

#### The Clean Energy Transition ONLINE INFORMATIVE SESSION



GOVERNMENT OF MALTA PARLIAMENTARY SECRETARIAT FOR YOUTH, RESEARCH AND INNOVATION



The Malta Council for Science & Technology



# **A few Housekeeping Notes**

- During the presentation, use the chat box to ask questions. We will get to them following the presentation.
- Please remain muted unless you need to speak. This minimises background noises.
- ✓ Q&A time will follow the presentation
- ✓ Slides will be uploaded on the MCST website following the session.

The session will be recorded and available online.



# Internationalisation Unit





# **Aims and Objectives**

- The main aim of the internationalisation unit is to strengthen international R&I collaboration amongst local and foreign researchers and stakeholders.
- The Unit implements regional and international funding programmes, using national funds, aimed at the local R&I stakeholder community.



# **Internationalisation Programmes**



#### **Programmes:**

> PRIMA



# MCST TÜBİTAK 2022

#### Programmes:

- SINO-MALTA Fund
- ➤ MCST-TÜBİTAK



- Clean Energy Transition
   Partnership (CETP)
- Sustainable Blue Economy Partnership (SBEP)
- Transforming Health and Care Systems Partnership (THCSP)



# Horizon Europe Partnerships

- Co-funded European Partnerships are multilateral international R&I initiatives involving several EU states and other interested third countries.
- Research funding entities, together with other public authorities and the European Commission have committed to pool their resources towards achieving common R&I goals.







# An Introduction to the Clean Energy Transition Partnership





# A transnational initiative for clean energy

The CETPartnership enables more than **50 national and regional RTDI programme owners** and managers from **30 European and non-European countries** to align their research and innovation priorities, pool national budgets, and launch Joint Calls annually until 2027.







# The CETPartnership...

- pools national and regional RTDI funding
- initiates and funds transnational RTDI projects for a broad variety of technologies and system solutions required to make the transition
- empowers the clean energy transition and contributes to the EU's goal of becoming the first climate-neutral continent by 2050







# **FUNDING R&I** for Clean Energy Transition



**GOVERNMENT OF MALTA** PARLIAMENTARY SECRETARIAT FOR YOUTH, RESEARCH AND INNOVATION



The Malta Council for Science & Technology

# CALL now open



# **CETPartnership Joint Call 2023**



- The main aim of the partnership is to fund projects that develop applicative solutions and provide results for the clean energy transition.
- Projects are expected to aim for solutions, combining technologies, marked related solutions, and stakeholder involvement.

The call has two stages:

- Pre-Proposal Stage Deadline 22<sup>nd</sup> November 2023
- Full Proposal Stage Deadline 27th March 2024

![](_page_10_Picture_7.jpeg)

# **CETPartnership Joint Call 2022**

# Total budget for Maltese partners€ 500,000Call structure2 stagesConsortium requirementAt least 3 independent legal entities from at<br/>least 3 CountriesTopics12 Call ModulesPre-proposal deadline22nd November 2023, 14:00 CET

![](_page_11_Picture_2.jpeg)

![](_page_11_Picture_3.jpeg)

# **Project Consortia**

![](_page_12_Picture_1.jpeg)

Consortium entities may consist of partners from:

- Universities
- Research organisations
- Companies
- Industries
- Local/regional governments
- NGOs
- Call modules might have additional requirements;
- Project consortia must include one project Coordinator who is responsible for coordination of the project. Other consortia members are Partners.

![](_page_12_Picture_11.jpeg)

![](_page_12_Picture_13.jpeg)

# **Call Requirements**

- Consortium Coordinator needs to submit a full application on the CETPartnership online submission tool.
- ✓ Maximum project duration is 36 months.
- ✓ All Consortium Partners must have a Participant Identification Code (PIC) and NACE code.
- ✓ The project's methodology must include Open Access.
- Projects must include a work package to consider project synergies with and contributions to the CETPartnership Knowledge Community.

