

## **HORIZON EUROPE**

## **Témata** "CLUSTER 5" (Climate, Energy and Mobility)

pro období 2021-2022

Destination 1 - Climate sciences and responses for the transformation towards climate neutrality	Nástroj	Příspěvek EU na projekt (mil. €)	Rozpočet tématu (mil. €)	Odhad podpoř. projektů
Výzva HORIZON-CL5-2021-D1-01 Climate sciences and responses pro rok 2021, uzávěrka 7. 9. 2021				
HORIZON-CL5-2021-D1-01-01: Improved understanding of greenhouse gas fluxes and radiative forcers, including carbon dioxide removal technologies	RIA	8	24	3
HORIZON-CL5-2021-D1-01-02: Modelling the role of the circular economy for climate change mitigation	RIA	5	15	3
HORIZON-CL5-2021-D1-01-03: Maximising the impact and synergy of European climate change research and innovation	CSA	3-5	8	2
HORIZON-CL5-2021-D1-01-04: Enhanced integrated assessment in pursuit of global climate goals	RIA	5	15	3
HORIZON-CL5-2021-D1-01-05: Better understanding of the interactions between climate change impacts and risks, mitigation and adaptation options	RIA	6-7	20	3
HORIZON-CL5-2021-D1-01-06: Supporting and standardising climate services	CSA	10	10	1
HORIZON-CL5-2021-D1-01-07: Improved economic methods for decision-making on climate and environmental policies	RIA	3	6	2
HORIZON-CL5-2021-D1-01-08: Restoration of natural wetlands, peatlands and floodplains as a strategy for fast mitigation benefits; pathways, trade-offs and co-benefits	RIA	6-7	20	3
HORIZON-CL5-2021-D1-01-09: The contribution of forest management to climate action: pathways, trade-offs and cobenefits	RIA	6	18	3
Výzva HORIZON-CL5-2022-D1-01-two-stage Climate sciences and responses pro rok 2022, uzávěrka 10. 2. 2022 (1	. kolo), 27	. 9. 2022 (2. ko	lo)	
HORIZON-CL5-2022-D1-01-01-two-stage: Carbon Dioxide Removal approaches	RIA	7	21	3
HORIZON-CL5-2022-D1-01-02-two-stage: Socio-economic risks of climate change in Europe	RIA	5	10	2
HORIZON-CL5-2022-D1-01-03-two-stage: Social science for land-use strategies in the context of climate change and biodiversity challenges	RIA	6-7	20	3
Výzva HORIZON-CL5-2022-D1-02 Climate sciences and responses pro rok 2022, uzávěrka 10. 2. 2022				
HORIZON-CL5-2022-D1-02-01: Verification and reconciliation of estimates of climate forcers	RIA	5	15	3

