



**SOLAR-ERA.NET
Cofund 2
(Solar Cofund 2)
Joint Call**

Guidelines for Proposers

Version 2018_08_01

Contents

1. Introduction	3
2. Participating States, Organisations and Programmes	4
3. Scope and Topics	6
4. Application Issues	11
4.1 Timeline and Process	
4.2 Eligibility Issues	
4.3 Funding Rules	
4.4 Confidentiality	
4.5 Consortium Agreement	
4.6 Evaluation	
5. Funding and Reporting	15
5.1 Contract	
5.2 Start and Instalments	
5.3 Monitoring	
5.4 Dissemination and Data	
Annex - National / Regional Requirements	17

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1. Introduction

The SOLAR-ERA.NET Cofund 2 Joint Call is carried out by national / regional research and technology development (RTD) and innovation programmes and national / regional funding agencies in the field of solar electricity generation, i.e. photovoltaics (PV) and concentrating solar power (CSP) / solar thermal electricity (STE). The Joint Call is commonly carried out by the following countries and regions: Austria, Belgium-Flanders and Wallonia, Cyprus, France, Germany and North-Rhine-Westphalia, Greece, Israel, Italy, The Netherlands, Spain, Sweden, Switzerland and Turkey.

The total budget provided by national and regional funding agencies as well as by the European Commission is 22 million euros. The specific funding budgets provided by the funding agencies are listed in the Annex “National and Regional Requirements”.

Important dates:

- Official opening of the Call: 4 June 2018
- Webinar: 21 June 2018
- Deadline for submitting preproposals: 2 October 2018, 16:00 CET
- Full proposal round: 10 December 2018 – 25 February 2019
- Feedback on funding decisions by end of May 2019 and project starts from September 2019 on

2. Participating States, Organisations and Programmes

The participating national SOLAR-ERA.NET partners / contact points are listed in Table 1. Each **applicant have to check the project idea with the national contact point as early as possible** in the preproposal phase, at the latest before submitting any applications.



Figure 1: Organisations involved in promoting the SOLAR-ERA.NET Cofund 2 Joint Call and providing support and funding to innovative transnational projects.

Table 1: National / Regional Funding Organisation Contact Points in SOLAR-ERA.NET Cofund 2 Joint Call

Country / Region	Funding Organisation or Contact Point	Contact(s) and Domain(s)
Austria	Austrian Research Promotion Agency (FFG)	Anita Hipfinger: anita.hipfinger (at) ffg.at, +43 5 7755 5025
Belgium-Flanders	Vlaams Agentschap Innoveren en Ondernemen	Geert Carchon: geert.carchon (at) vlaio.be, +32 2 432 42 94 Bart De Caesemaeker: bart.decaesemaeker (at) vlaio.be, +32 2 432 42 49
Belgium-Wallonia	Service Public de Wallonie (SPW)	DGO4-Department of sustainable energy and buildings Laurence Polain: laurence.polain (at) spw-wallonie.be, +32 81 486342
Cyprus	Research Promotion Foundation (RPF)	Pavlos Leptos: pleptos (at) research.org.cy, +357 22205026
France	Agence de l'environnement et de la maîtrise de l'énergie (ADEME)	Tristan Carrere, Ingénieur Photovoltaïque, tristan.carrere (at) ademe.fr, +33 (0)1 47 65 23 51
France	Agence Nationale de la recherche (ANR)	Aurélien Gaufrès: Aurelien.gaufres (at) agencerecherche.fr, +33 1 73 54 82 29 Pascal Bain: Pascal.Bain (at) agencerecherche.fr, +33 1 78 09 80 43
Germany	Projektträger Jülich (PtJ)	Geschäftsbereich Energiesystem: Erneuerbare Energien/Kraftwerkstechnik, Fachbereich Photovoltaik (ESE 1) Renate Horbelt: r.horbelt (at) fz-juelich.de, +49 2461 61 9874 Kambulakwao Chakanga: k.chakanga (at) fz-juelich.de, +49 2461 61 9871
Germany-NRW	Projektträger ETN	Fachbereich Energie Dr. Melanie Schulte: me.schulte (at) fz-juelich.de, +49 2461 690 504 Dr. Joachim Kutscher: jo.kutsche (at) fz-juelich.de, +49 2461 690 604
Greece	General Secretariat for Research and Technology (GSRT)	Paraskevi Afentaki International S&T Cooperation Directorate Bilateral and Multilateral Cooperation Section +302107458112
Israel	Ministry of Energy	Gideon Friedmann, Head of R&D Division - Office of the Chief Scientist, +972-2-5316020 (Office), +972-2-5316017 (Fax), +972-58-5337565 (Mobile), gideonf (at) energy.gov.il
Italy	Ministry for Education, University and Research (MIUR)	Ing. Aldo Covello tel. +39 06 9772 6465 e-mail: aldo.covello (at) miur.it Dott. Andrea Previti - tel: (+39) 06 5849 7146 e-mail: andrea.previti (at) est.miur.it
Netherlands	RVO	Otto Bernsen, otto.bernsen (at) rvo.nl Wijnand van Hooff, wijnand (at) tki-urbanenergy.nl
Spain-CDTI	Centre for the Development of Industrial Technology (CDTI)	Gabriel Barthelemy: gabriel.barthelemy (at) cdti.es, +34 91 581 0707

Spain- MINECO- AEI	Ministry of Economy, Industry and Competitiveness – State Research Agency (MINECO-AEI)	Alberto Abánades (scientific issues) Daniel Ruiz (administrative and technical issues) Representative: Severino Falcón +34 91 603 79 68 era-energia (at) aei.gob.es
Sweden	Swedish Energy Agency (SWEA)	Pierre-Jean Rigole: pierre-jean.rigole (at) swedishenergyagency.se, +46 16 544 21 91 Tobias Walla: tobias.walla (at) swedishenergyagency.se, +46 16 544 20 54
Switzerland	i) Swiss Federal Office of Energy (SFOE) ii) NET Nowak Energy & Technology Ltd. (NET)	i) Stefan Oberholzer (for PV and CSP topics): stefan.oberholzer (at) bfe.admin.ch, +41 58 465 89 20 ii) Stefan Nowak (for PV topics): stefan.nowak (at) netenergy.ch, +41 26 494 00 30
Turkey	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu (TÜBİTAK)	Kaan Karaöz: kaan.karaoz (at) tubitak.gov.tr, +90 312 4685300 (TEYDEB) Salih Hacıalıoğlu: salih.hacialioglu (at) tubitak.gov.tr, +90 312 2981242 (ARDEB)

3. Scope and Topics of the SOLAR-ERA.NET Cofund 2 Joint Call

SOLAR-ERA.NET Cofund 2 Joint Call topics are based on priorities identified in the Strategic Energy Technology (SET) Plan resp. in the subsequent Implementation Plans for PV and CSP that are available on the solar-era.net website and on SETIS:

PV: https://setis.ec.europa.eu/system/files/set_plan_pv_implementation_plan.pdf

CSP: https://setis.ec.europa.eu/system/files/set_plan_-_csp_initiative_implementation_plan.pdf

They include strategic targets that shall serve as reference for this call and proposals to be submitted. **Strategic targets** of the Implementation Plans for PV and CSP are as follows:

For PV:

Overarching goals: re-build European technological leadership in the sector by pursuing high-performance PV technologies and their integration in the European energy system; bring down the levelized cost of electricity from PV rapidly and in a sustainable manner to allow competition in electricity markets all over Europe. This will be achieved by:

1. Major advances in efficiency of established technologies (Crystalline Silicon and Thin Films- c-Si and TFs) and new concepts:

- Increase PV module efficiency by at least 20% by 2020 compared to 2015 levels;
- Increase PV module efficiency by at least 35% by 2030 compared to 2015, including with the introduction of novel PV technologies;

2. Reduction of the cost of key technologies:

- Reduce turn-key system costs by at least 20% by 2020 as compared to 2015;
- Reduce turn-key system costs by at least 50% by 2030 compared to 2015 with the introduction of novel, potentially very-high-efficiency PV technologies manufactured at large scale;

3. Further enhancement of lifetime, quality and sustainability:

- Maintain proven system energy output per year at least 80% of initial level for 30 years by 2020 and 35 years by 2025;
- Minimise life-cycle environmental impact along the whole value chain of PV electricity generation, increase recyclability of module components (in particular of modules);

4. Enabling mass realisation of "(near) Zero Energy Buildings" (NZEB) by Building-Integrated PV (BIPV) through the establishment of structural collaborative innovation efforts between the PV sector and key sectors from the building industry:

- Develop BIPV elements, which at least include thermal insulation and water protection, to entirely replace roofs or facades and reduce their additional cost by 50% by 2020, and by 75% by 2030 compared to 2015 levels, including with flexibility in the production process;
- Recognise the importance of aesthetics in the activities of the implementation of NZEB;

5. Major advances in manufacturing and installation:

- Make available GW-scale manufacturing technologies that reach productivity and cost targets consistent with the capital cost targets for PV systems;
- Develop PV module and system design concepts that enable fast and highly automated installation, to reduce the installation costs of both ground-mounted arrays and PV building renovation solutions, by 2020.