![](_page_13_Picture_6.jpeg)

![](_page_13_Picture_7.jpeg)

![](_page_13_Picture_8.jpeg)

# **Timeline of CETPartnership Joint Call 2022**

![](_page_14_Figure_1.jpeg)

![](_page_14_Picture_2.jpeg)

![](_page_14_Picture_3.jpeg)

# **Further Information:**

- The full Call text can be found on the CETPartnership website (<u>cetpartnership.eu</u>) together with further documentation.
- The online submission tool is accessible from the CETPartnership website.
- A matchmaking platform (b2match) to make it easier to find Consortium Partners, is also accessible from the website.

![](_page_15_Picture_4.jpeg)

Submit your proposal

![](_page_15_Picture_6.jpeg)

Documents

![](_page_15_Picture_8.jpeg)

Matchmaking Platform

![](_page_15_Picture_10.jpeg)

![](_page_15_Picture_11.jpeg)

# **Matchmaking Platform (b2match)**

![](_page_16_Picture_1.jpeg)

https://clean-energy-transition-partnership-2023.cetp.b2match.io/

![](_page_16_Picture_3.jpeg)

# **Transition Initiatives (TRIs)**

![](_page_17_Picture_1.jpeg)

The TRIs are thematic configurations of CETPartnership funding partners in order to work together on specific Challenges.

![](_page_17_Picture_3.jpeg)

Their role is to develop thematic modules for the annual joint calls and implementing activities on knowledge management and maximising impact.

![](_page_17_Picture_5.jpeg)

Each of the TRIs is led by one of the CETPartnership partners (TRI Lead).

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![](_page_17_Picture_8.jpeg)

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TRI 1: Integrated Net-zero emissions Energy System

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TRI 2: Enhanced zero emission Power Technologies

![](_page_18_Picture_4.jpeg)

TRI 3: Enabling Climate Neutrality with Storage Technologies, Renewable Fuels and CCU/CCS

![](_page_18_Picture_6.jpeg)

TRI 4: Efficient zero emission Heating and Cooling

![](_page_18_Picture_8.jpeg)

TRI 5: Integrated Regional Energy Systems

![](_page_18_Picture_10.jpeg)

TRI 6: Integrated Industrial Energy Systems

![](_page_18_Picture_12.jpeg)

TRI 7: Integration in the Built Environment

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# The Call Modules

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![](_page_19_Picture_2.jpeg)

# **CETPartnership Joint Call 2023 Call Modules**

No.	Title	Contact
CM2023-01	Direct current (DC) technologies for power networks	TRI1@cetpartnership.eu
CM2023-02	Energy system flexibility: renewables production, storage and system integration	TRI1@cetpartnership.eu TRI2@cetpartnership.eu
CM2023-03A/3B	Advanced renewable energy (RE) technologies for power production	TRI2@cetpartnership.eu
CM2023-04	Carbon capture, utilisation, and storage (CCUS)	TRI3@cetpartnership.eu
CM2023-05	Hydrogen and renewable fuels	TRI3@cetpartnership.eu
CM2023-06	Heating and cooling technologies	TRI4@cetpartnership.eu
CM2023-07	Geothermal energy technologies	TRI4@cetpartnership.eu
CM2023-08	Integrated regional energy systems	TRI5@cetpartnership.eu
CM2023-09	Integrated industrial energy systems	TRI6@cetpartnership.eu
CM2023-010A/10B	Clean energy integration in the built environment	TRI7@cetpartnership.eu

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# **Technology Readiness Level (TRL)**

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![](_page_21_Picture_2.jpeg)

#### **Call Module Objective**

To foster projects to develop, test and demonstrate enabling and supporting tools in the field of:

- HVDC and MVDC development and deployment
- Meshed multi-terminal AC/DC grids
- Energy island integration

The scope can be divided into three main areas the projects can focus on:

- 1. Planning and markets
- 2. Operation, control and protection
- 3. Verification, test and maintenance

Projects must provide results in at least one of these three areas

#### CM2023-01 DC technologies for power networks

Need owners / potential applicants

- Offshore wind farms/energy islands
- Grid operators (TSO, DSO and industrial/residential DC grids)
- Industry and SMEs in the fields of components, systems and devices for energy systems as well as software (services)
- Universities and research institutes

TRL jump of 1-2 classes

![](_page_22_Picture_17.jpeg)