HORIZON-CL5-2022-D1-02-02: Development of high-resolution Earth system models for global and regional climate change projections	RIA	10	20	2
HORIZON-CL5-2022-D1-02-03: Improvement of Integrated Assessment Models in support of climate policies	RIA	5	15	3
HORIZON-CL5-2022-D1-02-04: Supporting the formulation of adaptation strategies through improved climate predictions in Europe and beyond		10	20	2
HORIZON-CL5-2022-D1-02-05: Let nature help do the job: Rewilding landscapes for carbon sequestration, climate adaptation and biodiversity support	RIA	8-9	17	2
Destination 2 – Cross-sectoral solutions for the climate transition		Příspěvek EU na projekt (mil. €)	Rozpočet tématu (mil. €)	Odhad podpoř. projektů
Výzva HORIZON-CL5-2021-D2-01 Cross-sectoral solutions for the climate transition pro rok 2021, uzávěrka 19. 10.	2021			
HORIZON-CL5-2021-D2-01-01: Sustainable processing, refining and recycling of raw materials (Batteries Partnership)	RIA	6-7	21	3
HORIZON-CL5-2021-D2-01-02: Advanced high-performance Generation 3b (high capacity / high voltage) Li-ion batteries supporting electro mobility and other applications (Batteries Partnership)	RIA	6-8	24	3
HORIZON-CL5-2021-D2-01-03: Advanced high-performance Generation 4a, 4b (solid-state) Li-ion batteries supporting electro mobility and other applications (Batteries Partnership)	RIA	8-9	36	4
HORIZON-CL5-2021-D2-01-04: Environmentally sustainable processing techniques applied to large scale electrode and cell component manufacturing for Li ion batteries (Batteries Partnership)	RIA	5	20	4
HORIZON-CL5-2021-D2-01-05: Manufacturing technology development for solid-state batteries (SSB, Generations 4a - 4b patteries) (Batteries Partnership)	RIA	6-7	26	3
HORIZON-CL5-2021-D2-01-06: Sustainable, safe and efficient recycling processes (Batteries Partnership)	RIA	9-10	30	3
HORIZON-CL5-2021-D2-01-07: Support for establishment of R&I ecosystem, developing strategic forward-looking orientations to ensure future skills development, knowledge and technological leadership for accelerated disruptive technology exploration and uptake (Batteries Partnership)	CSA	3	3	1
HORIZON-CL5-2021-D2-01-08: Emerging technologies for a climate neutral Europe	RIA	2,5	20	8
HORIZON-CL5-2021-D2-01-09: Methane cracking to usable hydrogen and carbon	RIA	2-3	15	2
HORIZON-CL5-2021-D2-01-10: Technologies for non-CO2 greenhouse gases removal	RIA	2-3		2
HORIZON-CL5-2021-D2-01-11: Direct atmospheric carbon capture and conversion	RIA	2-3		2
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HORIZON-CL5-2021-D2-01-12: Fostering a just transition in Europe	RIA	3-4	10	3
HORIZON-CL5-2021-D2-01-13: Strengthening Social Sciences and Humanities (SSH) research communities in climate, energy and mobility disciplines	CSA	2-3	3	1
HORIZON-CL5-2021-D2-01-14: Accelerating the climate transition in difficult contexts: transition super-labs (pilot)	CSA	2-3	2	1
ORIZON-CL5-2021-D2-01-15: Fostering cooperation between Horizon Europe cluster 5 National Contact Points (NCPs)		2,5	2,5	1
HORIZON-CL5-2021-D2-01-16: Co-Funded Partnership: Driving Urban Transitions to a sustainable future (DUT)		130 over 7 years	37	1
Výzva HORIZON-CL5-2022-D2-01 Cross-sectoral solutions for the climate transition pro rok 2022, uzávěrka 6. 9. 20	022			
HORIZON-CL5-2022-D2-01-01: Sustainable processing and refining of battery grade graphite (Batteries Partnership)	IA	5	10	2
HORIZON-CL5-2022-D2-01-02: Interface and electron monitoring for the engineering of new and emerging battery technologies (Batteries Partnership)	RIA	5	10	2
HORIZON-CL5-2022-D2-01-03: Furthering the development of a materials acceleration platform for sustainable batteries (combining AI, big data, autonomous synthesis robotics, high throughput testing) (Batteries Partnership)	RIA	20	20	1
HORIZON-CL5-2022-D2-01-04: Towards creating an integrated manufacturing value chain in Europe: from machinery development to plant and site integrated design (Batteries Partnership)	IA	7-8	15	2
HORIZON-CL5-2022-D2-01-05: Next generation technologies for High-performance and safe-by-design battery systems for transport and mobile applications (Batteries Partnership)	RIA	5	15	3
HORIZON-CL5-2022-D2-01-06: Embedding smart functionalities into battery cells (embedding sensing and self-healing functionalities to monitor and self-repair battery cells) (Batteries Partnership	RIA	5	15	3
HORIZON-CL5-2022-D2-01-07: Digitalisation of battery testing, from cell to system level, including lifetime assessment (Batteries Partnership)	RIA	5	15	3
HORIZON-CL5-2022-D2-01-08: Coordination of large-scale initiative on future battery technologies (Batteries Partnership)	CSA	3	3	1
HORIZON-CL5-2022-D2-01-09: Physics and data-based battery management for optimised battery utilisation (Batteries Partnership)	RIA	5	15	3
HORIZON-CL5-2022-D2-01-10: Streamlined collection and reversed logistics, fully automated, safe and cost-efficient sorting, dismantling and second use before recycling (Batteries Partnership)	RIA	5	15	3
HORIZON-CL5-2022-D2-01-11: CIVITAS 2030 – Coordination and support for EU funded urban mobility innovation	CSA	4-5	5	1