For CSP:

1. Short-term: > 40% cost reduction by 2020 (from 2013) translating into
 - Supply price < 10 c€/kWh for a radiation of 2050 kWh/m²/year (conditions in Southern Europe)
2. Longer-term: develop the next generation of CSP/STE technology
 - New cycles (including supercritical ones) with a first demonstrator by 2020, with the aim to achieve additional cost reductions and opening new business opportunities.

2020 targets above-mentioned are to be adapted accordingly to the transnational projects' end year (i.e. 2022).

The strategic targets are translated into a set of topics for the SOLAR-ERA.NET Cofund 2 Joint Call and are based on the Implementation Plans developed by the Temporary Working Groups for PV resp. CSP and published end of 2017 (available on the solar-era.net website)

The SOLAR-ERA.NET Cofund 2 Joint Call comprises five topics:

- A) Advanced industrial PV technologies
- B) Emerging PV technologies
- C) Building and infrastructure integrated PV
- D) Operation and diagnosis of PV plants
- E) CSP low cost and next generation technologies

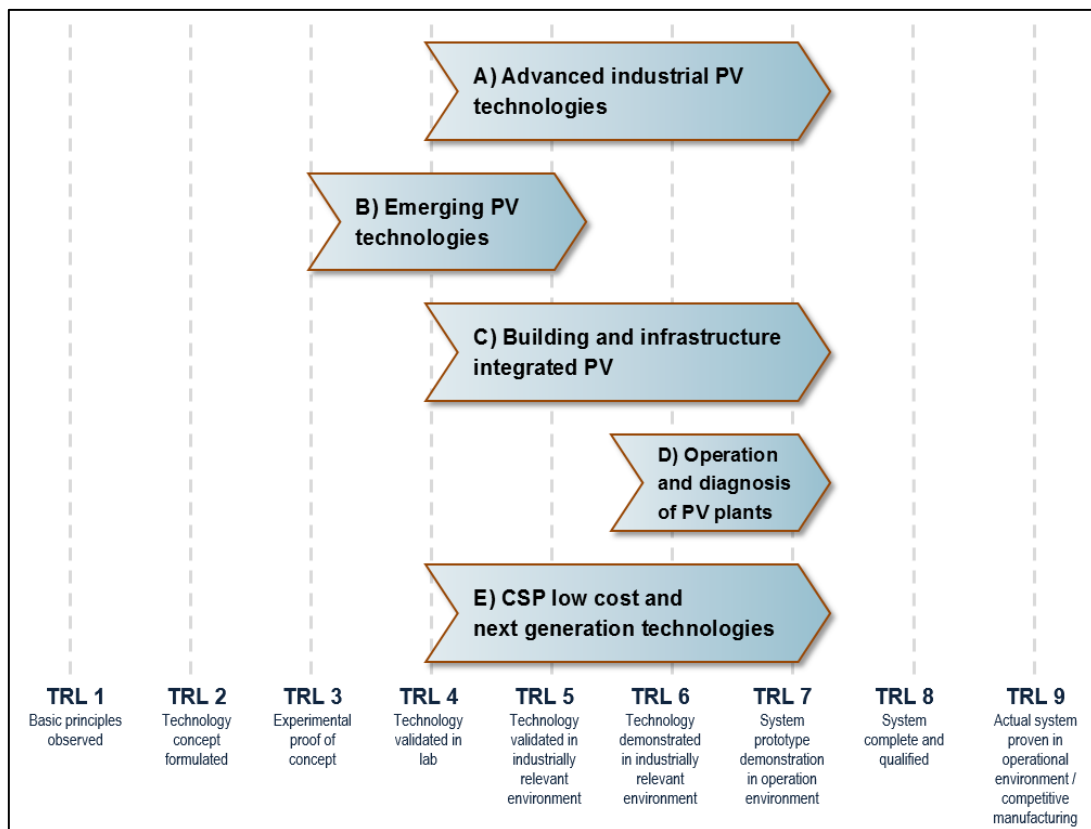


Figure 2: The topics of the SOLAR-ERA.NET Cofund 2 Joint Call.

Topic A – Advanced industrial PV technologies

Scope: Proposals aim at developing and implementing from advanced laboratory technologies to high-throughput industrial manufacturing processes, materials and equipment. Areas addressed should therefore contribute to the further development of advanced industrial PV technologies.

Envisaged time to market for technologies supported: 2 - 4 years

Areas / subtopics:

- A1. Passivated emitter and rear cell (PERC), heterojunction (HJT) technologies and advanced passivating concepts for crystalline silicon solar cells
- A2. High-performance silicon-based cells (>24%) and modules
- A3. Advanced thin film technologies, in particular copper indium gallium diselenide (CIGS)
- A4. Advanced and new interlayers, metallization, transparent conductive oxides, etc.
- A5. Manufacturing issues and next generation processing equipment for advanced solar cells
- A6. Cell interconnection methods and equipment
- A7. PV module encapsulation technologies and equipment
- A8. New inline characterization methods and tools
- A9. Industry 4.0 (“smart factory”) approaches to advanced PV manufacturing

TRL: 4 to 7

Topic B – Emerging PV technologies

Scope: Proposals aim at raising emerging solar cell technologies with high efficiency / low cost potential to the industrial scale and beyond.

Envisaged time to market for technologies supported: 3 - 5 years

Areas / subtopics:

- B1. Silicon-based tandem technologies, namely with perovskites and III/V semiconductors
- B2. Thin film tandem and multiple junction technologies
- B3. Perovskite solar cells
- B4. Organic solar cells
- B5. Dye-sensitized solar cell (DSC)
- B6. Concentrator photovoltaic (CPV) and high concentration photovoltaics (HCPV)
- B7. Ultra-high efficiency concepts

TRL: 3 to 5

Topic C – Building and infrastructure integrated PV

Scope: Proposals aim at developing a market pull approach for innovative and integrated PV solutions that will allow a faster and broader market uptake of new PV technologies and more intensive and multi-functional use of the available surface on buildings and urban infrastructure both for new constructions and renovations, while enhancing quality, reliability and lifetime of the products and reducing costs.

Envisaged time to market for technologies supported: 2 - 4 years

Areas / subtopics:

- C1. Innovative BIPV module technologies, e.g. lamination, colours, shapes, reflectivity, bifacial, etc.
- C2. Customized industrial processes for BIPV solutions
- C3. New concepts and solutions for building and urban infrastructure integrated PV
- C4. Advanced integration of PV into standard building components and systems
- C5. PV as part of advanced highly energy efficient building concepts

TRL: 4 to 7

Topic D – Operation and diagnosis of PV plants

Scope: Proposals aim at developing and demonstrating technical solutions, business processes and business models that can support high plant performance, availability and income at reasonable costs for advanced monitoring, operations and maintenance (O&M) over the expected lifetime of the PV plant. If improvements of PV plant operation and diagnosis require a consideration of the plant's integration into the energy system those questions may be included.

Envisaged time to market for technologies supported: 2 - 4 years

Areas / subtopics:

- D1. Advanced and automated functions for data analysis, fault detection, diagnosis, maintenance planning and/or reporting
- D2. Interoperability, standardization and auto-configuration of sensors, data acquisition, inverters and communication systems within PV plants and between PV plants and central monitoring systems (Industry 4.0 / Internet of Things);

TRL: 6 to 7

Topic E – CSP low cost and next generation technologies

Scope: Proposals aim at short term cost reductions or developing next generation technology. The topic applies to all CSP technologies including CSP-Stirling.

Envisaged time to market for technologies supported: 2 - 4 years

Areas / subtopics:

- E1. Development of innovative Heat Transfer Fluids (HTF) and systems to increase operating temperatures, lower water consumption, environmental acceptance, and increase solar field efficiencies
- E2. Improved solar collector/heliostat and support structure to reduce the structural costs
- E3. Improved selective coatings for receivers (absorber tubes and central receivers)
- E4. Development of innovative short-term and long-term thermal storage
- E5. Development of thermal cycles and BOP for solar and non-solar hybridisation and integration concepts
- E6. Development of techniques to reduce O&M costs: control and operation
- E7. Development of measuring and test methods for recording the quality of components and subsystems

TRL: 4 to 7

IMPORTANT: Not all programmes / funding agencies will accept applications in all topics (see Table 2 and in the Annex “National / Regional Requirements”) and for all Technology Readiness Levels (TRL’s), and some will prioritise some topics over others. Lower TRL research activities necessary to support demonstration and validation activities might be potentially in scope for SOLAR-ERA.NET Cofund 2 funding, where they are a minor but integral part of wider projects which progress a technology though to TRL’s of this topic. Applicants **have to** check with their national / regional contact points whether the project idea fits within the national / regional constraints **as early as possible** but at least **before** submitting a preproposal.

Eligible topics and areas / subtopics are shown in Table 2 for each funding organisation participating in the SOLAR-ERA.NET Cofund 2 Joint Call. Further information can be found in the Annex with specific national and regional requirements (accepted TRL’s, type of organisations and RDI supported, etc.).

