

Welcome to the CETPartnership

Joint Call 2025 Launch Event

28 May 2025



Practicalities

- The meeting will be recorded and the recording will be published for future watching
- Online data declaration: Please be aware that your name will be displayed in the list of participants as well as in the chat window

- Please ask technical questions in the chat only
- Questions about the call are asked via Slido and are answered at the end of the info session





Join Slido to ask questions!



Join via the QR code or via slido.com and #2042146

https://app.sli.do/event/gXvUwdJytS 7MkcWYDTTZtN



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28.05.12 / **PAGE 3**

Today's agenda!

10:00 Welcome & overview of CETPartnership

10:15 Finding cooperation partners with the *Enterprise Europe Network*

10:25 Information on the Joint Call 2025

- Introduction of the procedures of the Joint Call 2025
- Evaluation criteria and eligibility
- Call Callender

10:30 Knowledge Community | Impact & Exploitation

- **10:45** Call Modules Joint Call 2025
- **11:00** *Five minute Coffee break*

28.05.2025 / **PAGE 4**



11:05 Continuation Call Modules Joint Call 2025

- **11:30** Navigating submission platform
- **11:45** General Q&A session
- **12:05** Closing Remarks



The CETPartnership



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Why CETPartnership **Matters**

Accelerating Clean Global Energy Transition

- Achieving climate neutrality by 2050 demands urgent and coordinated innovation
- The energy research and innovation landscape has been fragmented and uncoordinated
- CETPartnership creates a joint platform for collaboration across countries, sectors and disciplines to address these challenges



What is CETPartnership?

A Transnational Research and Innovation Partnership for Clean Energy Transition that:

- Funds transnational projects supporting development and implementation of clean energy solutions
- Is co-financed by the EU and more than 30 countries
- Supports both technological breakthroughs and system integration





What does TRI stand for?



A collaborative effort to drive clean energy transition across Europe and beyond







Some facts about us

CETPartnership mobilises over €1 billion overall for research, development and innovation projects for clean energy transition.

- Total annual budget: Over €100 million from over 40 funding organisations and with co-funding from the EU.
- Total funding for the 2022–2027 period: Over €700 million, over the course of the 6-year program including EU-funding.
- 30+ countries involved. Includes EU member states, associated countries, and global partners from both Asia and North America.





Global Interests

The following countries have been involved in the partnership in different ways since 2022

Austria	Belgium	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany
Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Malta	Netherlands	Poland	Portugal
Romania	Spain	Sweden	◀ 23	3 EU count	ries 14 No	on-EU-count	tries▼ B	razil Can	ada Fiji
Iceland	(®) India	k Israel	₩ Morocco	Norway	South Korea	Switzer- land	Image: Constraint of the second sec	* rkey Un King	ted dom





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Consortium building









Finding cooperation partners with the Enterprise Europe Network



Astrid Flandorfer

Austrian Research Promotion Agency (FFG)





The world's largest support Network for innovative SMEs with international ambitions



The Network in figures



www.enterpriseeuropenetwork.at een.ec.europa.eu

Co-financed by

EU (Single Market Programme)





The Network approach

How we help SMEs





SMEs from all Industrial Ecosystems

Horizontal themes:

Sustainability, Circular Economy, Digitalisation, Materials, Chemistry....



6 steps to the right cooperation partner with the support of the Enterprise Europe Network

1. STEP

Finding your regional contact point

AT: <u>https://www.enterpriseeuropenetwork.at/kontakt-2</u>

ALL contact points: <u>https://een.ec.europa.eu/local-contact-points</u>



4. STEP

Selection

You check the EOIs and select those potential cooperation partners you would like to get in contact with.

6. STEP

Discussion of project content

After discussing with potential project partners you chose the one(s) you would like to cooperate with.



5. STEP

Establishing contact
 Your EEN advisor will establish the contact(s)

START OF COOPERATION

Joint proposal submission

Together with your new cooperation partner you develop the project proposal and submit it





Or the other way 'round:

1. Search

Search in EEN database

for technology/expertise needed in your planned project

https://een.ec.europa. eu/partneringopportunities

2. Eol

Submit Expression of Interest

- you've found one or more interesting profiles
- you contact your
 EEN local contact
 point
- they submit EOI for you via database

3. Contact

Contact established by EEN

- EEN local contact point of profile owner forwards Eol to them.
- Profile owner is interested to getting in contact.
- EEN local contact point establishes contact between the 2 parties

Proposal

Start of cooperation

- Both companies start discussions about project content.
- Local contact points not involved in discussions but are happy to help if needed.
- Joint proposal submission

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Thank you

Follow us @EEN_EU



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Information about the Joint Call 2025



Joint Call 2025

The Call consists of Call Modules, addressing different energy technology and system challenges as well as different RDI approaches.

All participating Funding Organisations decide which Call Modules they will commit their budgets to.