Destination 3 – Sustainable, secure and competitive energy supply	Nástroj	Příspěvek EU na projekt (mil. €)	Rozpočet tématu (mil. €)	Odhad podpoř. projektů			
Výzva HORIZON-CL5-2021-D3-01 Energy supply pro rok 2021, uzávěrka 26. 8. 2021							
HORIZON-CL5-2021-D3-01-01: Demonstration of wave energy devices to increase experience in real sea condition	IA	15	15	1			
HORIZON-CL5-2021-D3-01-02: Sustainability and educational aspects for renewable energy and fuel technologies	CSA	2,5	10	4			
HORIZON-CL5-2021-D3-01-03: Market Uptake Measures of renewable energy systems	CSA	2	10	5			
HORIZON-CL5-2021-D3-01-04: Novel tandem, high efficiency Photovoltaic technologies targeting low cost production with earth abundant materials	RIA	5	20	4			
HORIZON-CL5-2021-D3-01-05: Energy Sector Integration: Integrating and combining energy systems to a cost-optimised and flexible energy system of systems	IA	9-10	30	3			
HORIZON-CL5-2021-D3-01-06: Increasing energy system flexibility based on sector-integration services to consumers (that benefits system management by DSOs and TSOs)	IA	8	25	3			
HORIZON-CL5-2021-D3-01-07: Reliability and resilience of the grid: Measures for vulnerabilities, failures, risks and privacy	IA	7-8	15	2			
HORIZON-CL5-2021-D3-01-08: Electricity system reliability and resilience by design: High-Voltage, Direct Current (HVDC)-based systems and solutions	RIA	7-8	15	2			
HORIZON-CL5-2021-D3-01-09: Demonstration of superconducting systems and elpipes	IA	15	15	1			
HORIZON-CL5-2021-D3-01-10: Demonstration of advanced Power Electronics for application in the energy sector	IA	5	10	2			
HORIZON-CL5-2021-D3-01-11: Laying down the basis for the demonstration of a Real Time Demonstrator of Multi-Vendor Multi-Terminal HVDC with Grid Forming Capability: Coordinated action	CSA	1	1	1			
HORIZON-CL5-2021-D3-01-12: Establish the grounds for a common European energy data space	IA	8	32	4			
HORIZON-CL5-2021-D3-01-13: Reinforcing digitalisation related know how of local energy ecosystems	CSA	4	4	1			
HORIZON-CL5-2021-D3-01-14: Interoperability community	CSA	5	5	1			
HORIZON-CL5-2021-D3-01-15: Integration of CCUS in hubs and clusters, including knowledge sharing activities	CSA	2	2	1			
HORIZON-CL5-2021-D3-01-16: Cost reduction of CO2 capture (new or improved technologies)	RIA	10-15	30	2			

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HORIZON-CL5-2021-D3-01-17: Support to the activities of the European Geological Services	CSA	20	20	1				
HORIZON-CL5-2021-D3-01-18: Support to the activities of the ETIPs and technology areas of the SET-Plan	CSA	1	9,80	10				
HORIZON-CL5-2021-D3-01-19: Clean Energy Transition		35; (35 in 2022)	210 over 7 years	1				
Výzva HORIZON-CL5-2021-D3-02 Energy supply pro rok 2021, uzávěrka 5. 1. 2022								
HORIZON-CL5-2021-D3-02-01: AU-EU Water Energy Food Nexus	RIA	2,50	5	2				
HORIZON-CL5-2021-D3-02-02: Next generation of renewable energy technologies	RIA	3	33	11				
HORIZON-CL5-2021-D3-02-03: Hybrid catalytic conversion of renewable energy to carbon-neutral fuels	RIA	3.30	10	3				
HORIZON-CL5-2021-D3-02-04: Physics and aerodynamics of atmospheric flow of wind for power production	RIA	6	18	3				
HORIZON-CL5-2021-D3-02-05: Wind energy in the natural and social environment	RIA	3	10	3				
HORIZON-CL5-2021-D3-02-06: Novel approaches to concentrated solar power (CSP)	RIA	3	20	4				
HORIZON-CL5-2021-D3-02-07: Stable high performance Perovskite Photovoltaics	RIA	5	15	3				
HORIZON-CL5-2021-D3-02-08: Cost-effective micro-CHP and hybrid heating systems	RIA	3-5	10	2				
HORIZON-CL5-2021-D3-02-09: Carbon-negative sustainable biofuel production	RIA	5	15	3				
HORIZON-CL5-2021-D3-02-10: Innovative foundations, floating substructures and connection systems for floating PV and ocean energy devices	RIA	3,5	10	3				
HORIZON-CL5-2021-D3-02-11: Development of hydropower equipment for hidden hydropower	RIA	3-5	10	2				
HORIZON-CL5-2021-D3-02-12: Innovation on floating wind energy deployment optimized for deep waters and different sea basins (Mediterranean Sea, Black Sea, Baltic Sea, North-east Atlantic Ocean)	IA	16	50	3				
HORIZON-CL5-2021-D3-02-13: Demonstration pilot lines for alternative and innovative PV technologies (Novel c-Si tandem, thin film tandem, bifacial, CPV, etc.)	IA	15	45	3				
HORIZON-CL5-2021-D3-02-14: Demonstration of large-scale CHP technologies for a shift to the use of biogenic residues and wastes	IA	10	10	1				
HORIZON-CL5-2021-D3-02-15: Solutions for more sustainable geothermal energy	RIA	5	10	2				
HORIZON-CL5-2021-D3-02-16: Innovative biomethane production as an energy carrier and a fuel	IA	10	20	2				

