



Nasjonalt kontaktpunkt  
transport Horisont  
2020/Europa

Ekspert transport-  
programkomite H2020

Nasjonal representant  
SRG Clean Sky

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# Horisont Europa

## Investere i fremtiden

**Verena Hachmann**  
Forskningsrådet



# Kommisjonens hovedprioriteringer

## **A EUROPEAN GREEN DEAL**

*Striving to be the first climate-neutral continent*

## **AN ECONOMY THAT WORKS FOR THE PEOPLE**

*Working for social fairness and prosperity*

## **A EUROPE FIT FOR THE DIGITAL AGE**

*Grasping the opportunities from the digital age within safe and ethical boundaries*

## **PROMOTING OUR EUROPEAN WAY OF LIFE**

*Building a Union of equality and diversity, standing up for justice and values*

## **A STRONGER EUROPE IN THE WORLD**

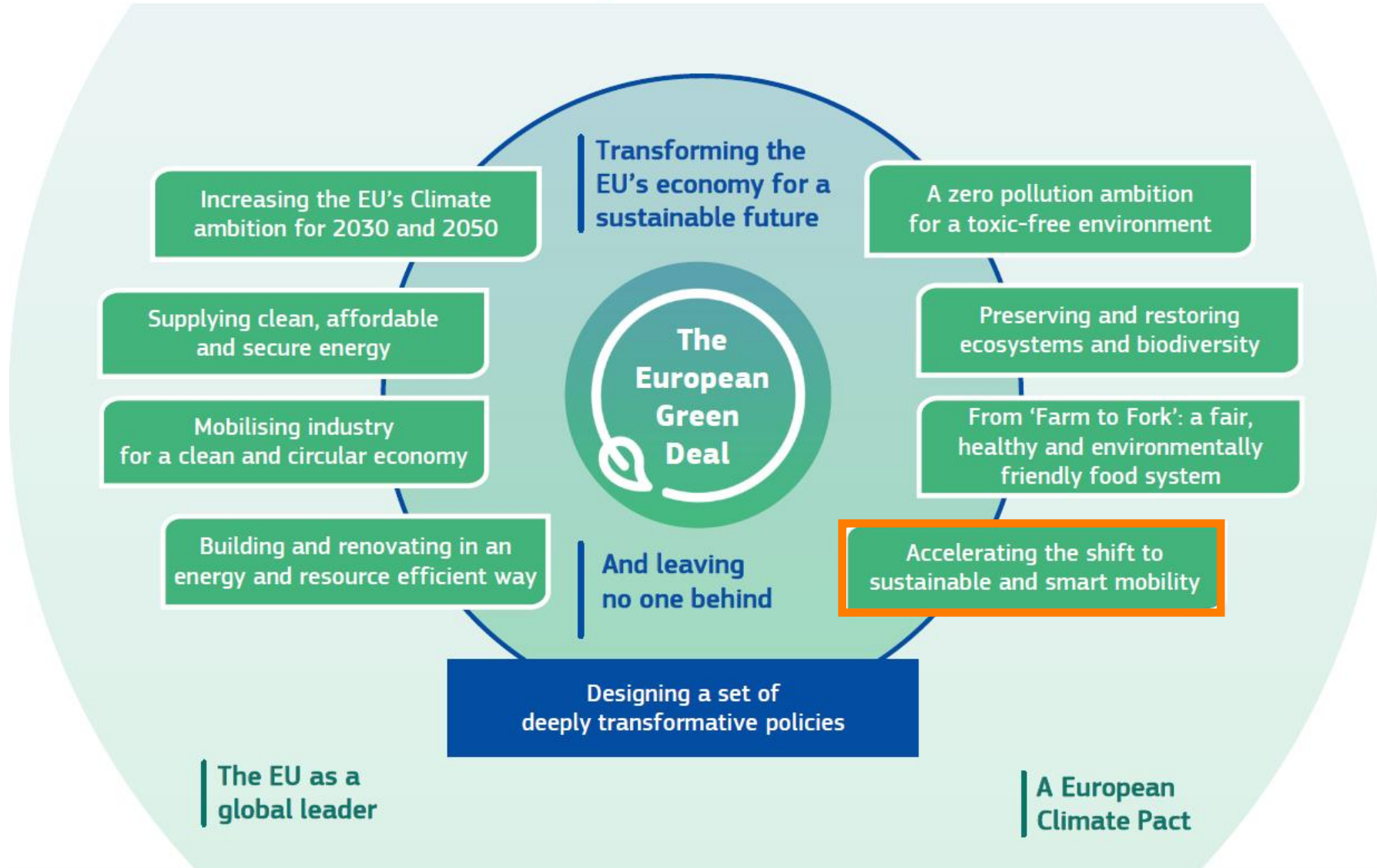
*Strengthening our unique brand of responsible global leadership*