NOT all Funding Organisations participate in all Call Modules, see <u>participation overview</u>.

Funding Organisations will fund eligible costs directly to Beneficiary Partners based in their country/region.





General Call process



28.05.2025 / PAGE 24

Two stage procedure

- ✓ Submission of a pre-proposal followed by an invitation to submit a full proposal
- ✓ Eligibility checks according to both transnational, Call Module, and national/regional requirements in both stages
- ✓ Evaluation according to the three main evaluation criteria by independent evaluators in a panel (thresholds: 3 for all of the three main evaluation criteria and 10 for the total score)
- ✓ Ranking per Call module
- \checkmark Selection according to the available funding



Pre-proposal



Submission

- ✓ Choose <u>one</u> Call Module per proposal
- ✓ Coordinator invite Project Consortium Partners through the submission platform
- \checkmark PIC and NACE codes needed for all organisations





Pre-proposal stage

✓ "Light" version of the project proposal

- ✓ 10 pages project description
- ✓ Mandatory template available on our submission platform
- ✓ Consortium partners' organisation data
- ✓ Team members info
- ✓ Partner budgets (including self-financed)



Submission deadline 9 October 2025, 14:00 CET





Full-proposal stage

If successful, the Coordinator will receive an **invitation to submit a full proposal**

- ✓ 30 pages project description
- ✓ May not differ substantially from the pre-proposal
- ✓ Additional sub-criteria compared to pre-proposal, all included in mandatory template
- ✓ Changes must be confirmed by involved Project Partners and relevant Funding Partner(s)
- ✓ See 5.2.1 of the call text for the procedure of changes in-between stages



Pre-proposal Submission deadline 9 October 2025, 14:00 CET





Eligiblity check

Transnational requirements

Call Module requirements

National/regional requirements and guidelines



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28.05.2025 / PAGE 29

Requirements and guidelines

- ✓ Proposal submission
- ✓ Project Consortium Partners
- ✓ Project duration
- ✓ Project budget & funding request
- ✓ Research, development and innovation (RDI) approaches
 - / Technology Readiness Levels (TRLs)



Transnational requirements

- A proposal must be written in English and submitted on the CETPartnership Submission Platform before the deadlines, following mandatory proposal templates.
- ✓ A Project Consortium must consist of a minimum of three Beneficiary Partners (including one Coordinator) adhering to relevant national/regional requirements and guidelines, from a minimum of three different countries participating in the chosen Call Module. Of these three Beneficiary Partners, at least two must be from EU Member States or HE Associated Countries.





Transnational requirements (cont.)

- ✓ The total effort of one Project Consortium Partner in the Project Consortium can be maximum 60% of the total project efforts (measured in person-months)
- ✓ The total effort of Project Consortium Partners from one country/region in the Project Consortium can be maximum 75% of the total project efforts (measured in person-months)
- ✓ A project must end in 36 months from the start of the project
- ✓ A proposal must include a work package called Reporting and Knowledge Community in their work plan



Call Module requirements

✓ Specific Call Module requirements may apply

- ✓ See table for each Call Module in **Chapter 7**
- ✓ Check carefully, with relevant contacts if necessary





National/regional requirements by Funding Organisations

✓ Specific national/regional requirements may apply

✓ See Annex B for relevant Funding Organisations

✓ Check carefully, with relevant contacts if necessary

✓ Funding commitment process is still ongoing



Call timeline

Stage 1	Opening for pre-proposal submission	11 June 2025
	Deadline for pre-proposal submission	9 October 2025, 14:00 CEST
	Selection decision communicated	
Stage 2	Opening for full-proposal submission	9 January 2026
	Deadline for full-proposal submission	12 March 2026, 14:00 CET
	Selection decision communicated	Mid-June 2026
Project	Start	1 September – 15 December 2026
Project	Start	1 September – 15 December 2026

Funding Organisations may require additional submission, see Annex B



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Networks within the CETPartnership

Knowledge Community Andreas Corusa









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CET Partnership – more than just a set of funded projects



Andreas Corusa Knowledge Community Management knowledgecommunity@cetpartenrship.eu





28.05.2025 / **PAGE 38**



Knowledge Community: What we offer

- Collaborative space for groups of projects
- Peer-to-peer feedback and co-creation of knowledge
- Collaboration on a wide variety of topics
- Strategic knowledge sharing for impact generation
- Community of trust and respect





Example: Past and future events from our website

NIM Industry Insights Series – Carbon Shift: Redefining Industry Through CCUS

international	own event

Online

21/05/2025 - 11:00

21/05/2025 - 13:15

NIM Industry Insights Series – Carbon Shift: Redefining Industry Through CCUS

international own event

Online 21/05/2025 - 11:00 21/05/2025 - 13:15

Expanding Horizons in the Hydrogen Economy - Part II: Market Shaping Roundtable

event by others

EU Hydrogen Week, Brussels

21/11/2024 - 09:00 21/11/2024 - 13:00

Knowledge Sharing Workshop - CETP TRI 1 + 6 Flexibility in Industry

CETPartnership Event- and Matchmaking platform!