Table 2: Matrix of Eligible Topics and Subtopics per Country / Region resp. Funding Agency

	Austria	Belgium-Flanders	Belgium-Wallonia	Cyprus	France-ADEME	France-ANR	Germany	Germany-NRW	Greece	Israel	Italy	Netherlands	Spain-CDTI	Spain-MINECO-AEI	Sweden	Switzerland	Turkey
A) Advanced industrial PV technologies																	
A1	x	x	x	x	x	x	x	x		x		x	x	x		x	x
A2	x	x	x	x	x	x	x	x		x		x	x	x		x	x
A3	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x
A4	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x
A5	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x
A6	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x
A7	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x
A8	x	x	x	x	x	x	x	x		x		x	x	x	x	x	x
A9	x	x	x	x	x	x	x	x		x		x	x	x	x		x
B) Emerging PV technologies																	
B1	x	x	x	x		x	x	x		x	x	x	x	x	x	x	x
B2	x	x	x	x		x	x	x		x		x	x	x	x	x	x
B3	x	x	x	x		x	x	x		x	x	x	x	x	x	x	x
B4	x	x	x	x		x	x	x		x		x	x	x	x		x
B5	x	x	x	x		x		x		x	x	x	x	x	x		x
B6	x	x	x	x		x	x	x		x		x	x	x	x	x	x
B7	x	x	x	x		x	x	x		x		x	x	x	x	x	x
C) Building and infrastructure integrated PV																	
C1	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
C2	x	x	x	x	x		x	x	x	x		x	x	x	x	x	x
C3	x	x	x	x	x		x	x	x	x		x	x	x	x		x
C4	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
C5	x	x	x	x	x		x	x	x	x		x	x	x	x		x
D) Operation and diagnosis of PV plants																	
D1	x	x	x	x			x	x	x	x		x	x	x	x	x	x
D2	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x
E) CSP low cost and next generation technologies																	
E1	x	x	x	x		x	x	x	x	x	x		x	x	x	x	x
E2	x	x	x	x	x	x	x	x	x	x			x	x	x	x	x
E3	x	x	x	x		x	x	x	x	x			x	x	x	x	x
E4	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
E5	x	x	x	x	x	x	x	x	x	x			x	x	x	x	x
E6	x	x	x	x	x		x	x	x	x			x	x	x		x
E7	x	x	x	x	x		x	x	x	x	x		x	x	x	x	x

4. Application Issues for the SOLAR-ERA.NET Cofund 2 Joint Call

4.1 Timeline and Process

The call is set up as a two-step submission procedure, consisting of a preproposal phase and a full proposal phase. Further information is available with the Guidelines for Users of the Electronic Submission System available on the solar-era.net website. It is a pre-screen of what will be required in the application. Applicants shall not fill in this PDF but enter data online in the Electronic Submission System (ESS). The most relevant dates and deadlines are given in Table 3.

Table 3: Dates and Deadlines for the SOLAR-ERA.NET Cofund 2 Joint Call

Date	Activities
4 June 2018	Publication of the SOLAR-ERA.NET Cofund 2 Joint Call
21 June 2018	Brokering webinar
2 October 2018, 16:00 CET	Deadline for submission of preproposals
10 December 2018	Communication on applications selected for full proposal round
25 February 2019, 16:00 CET	Deadline for submission of full proposals
End of May 2019	Final funding decisions communicated to proposers
Around September 2019	Start of projects funded

1. Before submitting a preproposal, all project partners **have to** contact their respective national / regional programme funding organisations in order to discuss the project line-up and funding conditions (contacts listed in Table 1).
2. A preproposal is mandatory. It has to be submitted by the coordinator and partners through an online application form accessible via www.solar-era.net within the deadline set. Applicants are invited to register in the Electronic Submission System as early as possible.
3. National / regional organisations will then carry out their eligibility check (and pre-evaluation for some funding agencies) based on the preproposal and the respective national / regional funding rules. Independent international experts will evaluate the preproposals. Applicants will be provided with feedback after the review of their preproposal, including the information on whether or not they are selected for submitting a full proposal. More specifically, the Joint Call secretariat will inform the coordinator of the application by e-mail on 5th December 2018. If the coordinator has not received any e-mail, he / she shall contact the Call secretariat. Recommendations for the full proposals according to the national / regional rules and principles may then be provided.
4. The full proposal has to be submitted by the applicants (invited for the full proposal phase) through an online application form accessible via www.solar-era.net within the deadline set. Additionally, national / regional funding applications may have to be submitted separately according to their specific rules (see Annex – National / Regional Requirements).
5. Full proposals meeting all national / regional requirements will be evaluated by independent international experts according to the evaluation criteria specified in the call. Based on the result of the international evaluation and funding budget available, proposals will be selected (or not) for funding.

4.2 Eligibility Issues

Different eligibility aspects have to be considered:

- Applications have to be submitted in English through the Electronic Submission System within the deadline set.
- Eligible consortia shall consist of a minimum of 2 partners from 2 different countries participating in the SOLAR-ERA.NET Cofund 2 Joint Call and providing funding to the project selected. At least one partner in the consortium has to be from industry. The project consortia may involve as many partners as necessary to successfully deliver the project. Partners from countries that do not participate in SOLAR-ERA.NET Cofund 2 (see Table 1) can join a project consortium as additional partners providing added-value to the project. However, these additional partners have to finance their activities from other sources, as each funding agency will only fund eligible partners from their own country. A letter of commitment must be included as an annex to the full proposal including the commitment of this partner to the project.
- **All applicants** have to fulfil (additional) eligibility criteria of their respective national / regional programme / funding organisation and **have to contact their national / regional agency as early as possible** in the process to understand if their project is within scope/eligibility.
- SME, large companies, non-profit research organisations, higher education institutions, public research organisations and public organisations may participate according to their national / regional financing regulations (see Annex – National / Regional Requirements).
- The project duration is limited to max. 36 months.

4.3 Funding Rules

Within this SOLAR-ERA.NET Cofund 2 Joint Call, the funding rules of the national / regional agencies apply. Prior to submitting a preproposal, all project partners seeking funds have to contact their funding agency / contact point. The level of funding available will be determined by the rules of the relevant funding agency. Information about the specific funding rules and applicable topics will be provided via the person in charge of the respective national / regional agencies (see Table 1). Some relevant information is provided in Annex – National / regional Requirements. Each eligible project partner will receive funds from his / her national / regional agency. Each project partner will be responsible for the preparation and submission of all necessary reports required by their respective funding agency in order to obtain funding in full accordance with national / regional rules. The European Commission (as support to SOLAR-ERA.NET Cofund 2 (N° 786483) within the EU Framework Programme for Research and Innovation HORIZON 2020 grant) reimburses 33% of the action's eligible costs by max. EUR 6'624'626. The total maximum funding budget in this SOLAR-ERA.NET Cofund 2 Joint Call is EUR 22'074'626.

4.4 Confidentiality

Project proposals and any information relating to them shall be kept confidential in accordance with the applicable national / regional legislation. Project proposals shall not be used for any purpose other than the evaluation of the applications, making funding decisions and monitoring of the project. International experts, which will be invited to evaluate the proposals, are required to sign a confidentiality agreement prior to evaluating proposals.

Successful projects have to provide a non-confidential project summary that will be published on the SOLAR-ERA.NET website in the interests of knowledge exchange and contributions for the transnational reporting (details of projects are strictly kept confidential, see section 5).

4.5 Consortium Agreement

A consortium agreement between the project partners will be required. In order to accelerate the selection and contract offer process, a statement on the signature of the consortium agreement should be submitted with the full proposal. Models for consortium agreements can be obtained from national / regional funding agencies or from the EC IPR Helpdesk: <http://www.ipr-helpdesk.org>. The project proposal has to be the foundation for the consortium agreement. The purpose of the consortium agreement is to clarify the responsibilities of the partners, decision processes inside the project, management of any change of partners, how to exploit and/or commercialise the results (for each partner) and IPR issues.

4.6 Evaluation

The evaluation is carried out on a national / regional level for some funding agencies and by independent international experts. The international evaluation criteria are listed in Table 4. The independent international experts will set up a binding ranking list for full proposals evaluated.

Table 4: Set of International Evaluation Criterion Used

Main criterion	Sub-criterion
Excellence	<ul style="list-style-type: none"> • Clarity and relevance of the project's objectives; • Credibility of the proposed technology/concept – including trans-disciplinary considerations, where relevant; • Credibility of the proposed project approach; • Ambition and innovation potential - e.g. beyond the current state of the art.
Impact	<ul style="list-style-type: none"> • Expected contribution to the reduction in the cost of solar power, low carbon energy system and other relevant Strategic Targets / Key Performance Indicators (section 3); • Expected ability of the project to enhance innovation capacity and integration of new knowledge in the European solar power industry; • Future market deployment potential of the proposed innovation; • Project's ability to strengthen the competitiveness and growth of European companies by developing innovations that meet the needs of European and global solar power markets and, where relevant, deliver these innovations to the market; • Strength of the proposed research data management, exploitation and dissemination plans (including IPR management proposals, where relevant); • Any other environmental or socially important impacts.
Quality and Efficiency of Implementation	<ul style="list-style-type: none"> • Coherence and expected effectiveness of the project plan, including the appropriateness of task and resource allocation; • Strength of management structures and governance procedures, including risk management; • Consortium strengths and complementarity of project partners. • Added-value through the transnational consortium

5. Funding and Reporting

5.1 Contract

Funding contracts for successful applications are dealt with directly between the project partners and their national / regional funding agencies.

