



Horizon Europe: Funding for smart mobility research and innovation

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HORIZON EUROPE

EU RESEARCH AND INNOVATION PROGRAMME

Konsortiohankkeet – erottamaton osa EU-hankemaailmaa

- EU-rahoitusta haetaan ohjelmasta riippuen yksittäisenä toimijana tai ryhmässä, eli konsortiona
- Vaatimukset ovat riippuvaisia rahoitusohjelmasta vaihdellen aina suosituksesta toimia hankkeessa konsortiona virallisiin vaatimuksiin. Eurooppalainen yhteinen hyvä ja lisäarvo ovat kulmakiviä rahoituksessa, jolloin suosituskin on hyvä nähdä vaatimuksena – on huomattavan haastavaa kilpailla halutusta rahoituksesta yksin, jos vastassa on monia hyviä kansainvälisiä konsortioita
- Yksi konsortiojäsenistä on projektikoordinaattori, joka on vastuussa hankkeeseen liittyvästä kommunikaatiosta, rahoituksesta ja raportoinnista Euroopan komissiolle. Muut ovat osallistujia (myös muita mahdollisia rooleja voi olla).
- Hyvässä konsortiossa on mukana siihen relevanteimmat osallistajat, joilla on kaikilla selkeä hanketta edistävä rooli. Tuloksena on hanke, jossa jokainen osallistuja tuottaa selkeää lisäarvoa.
- Konsortion hanke-ehdotuksen pitää vastata hankekuulutukseen kokonaisvaltaisesti, eikä keksiä hanketta konsortion rakentamisen jälkeen.

Verkostot ja kumppanit – apua & vinkkejä

- Kumppanien löytäminen ja verkoston rakentaminen voi olla haastavaa varsinkin aloittelevalla toimijalle.
- Hyödynnä rohkeasti omat jo olemassa olevat verkostot.
- Euroopan komissio, kansalliset EU-rahoitusohjelmien vastuutahot sekä muut toimijat järjestävät aktiivisesti erilaisia ohjelmakohtaisia tilaisuuksia. Keskustele rohkeasti ja tuo halukkuutta osallistua ilmi.
- Kansalliset toimijat kuten EUTI & NCP-verkosto ja EEN, sekä alueelliset EU-toimistot järjestävät tapahtumia ja ovat verkostojen asiantuntijoita. Kentällä on myös useita konsulttitoimijoita.
- Aikaisemmin rahoitettujen hankkeiden läpikäynti on paitsi keino saada kosketuspintaa EU-hankkeisiin ja siihen millaisia projekteja on aikaisemmin rahoitettu, myös hyvä paikka etsiä kumppaneita – ehkäpä sieltä löytyy joku tuttukin jota lähestyä!

Horisontti Eurooppa

- EU:n suurin tutkimuksen ja innovoinnin ohjelma Horisontti Eurooppa nojaa EU:n tutkimus- ja innovaatiopoliittisiin linjauksiin. Ohjelma toteuttaa niissä asetettuja strategisia tavoitteita, joista keskeisimmät ovat digitaalinen siirtymä ja vihreä siirtymä eli Green Deal -strategia.
- Horisontti Eurooppa -ohjelma avaa rahoitus-, yhteistyö- ja kehittymismahdollisuuksia kaikenkokoisille yrityksille, tutkijoille ja tutkimusryhmille korkeakouluissa ja yliopistoissa, viranomaistahoille, sairaaloille, järjestöille ja säätiöille.
- Projektit toteutetaan useimmiten kansainvälisenä yhteistyönä ja niissä täytyy useimmiten olla mukana useampia toimijoita.
- Ajantasaiset ja kattavat tiedot ohjelmasta löydät EUTIn ylläpitämiltä suomenkielisiltä [Horisontti Eurooppa -sivuilta](#).
- EUTI on Business Finlandissa toimiva kansallinen EU:n puiteohjelmien yhteystoimisto. Se tarjoaa maksuttomia julkisia neuvontapalveluja Horisontti Eurooppa -ohjelmasta kiinnostuneille.

Horisontti Eurooppa vv. 2021 – 2027: ~95 mrd. €

25 mrd. €
(26,2 %)

Pilari 1
Huipputason tiede

Euroopan tutkimusneuvosto (ERC)

Marie Skłodowska-Curie –toimet
(MSCA)

Tutkimusinfrastruktuurit

53,5 mrd. €
(56 %)

Pilari 2
Globaalit haasteet ja Euroopan
teollisuuden kilpailukyky

- Klusterit:**
1. Terveys
 2. Kulttuuri, luovuus ja osallisuutta edistävä yhteiskunta
 3. Kansalaisturvallisuus yhteiskunnassa
 - 4. Digitaalitalous ja -teknologia, teollisuus ja avaruus**
 5. Ilmasto, energia ja liikkuvuus
 6. Elintarvikkeet, biotalous, luonnonvarat, maatalous ja ympäristö

Yhteinen tutkimuskeskus (JRC)

13,6 mrd. €
(14,2 %)

Pilari 3
Innovatiivinen Eurooppa

Euroopan innovaationeuvosto (EIC)

Euroopan innovaatioekosysteemit

Euroopan Innovaatio- ja
teknologiainstituutti (EIT)

3,4 mrd. €
(3,5 %)

Osallistumispohjan laajentaminen ja eurooppalaisen tutkimusalueen (ERA) vahvistaminen

Osallistumispohjan laajentaminen ja huippuosaamisen
levittäminen

Euroopan T&I-järjestelmän vahvistaminen ja tehostaminen

Technology Readiness Level defines which action suits your R&D phase

TRL 1 – basic principles observed

TRL 2 – technology concept formulated

TRL 3 – experimental proof of concept

TRL 4 – *technology validated in lab*

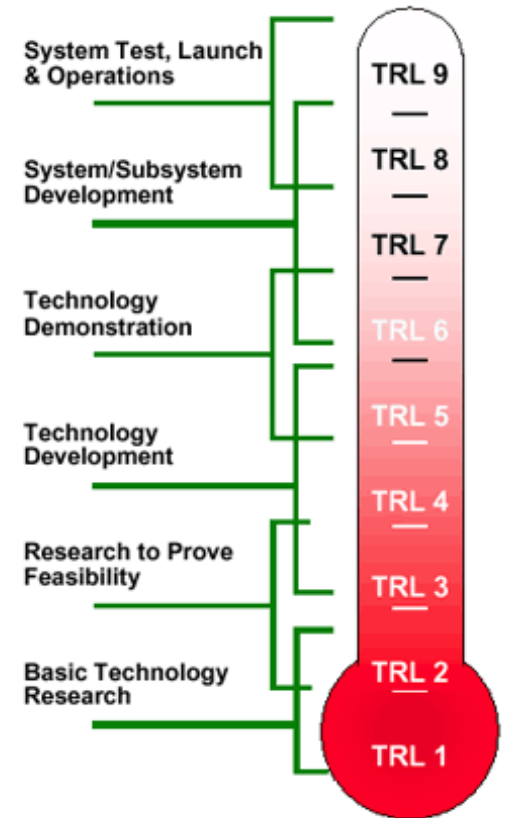
TRL 5 – *technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)*

TRL 6 – *technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies) ~"MVP"*

TRL 7 – *system prototype demonstration in operational environment ~"Pilot"*

TRL 8 – *system complete and qualified ~"Large-scale pilot"*

TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)



Yleisimmät konsortiohankemuodot pähkinänkuoressa

	Research and Innovation Action (RIA)	Innovation Action (IA)
Public money source	European Commission	European Commission
Focus company	SME, LE	SME, LE
Typical funding/company (EUR)	Depends on the call (0,25-1,0 M)	Depends on the call (0,25-1,0 M)
Funding rate for company	100 % + 25 %	70 % + 25 %
Funding type	Grant	Grant
Business case	Top down (within scope)	Top down (within scope)
Consortium structure	Min 3 from min 3 MS/AC	Min 3 from min 3 MS/AC
Typical coordinator	RTO, LE	RTO, LE (preferably)
Typical duration	36-48 mo	36-48 mo
Typical TRL scope	4-7	5-8
Application dates/cut-offs	Depends on the call	Depends on the call

AC

Associated Country (with EU)

LE

Large Enterprise

MS

Member State

RTO

Research and Technology Organization

SME

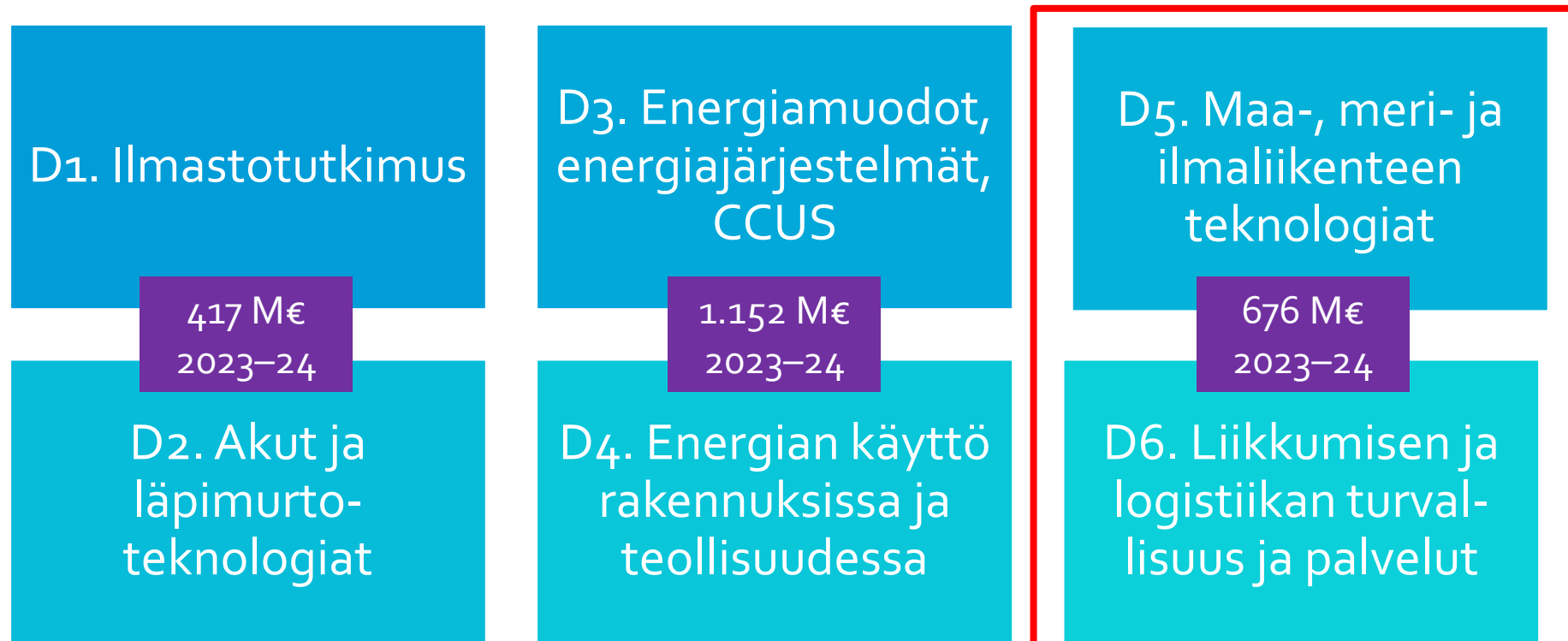
Small and Medium Sized Company

TRL

Technology Readiness Level (1-9)

Työohjelman destinaatiot (Cluster 5: Energia, Ilmasto, Liikenne)

Klusteri 5:n työohjelmassa on 6 tavoitekokonaisuutta (destinations), joihin 2021–22 kuului 188 hakuotsikkoa (topics), ja 2023–24 määrä on samaa luokkaa. Klusteriin kuuluu 11 kumppanuusohjelmaa, joista kuudella on omat hakumenettelyt, klusteri 5:stä riippumattomina omina hakuina. Muut julkaistaan Funding & Tenders –portaalissa.