06/11/2024 - 09:00

Grand Challenges in Wind Renewable Energy: from technology and sustainability to social acceptance and economics

Online 04/12/2024 - 15:30 04/12/2024 - 18:00

SET-Plan Conference - Side event

Apáczai Csere János street 9, Budapest Hungary 13/11/2024 - 14:00 13/11/2024 - 16:00

Boost your impact Part 4: Key Exploitable Results

CETPartnership Event- and Matchmaking platform

04/11/2024 - 13:30 04/11/2024 - 15:00



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Example: Working Group Meeting on Social Acceptance and Stakeholder Engagement



28.05.2025 / PAGE 41

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Knowledge Community: the benefits for you

- Peer-to-peer feedback from like-minded projects
- Interaction among CETP projects and projects in other programs
- Effective co-creation of knowledge in (cross-cutting) thematic Working Groups
- Ideas and partners for future calls





CETPartnership Impact & Exploitation



Tanja Suni Impact and Exploitation https://cetpartnership.eu/about/impact-exploitation



Impact & Exploitation: the benefits for you

- Achieving your impact goals through tailored exploitation strategies and expanding networks via match-making events.
- **Guidance on market readiness** and ensuring societal acceptance for sustainable innovations.
- Advancing research maturity to secure future funding and commercial success.





Exploitation pathway I – from discovery to impact

For projects focussed on knowledge valorization.







Exploitation pathway II

- from lab to market

For projects aiming at commercialization.





CETP Impact Support Video Guide



28.05.2025 / PAGE 47

Recorded training webinars

Impact, Key Exploitable Results, End users, Societal readiness, Commercialization

CETP Boost your Impact webinars

Tanja Suni - 1/5

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CETP Impact Support Video Guide

CETPartnership European Partners...

Boost Your Impact Key Exploitable Results 20241104... CETPartnership European Partners...





CETPartnership European Partners...



Validation with Living Labs Webinar II

CETPartnership European Partners...



Validation with Living Labs Webinar

CETPartnership European Partners...



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Your CETP Exploitation Plan – When Impact Is the Goal

– Not just tech, but **real-world use**

- Is it **needed**, **accepted**, and **deployable**?
- A strong plan = **better proposal**

Key Element	What to Cover
KERs	Key results & who needs them
Readiness	TRL, SRL, MCRL: current vs. target levels
Stakeholders	Use Penta Helix: industry, gov, civil society, funders, research
Strategy	Exploitation paths, roles, partnerships
Barriers & Ethics	Regulation, value chains, acceptability, legal/environmental issues



CETP Tools to Help You Succeed

- Exploitation Guide with readiness scales (market, commercial, societal)
- Impact Network & Library: stakeholders, impact & exploitation methodologies
- Recorded Training Webinars on validation, impact, exploitation & commercialisation
- Pitching & Matchmaking events to build your exploitation team early





Slido question

What are your project's main impact goals for instance, advancing validation, finding partners and investment for demonstration, commercialization, influencing policy, or achieving societal acceptance



and what do you see as the biggest challenges in achieving them? Join via the QR code or via slido.com and #2042146





Find the support at

https://cetpartnership.eu/about/impact-exploitation



Call modules 2025







Call Module 01: Multi-vector interactions between the integrated energy system and industrial frameworks

Call Module 02: Energy system flexibility: renewables production, storage and system integration



Call Module 03 A & B: Advanced renewable energy (RE) technologies for power production



Call Module 04: Carbon capture, utilisation and storage (CCUS)



Call Module 05: Hydrogen and renewable fuels



Call Module 06: Heating and cooling technologies



Call Module 07: Integrated regional energy systems



Call Module 08: **Integrated industrial** energy systems



Call Module 09: **Clean energy integration** in the built environment



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Call Module 1: Multi-vector interactions between the integrated energy system and industrial frameworks



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Joint Call 2025 – Call Module 1



Multi-vector interactions between the integrated energy system and industrial frameworks

Call Module 1, prepared by TRI 1 and TRI 6, aims to contribute to the interactions and **synergies among the clean energy system and industries**, adopting a **multi-vector approach** (electricity, gas, heat, fuels, etc.) and fostering **flexible interactions** between industrial plants and the energy system.



Why this Call Module

Solutions are required to enable coupling of industry sectors and energy systems, adopting technologies fostering flexibility throughout their processes and leveraging the potential related to different vectors.

