



CSP ERA-NET has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No. 838311



CSP ERANET

CSP Projects Joint Webinar – 25th of June 2021



Julio Marchamalo Amado – AEI-FECyT –CSP ERANET Com&Diss Office





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About Us

CSP ERANET constitutes a **public-public partnership** gathering 11 representatives from Member States, Associated Countries and Regions with the common objective of **bridging the gap between research and commercial deployment in the Concentrated Solar Power (CSP) technology**, so this technology can play a main role in the European renewable electricity generation in a medium term.



Spain



Switzerland



Germany



Greece



Israel



Italy



Portugal



Turkey



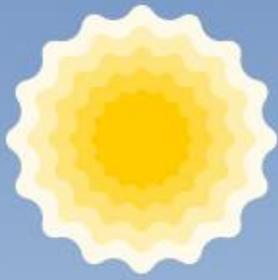


About Us

CSP ERANET aims to coordinate the efforts of these Member States, Associated Countries and Regions in order to achieve CSP SET Plan objectives, by pooling financial resources to **implement joint calls for Research & Innovation proposals**, resulting on strategic projects with substantial investment, which cannot be allocated by individual countries or by the European Commission on their own.

CSP ERANET members have committed more than 9 million EUR for launching the **Cofund 1st Joint Call for proposals** and more than 6 million EUR for the **Additional Call**, coming this september 2021.





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CSP Consortium



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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Swiss Federal Office of Energy SFOE



TÜBİTAK



Direção-Geral
de Energia e Geologia

- **Strong and balanced** members
- Government departments for **energy and research institutions** from 8 countries
- **Committed** to achieve results in the CSP technology field
- **Common interests** in solar power (SOLAR ERANETs)
- **Previous experience** in launching joint calls