*) Euromäärät suuntaa antavia

Eurooppalaiset kumppanuusohjelmat

- Horisontti Eurooppa -ohjelmasta rahoitetaan eurooppalaisia kumppanuusohjelmia (European Partnerships) yhdessä yksityisen ja/tai julkisen sektorin toimijoiden kanssa.
- Nämä kumppanuusohjelmat avaavat tutkimus-, kehitys- ja innovaatioprojekteille rahoitushakuja.
- Riippuen kumppanuuden toteutusmallista haut voivat olla kaikille avoimia tai sitten vain kumppanuusohjemaan sitoutuneiden ja sitä rahoittavien maiden osallistujille.
- Kumppanuusohjelmat rahoitetaan aina yhteisesti. Euroopan komission lisäksi rahoittajina voivat olla kansalliset rahoitusorganisaatiot, julkiset viranomaiset, yksityisen sektorin toimijat tai teollisuusjärjestöt.
- Eurooppalaiset kumppanuudet on jaoteltu pääasiassa Horisontti Eurooppa -ohjelman laajojen temaattisten kokonaisuuksien mukaan.

European Partnerships in Horizon Europe

HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness

CLUSTER 1: Health	CLUSTER 4: Digital, Industry & Space	CLUSTER 5: Climate, Energy & Mobility	CLUSTER 6: Food, Bioeconomy, Agriculture, ...
Innovative Health Initiative	Key Digital Technologies	Clean Hydrogen	Circular Bio-based Europe
Global Health Partnership	Smart Networks & Services	Clean Aviation	Rescuing Biodiversity to Safeguard Life on Earth
Transformation of health systems	High Performance Computing	Single European Sky ATM Research 3	Climate Neutral, Sustainable & Productive Blue Economy
Chemicals risk assessment	European Metrology (Art. 185)	Europe's Rail	Water4All
ERA for Health	AI-Data-Robotics	Connected and Automated Mobility (CCAM)	Animal Health & Welfare*
Rare diseases*	Photonics	Batteries	Accelerating Farming Systems Transitions*
One-Health Anti Microbial Resistance*	Made in Europe	Zero-emission waterborne transport	Agriculture of Data*
Personalised Medicine*	Clean steel – low-carbon steelmaking	Zero-emission road transport	Safe & Sustainable Food System*
Pandemic Preparedness* <i>Co-funded or co-programmed</i>	Processes4Planet	Built4People	
	Global competitive space systems**	Clean Energy Transition	
		Driving Urban Transitions	

- Institutionalised Partnerships (Art 185/7)
- Institutionalised Partnerships / EIT KICs
- Co-Programmed
- Co-Funded

* Calls with opening dates in 2023-24
 ** Calls with opening dates not before 2022

PILLAR III - Innovative Europe

EIT (KNOWLEDGE & INNOVATION COMMUNITIES)	SUPPORT TO INNOVATION ECOSYSTEMS
InnoEnergy	Innovative SMEs
Climate	
Digital	
Food	
Health	
Raw Materials	
Manufacturing	
Urban Mobility	
Cultural and Creative Industries	

CROSS-PILLARS II & III

European Open Science Cloud

Towards Zero-emission Road Transport (2ZERO)

Co-programmed Partnership, successor of Green Vehicles Initiative cPPP

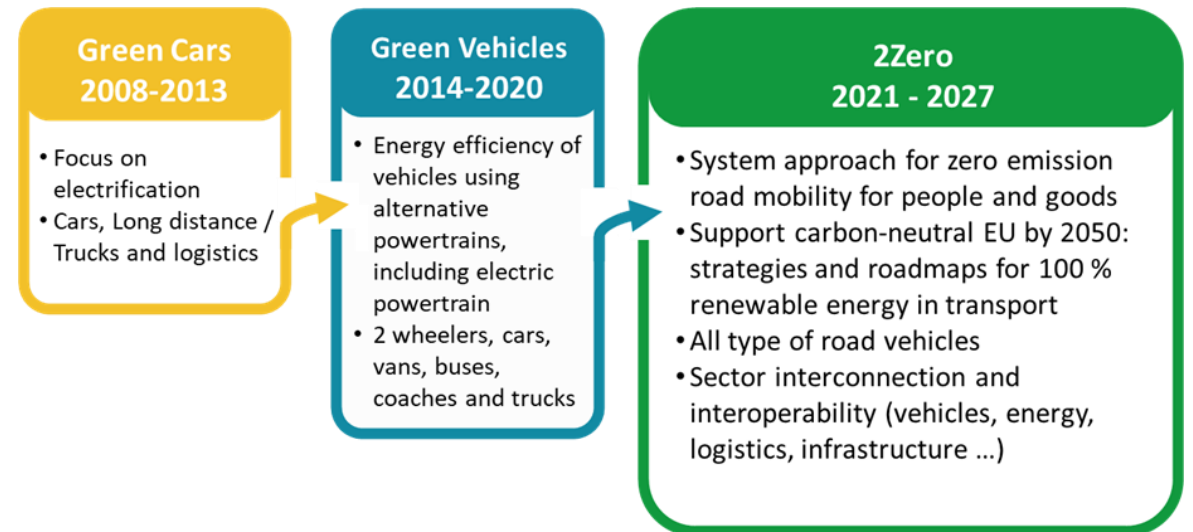
OBJECTIVES

- Develop **zero-emission, affordable user centric solutions** (technologies and services) for road-based mobility
- Develop technologies/solutions to **reduce all emission sources** (e.g. tires and brakes), **noise and improve air quality**
- Develop and demonstrate affordable, user-friendly **charging infrastructure technology and V2G interaction**
- Develop **innovative use cases** for integration of **zero-emission vehicles** and infrastructure
- Support the development of **life-cycle tools and skills** and deployment of innovative concepts

EXPECTED IMPACTS

- Support Europe as carbon-neutral continent by 2050
- Technology leadership supporting economic growth and job creation all over Europe
- Wide deployment of zero-emission, affordable user centric solutions
- CO₂ emission reduction and air quality improvements

Partnership	Contact
2ZERO	Director – Lucie Beaumel Email: info@2zeroemission.eu Phone: +32 (0) 2 736 12 65 www.2zeroemission.eu

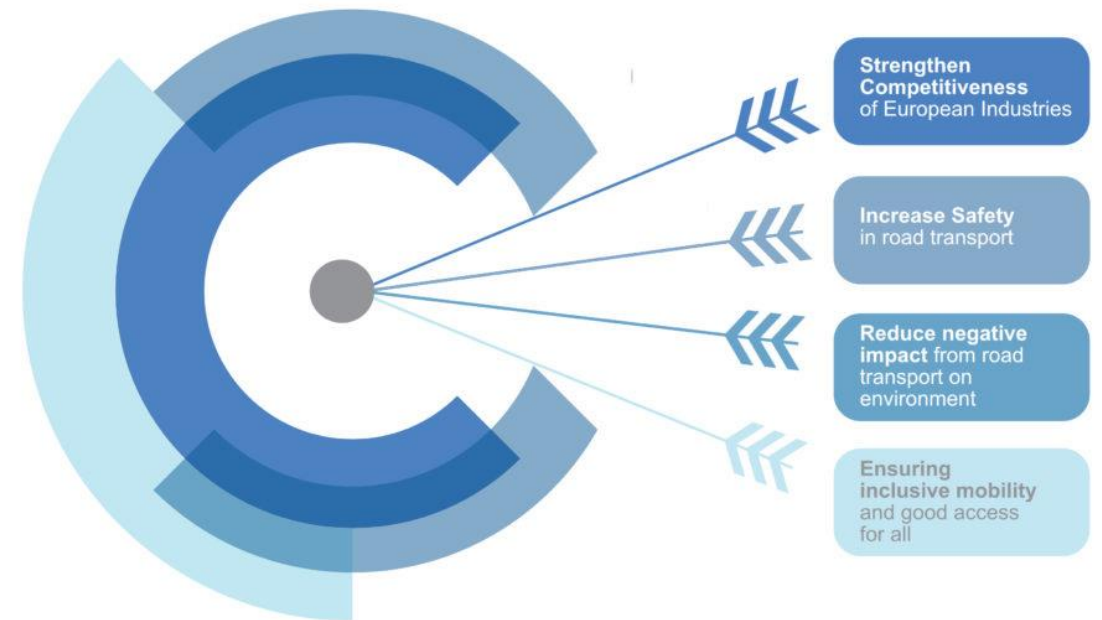


Connected, cooperative, automated mobility (CCAM)

Co-programmed Partnership

OBJECTIVES

- The goal of CCAM is to create a more user-centered and inclusive mobility system, increasing road safety while reducing congestion and environmental footprint.
- More collaborative research, testing and demonstration projects in order to accelerate the innovation pace and implementation of automated mobility.
- Working together at European level to help remove barriers and contribute to the acceptance and efficient rollout of automation technologies and services.



