

CET Partnership

The CETPartnership



The Clean Energy Transition Partnership (CET Partnership) is a transnational initiative on joint Research, Technological Development and Innovation (RTDI) programming to boost and accelerate the energy transition, building upon regional and national RTDI funding programmes.



The CET Partnership aims to empower the clean energy transition and contribute to the EU's goal of becoming the first climate-neutral continent by 2050, by pooling national and regional RDTI funding for a broad variety of technologies and system solutions required to make the transition.

The CETPartnership in a nutshell



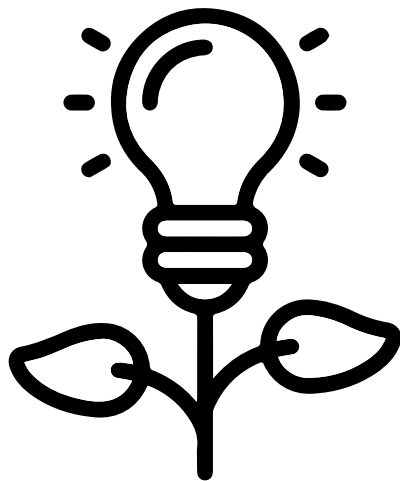
WHAT:

- Aims to empower the **clean energy transition** and contribute to the EU's goal of becoming the first **climate-neutral continent by 2050**

HOW:

- by pooling national and regional RDTI funding for a broad variety of technologies and system solutions required to make the transition

What lies ahead



The CETPartnership will **foster transnational innovation ecosystems** from the very local and regional level, up to the transnational European level, thus overcoming a fragmented European landscape.

Moreover, it intends to reach out to collaboration with funding partners **beyond Europe**, in order to broaden the knowledge and experience bases and introduce European solutions and stakeholders to the global value chains.

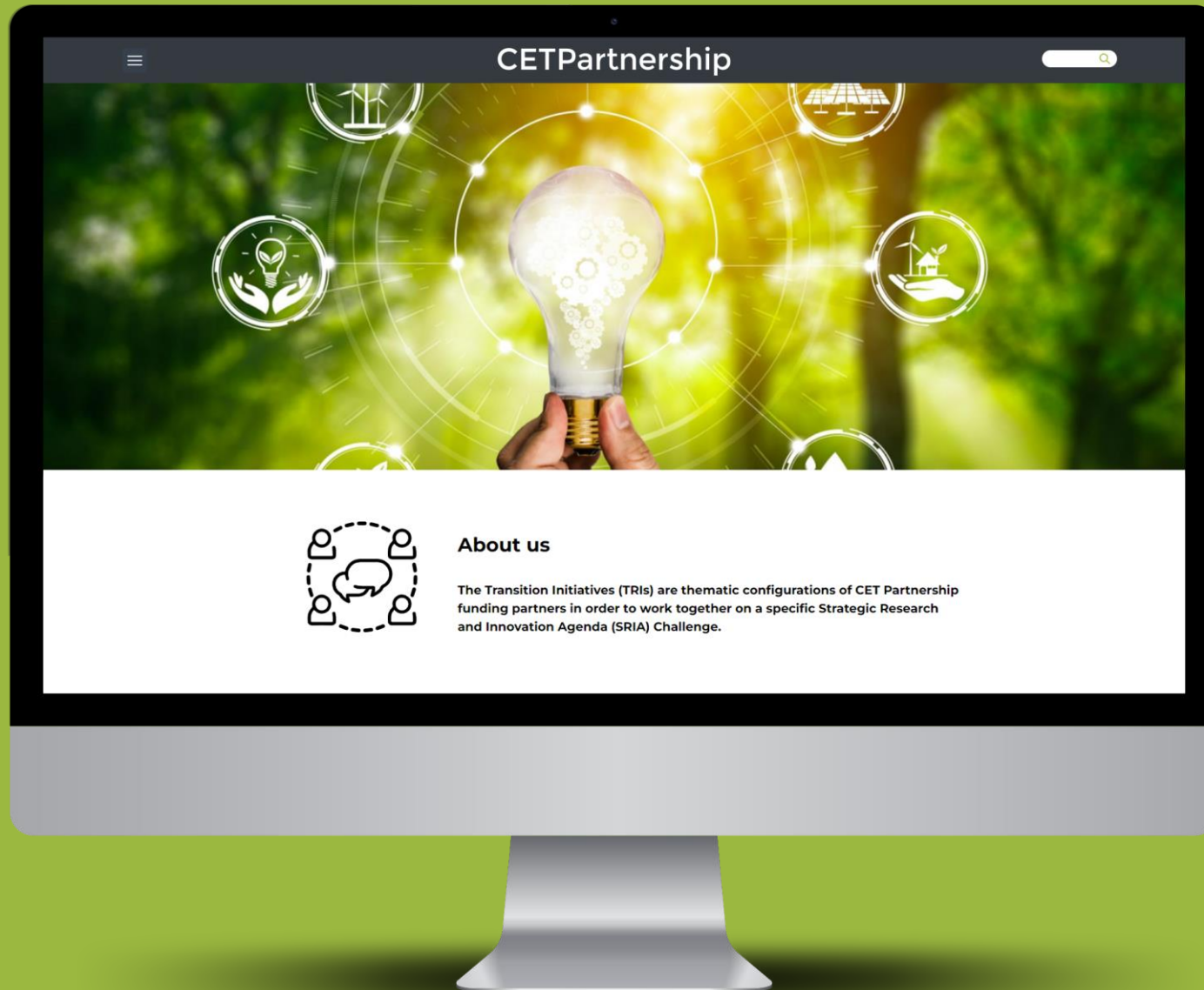
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Where does the CETPartnership come from?