Výzva HORIZON-CL5-2022-D3-01 Energy supply pro rok 2022, uzávěrka 23. 2. 2022				
HORIZON-CL5-2022-D3-01-01: Demonstration of cost-effective advanced biofuel technologies utilizing existing industrial plants	IA	10	20	2
HORIZON-CL5-2022-D3-01-02: Demonstration of innovative materials, supply cycles, recycling technologies to increase the overall circularity of wind energy technology and to reduce the primary use of critical raw materials	IA	13	40	3
HORIZON-CL5-2022-D3-01-03: Advanced manufacturing of Integrated PV	IA	16	32	2
HORIZON-CL5-2022-D3-01-04: Demonstrate the use of high temperature geothermal reservoirs to provide energy storage for the energy system	IA	20	20	1
HORIZON-CL5-2022-D3-01-05: Demonstration of innovative plug-and play solutions for system management and renewables storage in off-grid applications	IA	10	10	1
HORIZON-CL5-2022-D3-01-06: Novel Agro-Photovoltaic systems	IA	5	10	2
HORIZON-CL5-2022-D3-01-07: Demonstration of innovative rotor, blades and control systems for tidal energy devices	IA	10	10	1
HORIZON-CL5-2022-D3-01-08: Supporting the action of consumers in the energy market and guide them to act as prosumers, communities and other active forms of active participation in the energy activities	IA	5-6	18	3
HORIZON-CL5-2022-D3-01-09: Real Time Demonstrator of Multi-Vendor Multi-Terminal VSC-HVDC with Grid Forming Capability (in support of the offshore strategy)	IA	55	55	1
HORIZON-CL5-2022-D3-01-10: Interoperable solutions for flexibility services using distributed energy storage	IA	2-3	7	3
HORIZON-CL5-2022-D3-01-11: Demonstration of innovative forms of storage and their successful operation and integration into innovative energy systems and grid architectures	IA	7-8	30	4
HORIZON-CL5-2022-D3-01-12: Replicable solutions for a cross sector compliant energy ecosystem	IA	8-9	35	4
HORIZON-CL5-2022-D3-01-13: Energy system modelling, optimisation and planning tools	RIA	6	6	1
HORIZON-CL5-2022-D3-01-14: Thermal energy storage solutions	IA	7-8	30	4
HORIZON-CL5-2022-D3-01-15: Decarbonising industry with CCUS	IA	29	58	2
Výzva HORIZON-CL5-2022-D3-02 Energy supply pro rok 2022, uzávěrka 27. 10. 2022		<u>'</u>	<u>'</u>	•
HORIZON-CL5-2022-D3-02-01: Digital solutions for defining synergies in international renewable energy value chains	RIA	3	9	3
HORIZON-CL5-2022-D3-02-02: AU-EU Energy System Modelling	RIA	2,5	5	2