5.2 Start and Instalments

Depending on the national / regional regulations, a pre-condition for transferring the first funding instalments is the existence of a consortium agreement that also includes IPR related issues.

As the national / regional funding contracts may not all become effective at the same time, the project partners i) usually do not receive the instalments and ii) usually are not reviewed / monitored on national / regional level at exactly the same time. The national / regional funders will however aim to agree a common start date for recommended projects.

5.3 Monitoring

Each project partner will be responsible for the necessary reporting to their funding agency according to national / regional rules in order to obtain and maintain funding during the lifetime of their portion of the project. Apart from the national / regional project review, the transnational cooperation aspects will be monitored on the SOLAR-ERA.NET level. The project coordinator on behalf of the consortium is responsible for reporting according to the requirements (reporting at the start, during the course and at the end of project with a publishable summary and further information for internal reporting, participation in questionnaires and dedicated workshops, provide the Consortium Agreement signed).

Any substantial change in an on-going project has to be reported immediately to the involved funding organisations and the Call secretariat. The project partners should be aware that changes might have effects on funding.

5.4 Dissemination and Data

Project partners are required to refer to SOLAR-ERA.NET Cofund 2 in their publications, exhibitions, lectures and press information concerning results of the SOLAR-ERA.NET Cofund 2 projects. Acknowledgement should be: Project [your project] is supported under the umbrella of SOLAR-ERA.NET Cofund 2 by [list of all national agencies supporting your project]. SOLAR-ERA.NET is supported by the European Commission within the EU Framework Programme for Research and Innovation HORIZON 2020 (Cofund ERA-NET Action, N° 786483).

To demonstrate the added value of transnational cooperation projects, results from the call shall be disseminated. This process can be tackled via different channels, e.g.:

- Conferences with relevant stakeholders to inform about the project results.
- Publication of a short outline of funded projects on the SOLAR-ERA.NET and national / regional websites. This information may also be used by SOLAR-ERA.NET for further dissemination. Further details of projects are strictly kept confidential. They can be published only in agreement with the project partners and where there is value in doing so.
- Press conferences and workshops.

The funding agencies will check if a declaration on compliance and/or authorisation is required under national law for collecting and processing personal data as described in the Annex 1 of the Grant Agreement N° 786483. If yes, the declaration on compliance and/or authorisation must be kept on file. If no declaration on compliance or authorisation is required under the applicable national law, a statement from the designated Data Protection Officer that all personal data collection and processing will be carried out according to EU and national legislation will be kept on file.

Annex – National and Regional Requirements

Tables including national / regional requirements are listed in alphabetical order for the following countries / regions and funding agencies.

Austria	18
Belgium – Flanders	19
Belgium – Wallonia	19
Cyprus	20
France – ADEME	21
France – ANR	22
Germany – PtJ	23
Germany – NRW	24
Greece	25
Israel	28
Italy	29
The Netherlands	32
Spain – CDTI	33
Spain – MINECO-AEI	35
Sweden	37
Switzerland	38
Turkey	39

Austria

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Austrian Research Promotion Agency (FFG) – Austria
Contact	Anita Hipfinger: anita.hipfinger (at) ffg.at, +43 5 7755 5025
Topics	<p>The Agency potentially supports projects in the following topics and TRL's:</p> <ul style="list-style-type: none"> • Topic A: TRL 4-7 • Topic B: TRL 3-5 • Topic C: TRL 4-7 • Topic D: TRL 5-7 • Topic E: TRL 4-7
Type of RTD	The Agency potentially supports Industrial Research und Experimental Development.
Eligible applicants	<p>The Agency potentially supports all private and public applicants, namely:</p> <ul style="list-style-type: none"> • Private – SME • Private – large companies • Private – Non-profit research organisation • Non-Profit-Organisations • Public research organisation <p>The national rules on eligible costs for Austrian participants are available from the FFG at www.ffg.at/kostenleitfaden.</p> <p>For further Information (possible Instruments, usual funding rules) please go to www.ffg.at/SOLARERANETCOFUND</p>
Budget	EUR 1'000'000
Further specification	<p>FFG conducts a formal review of all nationally relevant project proposals including the examination of the application formalities, especially the fulfilment of prerequisites specific to the offered funding instruments; reporting on relevant projects previously funded by FFG programmes; examining the financial aspects of the proposal; financial audit of applicants; available funding budget vs. requested budget by individual partners; relevance to the call goals.</p>

Belgium - Flanders

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Vlaams Agentschap Innoveren en Ondernemen
Contact	Geert Carchon: geert.carchon (at) vlaio.be, +32 2 432 42 94 Bart De Caesemaeker: bart.decaesemaeker (at) vlaio.be, +32 2 432 42 49
Topics	The Agency potentially supports all topics that are of relevance for the Flemish community.
Type of RTD	The Agency potentially supports the following types of RTD, namely: support to R&D by companies: research projects, development projects.
Eligible applicants	The Agency potentially supports all private and public applicants.
Budget	EUR 500'000 (regional budget)
Further specifications	<ul style="list-style-type: none"> The national rules on eligible costs for Flemish participants are available from the VLAIO website https://www.vlaio.be/nl/subsidies-financiering . Some specific pages dedicated to the ERANET SOLAR 2 Calls will be foreseen on the VLAIO website (www.vlaio.be) as soon as the calls are opened.

Belgium - Wallonia

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Service Public de Wallonie (SPW)
Contact	Laurence Polain, laurence.polain (at) spw.wallonie.be, +32 81 48 63 42 Alternate, Gilles Tihon, gilles.tihon (at) spw.wallonie.be, +32 81 48 63 53
Topics	The Agency potentially supports projects all topics as available in the table 2 of these guidelines for proposers.
Type of RTD	The Agency potentially supports the following types of RTD, namely: <ul style="list-style-type: none"> - Industrial Researches (TRL 3 to 5) - Experimental Development (TRL 6 to 7 (8)): only SMEs and large companies
Eligible applicants	The Agency potentially supports all private and public applicants, namely: Universities, Research Centers, High Schools, SME, large companies; settled in Wallonia
Budget	EUR 500'000 (regional budget)
Further specifications	Eligibility criteria : <ul style="list-style-type: none"> - The project cannot receive double funding; - The budget for the Walloon partners should follow the SPW-DGO6 cost model; - The funding rate will be the maximum allowed by the decree of the 3rd of July 2008, modified; - The beneficiary must have a stable financial situation; A financial viability check has to be carried out before being recommended for full proposal. - The beneficiary must have Operational offices in the Walloon Region; - The project must add benefit to the regional economy; - Participation of a private company is mandatory (minimum 40% of total Walloon budget); - All information needed for evaluation should be available; - A Walloon complementary funding request's form must be submitted to the SPW-DGO4 for full proposal within five working days after the call deadline See https://energie.wallonie.be/fr/index.html?IDC=6018

Cyprus

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Research Promotion Foundation (RPF), Cyprus
Contact	Pavlos Leptos: pleptos (at) research.org.cy, +357 22205026
Topics	The Agency potentially supports projects in the following topics: <ul style="list-style-type: none"> • Advanced industrial PV technologies • Emerging PV technologies • Building and infrastructure integrated PV • Operation and diagnosis of PV plants • CSP low cost and next generation technologies
Type of RTD	The Agency potentially supports the following types of RTD, namely: <ul style="list-style-type: none"> • Industrial / applied research • Experimental development
Eligible applicants	The RPF potentially supports, through its relevant national call, participation of Research Organisations, Enterprises and Other Organisations, as specified in the Work Programme RESTART 2016 - 2020
Budget	EUR 400'000 (national budget covering both PV and CSP)
Further specifications	Please refer to the National call documents and the Work Programme RESTART 2016 – 2020 (available on RPF webpage: http://www.research.org.cy). Proposals must be submitted through the Research Promotion Foundation's IRIS portal in order to be considered (http://www.research.org.cy/el/iris-portal).