- Builds on **15 years of transnational cooperation** in 9 energy relevant ERA-Nets
- Build up of **trust and established practices** in:
 - conducting joint calls,
 - monitoring progress,
 - sharing data, information and knowledge beyond the projects
 - deducing strategic knowledge,
 - maximising the impact of funded projects and their established European and international relationships



The TRIs



About us

The Transition Initiatives (TRIs) are thematic configurations of CET Partnership funding partners in order to work together on a specific Strategic Research and Innovation Agenda (SRIA) Challenge.

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The TRIs

What is a TRI?



The Transition Initiatives (TRIs) are **thematic configurations** of CETPartnership funding partners in order to work together on a specific **Strategic Research and Innovation Agenda (SRIA)** Challenge.

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The TRIs

How many TRIs are there?

The CETPartnership has established the following **7 TRIs** which address the seven CETPartnership RTDI Challenges as described in the Strategic Research and Innovation Agenda (SRIA). Each of the TRIs is led by one of the CETPartnership partners, known as the TRI Lead.



TRI 1: Integrated Net-zero-emissions Energy System



TRI 2: Enhanced zero emission Power Technologies



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



TRI 4: Efficient zero emission Heating and Cooling Solutions



TRI 5: Integrated Regional Energy Systems



TRI 6: Integrated Industrial Energy Systems



TRI 7: Integration in the Built Environment



Co-funded by
the European Union

European Partnership

TRI 1: Integrated Net-zero-emissions Energy System

The main objective of TRI 1 is to **develop the optimised, integrated European net-zero emissions energy system**, where electricity distribution and transmission grids are seen as the “backbone” of the future low-carbon energy systems with a high level of integration among all energy carrier networks, by e.g. coupling electricity networks with gas, heating and cooling networks, supported by energy storage and power conversion processes.

TRI 1 Lead

Michele deNigris (RSE, IT)
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TRI 1 Office

Giuseppe Palazzo (RSE, IT)
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TRIs

TRI 2: Enhanced zero emission Power Technologies

TRI 2's Mission is to **develop a pool of zero-emission power technologies and solutions based on Renewable Energy Sources** as the backbone of the future energy system, being able to deliver carbon-neutral electricity accessible to all and to contribute to the resilience of the system.

TRI 2 Lead

Francesco Basile (MUR, IT)
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TRI 2 Office