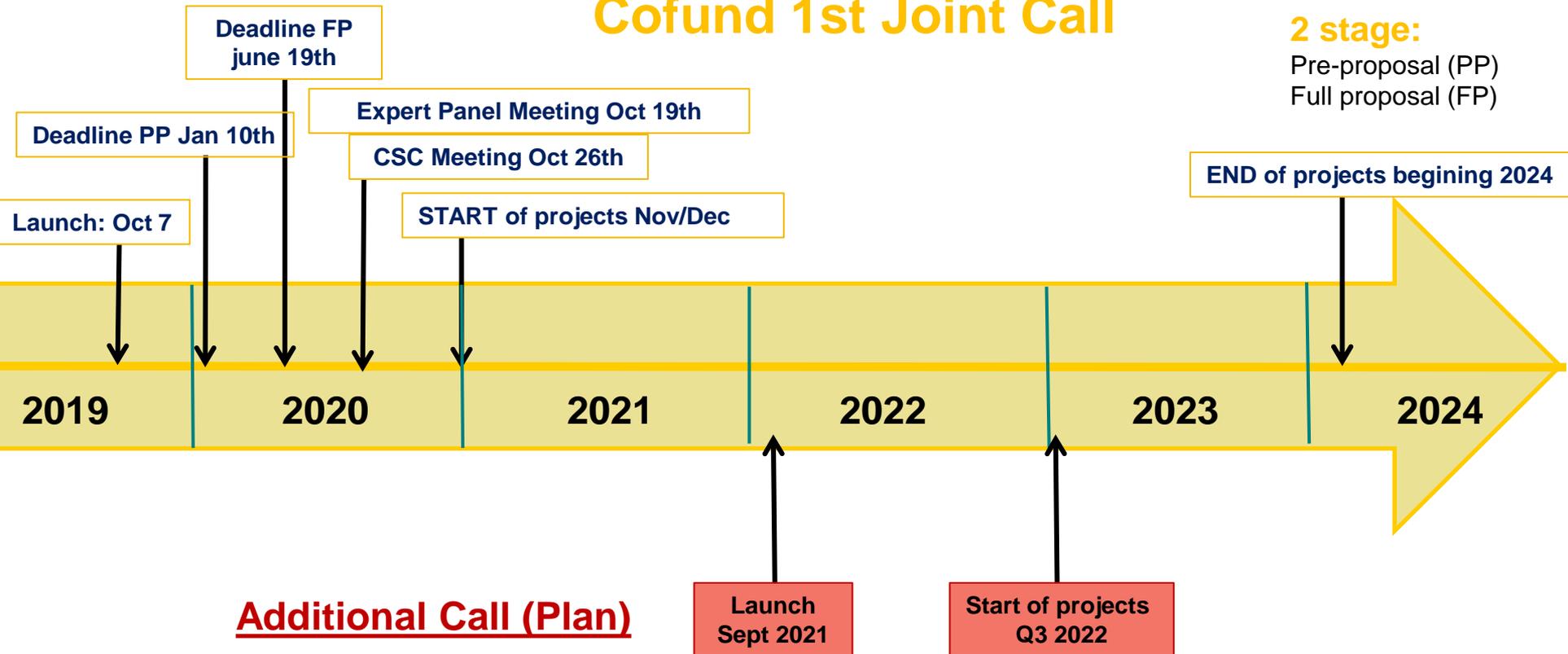
Strategic Objectives

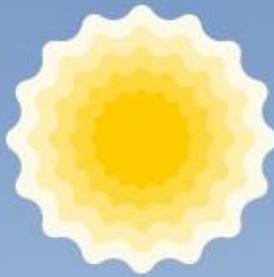
1. Accelerate the time to commercial deployment of **affordable, cost-effective and resource-efficient technology solutions** which decarbonize the energy system in a sustainable way;
2. **Place the CSP technology in a referent position in the Energy Union** long-term strategy, filling the gap of some RES technologies which are not manageable or storable at an affordable cost;
3. Move towards an integrated **European R&I approach which accelerates the transformation of the energy system.**





Cofund 1st Joint Call





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Topics selected for the 1st Call

Based on the research and priorities identified in the SET Plan and the CSP Implementation Plan and originated from the STAGE-STE Deliverable 2.3 "Final R+D input to Implementation Plan technological research programme to CSP/STE defined targets achievement"

Topic 1: Advanced linear concentrator Fresnel technology with direct molten salt circulation

Topic 2: Parabolic trough with molten salts

Topic 3: Parabolic trough with silicon oil

Topic 4: Solar tower power plant to commercially scale-up and optimize the core components of the open volumetric air receiver technology

Topic 5: Improved Central Receiver Molten Salt technology

Topic 6: Next Generation of Central Receiver Plants with molten salt receiver

Topic 8: Multi-tower central receiver beam down system

Topic 9: Thermal energy storage

TRL 1

TRL 2

TRL 3

TRL 4

TRL 5

TRL 6

TRL 7

TRL 8

TRL 9

Basic principles observed

Technology concept formulated

Experimental proof of concept

Technology validated in lab

Technology validated in relevant environment

Technology demonstrated in relevant environment

System prototype demonstration in operational environment

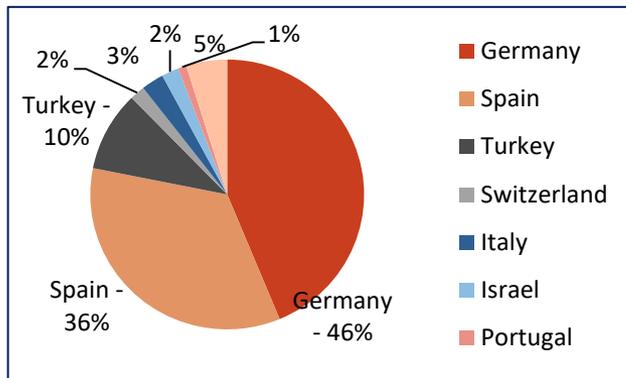
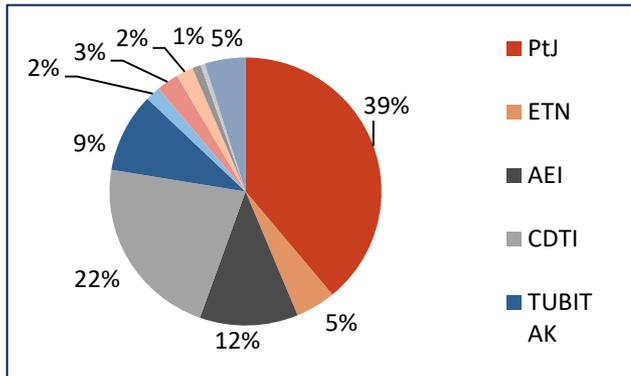
System complete and qualified

