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REPUBLIC OF SLOVENIA
MINISTRY OF THE ENVIRONMENT,
CLIMATE AND ENERGY

CETPartnership

TRI 4: Efficient zero emission Heating and Cooling Solutions

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What is the CET Partnership?

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 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.

A stylized world map is centered on the slide, showing the continents in a light beige color against a dark blue background. The map is framed by a large, semi-transparent blue circle. The text 'Where do we come from?' is overlaid on the map in a large, white, sans-serif font.

Where do
we come
from?

The CETPartnership builds on energy ERA-Nets

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



How do we work?

CETPartnership is organised in 7 **Transition Initiatives (TRIs)**, teams of CETPartnership members that work together on a specific thematic challenge.

Each TRI defines the scope of one or more **Call Modules**. Call Modules are the topics of each annual Joint Call.

TRI 4: Efficient zero emission Heating and Cooling Solutions

CM2023-01: Direct current (DC) technologies for power networks

CM2023-02: Energy system flexibility: renewables production, storage and system integration

CM2023-03 (A/B): Advanced renewable energy (RE) technologies for power production

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

CM2023-05: Hydrogen and renewable fuels

CM2023-06: Heating and cooling technologies

CM2023-07: Geothermal energy technologies

CM2023-08: Integrated regional energy systems

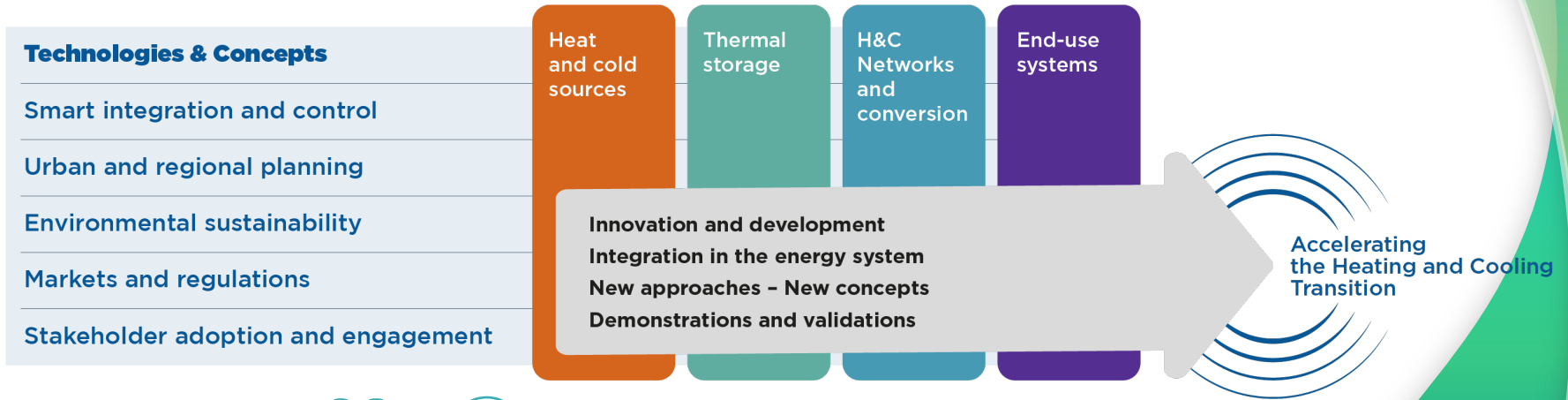
CM2023-09: Integrated industrial energy systems