![](_page_22_Picture_18.jpeg)

TRL

Target

groups

![](_page_22_Picture_20.jpeg)

#### CM2023-02

# Energy system flexibility: renewables production, storage and system integration

Target

groups

TRL

#### **Call Module Objective**

Address key aspects to accelerate the uptake of highly innovative replicable and scalable solutions, preferably built on top of existing initiatives or assets

# Funded projects shall address one or more of the following themes:

- 1. Large-scale renewable generation and system flexibility and reliability
- 2. Energy storage technologies and systems for flexibility services
- 3. System integration and flexible operations
- 4. Innovative flexibility sources and flexibility markets

![](_page_23_Picture_9.jpeg)

## Private/regulated sector actors such as

- system operators
- SMEs and spin-off companies
- Research Technology Organisations (RTOs)
- Start from TRL ≥3 Achieve TRL 5-6

# CM2023-03A/03B Advance renewable energy (RE) technologies for power production (3A/3B)

#### **Call Module Objective**

Supports projects aiming at increasing the overall energy conversion efficiency and lowering RE technologies' cost. CM 2023-03A calls for a Research Oriented Approach (ROA) projects, and CM2023-03B calls for Innovation-Oriented Approach (IOA) projects.

Projects shall address an expected impact such as increasing the energy conversion efficiency and the technology performance, developing innovative technologies and components, decreasing investment cost and LCOE, demonstrating the feasibility of scaling up and the technology in different geophysical conditions and reducing the environmental impact.

Technology Areas	<ul> <li>BIOENERGY FOR POWER</li> <li>GENERATION</li> <li>OCEAN ENERGY</li> <li>OFFSHORE RENEWABLES</li> <li>HYBRID-RES SOLUTIONS</li> </ul>	OLAR PHOTOVOLTAICS VIND ENERGY (OFFSHORE ND ONSHORE) ONCENTRATED SOLAR OWER / THERMAL (CSP/STE)	<b>ROA:</b> research and innovation action (final TRL≥ 4) <b>IOA</b> : Innovation action (final TRL≥ 6)
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![](_page_24_Picture_5.jpeg)

## CM2023-04 Carbon capture, utilisation and storage (CCUS)

#### **Call Module Objective**

Support the emergence of CO2 Capture, Utilisation, and Storage (CCUS) technologies primarily in the industrial sectors and the energy sector. Projects should have the potential to accelerate the time to market for CCU/CCS technologies. All projects must advance the state-of-the-art for CCUS technologies and contribute new knowledge and new competence that brings CCUs closer to commercialisation. CETP criteria of eligible partners from at least three CETP countries, consortia submitting applications within CCU/CCS must demonstrate the interest of industry partner(s) by actively involving them in the project as formal

partners.

Technology

Areas

In addition to standard

TRL

Projects should aim at TRL 5-9. Parts of projects (e.g., one WP or a certain task) may address lower TRL.

![](_page_25_Picture_6.jpeg)

## CM2023-05 Hydrogen and renewable fuels

#### **Research and Development Areas**

- New or improved processes for hydrogen production (green and blue hydrogen).
- Storage of hydrogen through ammonia or other hydrogen liquid carriers.
- Hydrogen infrastructure and distribution aspects.
- New or improved processes and technologies for the production of renewable fuels with low or zero carbon footprint (biofuels or synthetic fuels).
- End-use technologies using hydrogen or renewable fuels.

#### **Objectives**

Support projects on hydrogen and renewable fuels technologies, from the production of fuel to its end-use.

TRL

Projects should aim at TRL 5-9. Parts of projects (e.g., one WP or a certain task) may address lower TRL.

![](_page_26_Picture_11.jpeg)

### CM2023-06 Heating and cooling technologies

![](_page_27_Figure_1.jpeg)

This call module targets innovation in all relevant areas for developing a secure, sustainable, competitive and affordable climate-neutral heating and cooling supply. Projects should address one or more of the above areas.