## **A NEW PUSH FOR EUROPEAN DEMOCRACY**

*Nurturing, protecting and strengthening our democracy*



# The European Green Deal










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# Horisont Europa



## Horisont Europa

Totalbudsjett: 84,9 mrd. Euro (faste 2018-priser)

 Fremragende forskning	 Globale utfordringer og konkurransedyktig næringsliv	 Innovativt Europa
Det europeiske forskningsrådet (ERC)	<b>Klynger</b> <ol style="list-style-type: none"><li>1. Helse</li><li>2. Kultur, kreativitet og inkluderende samfunn</li><li>3. Samfunnssikkerhet</li><li>4. Digitalisering, næringsliv og romvirksomhet</li><li>5. Klima, energi og mobilitet</li><li>6. Mat, bioøkonomi, naturressurser, jordbruk og miljø</li></ol>	Det europeiske innovasjonsrådet (EIC)
Marie Skłodowska-Curie Actions (MSCA)		Økosystemer for innovasjon
Forskningsinfrastruktur		EUs felles forskningscentre (JRC)

**Bredere deltakelse og styrking av Det europeiske forskningsområdet (2,1 mrd. €)**

Bredere deltakelse og spredning av fremragende kvalitet.  
Reformere og forbedre det europeiske forsknings- og innovasjonssystemet.



## Klynge 5 klima, energi og mobilitet

Destination 1 Climate sciences and responses	Destination 2 Cross-sectoral solutions for the climate transition	Destination 3 Sustainable, secure and competitive energy supply	Destination 4 Efficient, sustainable and inclusive energy use	Destination 5 Clean and competitive solutions for all transport modes	Destination 6 Safe resilient transport and Smart Mobility services for passengers and goods
<ul style="list-style-type: none"><li>• Earth system science</li><li>• Analysis of pathways leading to climate neutrality</li><li>• Adaption and climate services</li><li>• Social science to tackle climate change</li><li>• Climate-ecosystem interactions</li></ul>	<ul style="list-style-type: none"><li>• European battery value chain</li><li>• Cities and communities</li><li>• Emerging breakthrough technologies and climate solutions</li></ul>	<ul style="list-style-type: none"><li>• Global leadership in renewable energy</li><li>• Energy systems, grids and storage</li><li>• Carbon capture, utilisation and storage</li><li>• Cross-cutting issues</li></ul>	<ul style="list-style-type: none"><li>• Highly-efficient and climate neutral EU building stock</li><li>• Industrial facilities in the energy transition</li></ul>	<ul style="list-style-type: none"><li>• Zero-emission road transport</li><li>• Aviation</li><li>• Low-carbon, clean, smart and competitive waterborne transport</li><li>• Impact of transport on environment and health</li></ul>	<ul style="list-style-type: none"><li>• Connected, cooperative and automated mobility</li><li>• Multimodal and sustainable transport systems for passengers and goods</li><li>• Safety and resilience – per mode and across all transport modes</li></ul>

- Europakommisjonen foreslår 2-årige arbeidsprogrammer
- Deltakende land kan gi innspill



# Destination 2 – Cross-sectoral solutions for the climate transition

10.12.2020

7

Kolumnetittel

## Cities and communities (16 topics)

- Unleashing the innovation potential of public transport as backbone of urban mobility
- Accelerating the deployment of new mobility services for the next decade
- Designing inclusive, safe and sustainable urban mobility
- Social innovations and lifestyle changes for improving cities' carbon footprint
- Positive energy districts
- Uptake of digitalization for alleviating mobility poverty
- Balancing between smart, traditional and nature based solutions and promoting justice
- Zero-pollution cities
- ...

## **Destination 5 – Clean and competitive solutions for all transport modes**

Expected impacts:

- a) Transformation of **road transport to zero-emission mobility**
- b) Accelerating the **reduction of all aviation impacts and emissions**
- c) Accelerate the development and prepare the deployment of **low-carbon and clean solutions in the shipping sector**
- d) Devise more effective ways for **reducing emissions and their impacts**





## Zero-emission road transport (7 topics) – 2ZERO partnerskap

- Powertrain systems
- Vehicle architecture
- Components
- Charging
- Electric buses
- LCA and design







# Low-carbon, clean, smart and competitive waterborne transport (14 topics) – Waterborne partnerskap

- Ammonia and hydrogen fuels
- Energy saving
- Maritime battery charging systems
- LNG engines
- Digital twins for green ship operations
- Renewable energy
- Retrofitting
- Autonomous freight feeder system
- Computational tools for shipbuilding