Partnership	Contact
CCAM	Head of office – Marzena Jougounoux Email: marzena.jougounoux@ccam.eu Phone: +32 483 98 95 70 https://www.ccam.eu

Driving Urban Transitions to a Sustainable Future (DUT)

Co-funded Partnership

BACKGROUND

- DUT is realised as a European partnership of more than 60 partners from 27 countries, involving national and regional policy makers, funders and urban-related policy agencies to invest in urban R&I and strengthen a European innovation eco-system for urban transitions.
- DUT aims to create a strong community around urban transitions and to establish a well-known research and innovation platform that will help cities become more sustainable, inclusive and liveable.

Partnership	Further information
DUT	https://dutpartnership.eu/

In order to support cities along their specific strategies, the partnership focuses on three critical urban sectors and their interrelationships.

DUT Call 2022

- The first joint call of the DUT Partnership – the DUT Call 2022 – opened on 21 September and offers opportunities for transnational and transdisciplinary cooperation along and across the three DUT Transition Pathways.

**Circular
Urban
Economies**

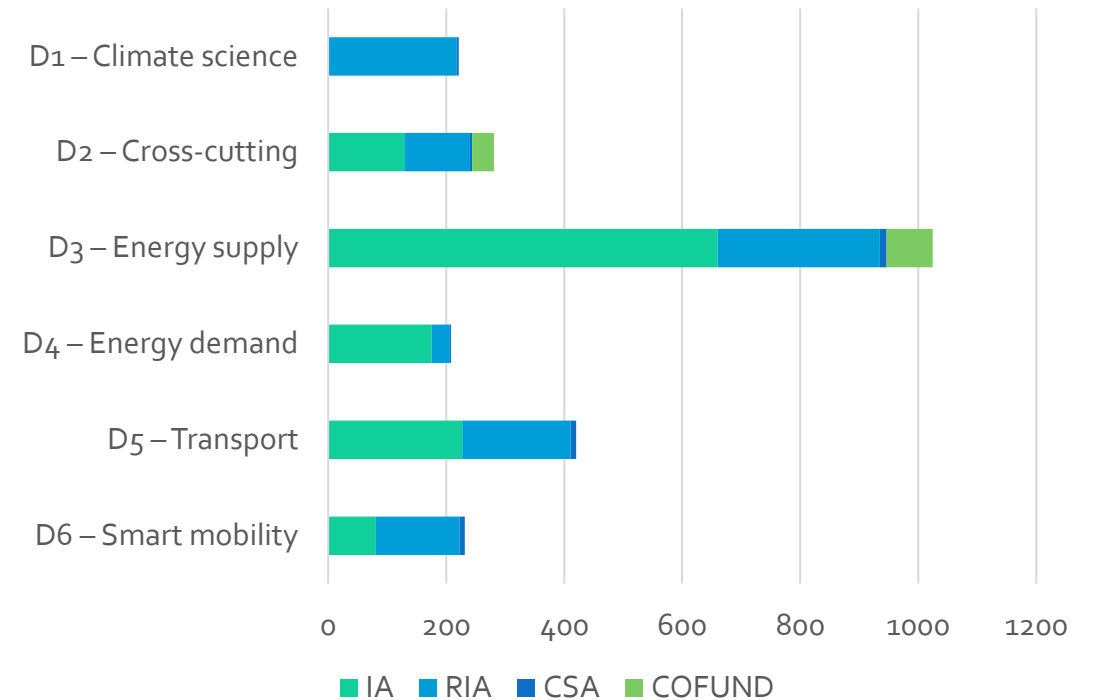
**Positive
Energy
Districts**

**15-
minute
City**

Budget distribution in calls for proposals for 2023-2024

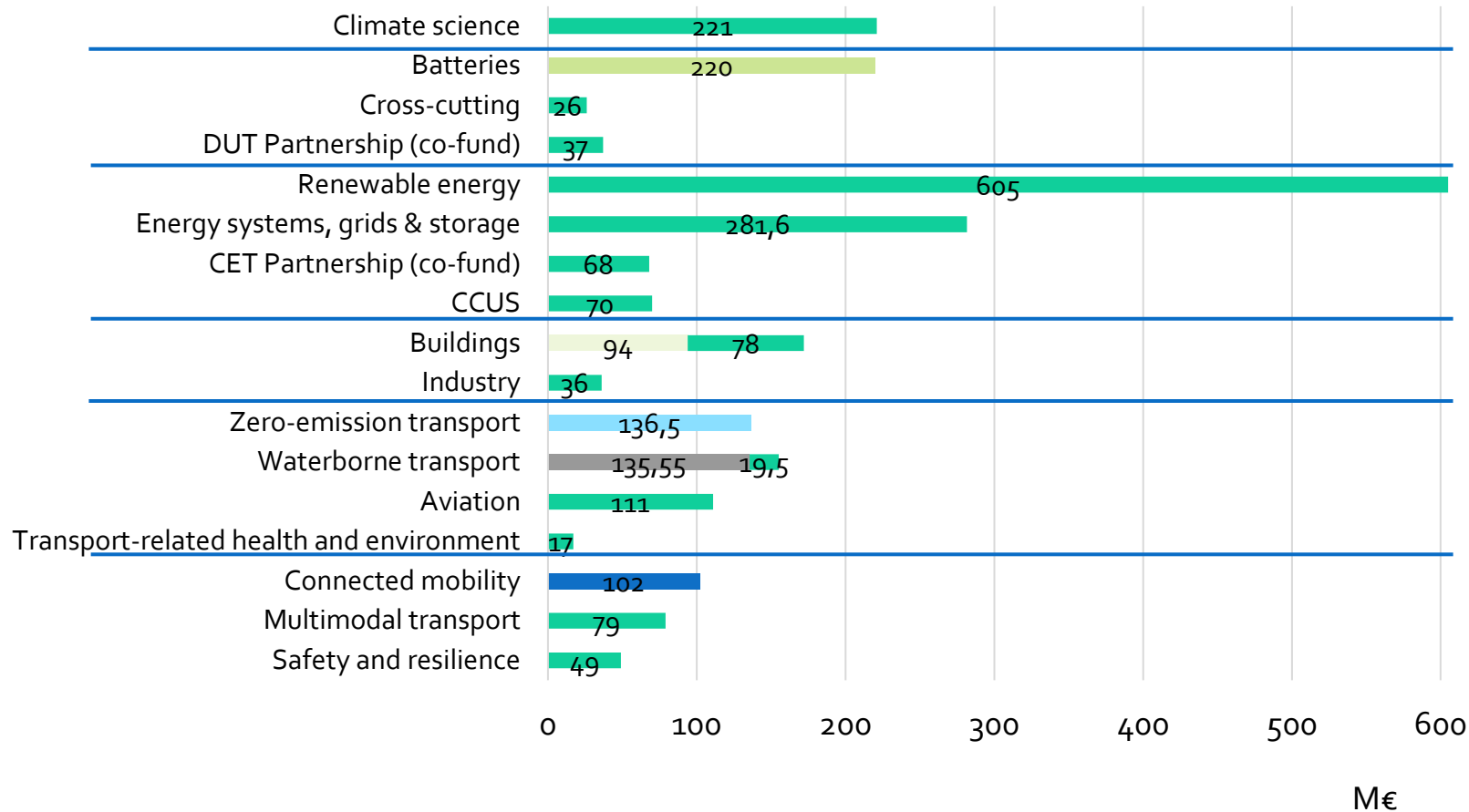
	Budget (M€)	Budget share	Number of topics	Topics share
D1 – Climate science	220,5	9%	20	11%
D2 – Cross-cutting	281,0	12%	19	10%
D3 – Energy supply	1.023,6	43%	69	37%
D4 – Energy demand	208,0	9%	19	10%
D5 – Transport	419,1	18%	37	20%
D6 – Smart mobility	231,0	10%	25	13%
TOTAL	2.383,2	100%	189	100%

EU contribution per Destination and type of action (2023-2024, in M€)



Budget distribution

EU contribution per thematic area (2023-2024, in M€)



European Partnerships:

- 60 out of 189 topics (32% of all cluster 5 topics)
- 688 M€ out of 2 383 M€ (29% of cluster 5 budget)

■ standard topics

Co-programmed Partnerships:

■ CCAM

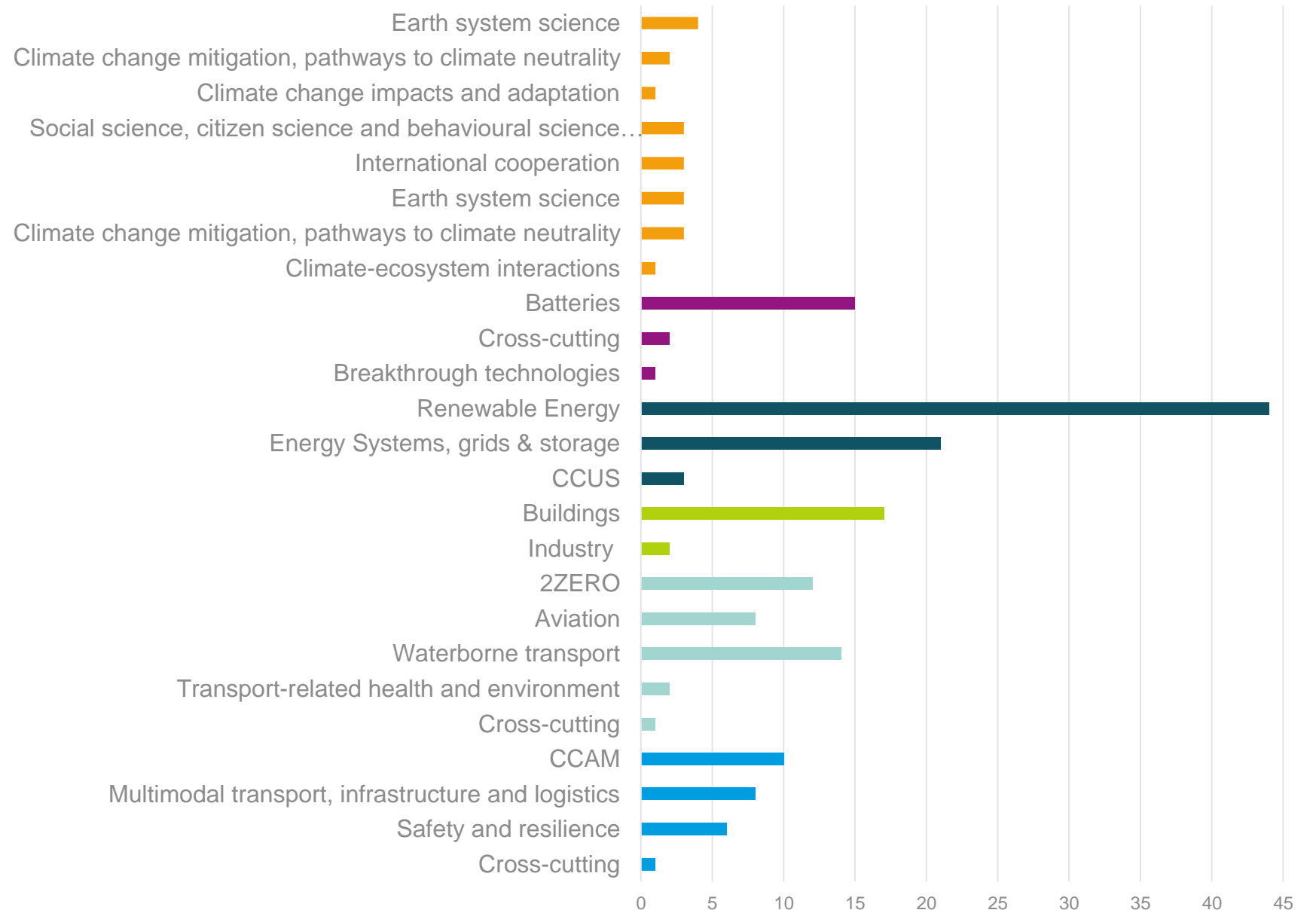
■ 2ZERO

■ Batt4EU

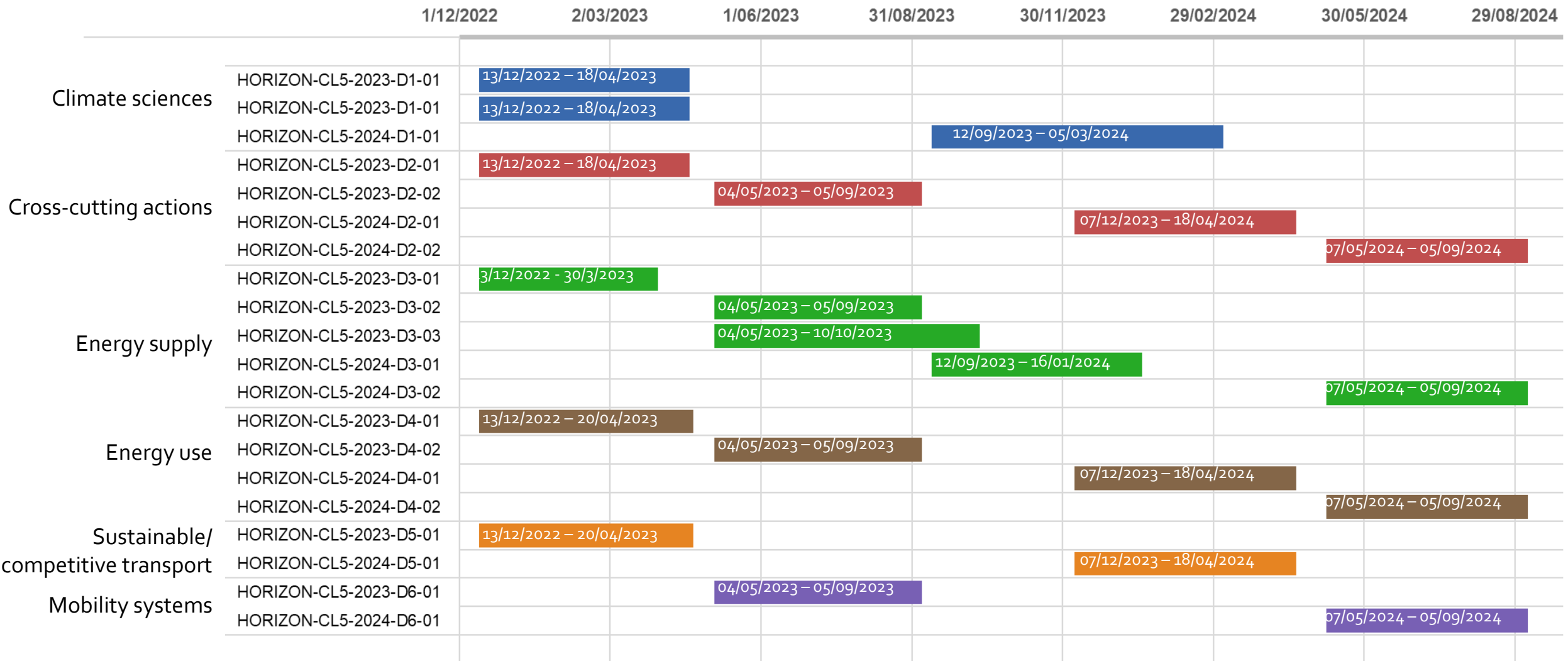
■ Built4People

■ ZEWT

Number of topics per area



Cluster 5 call structure 2023-2024



D5

Destination 5
Clean solutions for all modes
land / sea / air

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Destination 5 – Clean and competitive solutions for all transport modes - 2023

Call - Clean and competitive solutions for all transport modes

Zero-emission road transport

HORIZON-CL5-2023-D5-01-01: User-centric design and operation of EV for optimized energy efficiency (2ZERO Partnership)

HORIZON-CL5-2023-D5-01-02: Innovative battery management systems for next generation vehicles (2ZERO & Batt4EU Partnership)

HORIZON-CL5-2023-D5-01-03: Frugal zero-emission vehicles concepts for the urban passenger challenge (2ZERO Partnership)

HORIZON-CL5-2023-D5-01-04: Circular economy approaches for zero emission vehicles (2ZERO Partnership)

HORIZON-CL5-2023-D5-01-05: Measuring road transport results towards 2ZERO KPIs (2ZERO Partnership)

HORIZON-CL5-2023-D5-01-06: EU Member States/Associated countries research policy cooperation network to accelerate zero-emission road mobility (2ZERO Partnership)

Aviation

HORIZON-CL5-2023-D5-01-07: Hydrogen-powered aviation

HORIZON-CL5-2023-D5-01-08: Accelerating climate-neutral hydrogen-powered/electrified aviation

HORIZON-CL5-2023-D5-01-09: Competitiveness and digital transformation in aviation – advancing further capabilities, digital approach to design

HORIZON-CL5-2023-D5-01-10: Aviation research synergies between Horizon Europe, AZEA and National programs

Waterborne transport

HORIZON-CL5-2023-D5-01-11: Developing the next generation of power conversion technologies for sustainable alternative carbon neutral fuels in waterborne applications (ZEWT Partnership)

HORIZON-CL5-2023-D5-01-12: Demonstrations to accelerate the switch to safe use of new sustainable climate neutral fuels in waterborne transport (ZEWT Partnership)

HORIZON-CL5-2023-D5-01-13: Integrated real-time digital solutions to optimise navigation and port calls to reduce emissions from shipping (ZEWT Partnership)

HORIZON-CL5-2023-D5-01-14: Developing a flexible offshore supply of zero emission auxiliary power for ships moored or anchored at sea deployable before 2030 (ZEWT Partnership)

HORIZON-CL5-2023-D5-01-15: Reducing the environmental impact from shipyards and developing a whole life strategy to measure and minimise the non-operational environmental impacts from shipping

HORIZON-CL5-2023-D5-01-16: Developing small, flexible, zero-emission and automated vessels to support shifting cargo from road to sustainable Waterborne Transport

HORIZON-CL5-2023-D5-01-17: Towards the implementation of the inland navigation action programme with a focus on Green and Connected Inland Waterway Transport

Transport-related health and environment

HORIZON-CL5-2023-D5-01-18: Advanced transport emissions monitoring networks

Cross-cutting actions

HORIZON-CL5-2023-D5-01-19: Support for the organisation of EU-US symposia in the field of Transport Research

Destination 5 – Clean and competitive solutions for all transport modes - 2024

Call - Clean and competitive solutions for all transport modes

Zero-emission road transport

HORIZON-CL5-2024-D5-01-01: Smart, low-cost pervasive stationary slow charging and bi-directional solutions synergic with the grid for EV mass deployment (2ZERO Partnership)

HORIZON-CL5-2024-D5-01-02: Integration and testing of next generation post-800V electric powertrains (2ZERO Partnership)

HORIZON-CL5-2024-D5-01-03: Advanced battery system integration for next generation vehicles (2ZERO Partnership)

HORIZON-CL5-2024-D5-01-04: Integrated flexible multipoint megawatt charging systems for electric truck mass deployment (2ZERO Partnership) (2024)

HORIZON-CL5-2024-D5-01-05: Advanced digital development tools to accelerate the development of software defined vehicles that enable zero-emission mobility (2ZERO Partnership)

HORIZON-CL5-2024-D5-01-06: New designs, shapes, functionalities of Light Commercial Vehicles (2ZERO Partnership)

Aviation

HORIZON-CL5-2024-D5-01-07: Accelerating climate neutral aviation, minimising non-CO2 emissions

HORIZON-CL5-2024-D5-01-08: Competitiveness and digital transformation in aviation – advancing further composite aerostructures

HORIZON-CL5-2024-D5-01-09: Impact monitoring of EU Aviation R&I

HORIZON-CL5-2024-D5-01-10: Towards a flying testbed for European leadership in aviation

Waterborne transport

HORIZON-CL5-2024-D5-01-11: Achieving high voltage, low weight, efficient electric powertrains for sustainable waterborne transport (ZEWT Partnership)

HORIZON-CL5-2024-D5-01-12: Combining state-of-the-art emission reduction and efficiency improvement technologies in ship design and retrofitting for contributing to the "Fit for 55" package objective by 2030 (ZEWT Partnership)

HORIZON-CL5-2024-D5-01-13: Demonstration of Technologies to minimise underwater noise generated by waterborne transport (ZEWT Partnership)

HORIZON-CL5-2024-D5-01-14: Demonstrating efficient fully DC electric grids within waterborne transport for large ship applications (ZEWT Partnership)

HORIZON-CL5-2024-D5-01-15: Advanced digitalisation and modelling utilizing operational and other data to support zero emission waterborne transport (ZEWT Partnership)

HORIZON-CL5-2024-D5-01-16: Structuring the Waterborne transport sector, including through changed business and industrial models in order to achieve commercial zero-emission waterborne transport (ZEWT Partnership)

HORIZON-CL5-2024-D5-01-17: Coordinating and supporting the combined activities of member and associated states towards the objectives of the Zero Emission Waterborne Transport partnership so as to increase synergies and impact (ZEWT Partnership)