![](_page_27_Picture_3.jpeg)

#### CM2023-07

## **Geothermal energy technologies**

#### **Call Module Objective**

Enable a broad range of geothermal energy-related innovation, development, and research projects, for heating and cooling, power generation, underground thermal energy storage (UTES), and the co-production of geothermal minerals. TRL Start from TRL 4 Achieve TRL 8

![](_page_28_Figure_5.jpeg)

Successful projects may address one or more of the three themes shown in this figure, which cover all stages in the development cycle of a secure, sustainable, competitive and affordable geothermal installation.

![](_page_28_Picture_7.jpeg)

## CM2023-08 Integrated regional energy systems

#### **Call Module Objective**

- Demonstrate how local stakeholders, regulation and markets enable various technologies on different levels to work together in an integrated system.
- Applying Projects should focus on regionally anchored ecosystems with **need owners of the region** and bring them together at European level.
- The projects should coordinate and link research and innovation activities with testbeds, e.g. living labs and demonstration projects.
- The transnational cooperation of these ecosystems will help **foster a deeper understanding** of the different **infrastructural** and **socio-economic** contexts.

<ul> <li>Technology Areas</li> <li>encourage consortia to further develop already existing regional initiatives by adding new aspects</li> <li>connect to ongoing or recently finished demonstration projects</li> <li>cooperate on existing test infrastructure and knowledge</li> </ul>	TRL	Projects should aim at TRL <b>5-9</b> . Activities with TRL levels 3-5 may be included if they contribute to the higher project goal
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### CM2023-09 Integrated industrial energy systems

![](_page_30_Picture_1.jpeg)

#### Call Module Objective

Aims at developing and demonstrating a set of technical solutions for integrated industrial energy systems that enables efficient carbon-neutral industrial production sites and takes industrial energy systems into development as part of the entire energy systems.

![](_page_30_Picture_4.jpeg)

#### **Target Topics:**

- 1. Reducing emissions from the industrial energy system
- 2. Integrating energy and resource efficient industrial energy systems.
- 3. Removing carbon emissions from the carbon cycle in industrial energy systems.

![](_page_30_Picture_9.jpeg)

## CM2023-10A/10B Clean energy integration in the built environment

#### **Call Module Objective**

Two call modules (ROA / IOA)

- To develop and enable the integration of new efficient energy solutions for/in buildings/the built environment, covering generation, use, storage, grids, and mobility.
- To focus on the physical, technical, aesthetical, and digital integration of clean energy conversion technologies for power, heat, and cold.

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![](_page_31_Picture_6.jpeg)

![](_page_31_Picture_7.jpeg)

![](_page_31_Picture_8.jpeg)

![](_page_32_Picture_0.jpeg)

# **FUNDING R&I** for Clean Energy Transition

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![](_page_32_Picture_4.jpeg)

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## National Considerations

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# **Eligible for National Funding**

Eligible Entities must be registered in Malta or must have an operating base in Malta

![](_page_33_Figure_2.jpeg)

![](_page_33_Picture_3.jpeg)

# **State Aid Routes**

![](_page_34_Figure_1.jpeg)

# **Aid Intensity**

			Aid Intensity	Undertaking Size	Effective Collaboration and/or Wide Dissemination
Economic entity	de minimis	GBER 🗲	25%	Small +20% Undertaking	+25%
Requested funding	Up to 75%	Up to 70%	25%	Medium +10% Undertaking	+25%
Own contribution	Remainder %	Remainder %		1	1

![](_page_35_Picture_2.jpeg)

# **Eligible Costs (State Aid)**

![](_page_36_Figure_1.jpeg)

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# **Personnel Costs**

#### Non-economic / *de minimis* / GBER

- Project Management up to 10% of the project value
- Students EUR 6,000-8,000 p.a.
- Maximum of 1720 hours p.a.
- Hourly rates specified in national rules.

			•	
Role in Project	Hourly rates	Hourly rates	Hourly rates	Limits per
	in 2024	in 2025	in 2026	project
Management or	Up to	Up to	Up to	Max 2 per
equivalent	€55.13/hour	€57.89/hour	€60.78/hour	project
Senior Researcher <sup>2</sup>	Up to	Up to	Up to	Max 2 per
or equivalent	€38.86/hour	€40.80/hour	€42.84/hour	project
Researcher <sup>3</sup> or	Up to	Up to	Up to	No limits
equivalent	€27.84/hour	€29.23/hour	€30.69/hour	
Operational, technician, research support assistant or equivalent	Up to €15.27/hour	Up to €16.03/hour	Up to €16.83/hour	No limits

€z = (basic salary + allowances) / yearly workable hours of the employee.