# Seamless safe logistics through an autonomous waterborne freight feeder loop service

- autonomous waterborne feeder loop or regular shuttle service for specific commercial applications
- Key aspects: real time data acquisition, management, storage and exchange, digital infrastructure(s), standards and connectivity, potential use of Galileo GNSS services
- Business case
- port and any other necessary shore side infrastructure
- Telemetry
- Safety, regulation
- Socio-economic implications

Type of action	RIA
TRL	5
Budget	15 mill. € / 7 mill. € limited demo

## Destination 6 – Safe, resilient transport and smart mobility services for passengers and goods

Expected impacts:

- a) Drastically decrease number of transport accidents, incidents and fatalities. Increase the resilience of the transport system
- b) Accelerate the implementation of innovative connected, cooperative and automated mobility (CCAM) technologies and systems for passengers and goods
- c) Further develop a multimodal transport system through sustainable and smart long-haul and urban freight transport and logistics, upgraded and resilient physical and digital infrastructures for smarter vehicles and operations, for optimised system-wide network efficiency.





# Connected, cooperative and automated mobility (11 topics) – CCAM partnerskap

- Integrated shared automated mobility solutions
- On-board perception and decision-making
- Occupant protection technologies and HMI solution
- Safety validation
- Human behavioural models
- Physical and digital infrastructure
- Integration into fleet and traffic management systems
- Cyber security and resilience
- Artificial intelligence
- Socio-economic and environmental impacts, user aspects
- EU framework for better coordination of large-scale pilots







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## News

[www.ertrac.org](http://www.ertrac.org)

EVENTS

NEWS

NEWSLETTER

### Call for membership for new CCAM Association

A new Association is being set up to support the European Partnership on CCAM (Connected, Cooperative and Automated Mobility) proposed under Horizon Europe. The call for membership is now published, with the goal to gather all stakeholders who commit to contribute to the CCAM Partnership.

Below you will find the key documents:

- [Updated version of the SRIA](#) (Strategic Research and Innovation Agenda) of the CCAM Partnership, following the feedback received from the European Commission. A new structure has been applied. This document is the basis for all the activities of the Partnership. It is still open for review and improvement.
- [Statutes of the CCAM Association](#): the goal of this new European association is to gather the stakeholders who commit to contribute to the CCAM Partnership.
- [A presentation that summarizes the Statutes](#), explaining the approach and main principles of the Association.



# Multimodal and sustainable transport systems for passengers and goods (8 topics)



- Multimodal freight transport nodes
- Logistic networks integration and harmonisation
- New delivery methods and business models to green last mile transport
- Urban logistics and planning
- Smart enforcement for transport operations
- Climate resilient inland waterways infrastructure
- Accelerating deployment of new mobility services
- Advanced multimodal network and traffic management

# Advanced multimodal network and traffic management for seamless door-to-door mobility of passengers and freight transport

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- Also in **the context of connected/automated vehicles**
- Validation of network and traffic management systems
- Data collection and integration
- International monitoring of mobility demand
- Simulations for optimisation of demand/capacity balancing
- Visualisation and decision-making tools (big data, AI, ...)
- Services
- Governance models

Type of action	RIA
TRL	5 - 6
Budget	4 - 5 mill. €





## C5-D2-CS-02-2021: Accelerating the deployment of new mobility services for the next decade

### Conditions related to this topic

Expected EU contribution per project	The EU estimates that an EU contribution between EUR 8 and 12 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Type of action	Innovation Action

Expected Outcomes: Projects are expected to contribute to the following outcomes:

- Improving the knowledge, assessing the state of the art and testing innovative approaches in the field of new mobility services in living lab approach<sup>1</sup>, towards a comprehensive and pan-European overview, while facilitating the common lesson drawing and learning at European level, in order to contribute to the priorities of the European Green Deal, which stresses that transport should become drastically less polluting, especially in cities, and should tackle challenges like congestion, air and noise pollution:
  - new models for public-private partnerships and business models that help new and shared mobility services to contribute to local policy goals such as social inclusion, improved access and modal shift, as well as make them financially viable;
  - integration of new and shared mobility services with public transport, filling service gaps that cannot be met by mass public transport, linked to specific needs of specific target groups, off-peak periods, specific geographic areas;
  - use cases and business cases for new mobility services beyond the commercially most interesting urban cores, providing low and zero emission solutions for car-dependent suburban, peri-urban and rural areas;
  - new and shared mobility services in integrated, complementary and reinforcing packages of urban mobility and planning measures and new technological solutions, combining “push measures” with “pull” measures;
  - results based recommendations for ambitious but realistic local policy frameworks for new and shared mobility services, in line with the SUMP guidelines, including clear commitments from the relevant authorities to implement it;
  - Actively engage in communicating the common learning, lesson drawing, evaluation, dissemination and the exchange of knowledge and best practices, both within the project and with the wider urban mobility and transport community;

### Scope:

New and innovative mobility services (such as car sharing or ride hailing) have shown that they have the potential to meet urban dweller’s needs while at the same time to bring about a more rational use of cars. However, in order to succeed at delivering innovative “Mobility As a Service” systems, and address the transport challenges that cities face, high-quality, user

centric, and reliable mobility solutions need to be offered to residents as a viable and sustainable alternative to private car use.