Transport-related health and environment

HORIZON-CL5-2024-D5-01-18: Assessment of air pollutant emissions from low-carbon fuels in the heavy-duty, aviation, and maritime sectors

D6

Destinaatio 6

Älykäs turvallinen liikenne:
connected automated mobility,
multimodal freight, safety - resilience

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Destination 6 – Safe, Resilient Transport and Smart Mobility services for passengers and goods - 2023

Call - Safe, Resilient Transport and Smart Mobility services for passengers and goods

Connected, Cooperative and Automated Mobility (CCAM)

HORIZON-CL5-2023-D6-01-01: User-centric development of vehicle technologies and solutions to optimise the on-board experience and ensure inclusiveness (CCAM Partnership)

HORIZON-CL5-2023-D6-01-02: Generation of scenarios for development, training, virtual testing and validation of CCAM systems (CCAM Partnership)

HORIZON-CL5-2023-D6-01-03: Infrastructure-enabled solutions for improving the continuity or extension of Operational Design Domains (ODDs) (CCAM Partnership)

HORIZON-CL5-2023-D6-01-04: Integrating European diversity in the design, development and implementation of CCAM solutions to support mobility equity (CCAM Partnership)

HORIZON-CL5-2023-D6-01-05: CCAM effects on jobs and education, plans for skills that match the CCAM development, and prerequisites for employment growth (CCAM Partnership)

Multimodal transport, infrastructure and logistics

HORIZON-CL5-2023-D6-01-06: Zero-emission e-commerce and freight delivery and return choices by retailers, consumers and local authorities

HORIZON-CL5-2023-D6-01-07: Operational automation to support multimodal freight transport

HORIZON-CL5-2023-D6-01-08: Future-proof GHG and environmental emissions factors for accounting emissions from transport and logistics operations

HORIZON-CL5-2023-D6-01-09: Climate resilient and safe maritime ports

Safety and resilience

HORIZON-CL5-2023-D6-01-10: Better infrastructure safety on urban and secondary rural roads throughout a combination of adaptable monitoring and maintenance solutions

HORIZON-CL5-2023-D6-01-11: Aviation safety - Uncertainty quantification for safety and risk management

HORIZON-CL5-2023-D6-01-12: New ways of reducing serious injuries and the long-term consequences of road crashes

Cross-cutting actions

HORIZON-CL5-2023-D6-01-13: Support for dissemination events in the field of Transport Research

Destination 6 – Safe, Resilient Transport and Smart Mobility services for passengers and goods - 2024

Call - Safe, Resilient Transport and Smart Mobility services for passengers and goods

Connected, Cooperative and Automated Mobility (CCAM)

HORIZON-CL5-2024-D6-01-01: Centralised, reliable, cyber-secure & upgradable in-vehicle electronic control architectures for CCAM connected to the cloud-edge continuum (CCAM Partnership)

HORIZON-CL5-2024-D6-01-02: Scenario-based safety assurance of CCAM and related HMI in a dynamically evolving transport system (CCAM Partnership)

HORIZON-CL5-2024-D6-01-03: Orchestration of heterogeneous actors in mixed traffic within the CCAM ecosystem (CCAM Partnership)

HORIZON-CL5-2024-D6-01-04: AI for advanced and collective perception and decision making for CCAM applications (CCAM Partnership)

HORIZON-CL5-2024-D6-01-05: Robust Knowledge and Know-How transfer for Key-Deployment Pathways and implementation of the EU-CEM (CCAM Partnership)

Multimodal transport, infrastructure and logistics

HORIZON-CL5-2024-D6-01-06: Optimising multimodal network and traffic management, harnessing data from infrastructures, mobility of passengers and freight transport

HORIZON-CL5-2024-D6-01-07: Scaling up logistics innovations supporting freight transport decarbonisation in an affordable way

HORIZON-CL5-2024-D6-01-08: Improved transport infrastructure performance – Innovative digital tools and solutions to monitor and improve the management and operation of transport infrastructure

HORIZON-CL5-2024-D6-01-09: Policies and governance shaping the future transport and mobility systems

Safety and resilience

HORIZON-CL5-2024-D6-01-10: Ensuring the safety, resilience and security of waterborne digital systems

HORIZON-CL5-2024-D6-01-11: Effects of disruptive changes in transport: towards resilient, safe and energy efficient mobility

HORIZON-CL5-2024-D6-01-12: A new framework to improve traffic safety culture in the EU

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

Expected outcome – all of the following:

- Take up and upscaling of last mile solutions in the living labs involved
- Develop logistics hubs and micro consolidation centres. Cooperation with local authorities is required. (SUMP plans)
- Test and deploy new delivery methods (such as e-cargo bikes)
- Optimise urban space, loads and reduce empty miles through dynamic routing, load policies, multi/single-brand parcel lockers and boxes.
- Demonstration of last mile transport for deliveries.
- Increased quality and liveability of urban and metropolitan areas by reducing road risk, congestion, air and noise pollution.
- Improve knowledge of user needs, habits and preferences in terms of deliveries.

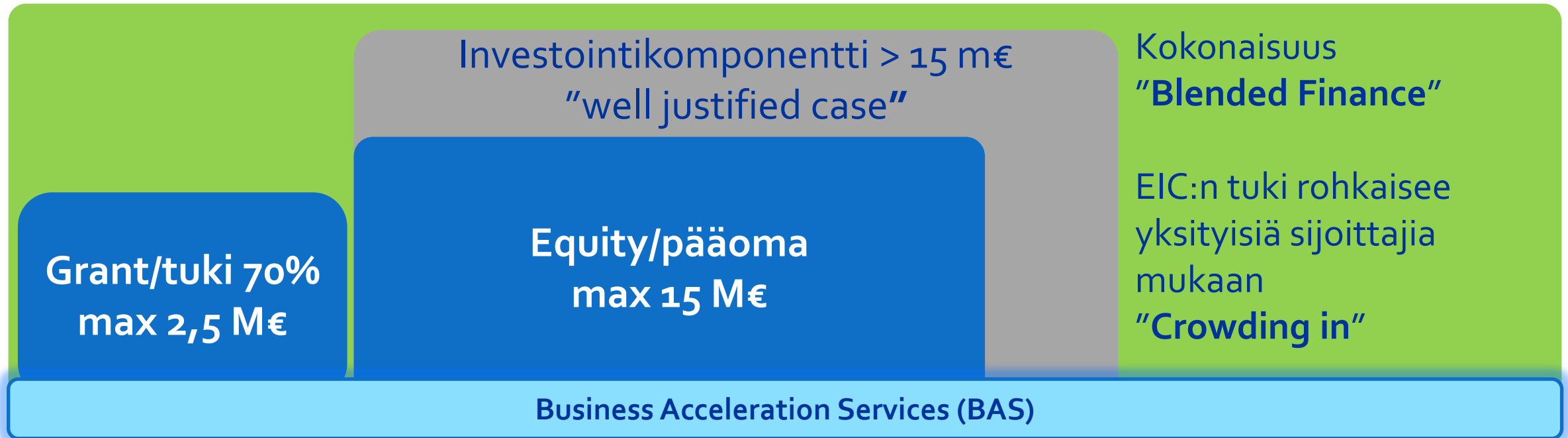
At least three living lab cities should be included as demonstrators of the innovative solutions and at least three follower cities. At least one of the living labs and follower cities should be located in areas experiencing rapid economic and social change.

Scope:

- Projects should address both methodological and technical/vehicle aspects to help optimising last mile deliveries, where the benefits and how it can be replicated across several cities.
- Actions should focus on piloting cooperation with private logistics operators, local businesses and establish new models for addressing governance of logistics operations ...
- Proposals may include preparatory, take up and replication actions, research activities, as well as tools to support local planning and policy making.

Horisontti Euroopan EIC Accelerator

- **Pk-yritysten** läpimurtoteknologioiden tai muiden merkittävien markkinainnovaatioiden skaalaamiseen kv-markkinoille silloin, kun niihin **ei vielä ole saatavilla riittävästi yksityistä rahoitusta (riskielementti!)**
- **Tuki 24 kk:** t&k, pilotit, demonstraatiot, testaus, validointi, kv-liiketoiminnan strateginen suunnittelu ja muut innovaatiotoimet (TRL6-8)
- **Pääomaoptio:** kaupallistamisen ja skaalautumisen operatiivisiin toimiin (TRL9)
- **Accelerator Open ja Accelerator Challenges**
- www.eic.ec.europa.eu, www.horisonttieurooppa.fi → Mitä on tarjolla yrityksille



Lisätietoja: Heini Günther, [heini.gunther \(at\) businessfinland.fi](mailto:heini.gunther(at)businessfinland.fi)



EU Mission: Adaptation to Climate Change

- Open **10.1. – 20.9.2023**
- More information: [Adaptation to climate change \(europa.eu\)](https://europa.eu)





Mission objectives

To help at least
150 European regions and communities
towards
climate
resilience
by
2030



Source: Copernicus, JRC - Page: Communication, Mission/2021/7, JRC - Source: JRC/Climate Change



How will the Mission support the Regions?

1. **Horizon Europe project grants**
2. Services by **Mission Implementation Platform (MIP)**
3. Scientific **guidance and support by JRC**
4. Access to climate adaptation knowledge from **Climate-ADAPT** by EEA



A Mission Charter

To be part of a **community of practice** and to:

- Access knowledge & methods on climate risk assessments
- Access latest research results on adaptation
- Get help on connecting these research results with local adaptation plans, roadmaps or adaptation pathways
- Access tools and best practices to interact and engage with citizens
- Get advice on possible public and private funding sources for adaptation

NETWORK, SHARE, LEARN, SUPPORT, GET HELP

The Mission Charter

How?