France - ADEME

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	ADEME (France)																							
Contact	Tristan Carrere, Ingénieur Photovoltaïque, tristan.carrere (at) ademe.fr, +33 (0)1 47 65 23 51																							
Topics	The Agency potentially supports projects at TRL comprised between 5 to 7, in all topics except : topics B, topics D, topic E1 and topic E3																							
Type of RTD	The Agency potentially supports the following types of RTD, namely: <ul style="list-style-type: none"> • Industrial / applied research • Experimental development 																							
Eligible applicants	<p>The Agency potentially supports all private and public applicants, namely:</p> <ul style="list-style-type: none"> • Private – SME • Private – large companies • Private – Non-profit research organisation • Public research organisation <p>More precisely, public research labs and other research organisations (public and private), i.e. organisations which are involved in continuous scientific research or experimental development activity which are legal entities.</p> <p>The maximum rate of support:</p> <ul style="list-style-type: none"> • for public research organisations: 70% of total costs (only for Basic Research) and 50% for industrial research; • for SMEs: 70% for Industrial research (or applied research) and 45% for Experimental Development; • for LE's: 50% for Industrial research and 25% for Experimental Development. <table border="1"> <thead> <tr> <th rowspan="2"><u>Intensité d'aide maximale de l'ADEME</u></th> <th rowspan="2"><u>Bénéficiaires dans le cadre d'une activité non économique</u></th> <th colspan="3"><u>Bénéficiaires dans le cadre d'une activité économique</u></th> </tr> <tr> <th><u>Petite entreprise</u></th> <th><u>Moyenne entreprise</u></th> <th><u>GE</u></th> </tr> </thead> <tbody> <tr> <td>Recherche en connaissances nouvelles</td> <td><u>70%</u></td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Recherche Industrielle</td> <td><u>50%</u></td> <td><u>70%</u></td> <td><u>60%</u></td> <td><u>50%</u></td> </tr> <tr> <td>Développement expérimental</td> <td><u>50%</u></td> <td><u>45%</u></td> <td><u>35%</u></td> <td><u>25%</u></td> </tr> </tbody> </table>	<u>Intensité d'aide maximale de l'ADEME</u>	<u>Bénéficiaires dans le cadre d'une activité non économique</u>	<u>Bénéficiaires dans le cadre d'une activité économique</u>			<u>Petite entreprise</u>	<u>Moyenne entreprise</u>	<u>GE</u>	Recherche en connaissances nouvelles	<u>70%</u>	-	-	-	Recherche Industrielle	<u>50%</u>	<u>70%</u>	<u>60%</u>	<u>50%</u>	Développement expérimental	<u>50%</u>	<u>45%</u>	<u>35%</u>	<u>25%</u>
<u>Intensité d'aide maximale de l'ADEME</u>	<u>Bénéficiaires dans le cadre d'une activité non économique</u>			<u>Bénéficiaires dans le cadre d'une activité économique</u>																				
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Recherche Industrielle	<u>50%</u>	<u>70%</u>	<u>60%</u>	<u>50%</u>																				
Développement expérimental	<u>50%</u>	<u>45%</u>	<u>35%</u>	<u>25%</u>																				
Budget	Approx. EUR 300'000 (in total over the PV and CSP area, national budget)																							
Further specification	National application forms are required at the full proposal stage.																							

France - ANR

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Agence Nationale de la Recherche (France)
Contact	Aurélien Gaufrès – aurelien.gaufres (at) agencerecherche.fr - +33 1 73 54 82 29 Pascal Bain - Pascal.Bain (at) agencerecherche.fr - +33 1 78 09 80 43
Topics	<p>ANR does not support projects in the following topics:</p> <ul style="list-style-type: none"> • C. Building and infrastructure integrated PV • D. Operation and diagnosis of PV plants <p>For the other topics, French proponents are invited to check the table 2 in the call text and to contact the above mentioned contact persons for ANR and the contact persons of ADEME if the topic is covered by both agencies.</p> <p>In general, for topics covered conjointly by ADEME and ANR, funding demand should be addressed to ADEME if the main research activities are at TRL level 5 or above, and to ANR if they are at TRL levels below 5.</p>
Type of RTD	<p>ANR funds basic and industrial research projects, up to TRL level 5. Experimental development and innovation activities, though not totally excluded, should be minor activities compared to basic and industrial research activities funded by ANR.</p> <p>For detailed information on eligible costs, read: http://www.agence-nationale-recherche.fr/RF</p>
Eligible applicants	<p>Eligible applicants are French research organisations (universities, CNRS...), NGO and private companies (companies or NGO can be funded by ANR only if they are in a consortium with at least one French public research organisation).</p> <p>For public research organisations, ANR grants cover only additional costs of the research projects, except for EPIC research organisations (CEA, BRGM, CSTB ...) in consortium with at least one company, for which ANR covers 50% of the full cost;</p> <ul style="list-style-type: none"> • For SME, ANR grants cover 45% of the full cost; • For large and medium companies, ANR grants cover 30% of the full cost for basic and industrial research projects, 25% for experimental development.
Budget	EUR 800'000 (ANR budget)
Further specification	

Germany - PtJ

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Project Management Jülich, Division Energy System: Renewable Energies / Power Plant Technology
Contact	Renate Horbelt: r.horbelt (at) fz-juelich.de, +49 2461 61 9874 Kambulakwo Chakanga: k.chakanga (at) fz-juelich.de, +49 2461 61 9871
Topics	The Agency potentially supports projects in the following topics: <ul style="list-style-type: none"> • Topic A – Advanced industrial PV technologies TRL: 4 to 7 • Topic B – Emerging PV technologies <u>except</u> subtopic B5. (Dye-sensitized solar cell (DSC)) TRL: 3 to 5 • Topic C – Building and infrastructure integrated PV TRL: 4 to 7 • Topic D – Operation and diagnosis of PV plants TRL: 6 to 7 • Topic E – CSP low cost and next generation technologies TRL: 4 to 7
Type of RTD	The Agency potentially supports the following types of RTD, namely: <ul style="list-style-type: none"> • Industrial / applied research • Experimental Development
Eligible applicants	The Agency potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Private – SME • Private – large companies • Private – Non-profit research organisation • Higher education institution • Public research organisation • Public organisation <p>The maximum rate of support for research organisations is 100% of total costs (for all type of R&D); for SMEs: max. 60% for Industrial research and max. 35% for Experimental Development of total costs; for LE's: max. 50% for Industrial research and max. 25% for Experimental Development</p>
Budget	EUR 3'000'000 (national budget)
Further specifications	Only consortia with significant industrial participation are eligible for funding. National application forms ("easy-Online Antrag") have to be used for the full proposal phase, submission via https://foerderportal.bund.de/easyonline/ A financial viability check (if applicable) has to be carried out in parallel to the full proposal phase. Please contact Projektträger Jülich in advance.

Germany – ETN / North-Rhine-Westphalia

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Projekträger ETN
Contact	Dr. Melanie Schulte: me.schulte (at) fz-juelich.de, +49 2461 690 504 Dr. Joachim Kutscher: jo.kutsche (at) fz-juelich.de, +49 2461 690 604
Topics	The Agency potentially supports projects in all.
Type of RTD	The Agency potentially supports the following types of RTD, namely: <ul style="list-style-type: none"> • Industrial / applied research • Experimental Development
Eligible applicants	The Agency potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Private – SME • Private – large companies • Private – Non-profit research organisation • Higher education institution • Public research organisation • Public organisation
Budget	EUR 350'000 (regional budget)
Further specifications	Additional application forms have to be used for the full proposal phase. A financial viability check (if applicable) has to be carried out in parallel to the full proposal phase. Please contact Projekträger ETN in advance.

Greece

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	GENERAL SECRETARIAT FOR RESEARCH AND TECHNOLOGY (GSRT)
Contact	PARASKEVI AFENTAKI Programme Officer and Programme Manager Ministry of Education, Research and Religious Affairs General Secretariat for Research & Technology International S&T Cooperation Directorate Bilateral and Multilateral Cooperation Section 14-18 Messogeion Ave., 115 10 Athens, Greece Tel.: +302107458112, e-mail: pafe (at) gsrt.gr Info can also be provided by Mrs. Georgia Krana, General Secretariat for Research & Technology, International S&T Cooperation Directorate, Bilateral and Multilateral Cooperation Section, Tel.: +30 210 7458099, e-mail: gkr (at) gsrt.gr
Topics	The Agency potentially supports projects in the following topics: All subtopics from : Topic 1.C – Building and infrastructure integrated PV Topic 1.D – Operation and diagnosis of PV plants Topic 1.E – CSP low cost and next generation technologies TRL3-(7) (according to COMMISSION REGULATION (EU) No 651/2014/Definitions for Aid for Research, Development and Innovation, pages 24-26/par. 83-96)
Type of RTD	GSRT potentially supports the following types of RTD, namely: Industrial research, experimental development, feasibility studies (COMMISSION REGULATION (EU) No 651/2014 article 25)
Eligible applicants	GSRT potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Private – SME • Private – large companies • Non-profit research organisation • Higher education institution • Public research organisation • Public organisation
Budget	EUR 1.000.000 national funding that comes from structural funds and particularly from Operational Programme for Research, Entrepreneurship and Innovation 2014-2020, Research and Innovation Smart Specialization Strategy (RIS3)