The objective of this topic is to improve the knowledge, assess the state of the art and test innovative approaches in the field of new and shared mobility services, as part of an integrated urban mobility system. Their roll out, usage patterns and impacts should be assessed, using a wide range of indicators. These should address social, economic and technological aspects and for example include accessibility; gender and inclusion; and safety and security. Potential planning implications, for example from reallocating urban space to new and shared mobility services, should be explored with best practices collected and presented. Equally eligible would be cooperative approaches with employers willing to enter in a pilot to test a MaaS type of service for their employees or housing developers that are offering reduced parking spaces to residents and seek to offer alternative smart solutions in return.

The potential role of new technologies such as geo-fencing and the integration into MaaS-based strategies should be assessed in order to develop policy recommendations at the local, regional, national and EU level. Innovative approaches that respond to the needs of a large variety of users (such as families with children, people living in remote locations, commuters, housing developers) should be considered. New and shared mobility services that could be considered are: demand responsive transport, car-pooling, car sharing and ride hailing, MaaS apps, or micro mobility. Projects could look at the role of new and shared mobility services in mobility management for companies, schools, attractions and events. The role of marketing and communication, and approaches based on the co-creation of solutions should be considered. Proposals should address their integration and interaction with other transport modes.

Proposals should identify and compare a range of different of solutions. Tests and pilot actions run by local partnerships<sup>2</sup>, where the responsible local authorities, service providers and other relevant actors team-up, could be included. A demonstrated contribution to the implementation of the cities’ Sustainable Urban Mobility Plans is expected. Proposals should plan for an active collaboration within the CIVITAS initiative. They should demonstrate that the proposed approaches are truly innovative for the local context and build on the results from previous research and demonstration actions.



## tidsplan

- Arbeidsprogrammet for 2021/22 forventes publisert i april 2021
- Tidligere i 2021 forventes det en pre-publisering av utkastet
- Første utlysingsfrister forventes til høsten 2021





## Foreslåtte partnerskap innen mobilitet

- **European Partnership for transforming Europe's rail system**
- **European Partnership for Integrated Air Traffic Management (ATM)**
- **European Partnership for Clean Aviation**
- **European Partnership – Towards zero-emission road transport (2ZERO)**
- **European Partnership on Connected and Automated Driving (CCAM)**
- **European Partnership on zero-emission waterborne transport**
  
- *European Partnership – driving urban transitions to a sustainable future (DUT)*
- *European for an Industrial Battery Value Chain*
- *European Partnership on Clean Hydrogen*



## Mindset required

***Not***

**~~“Where can I find funding for my research?”~~**

***but***

**“How can I use my competence to solve the challenge described in this call?”**



**EU policy  
determines what  
research  
contributes to**

## **Successful applicants know their policy contexts and settings**

*Ny transportstrategi **Sustainable and Smart Mobility** – vil trolig bli presentert rundt 10. desember*

WHITE PAPER - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system ([COM/2011/0144 final](#)).

Towards clean, competitive and connected mobility: the contribution of Transport Research and Innovation to the Mobility package [SWD\(2017\) 223 final](#).

STRIA (Strategic Transport Research & Innovation Agenda), roadmaps and action plans ([trimis.ec.europa.eu](http://trimis.ec.europa.eu))



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**We are here to help you!**



# Team Klynge 5: Klima, energi og mobilitet

## Klima



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# National support structure

## National experts and NCPs

- Important background information about calls
- Establishment of networks, contacts, partner search
- NCPs work closely with relevant national programmes

## Courses and other proposal support

- Learn from those with experience!

## Consultancy support - PNO

- Mentoring
- Reviewing of proposals

## Newsletter

- Success stories, information about courses, workshops, calls



**Se kurskalenderen her:**

<https://www.forskningsradet.no/arrangementer/?type=Course>

## Europas beste kurstilbud om rammeprogrammet!

**Vi kurser ca. 2000 deltakere hvert år:**

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- Søknadsskriving
- Budsjett og økonomi
- Konsortieavtale
- Prosjektledelse
- Revisjoner
- For nybegynnere og viderekomne





Ta gjerne kontakt!

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