- Fill in the dedicated [EU Survey](#)
- Evaluation of commitments to climate adaptation by the Mission Secretariat
- Get invited to sign the Mission Charter

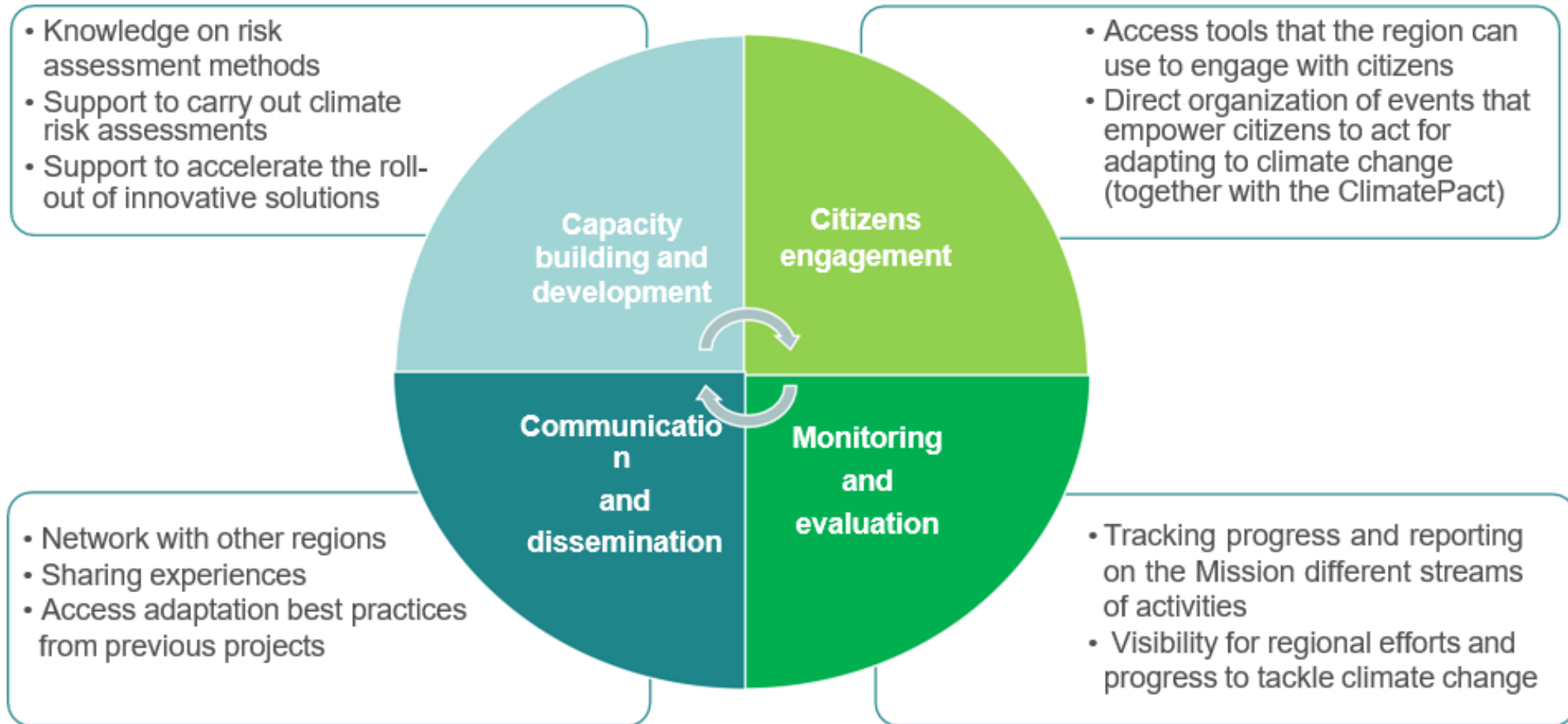
When? No deadline to apply. Open, ongoing and inclusive process.

Who? Representatives from regional and local authorities will sign the Mission Charter on behalf of their respective authorities.

And? Friends of the Mission (local action groups, businesses, etc) will endorse the Charter



The Mission Implementation Platform (early 2023)



Work Programme 2022 Calls closed

Topic	Action description	Type of action	Budget In millions EUR
HORIZON-MISS-2022-CLIMA-01-01	User driven applications and tools for regional and local authorities, and other end users focusing on climate impacts, data and knowledge	RIA	6
HORIZON-MISS-2022-CLIMA-01-02	Unlocking of financial resources for investments into climate resilience	RIA	6
HORIZON-MISS-2022-CLIMA-01-03	Best practices on and piloting insurance solutions for climate adaptation in EU regions and communities	RIA	6
HORIZON-MISS-2022-CLIMA-01-04	Transformation of regional economic systems for climate resilience and sustainability	RIA	6
HORIZON-MISS-2022-CLIMA-01-05	Boost the sponge function of landscape as a way to improve climate-resilience to water management challenges	RIA	3
HORIZON-MISS-2022-CLIMA-01-06	Testing and demonstrating transformative solutions on climate resilience, mainstreaming nature based solutions in the systemic transformation	IA	88.32
HORIZON-MISS-2022-OCEAN-CLIMA-01-01	Joint demonstration for coastal resilience in the Arctic and Atlantic sea basin	IA	20



WP 2023: HORIZON-MISS-2023-CLIMA-01: indicative budgets and funding

Land use & Food systems

Testing and demonstrating transformative solutions increasing climate resilience of the agriculture and/or forestry sector

Type: IA
Deadline: **Sep 2023**
Budget: **EUR 30 M**
Projects: **3**

Critical Infrastructure

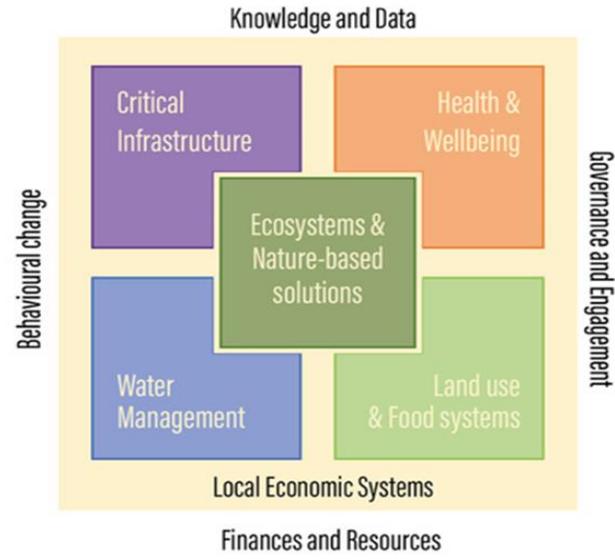
Testing and demonstrating transformative solutions to protect critical infrastructure from climate change, mainstreaming nature based solutions

Type: IA
Deadline: **Sep 2023**
Budget: **EUR 34.81 M**
Projects: **3**

Health & Wellbeing

Testing and demonstrating transformative solutions to build resilience towards health risks caused by the effects of climate change

Type: IA
Deadline: **Sep 2023**
Budget: **EUR 18 M**
Projects: **3**





HORIZON-MISS-2023-CLIMA-01-01

Testing and demonstrating transformative solutions increasing climate resilience of the agriculture and/or forestry sector

Type of Action: Innovation Action **Indicative budget:** EUR 30 M

Scope: The proposal should **develop and test innovative solutions**, combining technological, social and business innovation, leading to an increase of the resilience and adaptation capacity to climate change in the involved regions and communities of the agriculture sector and the related value chains. Nature based solutions and the restoration of cropland and grassland should be explored as priority.

Expected Outcomes:

- Regions and communities have undertaken action transforming into tangible projects their roadmaps designed with the aim of fostering a systemic approach to climate resilience
- Development and testing of solutions that can transform the agriculture and the forestry sector, making it more resilient to foreseen climate change and extreme weather events
- Solutions contribute to the implementation at the local level of the Common Agriculture Policy and the related national Strategic Plans, while also contributing to the implementation of the Farm to Fork Strategy
- **At least 4 demonstrations taking place in different regions/local authorities/ communities in at least 3 different EU Member States and/ or Horizon Europe associated countries**



HORIZON-MISS-2023-CLIMA-01-02

Testing and demonstrating transformative solutions to protect critical infrastructure from climate change, mainstreaming nature based solutions

Type of Action: Innovation Action **Indicative budget:** EUR 34.81 M

Scope: The proposal should identify weaknesses and interlinkages of critical infrastructures, in order to **develop and test innovative solutions**, combining technological and social innovation, leading to an increase of the resilience and adaptation capacity to climate change in the involved regions, local authorities and communities, assuring that nature-based solutions are explored as priority.

Expected Outcomes:

- Regions, local authorities and communities have taken the leadership and have been involved in identifying weaknesses and interlinkages between critical infrastructures, and development and testing of solutions that will make their existing or new critical infrastructure more resilient to climate change
- Nature-based solutions protecting infrastructure from adverse effects of climate change have been developed, tested and brought closer to the market; businesses, public and private actors are more prepared to cope with the changing climate
- Prevention and management of emergency events linked to adverse climate effects is improved, thanks to “by design” integration of digital monitoring and relevant data sources in the solutions.
- **At least 4 demonstrations taking place in different regions/local authorities/ communities in at least 3 different EU Member States and/ or Horizon Europe associated countries**



HORIZON-MISS-2023-CLIMA-01-03

Testing and demonstrating transformative solutions to build resilience towards health risks caused by the effects of climate change

Type of Action: Innovation Action **Indicative budget:** EUR 18 M

Scope: The proposals should test and demonstrate solutions that address improved prevention and policy-making and improve preparedness of health systems for the effects of climate change.

Expected Outcomes:

- Regions, local authorities and communities have been involved in development and testing of a whole range of transformative solutions that will help to mitigate the effect of climate change on health and human wellbeing, including making the public health sector more climate resilient and better prepared to mitigate the climate change related health challenges
- Climate resilience solutions that protect human health have been developed, tested and are made largely available
- **At least 4 demonstrations taking place in different regions/local authorities/ communities in at least 3 different EU Member States and/ or Horizon Europe associated countries**



Adaptation to Climate Change

Opening: 10 Jan 2023
Deadline(s): 20 Sep 2023

Topics (2023)	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million)	Number of projects expected to be funded	Other
HORIZON-MISS-2023-CLIMA-01-01 Testing and demonstrating transformative solutions increasing climate resilience of the agriculture and/or forestry sector	IA	30.00	8.00 to 10.00	3	TRL 6-8
HORIZON-MISS-2023-CLIMA-01-02 Testing and demonstrating transformative solutions to protect critical infrastructure from climate change, mainstreaming nature based solutions	IA	34.81	8.00 to 11.00	3	Copernicus and/or Galileo/Egnos, TRL 6-8
HORIZON-MISS-2023-CLIMA-01-03 Testing and demonstrating transformative solutions to build resilience towards health risks caused by the effects of climate change	IA	18.00	4.50 to 6.00	3	Copernicus and/or Galileo/Egnos, TRL 6-7
Overall indicative budget		82.81			



EU Mission: 100 Climate-Neutral and Smart Cities by 2030

- Open **10.1. – 20.9.2023**
- More information: [Climate-neutral and smart cities \(europa.eu\)](https://europa.eu)



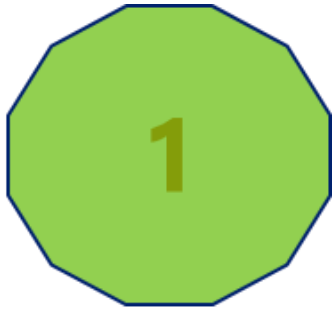


WHY A MISSION ON CLIMATE-NEUTRAL CITIES?