Examples of multi-vector interactions

- Flexibility from industry for power system balancing (e.g. ancillary services, vRES, CHP, efficiency, load shedding, peak shaving, load shifting, production schedule shifting, Direct Current industrial networks, flexible industrial production processes)
- Energy storage all types and durations
- Interaction with heat (e.g. waste heat and heat storage)
- Interaction with gas (e.g. biogas, biofuels, hydrogen and e-fuels)
- Interaction with water (e.g. electrolysis with fresh or treated water)



Joint Call 2025 – Call Module 1 Multi-vector interactions between the integrated energy system and industrial frameworks

This Call Modules adopts the energy system viewpoint and is meant for proposals

- assessing flexibility resources available from the industry and flexibility needs from the energy system viewpoint, leveraging the interaction of industrial systems with the renewable-based clean energy system looking at a multi-vector approach
- modelling, planning and optimising the multi-vector interactions between industrial sectors and the energy system (e.g. investigations and simulations of the dynamics of these interactions; development, testing and validation of reliable interfaces), also including environmental and economic aspects (e.g. analyses of sustainability and environmental impacts of these interactions and market-related aspects)



NICE-TO-HAVE

MANDATORILY

REQUIRED

assessing the societal implications of the new energy-industry synergies enabled by project outcomes





Joint Call 2025 – Call Module 1

Multi-vector interactions between the integrated energy system and industrial frameworks

Expected outcomes

- **tools** (e.g. for integrated and multi-vector planning under high uncertainty conditions using stochastic and risk-management integrated planning)
- **methods** (e.g. using advanced computational technologies and AI to address holistically the energy system with multi-vector integration and implications related to environment and energy and flexibility markets)
- **solutions** (e.g. advanced multi-vector interface systems, working on existing infrastructures control and measurement tools, or on test facilities Hardware-in-the-Loop, considering standard architectures, interoperability and cybersecurity by design)





Joint Call 2025 – Call Module 1

Multi-vector interactions between the integrated energy system and industrial frameworks

Consortium

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<u>For a proposal targeting a lower final TRL</u> or including tools and methods for modelling and planning, **the involvement of need-owners in an advisory or steering board is recommended**. <u>For a proposal targeting a higher TRL</u> or including validation, **involvement of need owner(s) as Project Consortium Partner(s) is mandatory**.





In case of modelling and planning activities, the definition of TRL is hardly applicable. However, the Key Exploitable Results (**KERs**) of the projects shall consist of tools (e.g. models, software, APIs, etc.) developed in open access platforms and developed according to quality standards, characterised by results traceability and system maintainability.

In case of validation and application activities (advanced laboratory activities):

- Project start: TRL 3 or higher
- Project end: TRL increase of at least 2 from project start



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28.05.2025 / PAGE 64

In the range of EUR 2–3 million, including any self-financing.



Call Module 2: Energy system flexbility: renewables production, storage and system integration



Franceso Basile, Ministry of University and Research (MUR), IT TRI2@cetpartnership.eu



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MISSION INNOVATION CALL MODULE: CM2025-02 Energy system flexibility: renewables production, storage and system integration

TRI 1 and TRI 2 have a structured cooperation with the Green Powered Future Mission (GPFM) of Mission Innovation.

• The 2024 Call Module focused on the following 14 Innovation Priorities of GPFM, aligned with CETP SRIA.



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MISSION INNOVATION CALL MODULE: CM2025-02 Energy system flexibility: renewables production, storage and system



integration



5 R&I challenges

- 1. Large-scale renewable generation and system stability and reliability
- 2. Energy storage technologies and systems for flexibility services
- 3. System stability and flexible operations
- 4. Innovative flexibility sources and demand side for flexibility markets
- System digitalization and related tools & technologies, including AI and digital twin

28.05.2025 / PAGE 69

14 Innovation Priorities

- 1. Large-scale renewable energy generation for improving system reliability & stability
- 2. Variable renewable energy **flexibility provision** & contribution to generation capacity
- 3. Innovation in **energy storage technologies**
- 4. Utility scale storage systems for innovative flexibility services
- 5. System stability assessment considering high VRE penetration
- 6. Enhanced TSO-DSO coordination platform for flexibility markets optimisation
- 7. Flexibility markets for innovative ancillary services by VRE and storage
- 8. Unlocking commercial and residential buildings flexibility potential
- 9. Connected data platforms for enhanced forecasting and flexible operation
- 10. Standardisation of devices and control platforms
- 11. Identify priority dataset for system security
- 12. Grid-supporting technologies from inverter-based resources
- 13. Tools and solution for **DSO flexibility** management
- 14. Demand response, EV services and grid impact assessment





- Additional provisions

EXPECTED IMPACT

- preservation of power system stability and reliability also in presence of large-scale renewable generation
- provision of flexibility services through energy storage technologies
- enhanced system stability and efficiency, also through digitalisation and AI applications
- development of flexibility markets through demand side applications and use of innovative flexibility sources

TARGETED TRL

Project start: TRL 3 or higher Project end: TRL increase of 1–2 from project start