Actual system proven in operational environment / competitive manufacturing

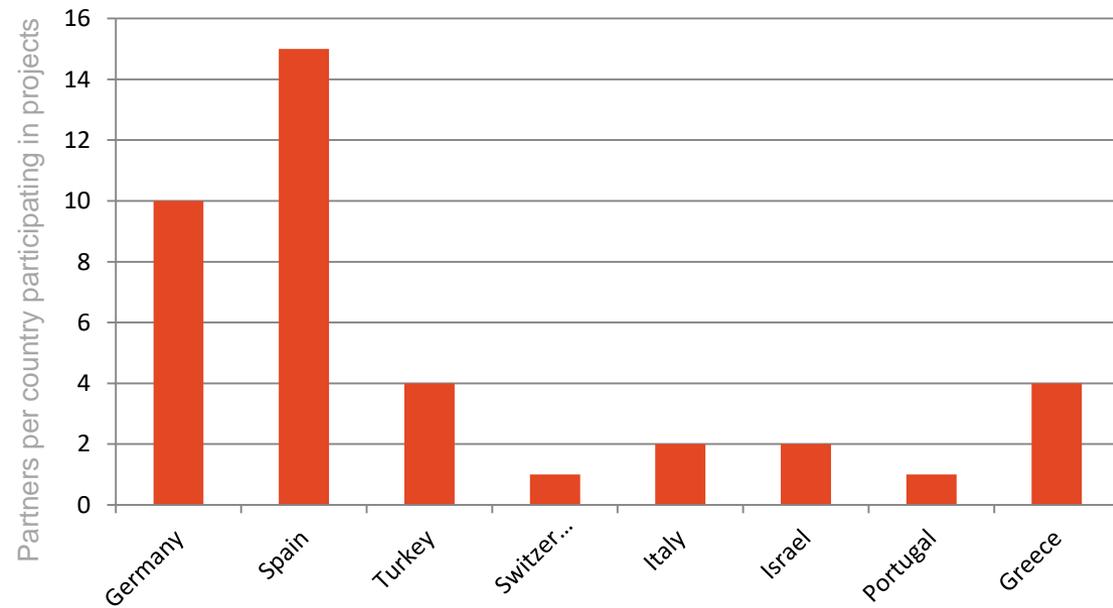




Requested Funding per FA and per Country



Results



Funded Projects (I)

Parabolic trough with molten salts



European Parabolic Trough with Molten Salt (EuroPaTMOs)

Coordinator: Deutsches Zentrum fuer Luft- und Raumfahrt EV

10 partners from:



Parabolic trough with silicone oil



High performance parabolic trough collector and innovative silicone fluid for CSP power plants.(Si-CO)

Coordinator: ACCIONA INDUSTRIAL S.A.

8 partners from:



Thermal energy storage



INNOvative SOLar micro-TES with high-POWER density (InnoSolPower)

Coordinator: Pars Makina Ltd. Research and Development

4 partners from:



2	Parabolic trough with molten salts		
3	Parabolic trough with silicone oil		

Funded Projects (II)

Thermal energy storage



Thermal Energy Storage for On-demand Solar Trigenation (TES4Trig)

TES4Trig aims at unifying the strategies

Coordinator: National Technical University of Athens

6 partners from:



Thermal energy storage



Advanced thermocline concepts for thermal energy storage for CSP (NEWCLINE)

Coordinator: Universitat Politècnica de Catalunya

5 partners from:



Thermal energy storage



Techno-economical evaluation of different thermal energy storage concepts for CSP plants (CSPplus)

Coordinator: University of Lleida

6 partners from:





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Additional Call (I)



Same topics as the Cofund 1st Call



6,3M €
(Approx.)



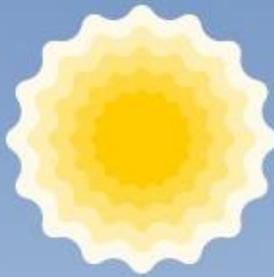
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<https://csp-eranet.eu/calls/1st>

Additional Call (II)

CSP
Launch of
joint call
2021
Public
announ-
cement
Sept 2021

CSP
Decision on
projects to
be funded
Legally
binding
confirmation
of funding
Q2 2022

CSP
Start of
funded
projects
first transfers
of
instalments
to projects
Q3 2022

CETP
Submission of
CETP
Proposal
*Indication for
7 ys and for
joint call 2022*
Oct 2021 (as late)

CETP
Launch of
joint call 2022
Public
announ-
cement
Q3 2022

CETP
Decision on
projects to be
funded
Legally
binding
confirmation
of funding
Q2 2023

CETP
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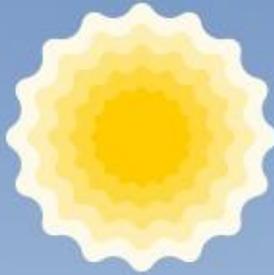


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Thank you!

Julio Marchamalo Amado – AEI-FECyT

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