CM2023-10 (A/B): Clean energy integration in the built environment

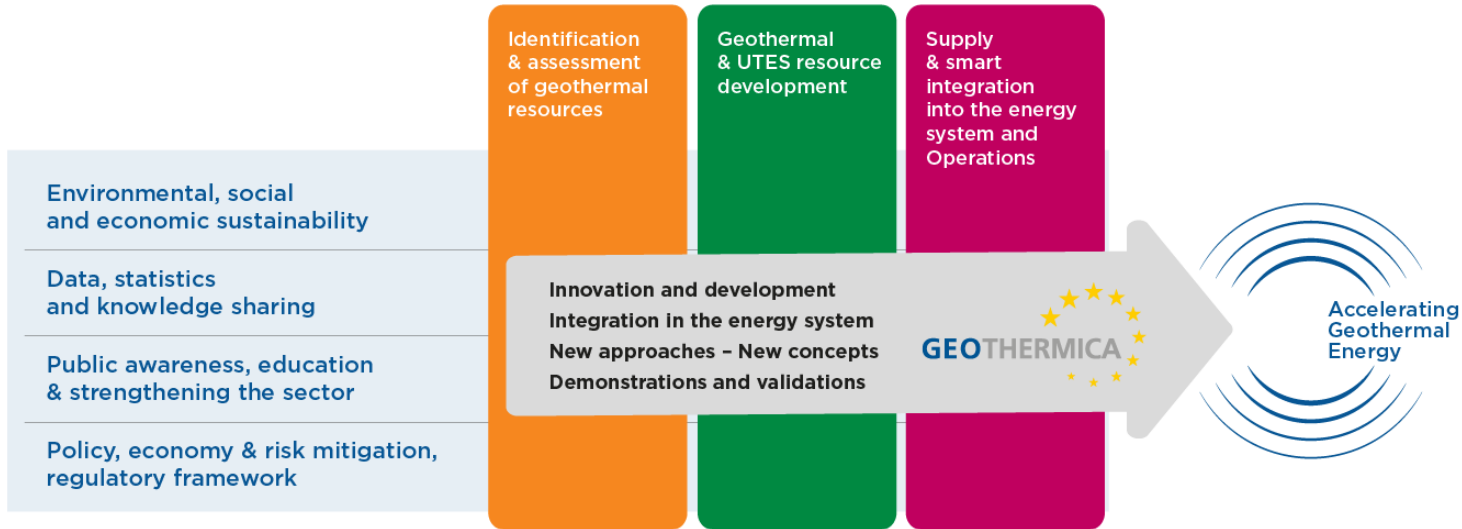
TRI 4: Efficient zero emission Heating and Cooling Solutions

- Foster **innovative technical solutions** for the heating & cooling transition in Europe
- Support all **heating and cooling-related production technologies**, such as geothermal of all depth ranges, solar thermal applications, collective and individual systems for the built environment, storage solutions, and industrial and other end-users.

Modules:	CM2023-06 Heating and cooling technologies	CM2023-07 Geothermal energy technologies
Innovation target	Technology development, including H&C sources, thermal storage, distribution, conversion (heat pumps) and end use. Excluding geothermal energy. Relaunch	Technology development, including exploration, resource development, integration in the energy system, including thermal storage. Relaunch of GEOHERMICA-2
Target group	Private sector and research organisations	Private sector and research organisations
TRL levels	4-8 (RIA and IA)	4-8 (RIA and IA)
Characteristic of projects	Technological solutions, for all end users including industry	Technological solutions
Rationale	50% of European energy demand is for heating.	Geothermal energy (H&C, power, thermal storage) too little focus in 2022



#6



#7

List of projects 2022

4 projects

Proposal Acronym	Proposal Name	Funding Agencies(acronym)
STRAWBERRIES	Solar Thermal Agriculture with Bifacial Collectors for Farming Synergies	FCT, FZJ/Ptj , BF Portugal, Germany, Finland
TRAINING	Thermal energy storing and digitalization in district heating to enable transition to renewable and resource efficient energy systems	RCN , SWEA, FZJ/Ptj Norway, Sweden, Germany
LEG-DHC	Large-scale climate neutral Energy Geostructures in District Heating & Cooling systems/networks	RCN, IFD, MiSE, MKM, ANR , GSI NO, DK, IT, EE, FR, IE
PVT4EU	Photovoltaic Thermal For Europe	FCT, SWEA , IFD PT, SE, DK

List of projects 2023

CM6 Heating and cooling

CM7 Geothermal

- **Pre-proposals received and being evaluated**
- **Pre-proposals invited to the next stage in January 2024**

New calls from 2024

- Information will be available via online channels



<https://cetpartnership.eu>



<https://www.linkedin.com/company/cetpartnership/>



[https://twitter.com/CET Partnership](https://twitter.com/CET_Partnership) <https://www.youtube.com/@cetpartnership>