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

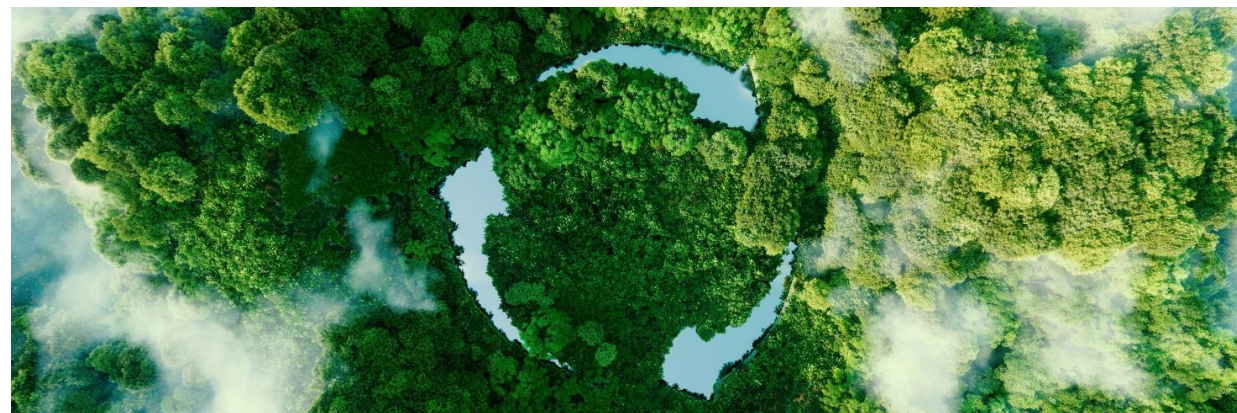
The main aim of TRI 3 is to **provide technological cleaner solutions for storage technologies, hydrogen and renewable fuels, CCS (Carbon Capture and Storage) and CCU (Carbon Capture and Utilisation)**, promoting RD&D and innovation projects until 2030, to achieve the European goal of climate neutrality by 2050

TRI 3 Lead

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TRI 3 Office

Aiko Nakano Hylander (SWEA, SE)
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TRI 4: Efficient zero emission Heating and Cooling Solutions

The Transition Initiative Heating & Cooling (TRI4H&C) will contribute to Challenge 4 “Efficient zero-emission Heating and Cooling Solutions”, formulated in the SRIA of the CETP. The overarching goals of this initiative are the **provision of enhanced and improved heating and cooling technologies and systems** for all major parts of Europe by 2030 and to enable 100% climate-neutral heating and cooling by 2050.

TRI 4 Lead

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TRI 4 Office

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TRI 5: Integrated Regional Energy Systems

The main aim of TRI 5 is to **develop and validate integrated regional and local energy systems**, that make it possible to efficiently provide, host and utilize high shares of renewables, up to and beyond 100% in the dynamic local or regional supply by 2030. Such systems shall provide tailor-made solutions that meet the individual regional and local requirements and demand.

TRI 5 Lead

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TRI 6: Integrated Industrial Energy Systems

TRI 6 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 system. It focuses specifically on integrated solutions across industries, across energy sectors and across public and private sectors.

TRI 6 Lead

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TRI 6 Office

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TRI 7: Integration in the Built Environment

TRI 7 mission is to **provide solutions and technologies for existing and new buildings to become an active element in the energy system**, with enhanced capability to produce, store and efficiently use energy in the residential and non-residential sector, comprising public and commercial buildings, service and mobility infrastructure buildings, etc.