PROJECT SIZE

CM2025-02: in the range of (but not limited to) €1–2 million total project cost including self-financing

28.05.2025 / **PAGE 71**





Call Module 3: Advanced renewable energy (RE) technologies for power production



Franceso Basile, Ministry of University and Research (MUR), IT TRI2@cetpartnership.eu



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Challenges

CALL MODULE: Advanced RE technologies for power production (ROA/IOA)

- Advancing technologies and improving performance: Improving the efficiency and performance of renewable technologies through innovative/improved components, materials and technologies.
- Next generation RES: innovative approaches to increase efficiency, sustainability and circularity of RE technologies, reducing environmental impacts of large installations.
- **Improving operational efficiency:** advanced monitoring and predictive analytics for renewable energy assets to prevent system failures and maximize energy generation.
- Integration and hybridization of different RES and/or storage technologies on the same site/point of connection to the grid; Production of power along with other energy carriers.
- **Digitalization and digital twins:** Design and develop digital twins for renewable energy technologies; leverage the potential of digital technologies to improve efficiency and reduce operational cost.



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CM2025-03 A/B : Advanced RE technologies for power production (ROA/IOA)

Topics

CONCENTRATED SOLAR POWER (CSP) / SOLAR THERMAL ENERGY (STE)

- Line-focus technology: Components; process innovation and cost optimisation for molten salts systems; solar collector fields with environmentally friendly heat transfer fluids (HTF).
- Central Receiver technology: Innovative concepts, materials and components for molten salt technology.
- Next generation of thermal energy storage (TES) technologies for CSP: Heat transfer media for high-temperature thermal storage systems; Environmentally friendly PFAS-free heat transfer fluids (HTF).
- **Digitalisation of CSP plants** for flexibility, monitoring, operation maintenance and control.
- **Coating materials:** Innovative coatings for mirrors and absorbers; quality characterisation and standardisation of reflectors (soiling and degradation).
- Integration of advanced meteorological data and forecasts: Meteorological information for yield determination, optimization and standardization of CSP and hybrid plants (PV+CSP; STE+PV).



CM2025-03 A/B : Advanced RE technologies for power production (ROA/IOA) **Topics SOLAR PHOTOVOLTAICS Performance enhancement** of innovative PV modules (Perovskite, Thin-film nonperovskite, Tandem-PV); Advanced low-cost high-quality Si technologies. CROSS-CUTTING **Sustainability and circularity:** low environmental impact materials, processes, products; **OFFSHORE RE** optimised resource use of silicon PV modules, reductions of critical raw materials, lifetime **TECHNOLOGIES** and. • GEOTHERMAL **Installation and operations:** Mounting structures for large PV modules; Control strategies for trackers for complex terrain PV plants sites or bifacial technologies; Lower-cost tracking OCEAN ENERGY systems. • SOLAR PV **Energy Yield improvement**: integration of sensors; shade-tolerant PV modules for dynamic changing illumination conditions, etc. • WIND **Digitalisation for O&M:** digital technologies to increase energy yield and reduce the cost HYBRIDISATION of O&M; Advanced data analytics; digital twin of assets and components; predictive **INTEGRATION** and maintenance STORAGE **Innovative applications:** innovative solutions for agrivoltaics and landscape integration; floating PV 28.05.2025 / PAGE 78 Co-funded by the European Union

CM2025-03 A/B : Advanced RE technologies for power production (ROA/IOA) Topics CROSS-CUTTING OFFSHORE RENEWABLES TECHNOLOGIES (OCEAN/MARINE, FLOATING WIND/PV, ETC.) **Critical technologies for arrays:** Intra-array cabling, subsea hubs or other subsea electrical CROSS-CUTTING solutions applicable to multiple types of devices; High safety cable design with weak links / **OFFSHORE RE** additional safety mechanisms. **TECHNOLOGIES** • Materials for moorings, foundations and components with improved fatigue-resistance, • GEOTHERMAL damping, stiffness, bio-fouling management or other cost-reducing characteristics. **Mooring and foundations:** Advanced mooring and connection systems for floating OCEAN ENERGY ocean/offshore energy; foundations for bottom-fixed devices integrating biodiversity and • SOLAR PV sustainability; reduced impact on wildlife/nature. • **Connections and cabling systems:** reduce the cost of connection and cabling systems, • WIND maintenance; dynamic cable repair solutions; Integrated station keeping (mooring) and • HYBRIDISATION power connection solutions. **INTEGRATION** and **Connections and cabling systems:** reduce the cost of connection and cabling systems, STORAGE maintenance; dynamic cable repair solutions; Integrated station keeping (mooring) and power connection solutions. 28.05.2025 / PAGE 80 Co-funded by

