

DESTINATION 2 – A COMPETITIVE AND SUSTAINABLE EUROPEAN BATTERY VALUE CHAIN

Call 2024 – Deadline 18.04.2024

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Funding rate
Co-programmed Partnership Batt4EU Towards a competitive European industrial battery value chain			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-CL5-2024-D2-01-01	Advanced sustainable and safe pre-processing technologies for End-of-Life (EoL) battery recycling	RIA TRL 5	8.0	2	100 %
HORIZON-CL5-2024-D2-01-02	Non-Li Sustainable Batteries with European Supply Chains for Stationary Storage	IA TRL 6- 7	7.0	3	60 %* Lump sum
HORIZON-CL5-2024-D2-01-03	Development of technical and business solutions to optimise the circularity, resilience, and sustainability of the European battery value chain	RIA TRL 5	5.0	1	100 %
HORIZON-CL5-2024-D2-01-05	Furthering the development of a materials acceleration platform for sustainable batteries (combining AI, big data, autonomous synthesis robotics, high throughput testing)	RIA TRL 3- 4	20.0	1	100 %

* For non-profit organisations always 100 %

DESTINATION 2 – A COMPETITIVE AND SUSTAINABLE EUROPEAN BATTERY VALUE CHAIN

Call 2024 – Deadline 05.09.2024

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Funding rate
Co-programmed Partnership Batt4EU Towards a competitive European industrial battery value chain			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-CL5-2024-D2-02-01	Sustainable high-throughput production processes for stable lithium metal anodes for next generation batteries	IA TRL 6-7	8.0	1	60 %*
HORIZON-CL5-2024-D2-02-02	Post-Li-ion technologies and relevant manufacturing techniques for mobility applications	RIA TRL 4	5.0	3	100 %
HORIZON-CL5-2024-D2-02-03	Size & weight reduction of cell and packaging of batteries system, integrating lightweight and functional materials, innovative thermal management and safe and sustainable by design approach	IA TRL 6-7	8.0	2	70 %

* For non-profit organisations always 100 %

DESTINATION 2 – AREA: EMERGING BREAKTHROUGH TECHNOLOGIES

Focus:

- › Development of **novel, high-risk/ high-return technologies** to enable a GHG-neutral EU economy
- › **Low TRL, Bottom-Up** approach

Call 2024 – **Deadline 18.04.2024**

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Funding rate
Destination 2: Emerging breakthrough technologies			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
<u>HORIZON-CL5-2024-D2-01-04</u>	Emerging energy technologies for a climate neutral Europe	RIA / 4	1.5 – 2.5	5	100 %

DESTINATION 3 – SUSTAINABLE, SECURE AND COMPETITIVE ENERGY SUPPLY

Call 2024 – **Deadline 25.01.2024**

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Funding rate
Destination 3: Renewable energy technologies			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-CL5-2024-D3-02-01	Digital tools for CSP and solar thermal plants	IA TRL 7-8	3	2	70 % Lump sum
HORIZON-CL5-2024-D3-02-02	Development of next generation synthetic renewable fuel technologies	RIA TRL 3-4	4	3	100 %
HORIZON-CL5-2024-D3-02-03	Development of smart concepts of integrated energy driven bio-refineries for co-production of advanced biofuels, bio-chemicals and biomaterials	RIA TRL 5	3,5	2	100 %
HORIZON-CL5-2024-D3-02-04	Critical technologies for the future ocean energy farms	RIA TRL 5	4	2	100 %
HORIZON-CL5-2024-D3-02-05	PV-integrated electric mobility applications	IA TRL 6-7	7	2	70 %
HORIZON-CL5-2024-D3-02-06	Innovative, Community- Integrated PV systems	IA TRL 6-7	5	2	70 %

Call 2024 – Deadline 25.01.2024

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Funding rate
Destination 3: Renewable energy technologies			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-CL5-2024-D3-02-07	Resource Efficiency of PV in Production, Use and Disposal	CSA TRL 4-5	3	1	100 % Lump sum
HORIZON-CL5-2024-D3-02-08	Minimisation of environmental, and optimisation of socio-economic impacts in the deployment, operation and decommissioning of offshore wind farms	RIA TRL 5	5	2	100 % Lump sum
HORIZON-CL5-2024-D3-02-09	Demonstrations of innovative floating wind concepts	IA TRL 7-8	15	2	70 %
HORIZON-CL5-2024-D3-02-10	Market Uptake Measures of renewable energy systems	CSA	2	4	100 % Lump sum

Call 2024 – Deadline 25.01.2024

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Funding rate
Destination 3: Carbon Capture, Utilization and Storage (CCUS)			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-CL5-2024-D3-02-11	CCU for the production of fuels	IA TRL 6-7	7	2	70 % Lump sum
HORIZON-CL5-2024-D3-02-12	DACCS and BECCS for CO2 removal/negative emissions	IA TRL 6-7	5-7	3	70 % Lump sum

CLEAN HYDROGEN PARTNERSHIP

Annual Workprogramm (Horizon Europe Regulations)



Call 2024 – **Deadline 17.04.2024**

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Specific conditions
Renewable Hydrogen Production			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-JTI-CLEANH2-2024-01-01	Innovative proton conducting ceramic electrolysis cells and stacks for intermediate temperature hydrogen production	RIA TRL 4	3	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-01-02	Advanced anion exchange membrane electrolyzers for low-cost hydrogen production for high power range applications	RIA TRL 5	4	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-01-03	Development of innovative technologies for direct seawater electrolysis	RIA TRL 4	4	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-01-04	Development and implementation of online monitoring and diagnostic tools for electrolyzers	RIA TRL 6	4	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-01-05	Hydrogen production and integration in energy-intensive or specialty chemical industries in a circular approach to maximise total process efficiency and substance utilisation	IA TRL 7	10	1	Lump sum; max. contribution; at least one member of HE or HER