Further specifications	<p>A. Aid for research and development projects (COMMISSION REGULATION (EU) No 651/2014 article 25)</p> <p>1. Kind of Research.</p> <p>The aided part of the research and development project shall completely fall within one or more of the following categories:</p> <ul style="list-style-type: none"> (a) industrial research; (b) experimental development; (c) feasibility studies <p>2. The eligible costs of research and development projects shall be allocated to a specific category of research and development and shall be the following:</p> <ul style="list-style-type: none"> (a) personnel costs: researchers, technicians and other supporting staff to the extent employed on the project; (regarding the individual enterprises the contracts should abide by the national legislation and guidelines) (b) costs of instruments and equipment to the extent and for the period used for the project. Where such instruments and equipment are not used for their full life for the project, only the depreciation costs corresponding to the life of the project, as calculated on the basis of generally accepted accounting principles are considered as eligible. (c) Costs for of buildings and land, to the extent and for the duration period used for the project. With regard to buildings, only the depreciation costs corresponding to the life of the project, as calculated on the basis of generally accepted accounting principles are considered as eligible. For land, costs of commercial transfer or actually incurred capital costs are eligible. (d) costs of contractual research, knowledge and patents bought or licensed from outside sources at arm's length conditions, as well as costs of consultancy and equivalent services used exclusively for the project; (e) additional overheads and other operating expenses, including costs of materials, supplies and similar products, incurred directly as a result of the project; <p>B. The aid intensity for each beneficiary:</p> <p>1. Public Research Institutes and Universities</p> <p>The aid intensity can reach 100% for performing non economical activities in accordance to the point 19 of the article 2.1.1 of the «Framework for State aid for research and development and innovation» (2014/C 198/01)).</p> <p>2. Private Sector</p> <ul style="list-style-type: none"> (a) 50 % of the eligible costs for industrial research; (b) 25 % of the eligible costs for experimental development; <p>The aid intensities for industrial research and experimental development may be increased up to a maximum aid intensity of 80 % of the eligible costs as follows:</p> <ul style="list-style-type: none"> (a) by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises; (b) by 15 percentage points if one of the following conditions is fulfilled: <ul style="list-style-type: none"> (i) the project involves effective collaboration: <ul style="list-style-type: none"> — between undertakings among which at least one is an SME, or is carried out in at least two Member States, or in a Member State and in a Contracting Party of the EEA Agreement, and no single undertaking bears more than 70 % of the eligible costs, or — between an undertaking and one or more research and knowledge-dissemination organisations, where the latter bear at least 10 % of the eligible costs and have the right to publish their own research results; (ii) the results of the project are widely disseminated through conferences, publication, open access repositories, or free or open source software.
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(iii) the aid intensity for feasibility studies may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises

C. Eligible costs as Indirect Costs

Fixed percentage of 15% calculated on the basis of the personnel budget of the partner. Indirect costs are eligible for all Legal Entities.

D. Upper funding limits for the eligible costs

Upper limit of the total public funding will be 200.000 € per project (including indirect costs). Please note that this amount can be increased to 250.000 € per project if Greek partner assumes the project coordination.

The maximum state aid intensity will be calculated according to the provisions of the European state aid rules and regulations in force (type of research activity, size of the participating enterprise, collaborative research).

E. Duration of the projects

The duration of a funded project is 24- 36 months. A possible extension of the duration under conditions can be accepted maximum up to the 1/3 of the initial duration taking into account the starting date without modifying the scientific or increasing the financial part of the project and the prerequisites of the current Operational Programme 2014-2020 (e.g. closing date for financing the projects in national level).

F. Evaluation

In national level, only eligibility check is conducted and not a full evaluation in stages 1 and 2. We rely on the evaluation of external experts.

For more information please contact the NCP.

Further information regarding the categorization of aid intensity and the eligibility of costs is available at the national guide published at GSRT website (current national call/adjustments may be made in the next national calls). For any clarifications please contact the NCP.

http://www.gsrt.gr/central.aspx?sld=108I334I1106I646I444510&oIID=777&neID=673&neTa=12_20503_1&nclD=0&neHC=0&tbid=0&lrID=2&oldUIID=al777I0I119I428I1089I0I3&actionID=load

Israel

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Ministry of Energy
Contact	Gideon Friedmann. Gideonf (at) energy.gov.il
Topics	The Agency potentially supports projects all eligible topics and subtopics.
Type of RTD	The Agency potentially supports all types of RTD.
Eligible applicants	The Agency potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Private – SME or large companies • Private – Private persons (must incorporate before signing the contract) • Private – Non-profit research organisation • Higher education institution • Public research organisation • Public organisation • Municipalities
Budget	EUR 600'000 (national budget)
Further specification	

Italy

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Ministry for Education, University and Research (MIUR)
Contact	Ing. Aldo Covello tel. +39 06 9772 6465 e-mail: aldo.covello (at) miur.it
Topics	<p>MIUR supports projects in the following topics:</p> <p><u>Topic B – Emerging PV technologies</u> <u>Areas/subtopics:</u> B1 - Silicon-based tandem technologies, namely with perovskites and III/V semiconductors B3 - Perovskite solar cells B5 - Dye-sensitized solar cell (DSC) <u>TRL: 3 to 5</u></p> <p><u>Topic C – Building and infrastructure integrated PV</u> <u>Areas/subtopics:</u> C1 Innovative BIPV module technologies, e.g. lamination, colours, shapes, reflectivity, bifacial, etc. C4 - Advanced integration of PV into standard building components and systems <u>TRL: 4 to 7</u></p> <p><u>Topic D – Operation and diagnosis of PV plants</u> <u>Areas/subtopics:</u> D2 - Interoperability, standardization and auto-configuration of sensors, data acquisition, inverters and communication systems within PV plants and between PV plants and central monitoring systems (Industry 4.0/internet of Things); <u>TRL: 4 to 7</u></p> <p><u>Topic E – CSP low cost and next generation technologies</u> <u>Areas/subtopics:</u> E1 - Development of innovative Heat Transfer Fluids (HTF) and systems to increase operating temperatures, lower water consumption, environmental acceptance, and increase solar field efficiencies. E4 - Development of innovative short-term and long-term thermal storage. E7 - Development of measuring and test methods for recording the quality of components and subsystems". <u>TRL: 4 to 7</u></p>
Type of RTD	All activities classifiable as Industrial research and Experimental development are eligible for funding. Furthermore, Industrial research activities must be predominant with respect to Experimental development activities (in terms of costs).
Eligible applicants	<p>The following entities are eligible, providing that they have stable organization in Italy: enterprises, universities, research institutions, research organizations in accordance with EU Reg. n. 651/2014 of the European Commission - June 17, 2014. Eligible participants must have a stable organization in Italy.</p> <p>Furthermore, all Italian participants must comply with the following requirements:</p> <ul style="list-style-type: none"> -The participant must not be defaulting with regard to other funding received by the Ministry. -The participant must not have requested/got any other funding for the same research activities. -The participant must respect the Italian law "D.Lgs. n 159 del 6/09/2011 e successive modificazioni ed integrazioni".

	<p>-The participant must not be subject to bankruptcy proceedings as of art. 5, comma 4, letter b) of DM 593/2016 or must not be a company in difficulty according to the definition under number 18) of article 2 "Definitions" of Regulation (EU) no. 651/2014.</p> <p>The participant must be in compliance with the obligations laid down in the contributory and social security regulations (DURC).</p> <p>The judicial and pending records of the legal representative of the participant are negative.</p> <p>For any participant, with the exception of public universities and public research institutions (Enti pubblici di ricerca), the following financial criteria, calculated using the data reported in the last approved balance sheet, must be fulfilled: $CN > (CP - I)/2$ Where: <ul style="list-style-type: none"> • CN = net assets (Capitale netto) • CP = sum of the costs of all the projects for which public funding has been requested by the participant during the year • I = sum of the contributions received, approved or requested for the same projects $OF/F < 8\%$ Where: <ul style="list-style-type: none"> • OF = financial charges (Oneri finanziari) • F = turnover (Fatturato). </p>																										
Eligible Costs	All costs incurred during the lifetime of the project under the following categories are eligible: Personnel, Equipment, Consulting and equivalent services, Consumables and Overheads. Overheads (spese generali) shall be calculated as a percentage of the personnel costs and cannot be higher than 50% of them. Travel expenses, dissemination and coordination costs are to be included in the overheads.																										
Funding Commitment	Total Amount for the Call: EUR 500'000	Maximum funding per proposal (participant co-funding excluded): € 250.000 if the project is coordinated by an Italian partner; € 150.000 in all other cases.																									
Other Funding Criteria	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" data-bbox="344 1420 663 1868" rowspan="2"> Applicant typology \ Activity typology </th> <th colspan="3" data-bbox="663 1420 1206 1464">Funding Rates</th> <th data-bbox="1206 1420 1461 1868" rowspan="2"> Universities, public research institutions, research organizations (public and private) in accordance with Reg. EU n. 651/2014 of the Commission - June 17, 2014) </th> </tr> <tr> <th data-bbox="663 1464 842 1644">Enterprises, consortia, end users and private research bodies (which do not meet the requirements of research organization under EU Reg. no. 651/2014 of the Commission - June 17, 2014)</th> <th data-bbox="842 1464 1015 1644">Small Enterprises</th> <th data-bbox="1015 1464 1206 1644">Medium Enterprises</th> <th data-bbox="1206 1464 1342 1644">Large Enterprises</th> </tr> </thead> <tbody> <tr> <td data-bbox="344 1868 564 1944">Industrial Research</td> <td data-bbox="564 1868 663 1944">grant</td> <td data-bbox="663 1868 842 1944">40%</td> <td data-bbox="842 1868 1015 1944">30%</td> <td data-bbox="1015 1868 1206 1944">20%</td> <td data-bbox="1206 1868 1461 1944">50%</td> </tr> <tr> <td data-bbox="344 1944 564 2020">Experimental Development</td> <td data-bbox="564 1944 663 2020">grant</td> <td data-bbox="663 1944 842 2020">30%</td> <td data-bbox="842 1944 1015 2020">20%</td> <td data-bbox="1015 1944 1206 2020">10%</td> <td data-bbox="1206 1944 1461 2020">25%</td> </tr> </tbody> </table>					Applicant typology \ Activity typology		Funding Rates			Universities, public research institutions, research organizations (public and private) in accordance with Reg. EU n. 651/2014 of the Commission - June 17, 2014)	Enterprises, consortia, end users and private research bodies (which do not meet the requirements of research organization under EU Reg. no. 651/2014 of the Commission - June 17, 2014)	Small Enterprises	Medium Enterprises	Large Enterprises	Industrial Research	grant	40%	30%	20%	50%	Experimental Development	grant	30%	20%	10%	25%
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Industrial Research	grant	40%	30%	20%	50%																						
Experimental Development	grant	30%	20%	10%	25%																						