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CM2025-03 A/B : Advanced RE technologies for power production (ROA/IOA) **Topics GEOTHERMAL ENERGY FOR POWER APPLICATIONS Resource assessment:** high performance computing techniques and robotisation to enhance resource assessment and development, lower LCOE for operations, promote CROSS-CUTTING safe and sustainable deployment of geothermal energy for power generation. OFFSHORE RE **TECHNOLOGIES** • Sustainable and efficient production technologies: Enhancement of the performance of power plants through the optimisation of the processes and application of • GEOTHERMAL innovative environmentally friendly solutions and materials to increase reliability, OCEAN ENERGY availability, and grid-balancing flexibility of the geothermal power systems. New tools and approaches for the industrialisation and standardisation of a "common • SOLAR PV geothermal project" (for power applications) which fits the social and environmental • WIND frame and supports the optimal decision-making process for techno-economic performance evaluation of projects. HYBRIDISATION **INTEGRATION** and STORAGE



CM2025-03 A/B : Advanced RE technologies for power production (ROA/IOA) **Additional provisions TARGETED TRL** CM2025-A (ROA): TRL 3–5 (Project start: min. TRL 3 - Project end: TRL 4 or higher) CM2025-B (IOA): TRL 5–7 (Project start: min. TRL 5 - Project end: TRL 6 or higher) CROSS-CUTTING **OFFSHORE RE TECHNOLOGIES PROJECT SIZE** • GEOTHERMAL CM2025-A (ROA): in the range of (but not limited to) $\leq 1-2,5$ million total project cost including self-financing OCEAN ENERGY CM2025-B (IOA): in the range of (but not limited to) $\leq 2.5-5$ million total project cost • SOLAR PV including self-financing • WIND **SPECIFIC REQUIREMENTS** HYBRIDISATION CM2025-B (IOA): Projects applying as IOA shall comprise at least one industry partner **INTEGRATION** and / private for-profit company. STORAGE 28.05.2025 / PAGE 86 Co-funded by the European Union


Call Module 4: Carbon capture, utilisation and storage (CCUS)



Aage Stangeland, The Research Council of Norway, NOR TRI3@cetpartnership.eu



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Carbon capture, utilisation, and storage (CCUS)

- Funding available for research and innovation projects focused on accelerating CCUS technology development.
- Projects expected to make significant CO₂ emissions reductions by deployment of CCUS in the 2030ies
- Projects must end at TRL5 or higher
- Proposals must include industrial involvement in the project
- Funding request may be in the range of (but not limited to) EUR 1–3 million, in addition to any self-financing.



Targeted topics

- CO₂ capture from the energy sector and energy intensive or heavy industry sectors
- Advancing lower cost CO₂ capture technologies
- CO₂ transport and storage infrastructure
- Developing commercial CO₂ storage sites
- Enabling CO₂ utilisation technologies (CCU)
- Improvement of the cost-efficiency and energy-efficiency along CCUS value chains
- Bring CO₂Direct Removal (CDR) technologies closer to the market
- Cross cutting dimensions: regulations, market design, circularity, digitalisation, environmental sustainability, social awareness, etc
- Read the Call Module text for more details



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Call Module 5: Hydrogen and renewable fuels



Isabel Cabrita, Portugal Science and Technology Foundation, PT TRI3@cetpartnership.eu



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Funding RD&I on H2 & Renewable Fuels

- Projects are expected to contribute to accelerate fossil fuels' substitution and support the policy package "EU Fit for 55"
- Proposals must be technologically focused
- Projects must end at TRL 5 or higher
- Activities at lower TRL may be included if they contribute to the higher TRL goal of the overall project
- Proposals must include industrial involvement, either as consortium partners or in a steering committee
- Funding request may be in the range of (but not limited to) M€1-3, in addition to any self-financing
- Applications must also meet national eligibility criteria



Targeted Topics

Projects are expected to contribute to new knowledge and new competences to increase technological cost-effective and cleaner solutions that provide alternative fuels to substitute fossil fuels.

- New and improved renewable fuels (incl. Hydrogen) production processes
- Reliable and low-cost production technologies of new and advanced fuels
- Secure and safe fuels' storage, including using solid and liquid carriers for hydrogen
- New and adapted infrastructures for hydrogen and new fuels distribution
- New and adapted end-use technologies in residential, industrial and mobility sectors
- Proposals must clearly describe the disruptive nature or the innovative aspect of technological concept



28.05.2025 / PAGE 94

Cross-cutting dimensions

- Projects are required to consider one or more of cross-cutting dimensions
- Consumer attitudes, risk perception and the levers which could influence consumer behaviour
- Life cycle, techno-economic and environmental impact analyses, including mass, water, land and energy consumptions aspects
- Barriers, opportunities, and solutions to scaling up
- System analysis and integration of processes in the energy system, continuity/intermittence
- Infrastructure and distribution aspects, including pipeline reuse and cost competitive materials for pipelines
- Digitalisation as part of the project



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Call Module 6: Heating and cooling technologies



Gerdi Breembroek, Netherlands Enterprise Agency (RVO), NL TRI4@cetpartnership.eu



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Background and challenge

- Heat is half of the European energy demand
- 2023: ~ 45% of electricity from RES, ~ 25% of heat is from RES
- The heating and cooling transition is lagging behind in Europe
- We need improved heating and cooling technologies
- ... more robust, affordable, efficient, easier to install and retrofit...
- ... can be integrated into the energy system easier than today's products and concepts
- For buildings, agricultural and industrial users
- Open for R&D, pilots and demonstration projects



Scope

Cet



What do we need? What do we offer?