The rates stated in the table above are for the years 2024-2026. For subsequent years a 5% increase per year is allowed.

![](_page_37_Picture_8.jpeg)

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# Instruments, Specialised Equipment and Consumables

#### Non-economic / de minimis

- Cost to purchase/lease specialised equipment
- Cost of research consumables should not exceed 30% of the project value

#### **GBER**

- Depreciation costs of specialised equipment for the extent and period used for the project. *To be verified by a certified public accountant*.
- The costs and/or leasing of specialised equipment, are eligible only to the extent and for the period used for the project. The depreciation costs corresponding to the life of the project are eligible.
- Cost of research consumables should not exceed 30% of the project value

![](_page_38_Picture_8.jpeg)

# **Travel and Subsistence**

![](_page_39_Picture_1.jpeg)

#### Non-economic/ de minimis

- Economy flights, and public transport (most economic solutions) and per diems for up to 14 days in a row
- For the attendance of consortium meetings, up to two persons will be eligible to attend the meeting.
- For the attendance of international conferences, up to two persons will be eligible to attend per six months.

#### **GBER**

• Travel costs are not eligible

![](_page_39_Picture_8.jpeg)

# **Subcontracted Activities**

#### Non-economic/de minimis / GBER

- Allowed up to 25% of the project value
- Must follow fair procurement procedures
- To be discussed with the Call Manager at application stage

# IP and Knowledge Transfer Activities

#### Non-economic/*de minimis* / GBER

- Costs of knowledge transfer activities and patents bought or licensed from outside sources at arm's length conditions.
- To be discussed with the Call Manager at application stage

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# **Overheads & Other Operating Expenses**

#### Non-economic/de minimis / GBER

• Overheads & other operating expenses are covered at 20% of direct eligible costs claimed

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![](_page_41_Picture_4.jpeg)

# **Ineligible Costs**

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- 1. Expenses related to loans, interest etc.
- 2. Expenses which are recoverable through other funding mechanisms
- 3. Re-purchase of the same equipment originally procured through other funding mechanisms
- 4. Purchase and/or leasing of equipment and services from partners or their subsidiaries
- 5. Standard office equipment
- 6. Personnel hours for travelling
- Any other costs that are not listed as eligible costs in the National Rules.

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# **Submission Process**

Find and connect with prospective partners Jointly draft the pre-proposal application form Coordinator submits preproposal application form online by CETP Deadline

Deadline: 22<sup>nd</sup> November 2023 – 14:00 Malta based partners submit the National Application Form by MCST Deadline

> Deadline: 22<sup>nd</sup> November 2023 – 23:59

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# **Important Links and Documents**

#### Call Text

https://cetpartnership.eu/calls/documen ts

#### National Rules and National Application Form

http://mcst.gov.mt/mcst-news/cleanenergy-transition-partnership-joint-call-2022/

#### **Other Useful Links**

https://cetpartnership.eu/

http://mcst.gov.mt/mcst-news/clean-energytransition-partnership-cetpartnership/

![](_page_44_Picture_8.jpeg)

![](_page_45_Picture_0.jpeg)

![](_page_45_Picture_1.jpeg)

One-stop shop for National and Mediterranean researchers, to keep abreast with:

- Latest News and Events
- Funding and Work Opportunities in R&I
- Facilitate networking amongst Mediterranean
  - R&I community
- Partner Search Facility
- Matchmaking Tool

![](_page_45_Picture_9.jpeg)

![](_page_45_Picture_10.jpeg)

# **Thank You**

# **Contact Us**

- Organise Information Sessions
- Organise One-to-One sessions for tailormade advice
- Facilitate search for partners plumtri
- Networking opportunities brokerage events

Contact email addresses: eusubmissions.mcst@gov.mt martina.vella.5@gov.mt Christy.Baldacchino.2@gov.mt

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![](_page_46_Picture_8.jpeg)