HORIZON-CL5-2022-D3-02-03: Innovative renewable energy carrier production for heating from renewable energies	IA	10	10	1
HORIZON-CL5-2022-D3-02-04: Technological interfaces between solar fuel technologies and other renewables	RIA	3-5	10	2
HORIZON-CL5-2022-D3-02-05: Renewable energy carriers from variable renewable electricity surplus and carbon emissions from energy consuming sectors	IA	10	20	2
HORIZON-CL5-2022-D3-02-06: Direct renewable energy integration into process energy demands of the chemical industry	RIA	3-5	10	2
HORIZON-CL5-2022-D3-02-07: Renewable energy incorporation in agriculture and forestry	IA	7,5	15	2
HORIZON-CL5-2022-D3-02-08: Demonstration of complete value chains for advanced biofuel and non-biological renewable fuel production	IA	10	20	2
Výzva HORIZON-CL5-2022-D3-03 Energy supply pro rok 2022, uzávěrka 10. 1. 2023				
HORIZON-CL5-2022-D3-03-01: Innovative components and/or sub-systems for CSP plants and/or concentrating solar thermal installations	IA	5,5	16,5	3
HORIZON-CL5-2022-D3-03-02: Best international practice for scaling up sustainable biofuels	RIA	3	9	3
HORIZON-CL5-2022-D3-03-03: Efficient and circular artificial photosynthesis	RIA	3-5	10	2
HORIZON-CL5-2022-D3-03-04: Integrated wind farm control	RIA	6	18	3
HORIZON-CL5-2022-D3-03-05: Novel Thin Film (TF) technologies targeting high efficiencies	RIA	5	20	4
HORIZON-CL5-2022-D3-03-06: Efficient and low-emission technologies for industrial use of combustion and gasification systems from low-value biogenic residues and wastes	RIA	3-5	10	2
HORIZON-CL5-2022-D3-03-07: Development of algal and renewable fuels of non-biological origin	RIA	5	15	3
HORIZON-CL5-2022-D3-03-08: Development of digital solutions for existing hydropower operation and maintenance	RIA	3-4,5	9	2
HORIZON-CL5-2022-D3-03-09: Recycling end of life PV module	IA	6-7	20	3

Destination 4 – Efficient, sustainable and inclusive energy use	Nástroj	Příspěvek EU na projekt (mil. €)	Rozpočet tématu (mil. €)	Odhad podpoř. projektů
Výzva HORIZON-CL5-2021-D4-01 Energy use pro rok 2021, uzávěrka 19. 10. 2021				
HORIZON-CL5-2021-D4-01-01: Advanced energy performance assessment and certification	IA	3-5	10	2
HORIZON-CL5-2021-D4-01-02: Industrialisation of deep renovation workflows for energy-efficient buildings	IA	5-8	16	2
HORIZON-CL5-2021-D4-01-03: Advanced data-driven monitoring of building stock energy performance	IA	3-5	10	2
HORIZON-CL5-2021-D4-01-04: Full-scale demonstration of heat upgrade technologies with supply temperature in the range 90 - 160°C	IA	8	16	2
HORIZON-CL5-2021-D4-01-05: Industrial excess (waste) Heat-to-Power conversion based on organic Rankine cycles	IA	10-14	14	1
Výzva HORIZON-CL5-2021-D4-02 Energy use pro rok 2021, uzávěrka 25. 1. 2022	1		1	
HORIZON-CL5-2021-D4-02-01: Demonstrating integrated technology solutions for buildings with performance guarantees (Built4People)	IA	5-7,5	15	2
HORIZON-CL5-2021-D4-02-02: Cost-effective, sustainable multi-functional and/or prefabricated holistic renovation packages, integrating RES and including re-used and recycled materials (Built4People)	IA	9-11	22	2
HORIZON-CL5-2021-D4-02-03: Strengthening European coordination and exchange for innovation uptake towards sustainability, quality, circularity and social inclusion in the built environment as a contribution to the new European Bauhaus (Built4People)	CSA	1	1	1
Výzva HORIZON-CL5-2022-D4-01 Energy use pro rok 2022, uzávěrka 6. 9. 2022				
HORIZON-CL5-2022-D4-01-01: Demand response in energy-efficient residential buildings	IA	4-6	12	2
HORIZON-CL5-2022-D4-01-02: Renewable-intensive, energy positive homes	IA	4-6	12	2
HORIZON-CL5-2022-D4-01-03: Smarter buildings for better energy performance	IA	4-6	12	2