Participating Funding agencies in CETP

	Austria	Austrian Research Promotion Agency (FFG)
	Belgium	Fonds Innoveren en Ondernemen (FIO)
	Belgium	Service Public de Wallonie (SPW)
	Canada	Emissions Reduction Alberta (ERA)
	Cyprus	Research and Innovation Foundation (RIF)
	Czech Republic	Technology Agency of the Czech Republic (TA CR)
	Denmark	Energy Technology Development and Demonstration Programme (EUDP)
	Denmark	Innovation Fund Denmark (IFD)
	Estonia	Estonian Research Council (ETAg)
	Estonia	Ministry of Economic Affairs and Communications (MKM)

	Finland	Innovaatioarahoituskeskus Business Finland (BF)
	France	Agence de la Transition Écologique (ADEME)
	France	Agence Nationale de la Recherche (ANR)
	France	Pays de la Loire Region Council (RPL)
	Germany	Forschungszentrum Jülich GmbH (BMWK) (FZJ (BMWK))
	Germany	Forschungszentrum Jülich GmbH (MWIKE) (FZJ (MWIKE))
	Germany	Saxon State Ministry for Science, Culture and Tourism (SMWK)
	Greece	General Secretariat for Research and Innovation (GSRI)
	Hungary	National Research, Development and Innovation Office (NKFIH)
	Iceland	The Icelandic Centre for Research (RANNIS)

	Ireland	Sustainable Energy Authority of Ireland (SEAI)
	Israel	Ministry of Energy (MoE)
	Italy	Ministero dell'Università e della Ricerca (MUR)
	Italy	Ministry of Economic Development (MIMIT)
	Latvia	Latvian Council of Science (LZP)
	Lithuania	Ministry of Energy of the Republic of Lithuania (ENMIN LITHUANIA)
	Malta	Malta Council for Science and Technology (MCST)
	Netherlands	Dutch Research Council (NWO)
	Netherlands	Netherlands Enterprise Agency (RVO)
	Norway	The Research Council of Norway (RCN)
	Poland	National Centre for Research and Development (NCBR)
	Portugal	Fundação para a Ciência e a Tecnologia (FCT)

	Romania	Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI)
	Spain	Agencia Estatal de Investigación (AEI)
	Spain	Centre for the Development of Industrial Technology (CDTI)
	Spain	Departamento de Desarrollo Económico, Sostenibilidad y Medio Ambiente. Eusko Jaurlaritz-Gobierno Vasco (EUSKADI)
	Spain	Ente Vasco de la Energía (EVE)
	Spain	Fundación para el Fomento en Asturias de la Investigación Científica Aplicada y la Tecnología (FICYT)
	Spain	Regional Development Agency of Cantabria (SODERCAN)
	Sweden	Swedish Energy Agency (SWEA)

	Switzerland	Federal Department of the Environment, Transport, Energy and Communications (DETECSFOE)
	Switzerland	Swiss National Science Foundation (SNSF)
	Türkiye	The Scientific and Technological Research Council of Türkiye (TUBITAK)
	United Kingdom	Scottish Enterprise (SE)
	United States	Department of Energy (DOE)

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	Spain	Centre for the Development of Industrial Technology (CDTI)

	Switzerland	Federal Department of the Environment, Transport, Energy and Communications (DETEC-SFOE)
	Switzerland	Swiss National Science Foundation (SNSF)

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Funding Agencies involved in TRI4 Heating & Cooling

	Denmark	Denmark (IFD)
	Estonia	Estonian Research Council (ETAg)
	Estonia	Ministry of Economic Affairs and Communications (MKM)

	Greece	General Secretariat for Research and Innovation (GSRI)
	Hungary	National Research, Development and Innovation Office (NKFIH)
	Iceland	The Icelandic Centre for Research (RANNIS)

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	Sweden	Swedish Energy Agency (SWEA)

	Switzerland	Swiss National Science Foundation (SNSF)
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Modules #6 and #7 for TRI4 Heating & Cooling

- The TRI4H&C Call modules **encourage innovative entrepreneurs** in small, middle-sized, and large companies, **research organisations, and academia** to propose. In a small number of partner countries, local and regional governments are also eligible for funding.
- **Broad geographic spectrum encouraged.** Each project consortium must demonstrate the alignment with the respective Funding Partners' national interest and demonstrate the applicants' competence to undertake the project's specified themes.
- Projects are strongly encouraged to involve **"need-owner(s)" and relevant stakeholders from the national/regional** innovation ecosystem in all project phases to maximise market acceptance and uptake of the technologies and solutions that the projects develop



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Thank you

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