TRI 7 Lead

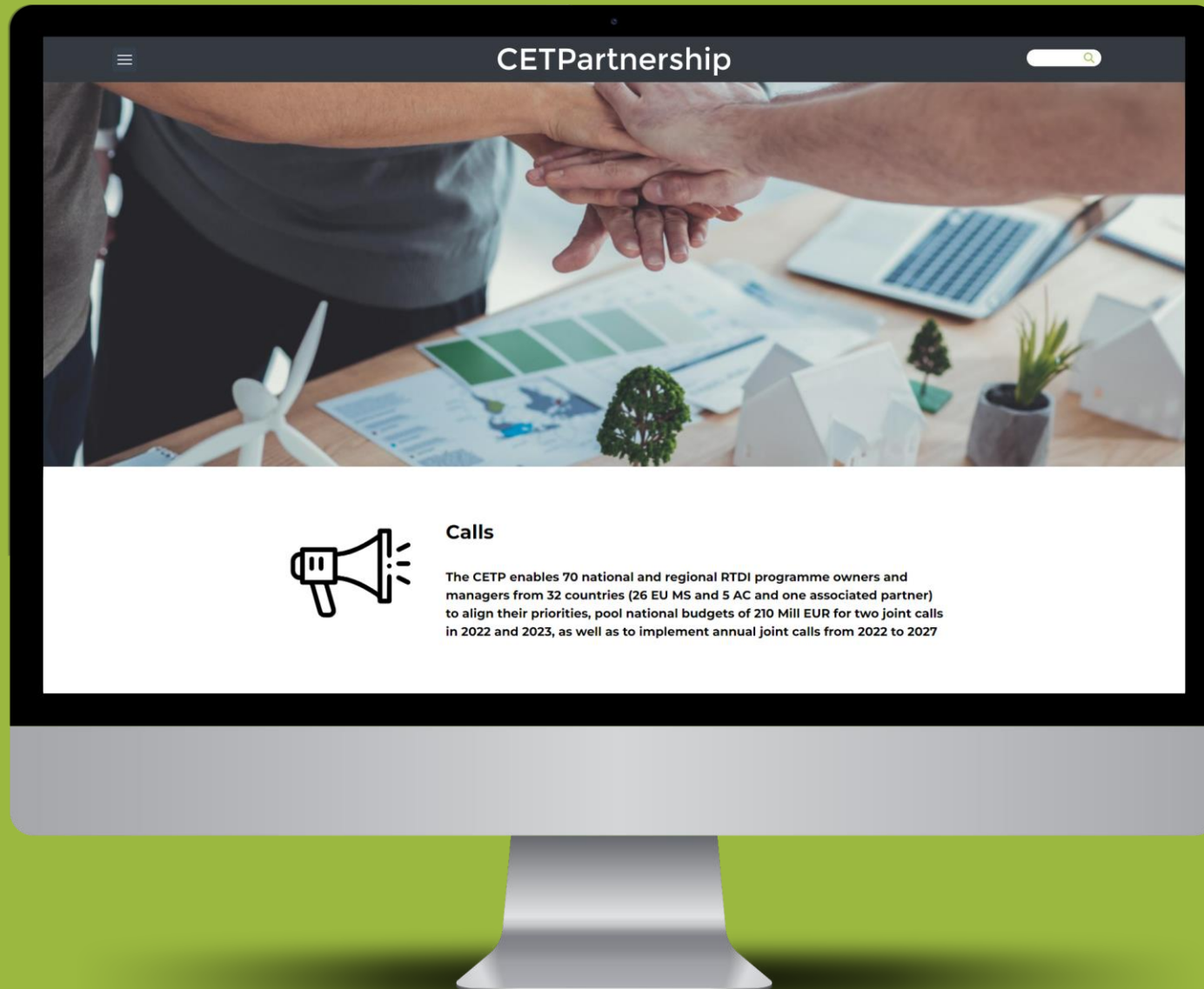
Beatriz Gómez (AEI, ES)
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TRI 7 Office

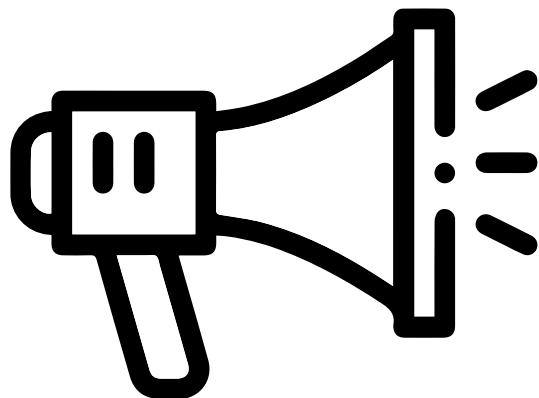
TRI7@CETPartnership.eu



Calls



General Timeline



The CETPartnership enables **70 national and regional** RTDI programme owners and managers from **32 countries** (26 EU Member States and 5 Associated Countries and one associated partner) to align their priorities, pool national budgets of 210 Mill EUR for **two joint calls in 2022 and 2023**, as well as to implement annual joint calls from 2022 to 2027

Call 2022 Preliminary timeline

**Official opening of Call
2022**

Coming September 2022

Call 2022 Launch Event

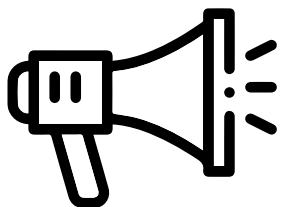
To be announced soon

**Deadline for submitting
preproposals**

Coming soon

**Communication on
applications selected for
full-proposal stage**

Coming soon



More information and link to submission platform to be published on:

<https://cetpartnership.eu/calls>



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Calls

Call 2022 Thematic structure

The CETPartnership 2022 Call, to be officially launched on **September 2022**, will be structured into **thematic modules**.

Each Transition Initiative (TRI) will develop **one or two Call modules** based on their strategic topics and content, allowing to cover the whole spectrum of their specific SRIA challenges.