HORIZON-CL5-2022-D4-01-04: Development and pilot demonstration of heat upgrade technologies with supply temperature in the range 150-250°C	RIA	3-5	10	2	
HORIZON-CL5-2022-D3-03-05: Development of high temperature thermal storage for industrial applications	RIA	3-4	8	2	
Výzva HORIZON-CL5-2022-D4-02 Energy use pro rok 2022, uzávěrka 24. 1. 2023					
HORIZON-CL5-2022-D4-02-01: Designs, materials and solutions to improve resilience, preparedness & responsiveness of the built environment for climate adaptation (Built4People)	IA	5-7,5	15	2	
HORIZON-CL5-2022-D4-02-02: Solutions for the sustainable, resilient, inclusive and accessible regeneration of neighbourhoods enabling low carbon footprint lifestyles and businesses (Built4People)	IA	5-7,5	15	2	
HORIZON-CL5-2022-D4-02-03: Sustainable and resource-efficient solutions for an open, accessible, inclusive, resilient and low-emission cultural heritage: prevention, monitoring, management, maintenance, and renovation (Built4People)	RIA	4-5	20	4	
HORIZON-CL5-2022-D4-02-04: Smart-grid ready and smart-network ready buildings, acting as active utility nodes (Built4People)	IA	6-9	18	2	
HORIZON-CL5-2022-D4-02-05: More sustainable buildings with reduced embodied energy / carbon, high life-cycle performance and reduced life-cycle costs (Built4People)	IA	6-9,5	18	2	

De	stination 5 - Clean and competitive solutions for all transport modes	Nástroj	Příspěvek EU na projekt (mil. €)	Rozpoč et tématu (mil. €)	Odhad podpoř. Projektů		
Výzva HORIZON-CL5-2021-D5-01 pro rok 2021, uzávěrka 7.9.2021							
HORIZON-CL5-2021-D5-01-	Nextgen vehicles: Innovative zero emission BEV architectures for regional medium freight		10.00 to				
01	haulage (2ZERO)	IA	15.00	45	3		
HORIZON-CL5-2021-D5-01-	Nextgen EV components: Integration of advanced power electronics and associated controls						
02	(2ZERO)	RIA	4.00 to 6.00	20	4		
HORIZON-CL5-2021-D5-01-	System approach to achieve optimised Smart EV Charging and V2G flexibility in mass-		7.00 to				
03	deployment conditions (2ZERO)	RIA	10.00	25	3		
HORIZON-CL5-2021-D5-01- 04	LCA and design for sustainable circularity - holistic approach for zero-emission mobility solutions and related battery value chain (2ZERO & Batteries Partnership)	CSA	Around 4.00	4	1		

HORIZON-CL5-2021-D5-01-				ĺ	
05	Greenhouse gas aviation emissions reduction technologies towards climate neutrality by 2050	RIA	2.00 to 6.00	25	6
HORIZON-CL5-2021-D5-01-	Next generation digital aircraft transformation in design, manufacturing, integration and				
06	maintenance	RIA	3.00 to 6.00	29	5
HORIZON-CL5-2021-D5-01-	Enabling the safe and efficient on-board storage and integration within ships of large		Around		
07	quantities of ammonia and hydrogen fuels (ZEWT Partnership)	IA	10.00	20	2
HORIZON-CL5-2021-D5-01-	Enabling the full integration of very high power fuel cells in ship design using co-generation		Around		
08	and combined cycle solutions for increased efficiency with multiple fuels (ZEWT Partnership)	RIA	15.00	15	1
HORIZON-CL5-2021-D5-01-					
09	CSA identifying waterborne sustainable fuel deployment scenarios (ZEWT Partnership)	CSA	Around 0.50	0.5	1
HORIZON-CL5-2021-D5-01-					
10	Innovative on-board energy saving solutions (ZEWT Partnership)	RIA	Around 5.00	20	4
HORIZON-CL5-2021-D5-01-					
11	Hyper powered vessel battery charging system (ZEWT Partnership)	IA	Around 7.00	14	2
HORIZON-CL5-2021-D5-01-	Assessing and preventing methane slip from LNG engines in all conditions within both existing				
12	and new vessels (ZEWT Partnership)	IA	Around 7.00	7	1
HORIZON-CL5-2021-D5-01-					
13	Digital Twin models to enable green ship operations (ZEWT Partnership)	RIA	Around 7.00	Ý	1
HORIZON-CL5-2021-D5-01-			Around		
14	Proving the feasibility of a large clean ammonia marine engine (ZEWT Partnership)	IA	10.00	10	1
HORIZON-CL5-2021-D5-01-	Development and demonstration of cost affordable and adaptable retrofit solutions for				
15	tailpipe and brake polluting emissions	IA	4.00 to 5.00	4-5	2
HORIZON-CL5-2021-D5-01-					
16	Assessment of noise and particle emissions of L category vehicles from real driving conditions	RIA	4.00 to 5.00	4-5	1
HORIZON-CL5-2022-D5-01-					
17	Support for dissemination events in the field of Transport Research	CSA	Around 1.50	1.5	1