- **75%** of EU citizens live in cities (projected to increase to about 85% in 2050)
- More than **65%** of energy consumption and more than **70%** of CO2 emissions worldwide
- Rooted in **R&I** and delivering concrete results within a limited timeframe
- Co-benefits – lower air/noise pollution, congestion and fewer road deaths. Loveable and **livable cities!**
- The **European Green Deal** is set at EU / national level, but will be implemented at local level – particularly in cities and regions: where policy meets people!
- Cities have the **ambition** to go further – we want to help cities achieve their goal of climate neutrality by 2030



OBJECTIVES OF THE MISSION



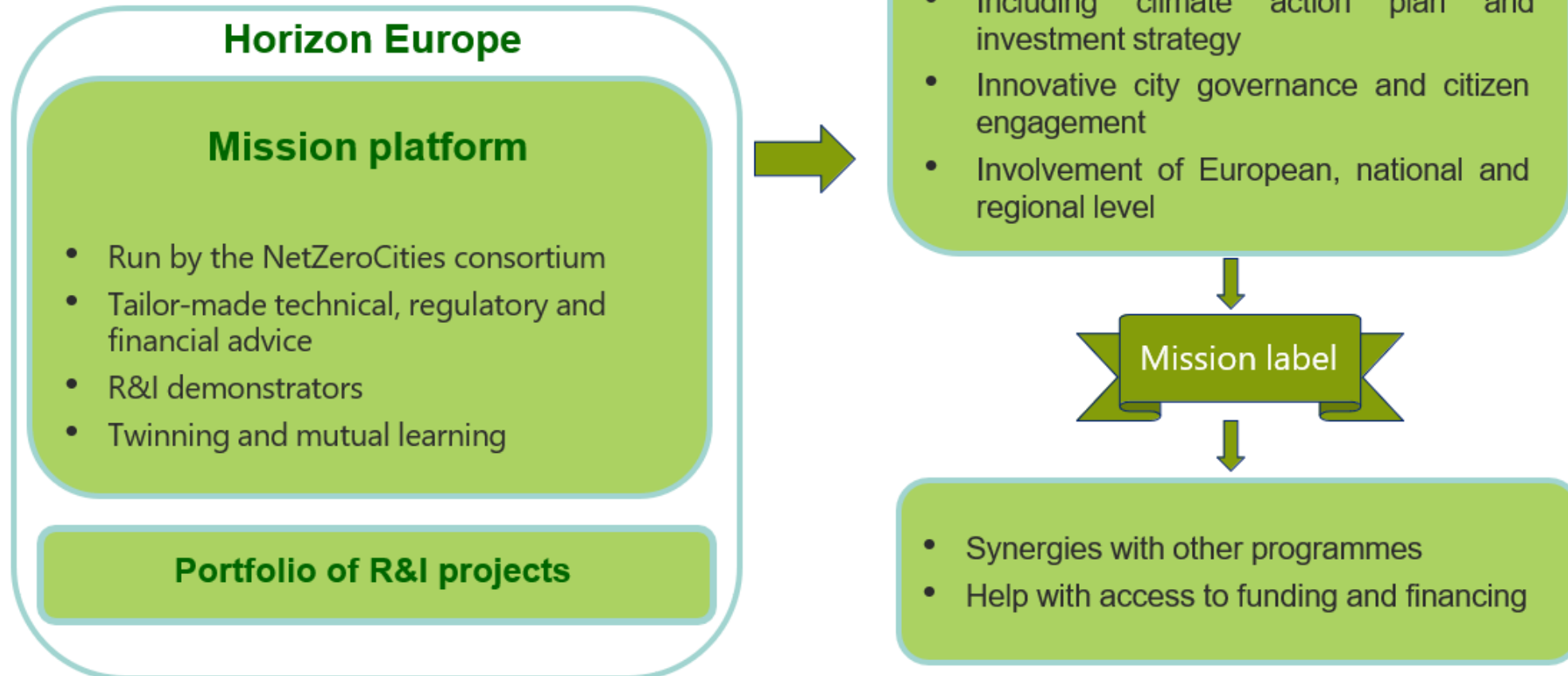
Deliver at least 100 climate-neutral and smart European cities by 2030;



Ensure that these cities act as experimentation and innovation hubs to put all European cities in a position to become climate-neutral by 2050.



MAIN ELEMENTS OF THE MISSION





BENEFITS TO CITIES:

- Tailor-made advice and assistance from the Mission Platform (managed by the NetZeroCities consortium)
- Unlocking additional funding and financing opportunities through a Mission label
- Research & innovation funding opportunities for cities **to join large innovation actions, pilot projects and demonstrations** (total budget from Horizon Europe for 2021-2023 is €360 million)
- Support through a national coordination network
- Networking opportunities, learning and exchange of experiences among cities
- Support with involving citizens in decision-making
- High visibility – raised political profile and attractiveness for investment and skilled workers



Overview of the 2021-2022 calls:

- **HORIZON-MISS-2021-CIT-02 - Research and Innovation actions to support the implementation of the Climate-Neutral and Smart Cities Mission [status: **CLOSED; deadline 26.04.2022**]**
 - HORIZON-MISS-2021-CIT-02-01: Urban planning and design for just, sustainable, resilient and climate-neutral cities by 2030
 - HORIZON-MISS-2021-CIT-02-02: Unleashing the innovation potential of public transport as backbone of urban mobility
 - HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform
 - HORIZON-MISS-2021-CIT-02-04: Positive Clean Energy Districts
 - HORIZON-MISS-2021-CIT-02-05: Global cooperation and exchange on urban climate neutrality
- **HORIZON-MISS-2022-CIT-01 - Research and Innovation actions for support the implementation of the Climate-neutral and Smart Cities Mission [status: **CLOSED; deadline 06.09.2022**]**
 - HORIZON-MISS-2022-CIT-01-01: Designing inclusive, safe, affordable and sustainable urban mobility



WP 2023: HORIZON-MISS-2023-CIT-01/02: indicative budgets and funding

HORIZON-MISS-2023-CIT-01-01:
Co-designed smart systems and services for user-centred shared zero-emission mobility of people and freight in urban areas (2Zero, CCAM and Cities' Mission)

Type of action: **IA**
Deadline: **Apr 2023**
Indicative budget: **EUR 50 M**
Projects: **2**

HORIZON-MISS-2023-CIT-01-02:
Positive clean energy district (PED) digital twins – from modelling to creating climate neutral Cities

Type of action: **IA**
Deadline: **Apr 2023**
Indicative budget: **EUR 20 M**
Projects: **3**

HORIZON-MISS-2023-CIT-02-01:
Associating Ukrainian cities to the Climate-neutral and smart cities Mission

Type of action: **CSA**
Deadline: **Sep 2023**
Indicative budget: **EUR 5 M**
Projects: **1**



HORIZON-MISS-2023-CIT-01-01

Co-designed smart systems and services for user-centred shared zero-emission mobility of people and freight in urban areas (2Zero, CCAM and Cities' Mission)

Type of Action: Innovation Action **Indicative budget:** EUR 50 M

Scope: Proposals are expected to develop, test and demonstrate innovative solutions for mobility of people and freight exploiting the combined potential of electrification, automation and connectivity.

Expected Outcomes:

- Mobility solutions that respond to people's and cities' needs, co-designed with local authorities, citizens and stakeholders, tested and implemented in cities to achieve climate neutrality by 2030.
- Transferrable solutions for mobility of people and goods exploiting the combined potential of electrification, automation and connectivity to significantly and measurably contribute to:
 - The Cities Mission's objective of climate neutrality by 2030;
 - Reduction of CO₂ emissions supporting the 55% reduction goal for 2030;
 - Lower energy demand; improved air quality, less noise;
 - Reduced congestion; improved safety and inclusiveness
 - etc.



HORIZON-MISS-2023-CIT-01-02

Positive clean energy district (PED) digital twins – from modelling to creating climate neutral Cities

Type of Action: Innovation Action **Indicative budget:** EUR 20 M

Scope: Proposals are expected to develop a digital twin that goes beyond the virtual representation of the built environment, by integrating a comprehensive modelling layer of the local energy systems as well as mobility and transport solutions in the project defined district boundaries.

Expected Outcomes:

- Increased number of (tangible) city planning actions for positive clean energy districts using the (proto-)PED design, development and management digital twin tools
- Enhanced data gathering approaches with identification relevant (standardised) multi-dimensional data set, high-resolution real-time data streams, and relevant forecasting data
- Consolidated city sensor network specifications and increased integration of existing smaller scale management systems with open-standards based operational city platforms
- Increased number of city planning departments / approaches using common data and elements and processes
- Improved performance of AI based self-learning systems
- etc.



HORIZON-MISS-2023-CIT-02-01

Associating Ukrainian cities to the Climate-Neutral and Smart Cities Mission

Type of Action: Coordination and Support Action **Indicative budget:** EUR 5 M

Scope: This presents an opportunity for Ukraine and its cities to combine reconstruction with long-term climate neutrality and sustainability objectives in line with the EU Green Deal, relevant international policy frameworks and the New European Bauhaus initiative.

Expected Outcomes:

- Contribute to the implementation of EU policy and international commitments (European Green Deal, Global Approach to Research and Innovation)
- Identify a core group of Ukrainian cities that would commit to a climate neutrality target, including in reconstruction efforts
- Accelerate the systemic transition to climate neutrality of Ukrainian cities by preparing local authorities to meet the overarching objectives of the European Green Deal
- Engage cities participating in the Cities Mission in twinning and teaming activities with Ukrainian city partners

100 Climate-Neutral and Smart Cities by 2030

Call – Research and Innovation actions to support the implementation of the Climate-neutral and Smart Cities Mission

Opening: 10 Jan 2023 (CIT-01) and 04 Apr 2023 (CIT-02)					
Deadline(s): 27 Apr 2023 (CIT-01) and 06 Sept 2023 (CIT-02)					
Topics (2023)	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million)	Number of projects expected to be funded	Other
HORIZON-MISS-2023-CIT-01-01 Co-designed smart systems and services for user-centred shared zero-emission mobility of people and freight in urban areas (2Zero, CCAM and Cities' Mission)	IA	50.00	25.00	2	Copernicus and/or Galileo/Egnos, TRL 7
HORIZON-MISS-2023-CIT-01-02 Positive clean energy district (PED) digital twins – from modelling to creating climate neutral Cities	IA	20.00	6.00 to 7.00	3	Copernicus and/or Galileo/Egnos, TRL 6-8
Overall indicative budget		70.00			

Call – Associating Ukrainian cities to the Climate-neutral and smart cities Mission

HORIZON-MISS-2023-CIT-02-01 Associating Ukrainian cities to the Climate-neutral and smart cities Mission	CSA	5.00	5.00	1	Copernicus and/or Galileo/Egnos, TRL 7
Overall indicative budget		5.00			



Miten vastata hakuihin?
Kuinka rakentaa hyvä hanke ja konsortio?