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Call 2024 – **Deadline 17.04.2024**

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Specific conditions
Hydrogen Storage and Distribution			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-JTI-CLEANH2-2024-02-01	Investigation of microbial interaction for underground hydrogen porous media storage	RIA TRL 4	3	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-02-02	Novel large-scale aboveground storage solutions for demand-optimised supply of hydrogen	RIA TRL 5	4	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-02-03	Demonstration of hydrogen purification and separation systems for hydrogen-containing streams in industrial applications	IA TRL 7	6	1	Lump sum; max. contribution; at least one member of HE or HER
HORIZON-JTI-CLEANH2-2024-02-04	Demonstration of innovative solutions for high-capacity, reliable, flexible, and sustainable hydrogen compression technologies in commercial applications	IA TRL 8	6	1	
HORIZON-JTI-CLEANH2-2024-02-05	Demonstration and deployment of multi-purpose Hydrogen Refuelling Stations combining road and airport, railway, and/or harbour applications	IA TRL 7	8	1	

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Call 2024 – **Deadline 17.04.2024**

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Specific conditions
H₂ End Uses: Transport applications			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-JTI-CLEANH2-2024-03-01	BoP components, architectures and operation strategies for improved PEMFC system efficiency and lifetime	RIA TRL 5	4	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-03-02	Scaling-up Balance of Plant components for efficient high power heavy duty applications	RIA TRL 5	4	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-03-03	Next generation on-board storage solutions for hydrogen-powered maritime applications	RIA TRL 6	5	1	Lump sum; 100 %
HORIZON-JTI-CLEANH2-2024-03-04	Demonstration of hydrogen fuel cell-powered inland or short sea shipping	IA TRL 7	6	1	Lump sum; max. contribution; at least one member of HE or HER

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Call 2024 – **Deadline 17.04.2024**

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Specific conditions
H₂ End Uses: Clean Heat & Power			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-JTI-CLEANH2-2024-04-01	Portable fuel cells for backup power during natural disasters to power critical infrastructures	IA TRL 7	5	1	Lump sum; max. contribution; at least one member of HE or HER
HORIZON-JTI-CLEANH2-2024-04-02	Improved characterisation, prediction and optimisation of flame stabilisation in high-pressure premixed hydrogen combustion at gas-turbine conditions	RIA TRL 5	4	1	Lump sum; 100 %

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Call 2024 – **Deadline 17.04.2024**

Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Specific conditions
Cross-Cutting Issues			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-JTI-CLEANH2-2024-05-01	Guidelines for sustainable-by-design systems across the hydrogen value chain	CSA	1,5	1	Lump sum
HORIZON-JTI-CLEANH2-2024-05-02	Development of non-fluorinated components for fuel cells and electrolyzers	RIA TRL 4	3	1	Lump sum; 100 %

CLEAN HYDROGEN PARTNERSHIP

Call 2024 – Deadline 17.04.2024



Topic Code	Topic Title	ToA/ TRL	Budget/ Grant	Grants	Specific conditions
Hydrogen Valleys			(proposed by EU- COM)	(planned)	(non-profit legal entities 100 %)
HORIZON-JTI-CLEANH2-2024-06-01	Large-scale Hydrogen Valley	IA TRL 8	20	1	Lump sum; max. contribution / at least one member of HE or HER; international collaboration encouraged
HORIZON-JTI-CLEANH2-2023-06-02	Small-scale Hydrogen Valley	IA TRL 8	9	1	

Flagship Projects:

- Demonstration projects that are expected to have a significant impact on accelerating the transition to a hydrogen economy
- If successful, enter the commercialisation phase and can be replicated on a large scale (or commercial basis). Specific characteristics e.g. high overall budget to achieve volume and scale and therefore limited funding and high co-financing required → Synergies with other funding and financing sources

EFFICIENT, SUSTAINABLE AND INCLUSIVE ENERGY USE CALL 2024-D4-01- DEADLINE 18.04.2024

Topic Code	Topic Title	ToA	TRL	Approx. Budget/ Grant (Mio. €)	Expected Grants	Funding Rate /Model
HORIZON-CL5-2024-D4-01-01	Low-disruptive renovation processes using integration of prefabricated solutions for energy-efficient buildings	IA	6-8	5.0	2	
HORIZON-CL5-2024-D4-01-02	Smart grid-ready buildings	IA	6-8	5.0	2	
HORIZON-CL5-2024-D4-01-03	Alternative heating systems for efficient, flexible and electrified heat generation in industry	IA	6-7	5,3	3	Lump sum

EFFICIENT, SUSTAINABLE AND INCLUSIVE ENERGY USE CALL 2024-D4-02- DEADLINE 21.01.2025

Topic Code	Topic Title	ToA	TRL	~Budget/Grant (Mio. €)	~Grants	Funding
HORIZON-CL5-2024-D4-02-01	Industrialisation of sustainable and circular deep renovation workflows (B4P)	IA	6-8	8.0	2	Lump Sum
HORIZON-CL5-2024-D4-02-02	Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment workflows (B4P)	RIA	4-5	4.0	2	
HORIZON-CL5-2024-D4-02-03	BIM-based processes and digital twins for facilitating and optimising circular energy renovation (B4P)	IA	6-8	4.0	2	60% Lump Sum
HORIZON-CL5-2024-D4-02-04	Design for adaptability, re-use and deconstruction of buildings, in line with the principles of circular economy (B4P)	RIA	5-6	4.0	2	
HORIZON-CL5-2024-D4-02-05	Digital solutions to foster participative design, planning and management of buildings, neighbourhoods and urban districts (B4P)	IA	6-8	5.0	2	Lump Sum