- Demonstrate your market-relevance and impact
- <u>Proof of concept</u> before the start (TRL \geq 3) mandatory
- At least <u>one company</u> as a project consortium partner
- And your work should agree with the rules of your relevant funding organizations
- Interested? Join the Webinar 18 June 11.00 CEST on this Call module
- Questions? Send an E-mail to <u>tri4@cetpartnership.eu</u>. Or your relevant funding organization





Call Module 7: Integrated Regional Energy Systems



Tina Ringenson, Swedish Energy Agency, SE TRI5@cetpartnership.eu



Join via the QR code or via slido.com and #2042146



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CM2025-07: Integrated Regional Energy Systems

The **aim** is to promote innovations in regional energy systems that significantly accelerate Europe's energy transitions.





CM2025-07: Integrated Regional Energy Systems

The **focus** is on enhancing the functionality of the regional energy systems by improving the **interactions** between energy system components, regional energy exchanges and different actors, including residents, businesses, the public sector, and the transportation system.



CM2025-07: Projects

- Projects focusing on the *challenges* on the regional level for the energy transition, for example:
 - Increase the seasonal shift of renewable energy in the targeted region
 - Increase sustainability and circularity in the value chain of renewables
 - Increase resilience in the regional energy system
 - Demonstrate and validate solutions to overcome energy poverty
- Projects that connect with existing plans or roadmap
- Model system solutions that can be transferred to other regions
- Projects in regions and sectors with high potential for improvement.



CM2025-07: Project requirements

- Proposals must take an **integrated approach** to the challenge. Technological development of only single components is ineligible.
- **Project budget**: Funding requested from the Call in the range of (but not limited to) EUR 1.5–5 million, in addition to any self-financing
- Target RDI approaches/TRLs: Should be TRL 6 or higher by the project's end



CM2025-07: Consortia

Consortia of need owners in a shared geographical context with the intention of developing regional system level solutions.

- Private for-profit companies
- Innovation clusters
- Secondary and higher education establishments
- Research organisations
- Infrastructure providers and operators
- Public bodies (municipalities, local and regional governments) etc.



CM2025-07: Upcoming events

2025-06-17 – CEST 14:00-15:30 Information webinar with time for questions

2025-09-23 – CEST 14:00-15:30

Q&A Session



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Call Module 8: Integrated Industrial Energy Systems



Åsa Bergérus Rensvik, Swedish Energy Agency, SE TRI6@cetpartnership.eu



Join via the QR code or via slido.com and #2042146





TRI6 Integrated Industrial Energy Systems - CM08

aims at developing and demonstrating a set of technical solutions for integrated industrial energy systems enabling efficient carbonneutral industrial production sites

- Special emphasis in the initiative is placed on solutions for system- and process-level integration of technologies for efficient industrial power, heating, and cooling.
- The aim is to support projects so that they can lead to faster market uptake and/or upscaling



Challenges 2025 - Targeted Topics

This Call Module welcomes proposals for research, development and innovation projects that address one or more of the three challenges.

- Challenge 1: Reducing emissions from the industrial energy system
- Challenge 2: Enabling renewable energy integration and resource efficient industrial energy system
- Challenge 3: Climate-neutral industry



TRI6 Call Module for Industrial Energy Systems (CM8)

REDUCING EMISSIONS FROM INDUSTRIAL PROCESSES

INDUSTRIES

FOOD AND DRINK

CEMENT

PULP AND PAPER (FOREST INDUSTRY)

STEEL

CHEMICALS

- Efficiency (utilising excess heat etc.)
- Circularity
- Electrification
- Green hydrogen: energy carrier and raw material in processes
- CCU (CO2 to chemicals or long lasting products)
- Bio-CCU enabling negative emissions
- Reduction of emissions other than GHG

FLEXIBILITY FOR ENERGY SYSTEM

- Enabling flexible use of renewable electricity in industry
- Flexible use of electricity including flexibility from heat/process storage buffers
- Energy sector coupling in industry: power and heat networks and industrial symbiosis

artnership

ACCELERATING INDUSTRIAL DECARBONISATION



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Requirements CM8

Consortia Partners:

- Research institutes, Universities, Public sector organizations, like municipal companies, Industrial companies including suppliers of technology and services and end users
- A Project Consortium must have industrial involvement by at least one industrial Project Consortium Partner (private forprofit company), preferably an end user

- Projects are expected to increase their Technology Readiness Level (TRL) throughout the duration of the project so that they move closer to commercial readiness
- Project end: TRL 6 or higher
- Activities at lower TRL maybe included if they contribute to the higher TRL goal of the overall project.
- Funding requested from the Call in the range of (but not limited to) EUR 1.5–5 million, in addition to any self-financing



Upcoming events

- TRI3 & TRI6 Call launch webinar 13 June
- TRI6 Matchmaking event 18 June

https://cetpartnership.eu/calls/joint-call-2025

https://www.b2match.com/e/clean-energy-transition-partnership-2024/events/204





Call Module 9: Clean Energy Integration in the Built Environment



Thomas Biel, NET Nowak Energy, CH TRI7@cetpartnership.eu



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Focus



Individual Technologies TRI 2, 4 Integration in Buildings TRI 7: Focus on the Interface - Emphasis on Integration Areal Concepts

TRI 5



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28.05.2025 / PAGE 118



What are we aiming for within Call Module 9

- The integration of already existing energy production, energy storage and energy management technologies into the (existing) built environment
- To enhance energy flexibility within the built environment
- To foster the digitalization from the planning process, over construction phase to commissioning, through operation and finally ending in decommissioning and disposal
- To push the development of new concepts and technologies to renovate and refurbish the built environment



Challenges

- **Challenge 1** Transform the building to an active part within the energy system by integrating energy production, energy storage and energy management technologies.
- **Challenge 2** Digitalisation of the whole life cycle of a building (planning, construction, fit-out, commissioning, operation, decommissioning and disposal).
- **Challenge 3** New concepts and technologies for the renovation of the existing built environment to enhance energy efficiency and lower the energy demand.



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Expected outcome of funded projects

Funded projects must contribute to the transformation of the built environment from a pure energy consumer into a prosumer (producer-consumer) of renewable energy and from a passive into an active and integrated role in the future energy landscape.



Cet

Requirements

- Project start: TRL of 3 or higher, Project end: TRL 5 or higher
- No other Call Module specific requirements
- Project consortia from the energy, building and construction community (public & private research organisations and industry)







Submission platform

Rachele Nocera





Enterprise Europe Network,

Astrid Flandorfer Enterprise Europe Network, Austrian Research Promotion Agency (FFG)





Audience Q&A session



28.05.2025 / PAGE 125

Join Slido to ask questions!



Join via the QR code or via slido.com and #2042146

https://app.sli.do/event/gXvUwdJytS 7MkcWYDTTZtN



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28.05.12 / PAGE 126



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Contact point for questions



Join our platform!

- The <u>Event- and Matchmaking platform</u> of the CETPartnership!
- Find **project partners and collaboration opportunities** to build a consortium




Upcoming events

More events including National and

Regional Events can be found on our

Event and Matchmaking platform

B2Match: <u>All events | Clean Energy Transition</u> <u>Partnership</u>



ONLINE 9 JUN 2025 - 11:30

Materials for RE: New Materials for Energy: Sustainability and Improved Performance

Join us on 9 June at 11:30 (CEST) for an insightful workshop exploring cutting-edge materials driving the clean energy transition. Register by logging in to your profile and clicking the green 'attend' button!

Thematic Events

Information Eventson Call Module 4, 5 & 8 CCUS, Hydrogen and Renewable Fuels, and Integrated industrial energy systems

Covernance and Testing Strategies for Interoperability: Challenges and Opportunities

ONLINE 13 JUN 2025 - 11:00

Information Event for Joint Call 2025: Call Modules 4 ,5 & 8

Interested in Joint Call 2025 $^\circ$ s Call Modules 4, 5 or 8? Join us for the event on 13 June. Register and click the green attend button to join.

Thematic Events

ONLINE 18 JUN 2025 - 09:00

Integrated Industrial Energy Systems Pitching & Matchmaking event

Are you looking for collaboration in industry projects? Welcome to an online matchmaking event for our upcoming Joint Call 2025 on June 18th! Click the green button to register for the event.

Thematic Events

3rd Cross-sector Symposium on Interoperability: Governance and Testing Strategies for Interoperability: Challenges and

Vienna Allianz Stadion, Gerhard-Hanappi-Platz 1, 1140 Wien, Austria

Join us for an insightful exploration into the challenges for governance and interoperability testing to ensure digitalisation.

Thematic Events

Opportunities



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Stay tuned for call updates and other news!



https://cetpartnership.eu



https://www.youtube.com/@cetpartnership







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28.05.2025 / PAGE 130



COMMUNITY



EVENTS PROJECT MATCHMAKING NEWSLETTER

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EUROPEAN PARTNERSHIP