HORIZON EUROPE

EU RESEARCH AND INNOVATION PROGRAMME

Kaikki lähtee strategiasta...ja alkuun pääsy vaatii jalkatyötä

- **Rakenna osaamis pohja** kansallisissa T&K-projekteissa, kartoita kansainvälisten markkinoiden vaatimukset ja opi tuntemaan teknologian taso
- **Määrittele** oma teknologian ja tuotteen/yrityksesi/liiketoimintasi **tavoitetila**, pari vuotta ylitse T&K:n suunnittelun aikajänteen, erityisesti
 - Tunnista koko oman kentän (konserni, strategiset kumppanit) osaaminen
 - Kartoita toteutuneiden projektien verkostot (paljolti julkisista lähteistä mm. Horisontti-hankkeet <https://cordis.europa.eu>)
- Selvitä mahdollisuus jäsenyyteen sopivissa **EU-kumppanuuksissa, teknologiayhteisöissä** jne. – mitä alalla **tapahtumassa** ja voimmeko itse myös olla mukana **vaikuttamassa** siihen...
- **Tutustu työhjelmiin ja tuleviin hakuihin** ajoissa – tietoa saatavilla jo ennakkoon ennen hakujen aukeamista!
- Hanki **resurssit + sitoutuminen** yrityksesi johdolta hankevalmisteluun:henkilöresurssit/kustannukset
- Käytä hyväksesi omat ja olemassa olevien **kumppanien verkostot yhteistyön rakentamiseksi**
- Osallistu komission ja muiden tahojen **tiedotus- ja verkottumistilaisuuksiin**
- **Partnerihaut** myös käytössä; Funding & Tenders –portaali, EEN-verkoston partnerihaku ym.
- Ota ajoissa yhteys **kansalliseen tukiverkostoon** (EUTI ja sen NCP't)
- Käytä tarvittaessa muita asiantuntijoita – myös valmisteluun tukirahoitusta

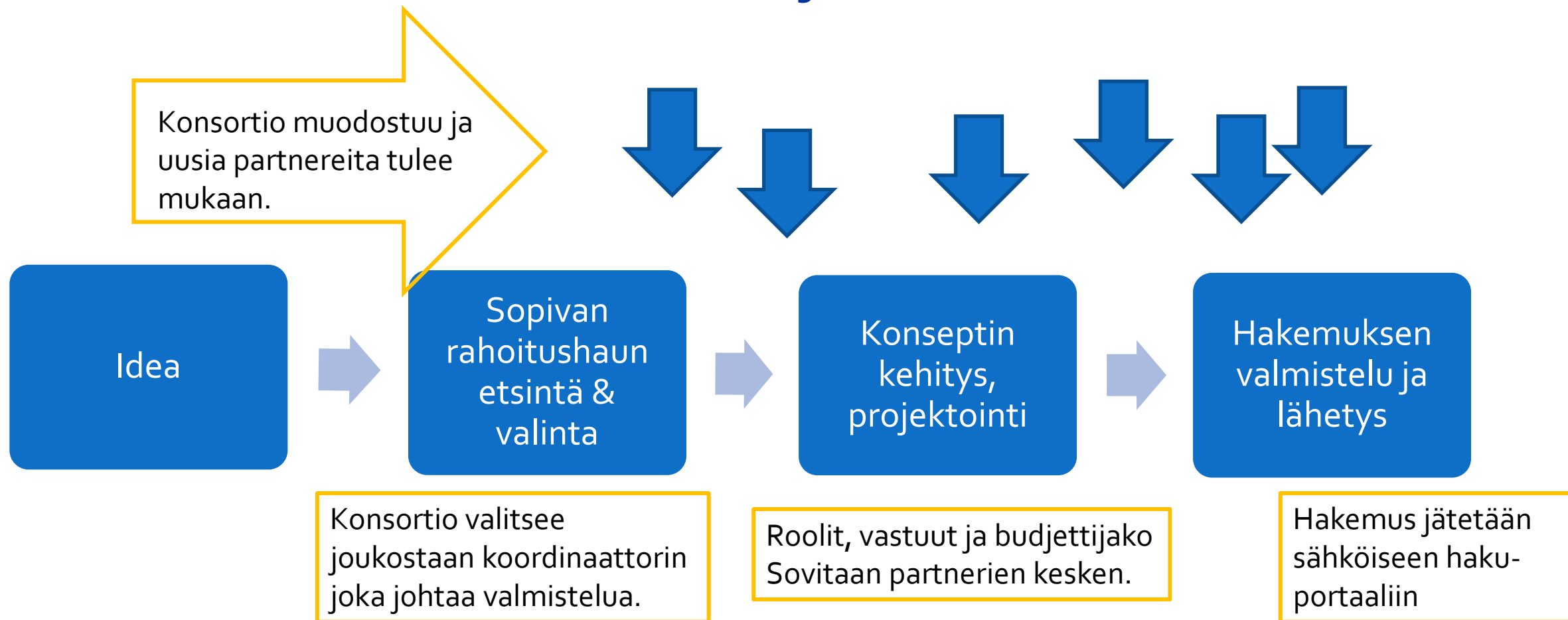
Mihin rooliin?

Roolit konsortiossa:

- Koordinaattori (Coordinator)
 - Osallistuja (Participant)
 - Muita mahdollisia rooleja esim. alihankkija (Subcontractor) tai "assosiaatiopartneri"
-
- **Osallistumisen vähimmäisvaatimus:** 3 osallistujaa MS/AC –maasta; käytännössä osallistujia on aina enemmän → sopiva määrä!

- Hyvä konsortio riippuu siitä mitä halutaan saada aikaiseksi
- Tärkeintä on tunnistaa **hankkeessa tarvittava osaaminen** ja etsittävä eri rooleihin parhaiten sopivat osallistujat
- **Arvoketjun, loppukäyttäjien ja hyödyntäjien mukana olo** tärkeää

Hakemuksen rakentaminen ja valmistelu



Konsortion rakentamisesta



Tutustu huolella hakusisältöön ja tee alustava suunnitelma tarvittavista osaamisista ja ydinkumppaneista



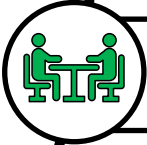
Listaa tehtävät, joita ydinkumppaneiden kanssa haluatte projektissa tehdä.



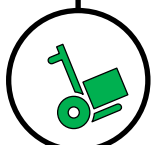
Tsekkaa haun budjetti ja mieti sopiva partnerien määrä. Millaista muuta osaamista ja tahoja tarvitaan ydinkumppaneiden lisäksi?



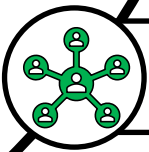
Maiden lukumäärä ja tasapainoinen budjettijako -> montako kumppania mukaan kotimaasta.



Arvioi max tuen määrä/maa ja/osallistuja ja kommunikoi ne muille



Arvoketjuajattelu tulosten hyödyntämisen varmistamiseksi. Kutsu mukaan uusia potentiaalisia asiakkaita ja kumppaneita, mutta älä silti paisuta konsortiota turhaan - vain tarpeellinen määrä maita/partnereita!



Tsekkaa omat ja kumppanien verkostot ja motivoi/osallista saamasi partnerit yhteiseen suunnitteluun

Kuinka löydän sopivia kumppaneita?

- Omat ja partnerien verkostot
- Osallistu komission ja muiden tahojen verkottumistilaisuuksiin ja osallistu pitchauksiin aina kun mahdollista!
- Hyödynnä konkareita - Funding & Tenders portaalista ja Cordiksesta <https://cordis.europa.eu/projects> voit katsoa aiempia projektieja ja konsortioihin osallistuneita tahoja
- Funding& Tenders portaalissa myös partnerihakutoiminto
- EEN networkin partnerihaku
- Hyödynnä NCP-verkoston tarjoamat yhteydet eri maihin
- Hyödynnä konsulttien osaaminen ja yhteydet



Tee projektista esittelyä varten one-pager (A4)

Proposal name	NICENESS - New Innovative teChnology platform for Enormous NEw busineSS
Call reference	Fast Track to Innovation (FTI) EIC-FTI-2018-2020
Target DL	22.10.2020
TRL focus	At kick off TRL6 -> TRL8
Funding	Max 3 M€ grant, 70% funding rate for for-profit and 100% for non-profits
Project idea	<ul style="list-style-type: none">Describe here in a few bullet lines
Target activity	<ul style="list-style-type: none">Describe the planned R&D activity in a few bullet lines. Check that your idea matches the call text!
Target results	<ul style="list-style-type: none">Describe the main expected results here in a few bullet lines.Check that your idea matches the call text!
Target impacts	<ul style="list-style-type: none">Describe the main impacts e.g to industrial partners businesses here in a few bullet lines.Check that your idea matches the call text!
Partners	<ul style="list-style-type: none">Coordinator: OurCompany Oy (SME, Finland)MainPartner AB (LE, Sweden, in discussion)1-3 other partners for developing XX and testing and validating YY (1 RTO)
Budget & Target consortium	<ul style="list-style-type: none">Target budget 4,28M€ with 3M€ grant. Coordinator budget XX, max XX to other Finnish partners. Max number of partners 5.
Contact, further information	<ul style="list-style-type: none">Dr. Smart, XXX



Lisätietoa

- Uudet työohjelmat komission sivuilla: [CL 5 WP 2023-2024](#)
- Horisontti Euroopan suomalaiset kotisivut: <https://www.horisonttieurooppa.fi>
- Horisontti Euroopan klusteri 5 –alasivu ja NCP:iden yhteystiedot: [Ilmasto, energia ja liikkuvuus - Business Finland](#)
- Jos yritys itse koordinoi Horisontti-haun valmistelua, valmistelutyöhön on mahdollista saada BF:n kautta avustusta (kriteereitä kevennetty äskettäin) [Horisontti-projektien valmistelurahoitus - Business Finland](#)