore, Australia)

2 AREAS (select ONLY ONE!)

- A) Analysis of socio-economic and environmental impacts CCAM systems and services
- B) Assessment of societal, citizen and user aspects for needs-based CCAM solution development and deployment.

Topic budget: 8 M€
Project budget: 3-4 M€
Research & Innovation Action
Opening: 24th June 2021
Deadline: 19th October 2021

Topic HORIZON-CL5-2021-D6-01-05: Analysis of socio-economic and environmental impacts and assessment of societal, citizen and user aspects for needs based CCAM solutions

AREA A) Analysis of socio-economic and environmental impacts of CCAM systems and services

Project activities:

- **Assessing the risk of CCAM solutions** on societal and environmental aspects
- **Developing impact assessment methods** - perspective that includes effects on job, health, inclusiveness, access to essential services, environment
- **Updating and/or developing new KPIs**

Topic HORIZON-CL5-2021-D6-01-05: Analysis of socio-economic and environmental impacts and assessment of societal, citizen and user aspects for needs based CCAM solutions

AREA B) Assessment of societal, citizen and user aspects for needs-based solution development and deployment

- **Develop and apply a systems approach** for better understanding and considering user and societal needs, desires and expectations related to CCAM solutions, system and services.
- **Analyse aspects related to the deployment of CCAM solutions**
- **Map the concerns and expectations concerning CCAM** involving a variety of stakeholders.
- **Define methodologies and mechanisms** to communicate with future users/ citizens about CCAM aspects related to trust, ethics and acceptance.

H2020 related projects: [SUaaVE](#), [PAsCAL](#), [Trustonomy](#), [Levitate](#) ...

Topic HORIZON-CL5-2021-D6-01-07: More efficient and effective multimodal freight transport nodes to increase flexibility, service visibility and reduce the average cost of freight transport (IA)

Project activities:

- Demonstrate and quantify the benefits of using **different transport units (ITUs)** and innovative automated loading systems to support multimodal logistic operations - international cooperation on standardisation of ITUs is encouraged.
- Deploy and demonstrate **advanced cooperative logistics IT solutions** in actual operational environment focusing on better integration of the nodes in overall supply chains
- Full visibility of the standard services offered by the multimodal freight transport nodes and by the companies operating
- Better **estimation of actual times of arrival and departure** through real time
- **Automated decision support system** to optimise the supply chain performance

Proposal page limit: max. 70 pages

Topic budget: 15 M€
Project budget: 7-9 M€
Innovation Action
TRL 7-8
Opening: 24th June
Deadline: 19th October

- **Social innovation** (social change, new social practices, social ownership, market uptake)
- **H2020 projects:** [ICONET](#), [LOGISTAR](#), [AEOLIX](#), [SELIS](#), [COREALIS](#), [5G-LOGINNOV...](#)

Topic HORIZON-CL5-2021-D6-01-08: New delivery methods and business/operating models to green the last mile and optimise road transport (IA)

→ The large scale introduction and application of cargo bikes = **game changer for cities**

Benefits: the image of cycling improves + general levels of cycling increased + urban space is used more efficiently + air quality, noise & safety levels and quality of life improved

Proposal page limit: max. 70 pages

Project activities:

- demonstration of cleaner modes for **last mile transport vehicles**
- optimisation of last mile deliveries (replicable models)
- deployment of innovative and sustainable urban people and goods mobility solutions
- test and deploy urban-consolidation centres as well as **new delivery methods** (e-cargo bikes) in at least 3 cities/project
- **last mile solutions demonstration in the living labs >> 3 living labs cities + 3 follower cities**
- solutions for logistic hubs and micro consolidation centres and space management in cities.
- **evaluation** of the implemented innovative solutions in the cities
- **social innovation** is recommended

!!! Funding for major infrastructure works is not covered by this action!!! Proposals should plan for an active collaboration within the **CIVITAS initiative**

Topic budget: 15 M€
Project budget: 7-8 M€
Innovation Action
TRL 7-8
Opening: 24th June 2021
Deadline: 19th October 2021

Topic HORIZON-CL5-2021-D6-01-10: Testing safe lightweight vehicles and improved safe human-technology interaction in the future traffic system (RIA)

2 AREAS (select only ONE!)

- A) Testing safe lightweight vehicles
- B) Safe human-technology interaction in the future traffic system

➤ Project duration: 36 - 48 months.

AREA A) Testing safe lightweight vehicles

- Different crash scenarios analysis
- Advanced testing on crash, toughness, fracture and fatigue of new materials and concepts should be performed where relevant
- new way of conceiving structures and their components
- standardised positions for crash absorbing elements

Topic budget: 12 M€
Project budget: 3.5 - 4 M€
Research & Innovation Action
TRL 5-6
Opening: 24th June 2021
Deadline: 19th October 2021

Topic HORIZON-CL5-2021-D6-01-10: Testing safe lightweight vehicles and improved safe human-technology interaction in the future traffic system

AREA B) Safe human-technology interaction in the future traffic system

- Human machine interfaces (HMI) with adaptive characteristics continue to be developed and new functionalities are continuously added.

Project activities:

- **Impact assesment of human machine interfaces (HMI) on the behaviour of drivers and other road users**
 - **Research on the effects of safe human-technologies in road transport safety**
 - **Development of safety validation methods for new adaptive HMI technologies.**
 - **Open to research on all human-technology interaction in the road transport system**
- Social innovation is recommended

DRAFT CL5 WORK PROGRAMME 2021-2022

Link to draft WP: <https://ec.europa.eu/transparency/expert-groups-register/screen/meetings/consult?lang=en&meetingId=23498&fromExpertGroups=false>

Register of Commission Expert Groups and Other Similar Entities

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Register of Commission Expert Groups > Meetings > Meeting details

6th meeting of Sub-group 15. Climate, Energy and Mobility

Group/subgroups	Date/Time	Place
Commission Expert group to act as "shadow" Strategic Configuration of the Horizon Europe Programme Committee	07 May 2021 10:00 - 13:00	Virtual
Open to the public	Web streaming	
No	No	
Documents		
Agenda	Draft agenda PC meeting 7 May 2021_2.pdf 	
Working Document	HORIZON-CL5-2021-2022_FINAL version_2021-05-21.docx 	

Thank you for your attention!

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