Vj	ízva HORIZON-CL5-2022-D5-01 pro rok 2022 s uzávěrkou 26.4.2022				
HORIZON-CL5-2022-D5-01- 01	Exploiting electrical energy storage systems and better optimising large battery electric power within fully battery electric and hybrid ships (ZEWT Partnership)	IA	Around 8.00	16	2
HORIZON-CL5-2022-D5-01- 02	Innovative non-battery electric energy storage systems on-board vessels (ZEWT Partnership)	RIA	Around 5.00	15	3
HORIZON-CL5-2022-D5-01- 03	Exploiting renewable energy for shipping, in particular focusing on the potential of wind energy (ZEWT Partnership)	RIA	Around 9.00	18	2
HORIZON-CL5-2022-D5-01- 04	Transformation of the existing fleet towards greener operations through retrofitting (ZEWT Partnership)	IA	Around 5.00	25	4

HORIZON-CL5-2022-D5-01- 05	Seamless safe logistics through an autonomous waterborne freight feeder loop service	RIA	Around 15.00	15	1
HORIZON-CL5-2022-D5-01- 06	Computational tools for shipbuilding	IA	Around 7.00	7	1
HORIZON-CL5-2022-D5-01- 07	Air quality impact of engine-emitted volatile, semi volatile and secondary particles	RIA	2.50 to 3.00	7	3
HORIZON-CL5-2022-D5-01- 08	Modular multi-powertrain zero-emission systems for HDV (BEV and FCEV) for efficient and economic operation (2ZERO)	IA	15.00 to 20.00	58	3
HORIZON-CL5-2022-D5-01- 09	Nextgen EV components: High efficiency and low cost electric motors for circularity and low use of rare resources (2ZERO)	RIA	3.00 to 6.00	20	4
HORIZON-CL5-2022-D5-01- 10	New generation of full electric urban and peri-urban Bus Rapid Transit systems to strengthen climate-friendly mass transport (2ZERO)	IA	20.00 to 25.00	25	1
HORIZON-CL5-2022-D5-01- 11	Stimulating Road Transport research and innovation dissemination and implementation in Europe and around the World	CSA	Around 2.00	2	1
HORIZON-CL5-2022-D5-01- 12	Towards a silent and ultra-low local air pollution aircraft	RIA	2.00 to 5.00	20	5
HORIZON-CL5-2022-D5-01- 13	Digital aviation technologies for new aviation business models, services, emerging global threats and industrial competitiveness	RIA	2.00 to 5.00	20	5
HORIZON-CL5-2022-D5-01- 14	European Aviation Research Policy in support to EU policies and initiatives	RIA	0.50 to 2.50	5	3

Destination 6 -	Safe, Resilient Transport and Smart Mobility services for passengers and goods					
Výzva HORIZON-CL5-2021-D6-01 pro rok 2021 s uzávěrkou 19.10. 2021						
HORIZON-CL5-2021-D6-01- 01	More powerful and reliable on-board perception and decision-making technologies addressing complex environmental conditions	IA	6-8	15	2	
HORIZON-CL5-2021-D6-01- 02	Common approaches for the safety validation of CCAM systems	RIA	12 - 15	15	1	
HORIZON-CL5-2021-D6-01-	Physical and Digital Infrastructure (PDI), connectivity and cooperation enabling and supporting CCAM	IA	7-9	18	2	
HORIZON-CL5-2021-D6-01- 04	Cyber secure and resilient CCAM	RIA	5-6	12	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 (CCAM Partnership)	RIA	3.00 to 4.00	8	2	
HORIZON-CL5-2021-D6-01- 06	Framework for better coordination of large-scale demonstration pilots in Europe and EUwide knowledge base (CCAM Partnership)	RIA	5.00 to 6.00	6	1	