	<p>The amount of funding which can be granted to each beneficiary is calculated multiplying the eligible costs for the funding rate listed in the above table.</p> <p>On request of applicants a pre-payment may be done, equal to:</p> <ul style="list-style-type: none"> • 80% of the total contribution for public entities; • 50% of the total contribution for private entities. <p>The remaining part of contribute will be paid in instalments after each financial and progress reporting period.</p> <p>Relevant documents</p> <ul style="list-style-type: none"> - Decreto legge n. 83/2012; - Decreto Ministeriale n. 593 del 26 luglio 2016; - Linee guida al DM del 26 luglio 2016 n. 593. <p>Submission of the proposal at national level</p> <p>In addition to the project proposal, which shall be submitted at European level, the Italian participants are requested to submit further documentation to MIUR, through the national web platform, available at the following link: http://banditransnazionali-miur.cineca.it. The content of such documentation is defined in the cited web platform.</p> <p>These national additional documents must be submitted by the same deadline established for the pre-proposal phase submission as defined in the international joint call.</p> <p>Any participant who does not submit its national documents by the deadline of the pre-proposal phase, will be considered not eligible for funding.</p> <p>MIUR will require to all Italian participants admitted for funding, some additional documents describing more in detail the participant and its research activities within the project. It is strongly recommended to contact the National Contact Persons already in early stage of project preparation.</p> <p>The admission for funding is subject to the adoption of the necessary accounting and administrative measures for the allocation of the resources.</p> <p>Funded participants will be requested to submit financial and scientific reports to MIUR.</p> <p>Useful links: http://www.ricercainternazionale.miur.it/</p>
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The Netherlands

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Netherlands Enterprise Agency RVO (Team Energy Innovation), Netherlands
Contact	Otto Bernsen, otto.bernsen (at) rvo.nl
Topics	The Agency potentially supports projects in the following topics: A) Advanced industrial PV technologies B) Emerging PV technologies C) Building and infrastructure integrated PV D) Operation and diagnosis of PV plants
Type of RTD	The following RTD activity types are eligible for Dutch subsidies: <ul style="list-style-type: none"> • Industrial / applied research • Experimental development • Fundamental / basic research
Eligible applicants	The Agency potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Private – SME • Private – large companies • Private – Non-profit research organisation • Higher education institution • Public research organisation
Budget	EUR 1'000'000 (national budget) and Dutch project maximum of EUR 500'000.
Further specification	<p>Dutch consortium partners in the SOLAR-ERA.NET Cofund project proposals, that wish to receive subsidy for financing their national part of the project budget, additionally need to submit the project proposal with a specific budget for only the Dutch partners in the project nationally at https://www.rvo.nl/subsidies-regelingen/solareranet that will be published shortly. All information about this Dutch subsidy tender, including eligibility criteria, can be found there.</p> <p>The TKI Urban Energy invites all Dutch project consortium partners to discuss the content of their SOLAR-ERA.NET project proposal before submission. More information about the TKI Urban Energy can be found on www.tki-urbanenergy.nl. Contact: Wijnand van Hooff TKI Urban Energy, wijnand (at) tki-urbanenergy.nl</p> <p>For the full proposal phase: Dutch applicants with successful preproposals selected for the full proposal phase will have to file in the full proposal documents also on the national level, latest by 18th of February 2019.</p>

Spain - CDTI

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	CDTI - Centro para el Desarrollo Tecnológico Industrial, E.P.E.
Contact	Gabriel Barthelemy: gabriel.barthelemy (at) cdti.es, +34 91 5815707
Topics	The Agency potentially supports projects in <u>all the call topics</u> as long as the activities to be developed are technology-based.
Type of RTD	<p>The Agency potentially supports the following types of RTD, namely:</p> <ul style="list-style-type: none"> Industrial Research and /or Experimental Development (TRL up to 8). <p><i>N.B. <u>Only technology-based activities</u> within industrial research and/or experimental development projects are eligible for funding (in accordance with the definitions of the General Block Exemption Regulation, EC Regulation n°651/2014: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2014.187.01.0001.01.ENG).</i></p> <p><i>The Spanish part of the proposed work plan must be developed in Spain. Please note that non-technological activities related to business models or processes are excluded for CDTI funding.</i></p>
Eligible applicants	<p>The Agency potentially supports for-profit private companies (being SME or large companies) established and carrying out R&D activities in Spain.</p> <p><i>N.B. Other entities such as Universities, Public Research Institutions, Technological Centres, and non-profit private institutions could participate under subcontracting by Spanish companies (subcontracting cannot exceed the 50% of the national project budget).</i></p>
Budget	EUR 1'000'000 (CDTI budget)
Further specifications	<p>The eligible costs include:</p> <ul style="list-style-type: none"> Personnel costs, to the extent employed on the research project. Instrument and equipment costs, to the extent and during the period in which they are used for the project. Contractual research costs, technical knowledge and patents bought or licensed from outside sources at market prices, as well as costs of consulting services intended exclusively for the research project. Other costs (operating expenses) including materials, supplies and similar products, exclusively used for the research project. Audit costs for the national reporting of the project (when applicable). Additional general expenses (indirect costs, as a percentage of personnel costs). <p>Applicants <u>must check the detailed description</u> published on CDTI website. Please note that management and dissemination costs <u>are not eligible for funding</u>.</p> <p>Project duration: 12 to 36 months.</p> <p>Project transnationality: projects should be transnational by nature, therefore, each country/ region will be responsible for no more than 70% of the total budget project costs.</p> <p>Compulsory Minimum Eligible Budget: € 150,000 (this amount applies to the project budget per partner, not the requested funding).</p> <p>Mandatory National Application</p> <p>Additionally to the international application process, those applicants requesting funding from CDTI must submit a formal application by way of CDTI electronic submission system (https://sede.cdti.gob.es/AreaPrivada/Expedientes/accesosistema.aspx / https://sede.cdti.gob.es). The application must include a detailed description, in Spanish Language, of the activities to be undertaken by the company and the respective budget. Applicants must indicate their VAT (CIF) number in all their respective applications (both international and national). Further guidance will be published on CDTI website.</p>

Financial conditions

CDTI funding will be based on grants, which will be calculated as a percentage of the eligible costs, up to a maximum aid intensity of 60 % for small enterprises, 50 % for medium enterprises and 40% for large enterprises, according to the General Block Exemption Regulation (EC Regulation nº651/2014: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2014.187.01.0001.01.ENG).

Specific financial conditions for ensuring the beneficiary's solvency could be required according to CDTI funding rules. CDTI will avoid double funding, and will not finance projects, or parts of projects, which have been already, funded through other national, transnational or EU calls. CDTI will be responsible for making the final decision regarding the awarding of funds, taking fully into account the transnational evaluation of the collaborative project, the previous funds received by the participants for other related projects, the fulfilment of eligibility and funding rules, and the financial resources available.

Further information

Applicants are strongly advised to check the detailed information available on CDTI website and to contact the NCP for getting advice about national funding rules, before submitting a proposal.