 <p>TRI 1: Integrated Net-zero-emissions Energy System</p>	 <p>TRI 1: Integrated Net-zero-emissions Energy System</p>	 <p>TRI 2: Enhanced zero emission Power Technologies</p>	 <p>TRI 2: Enhanced zero emission Power Technologies</p>
<p>Call Module: TRI1 PowerPlanningTools</p>	<p>Call Module: TRI1 RESDemPowerflex</p>	<p>Call Module: TRI2 Advancing RE technologies for power production through cost reduction</p>	<p>Call Module: TRI2 Breakthrough R&D to increase RE power technologies efficiency</p>
 <p>TRI 3: Enabling Climate Neutrality with Storage Technologies, Renewable Fuels and CCU/CCS</p>	 <p>TRI 3: Enabling Climate Neutrality with Storage Technologies, Renewable Fuels and CCU/CCS</p>	 <p>TRI 4: Efficient zero emission Heating and Cooling Solutions</p>	 <p>TRI 5: Integrated Regional Energy Systems</p>
<p>Call Module: TRI3 Enabling Climate Neutrality with Storage Technologies, Renewable Fuels and CCU/CCS</p>	<p>Call Module: TRI3 Enabling Climate Neutrality with renewable fuels and hydrogen</p>	<p>Call Module: TRI4 Heating & Cooling</p>	<p>Call Module: TRI5 Integrated Regional Energy Systems for a Resilient, Secure, and Renewable Energy Supply</p>
 <p>TRI 6: Integrated Industrial Energy Systems</p>	 <p>TRI 7: Integration in the Built Environment</p>	 <p>TRI 7: Integration in the Built Environment</p>	
<p>Call Module: TRI6 Industrial energy systems</p>	<p>Call Module: TRI7 R&I in clean energy integration in the built environment</p>	<p>Call Module: TRI7 Solutions to energy transition in the built environment</p>	

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Calls

TRI1	TRI2	TRI3	TRI4	TRI5	TRI6	TRI7
2	2	2	1	1	1	2
<p>Demonstrating solutions to enhance system flexibility</p> <p>Tools and methods to foster the development of the energy system, through advanced integrated modelling</p>	<p>Advancing RE technologies for power production through cost reduction</p> <p>Supporting breakthrough R&D to increase RE power technology efficiency</p>	<p>CCS & CCU technologies to maximise carbon reuse in a circular economy, to remove carbon from the energy system</p> <p>Hydrogen and Renewable fuels</p>	<p>Heating and cooling; thermal energy models, technologies and system integration (high and low TRL)</p>	<p>Development of integrated local and regional energy systems, solutions to provide, host and utilise high shares of renewables</p>	<p>Reduction of industrial emissions; removing industrial carbon emissions from the carbon cycle; integrated energy and resource efficient industrial systems; carbon capture for energy storage</p>	<p>Integrate renewable energy conversion technologies for power, heat & cold in buildings</p> <p>Digitalization for planning, construction phase, commissioning & operation</p> <p>Application & demonstration</p>

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Calls

Preliminary Call Module vs Funding matrix (I)

Organisation	Acronym	Country/region	TRI1 PowerPlann ingTools	TRI1 RESDemPow erflex	TRI2 Advancing RE technologies for power production through cost reduction	TRI2 Breakthrough R&D to increase RE power technologies efficiency	TRI3 Enabling Climate Neutrality with Storage Technologies, Renewable Fuels and CCU/CCS	TRI3 Enabling Climate Neutrality with renewable fuels and hydrogen	TRI4 Heating & Cooling	TRI5 Integrated Regional Energy Systems for a Resilient, Secure, and Renewable Energy Supply	TRI6 Industrial energy systems	TRI7 R&I in clean energy integration in the built environment	TRI7 Solutions to energy transition in the built environment
Austrian Research Promotion Agency	FFG	Austria								x	x		
Research and Innovation Foundation	RIF	Cyprus	x	x	x	x	x	x	x	x	x	x	x
Technology Agency of the Czech Republic	TA CR	Czech Republic	x	x	x	x	x	x	x	x	x	x	x
Energy Technology Development and Demonstration Programme	EUDP	Denmark		x			x	x		x	x		
Innovation Fund Denmark	IFD	Denmark			X	X			X			X	X
Ministry of Economic Affairs and Communications	MKM	Estonia	x	x	x	x	x	x	x	x	x	x	x
Estonian Research Council	ETAG	Estonia	x	x	x	x	x	x	x	x	x	x	x
Innovaatorahoituskeskus Business Finland	BF	Finland	x	x	x	x	x	x	x	x	x	x	x
Fonds Innoveren en Ondernemen	FIO	Flanders	x	x	x	x	x	x	x	x	x	x	x
Agence Nationale de la Recherche	ANR	France	x			x	x	x				x	
Agence de la transition écologique	ADEME	France	x	x			x				X		
Forschungszentrum Jülich GmbH (on behalf of BMWK)	FZJ/PTJ	Germany	x	x	x	x	x		x	x	x		x
Forschungszentrum Jülich GmbH (on behalf of MWIDE)	FZJ/PTJ	Germany	x	x	x	x	x				x		
General Secretariat for Research and Technology	GSRT	Greece	x	x			x	x					
National Research, Development and Innovation Office	NKFIH	Hungary	x	x	x	x	x	x	x	x	x	x	x
The Icelandic Centre for Research	RANNIS	Iceland					x	x	x				
Department of the Environment, Climate & Communications/Geological Survey Ireland	GSI	Ireland							x				
Sustainable Energy Authority of Ireland	SEAI	Ireland	x	x	x	x	x	x	x	x	x	x	x
Ministry of National Infrastructure, Energy and Water Resources	IMNIEWR	Israel	x	x	x	x	x	x	x	x	x	x	x
Ministero dell'Università e della Ricerca	MUR	Italy	x		x*	x	x*	x			x*	x	
Ministry of Economic Development	MISE	Italy		x	x		x		x	x	x		x
Latvian Council of Science	LZP	Latvia	x	x	x	x	x	x	x	x	x	x	x
Ministry of Energy of the Republic of Lithuania	ENMIN	Lithuania			x				x	(x)			
Malta Council for Science and Technology	MCST	Malta	x	x	x	x	x	x	x	x	x	x	x