HORIZON-CL5-2021-D6-01-	More efficient and effective multimodal freight transport nodes to increase flexibility, service				
07	visibility and reduce the average cost of freight transport	IA	7.00 to 8.00	15	2
HORIZON-CL5-2021-D6-01-	New delivery methods and business/operating models to green the last mile and optimise				
08	road transport	IA	7.00 to 8.00	15	2
HORIZON-CL5-2021-D6-01-	Climate resilient and environmentally sustainable transport infrastructure, with a focus on				
09	inland waterways	IA	Around 6.00	23	3
HORIZON-CL5-2021-D6-01-	Testing safe lightweight vehicles and improved safe human-technology interaction in the				
10	future traffic systém	RIA	4.00 to 5.00	12	3
HORIZON-CL5-2021-D6-01-					
11	Radical improvement of road safety in low and medium income countries in Africa	RIA	4.00 to 5.00	8	2
HORIZON-CL5-2021-D6-01-					
12	Controlling infection on large passenger ships	RIA	3.00 to 5.00	8	2
HORIZON-CL5-2021-D6-01-					
13	Safe automation and human factors in aviation – intelligent integration and assistance	IA	4.00 to 8.00	12	2

Výzva HORIZON-CL5-2022-D6-01 pro rok 2022, uzávěrka 12.1.2022						
HORIZON-CL5-2022-D6-01-	European demonstrators for integrated shared automated mobility solutions for people and		20.00 to			
01	goods (CCAM Partnership)	IA	23.00	50	2	
HORIZON-CL5-2022-D6-01-	Reliable occupant protection technologies and HMI solutions to ensure the safety of highly					
02	automated vehicles (CCAM Partnership)	RIA	6.00 to 8.00	8	1	
HORIZON-CL5-2022-D6-01-	Human behavioural model to assess the performance of CCAM solutions compared to human					
03	driven vehicles (CCAM Partnership)	RIA	4.00 to 5.00	8	1	
HORIZON-CL5-2022-D6-01-						
04	Integrate CCAM services in fleet and traffic management systems (CCAM Partnership)	IA	4.00 to 5.00	10	2	
HORIZON-CL5-2022-D6-01-	Artificial Intelligence (AI): Explainable and trustworthy concepts, techniques and models for					
05	CCAM (CCAM Partnership)	RIA	5.00 to 6.00	12	2	
HORIZON-CL5-2022-D6-01-	Predictive safety assessment framework and safer urban environment for vulnerable road					
06	users	RIA	Around 4.00	13	3	
HORIZON-CL5-2022-D6-01-						
07	More resilient aircraft and increased survivability	IA	4.00 to 8.00	9	1	
HORIZON-CL5-2022-D6-01-						
08	Safer navigation and tackling containership fires	IA	3.50 to 6.00	12	2	

	Výzva HORIZON-CL5-2022-D6-02 pro rok 2022, uzávěrka 6.9.2022				
HORIZON-CL5-2022-D6-02-	Logistics networks integration and harmonisation through operational connectivity to				
01	optimise freight flows and drive logistics to climate neutrality	IA	7.00 to 8.00	15	2

HORIZON-CL5-2022-D6-02-	Urban logistics and planning: anticipating urban freight generation and demand including				
02	digitalisation of urban freight	IA	7.00 to 8.00	15	2
HORIZON-CL5-2022-D6-02-					
03	Smart enforcement for resilient, sustainable and more efficient transport operations	RIA	Around 4.00	8	2
HORIZON-CL5-2022-D6-02-					
04	Accelerating the deployment of new/shared mobility services for the next decade	IA	8.00 to 10.00	20	2
HORIZON-CL5-2022-D6-02-	Advanced multimodal network and traffic management for seamless door-to-door mobility of				
05	passengers and freight transport	RIA	4.00 to 5.00	15	3
HORIZON-CL5-2022-D6-02-	Smart and efficient ways to construct, maintain and decommission with zero emissions from				
06	transport infrastructure	IA	Around 5.00	10	2
HORIZON-CL5-2022-D6-02-	New concepts and approaches for resilient freight transport and logistics networks against				
07	disruptive events (including pandemics)	RIA	Around 4.00	8	2

CSA – koordinační a podpůrná akce IA – inovační akce RIA – výzkumná a inovační akce

. COFUND – společně financované evropské partnerství

## Kontakt:

Klima: Jana Čejková - <u>cejkova@tc.cz</u>

Energetika: Veronika Korittová – <u>korittova@tc.cz</u>

Mobilita: Martin Škarka - <u>skarka@tc.cz</u>, Michaela Vlkova - <u>vlkovam@tc.cz</u>