Estimated Total
Budget: +100 M€

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Calls

Preliminary Call Module vs Funding matrix (II)

Organisation	Acronym	Country/region	TRI1 PowerPlan ningTools	TRI1 RESDemPow erflex	TRI2 Advancing RE technologies for power production through cost reduction	TRI2 Breakthrough R&D to increase RE power technologies efficiency	TRI3 Enabling Climate Neutrality with Storage Technologies, Renewable Fuels and CCU/CCS	TRI3 Enabling Climate Neutrality with renewable fuels and hydrogen	TRI4 Heating & Cooling	TRI5 Integrated Regional Energy Systems for a Resilient, Secure, and Renewable Energy Supply	TRI6 Industrial energy systems	TRI7 R&I in clean energy integration in the built environment	TRI7 Solutions to energy transition in the built environment
The Research Council of Norway	RCN	Norway					x	x	x				
Pays de la Loire Region Council	RPL	Pays de la Loire			x								
National Centre for Research and Development	NCBR	Poland	x	x	x	x				x	x		
Fundação para a Ciência e a Tecnologia	FCT	Portugal	x	x	x	x	x	x	x	x	x	x	x
Executive Agency for Higher Education, Research, Development and Innovation Funding	UEFISCDI	Romania					x	x	x	x			
Saxon State Ministry for Science, Culture and Tourism	SMWK	Saxony	x	x	x	x	x	x	x	x	x	x	x
Scottish Enterprise	SCOTENT	Scotland				x		x	x		x		x
Agencia Estatal de Investigación	AEI	Spain	x	x	x	x	x	x	x	x	x	x	x
Ente Vasco de la Energía	EVE	Spain											
Fundación para el fomento en Asturias de la Investigación Científica Aplicada y la Tecnología	FICYT	Spain	x	x	x	x	x	x	x	x	x	x	x
The Centre for the Development of Industrial Technology	CDTI	Spain	x	x	x	x	x	x	x	x	x	x	x
Departamento de Desarrollo Económico, Sostenibilidad y Medio Ambiente. Eusko Jaurlaritzza-Gobierno Vasco	EUSKADI	Spain			x	x					x		
Regional Development Agency of Cantabria	SODERCAN	Spain	x	x	x	x	x	x	x	x	x	x	x
Swedish Energy Agency	SWEA	Sweden	x	x	x	x	x	x	x	x	x	x	x
Federal Department of the Environment, Transport, Energy and Communications	DETEC-SFOE	Switzerland		x	x		x		x		x		
Swiss National Science Foundation	SNSF	Switzerland								x		x	(x)
Dutch Research Council	NWO	The Netherlands			x	x							
Netherlands Enterprise Agency	RVO	The Netherlands	x		x		x	x	x	x	x	x	
The Scientific and Technological Research Council of Turkey	TUBITAK	Turkey	x	x	x	x	x	x	x	x	x	x	x
Service public de Wallonie	SPW	Wallonia	x	x	x	x	x	x	x	x	x	x	x

Estimated Total
Budget: +100 M€

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Thank You