Please check the complete national funding rules and relevant information about the call on the following links:

“Financiación CDTI para Proyectos de Investigación y Desarrollo”
<http://www.cdti.es/index.asp?MP=100&MS=802&MN=2>

“Financiación CDTI para Proyectos Transnacionales en el marco de acciones ERA-NET”
<http://www.cdti.es/index.asp?MP=101&MS=831&MN=2>

For further information, please contact the NCP or visit CDTI website: <https://www.cdti.es/>

Spain – MINECO-AEI

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Ministry of Economy, Industry and Competitiveness – through the State Research Agency (MINECO - AEI) / Spain
Contact	PhD. Alberto Abánades (scientific issues) Daniel Ruiz (administrative and technical issues) Telephone: +34 91 603 79 68 Contact email: era-energia(at)aei.gob.es Representative: Severino Falcón
Topics	The Agency potentially supports projects in <u>all topics</u> .
Type of RTD	The Agency potentially supports all type of RTD, namely: <ul style="list-style-type: none"> • Fundamental / basic research
Eligible applicants	<p><u>Eligible legal entities for MINECO-AEI funding:</u> Non-profit research organisations according to the APCIN call 2019 or its equivalent (<i>Acciones de Programación Conjunta Internacional 2019 o su equivalente</i>). Spanish non-profit research organisations are invited to participate in cooperation with at least one profit organisation. The Spanish research groups that apply for funding to MINECO-AEI must comply with the requirements established by this transnational call and with the final rules on eligibility to be defined in the APCIN 2019 call (or its equivalent), to be published here: http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.d20caeda35a0c5dc7c68b11001432ea0/?vgnextoid=33f85656ecfee310VgnVCM1000001d04140aRCRD</p> <p>Additional eligibility criteria <u>Mandatory:</u> <u>Spanish Principal Investigators must be</u> eligible according to the APCIN 2019 call or its equivalent and must have experience as investigators in projects funded by the <i>Plan Nacional I+D+I 2008-2011</i>, the <i>Plan Estatal I+D+I 2013-2016</i>, ERC Grants, European Framework Programmes or other relevant international programmes. <u>Incompatibilities:</u> These must be taken into account when participating in different ERA-Nets or other international initiatives.</p> <ul style="list-style-type: none"> - <u>Principal Investigators</u> are not allowed to apply for funding in more than one proposal of this SOLAR Cofund 2 Call. - <u>Principal Investigators</u> will not be allowed to apply for funding in more than one proposal in the same APCIN call (or its equivalent). - <u>Principal Investigators</u> are not allowed to apply for funding in two consecutive APCIN calls (or their equivalent). - <u>Principal Investigators</u> must remain unchanged between the proposal to this transnational call and the National APCIN 2019 call (or its equivalent). <p>The State Research Agency will avoid double funding (overlapping with other EU or National funding), and will not grant projects or parts of projects already funded.</p>
Budget	<p>Maximum funding for this SOLAR Cofund 2 Call: EUR 650'000</p> <p>Eligible costs</p> <ul style="list-style-type: none"> - Personnel costs for temporary employment contracts (scholarships are not eligible). - Current costs, small scientific equipment, disposable materials, travelling expenses and other costs that can be justified as necessary to carry out the proposed activities. - <u>Indirect costs (overheads) or clinical trials (proofs of concept, proofs of principle) are not eligible</u> for funding in the APCIN call.

	<p>The following funding limits are considered eligibility criteria. Proposals not respecting these limits can be declared ineligible.</p> <ul style="list-style-type: none"> • Maximum per legal entity and proposal eligible for MINECO-AEI should not exceed EUR 38'000 per year. If two or more legal entities participate in the same proposal, the MINECO-AEI part should not exceed EUR 50'000 per year. • For entities carrying out experimental work, maximum per legal entity and per proposal eligible for MINECO-AEI should not exceed EUR 50'000 per year. If two or more legal entities participate in the same proposal, the MINECO-AEI part should not exceed EUR 62'000 per year. • If the transnational proposal is led by a PI eligible for MINECO-AEI a maximum of EUR 8'000 per year in addition. <p>Centres formed by different Spanish legal entities will be considered as a unique entity, and thus the maximum funding should not exceed the limits per proposal established above (for example mixed centres).</p> <p>The final funding will take into account the transnational evaluation of the collaborative proposal, the scientific quality of the Spanish group, the added value of the international collaboration, the participation of the industrial sector, and the financial resources available.</p>
Further specifications	<p><i>Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad, Plan Estatal de Investigación Científica y Técnica y de Innovación 2017-2020:</i> http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.7eeac5cd345b4f34f09dfd1001432ea0/?vgnextoid=83b192b9036c2210VgnVCM1000001d04140aRCRD</p> <p>The instrument for funding the Spanish groups will be the Spanish Call on International Joint Programming Actions or its equivalent (<i>Acciones de Programación Conjunta Internacional o su equivalente</i>), which is expected to be launched in 2019 (APCIN 2019). Only as a reference, the beneficiaries are advised to read the call APCIN 2017: http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.dbc68b34d11ccbd5d52feb801432ea0/?vgnextoid=79f768fff6d0d510VgnVCM1000001d04140aRCRD&vgnnextchannel=fae4b9746e160210VgnVCM1000001034e20aRCRD</p> <p>The Spanish legal entities granted are obliged by the regulations established in this APCIN call (or its equivalent) and by the funding limits specified above.</p> <p>SOLAR Cofund 2 call will be managed by the Subdivisión de Programas Científico-Técnicos Transversales, Fortalecimiento y Excelencia: http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.8ce192e94ba842bea3bc811001432ea0/?vgnextoid=702ab68c910c1410VgnVCM1000001d04140aRCRD&vgnnextchannel=07f839f740db2410VgnVCM1000001d04140aRCRD</p> <p>Purpose of funding: The projects granted by the State Research Agency must be aligned with the main objectives described in the Programa Estatal: http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.7eeac5cd345b4f34f09dfd1001432ea0/?vgnextoid=83b192b9036c2210VgnVCM1000001d04140aRCRD</p> <p>Mandatory acknowledgement Any publication or dissemination activity resulting from the granted projects must acknowledge the State Research Agency funding: "Project (reference nº XX) funded by the State Research Agency through APCIN (or its equivalent)".</p>

Sweden

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Swedish Energy Agency (Energimyndigheten)
Contact	Pierre-Jean Rigole: pierre-jean.rigole (at) swedishenergyagency.se, +46 16 544 21 91 Tobias Walla: tobias.walla (at) swedishenergyagency.se, +46 16 544 20 54
Topics	All topics are eligible except: A1. Passivated emitter and rear cell (PERC), heterojunction (HJT) technologies and advanced passivating concepts for crystalline silicon solar cells. A2. High-performance silicon-based cells (>24%) and modules.
Type of RTD	The Agency potentially supports the following types of RTD, namely: <ul style="list-style-type: none"> • Industrial / applied research • Experimental development
Eligible applicants	The Agency potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Private – SME • Private – large companies • Private – Non-profit research organisation • Higher education institution • Public research organisation • Public organisation
Budget	EUR 850'000
Further specifications	<ul style="list-style-type: none"> • At least one Swedish private enterprise (SME or large company) must be part in the project. • The SOLAR-ERA.NET proposal forms can be used for the preproposal stage. • Swedish partners need to submit a national application for its part in the project in parallel with the full proposal application to the call. Further information can be obtained from the national contact points. • For the Swedish part of the application, the same conditions apply as for ordinary national applications. Projects need to contribute to the Swedish Energy Agency's target under the energy research bill, that is, they must either be beneficial for the Swedish energy system, or beneficial for business in Sweden. • Funding of enterprise RTD is subject to Swedish ordinance: <i>Förordning om statligt stöd till forskning och utveckling samt innovation inom energiområdet (SFS2008:761)</i>.

Switzerland

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	Swiss Federal Office of Energy (SFOE)
Contact	Stefan Oberholzer, stefan.oberholzer (at) bfe.admin.ch Stefan Nowak, stefan.nowak (at) netenergy.ch
Topics	The Office (or other agencies) potentially supports projects in the following topics: <ul style="list-style-type: none"> • Innovative and low-cost PV manufacturing issues • Advanced PV products and applications • CSP cost reduction
Type of RTD	The Office potentially supports the following types of projects, namely: <ul style="list-style-type: none"> • Pilot- and demonstration projects, including industrial processes and pilot manufacturing • Industrial / applied research
Eligible applicants	The Office potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Higher education institution • Public research organisation • Public organisation • Private – SME (Industry) • Private – large companies (Industry) • Private – Non-profit research organisation
Budget	EUR 1'000'000 (national budget, mainly provided by SFOE pilot and demonstration funds)
Further specifications	<ul style="list-style-type: none"> • The SOLAR-ERA.NET proposal forms / electronic submission system can be used for the preproposal stage. • A <i>direct</i> contact with SFOE (Stefan Oberholzer) is mandatory before any electronic submission (at least 2 weeks before submission). • Funding is primarily provided for pilot and demonstration project with TRL>5 (exceptionally TRL4) which underlie the national rules for such projects: <ul style="list-style-type: none"> - Funding is limited to 40% of the eligible project costs, which are the additional project costs that cannot be amortized over the expected lifetime of the developed installation or solution. Additional project costs are the additional costs compared to the costs of implementing an equivalent, conventional technology or solution. - Eligible funding recipients are private and public sector entities (companies, research institutes, municipalities, or communities consisting of several of the former). - Project topic contributes to increasing energy efficiency or use of renewable energy; - High application and success potential; - Project topic in line with the Swiss energy policy; - Gathered results are publically accessible and disseminated. - More criteria might be added depending on the topic / adjudication mode. • In exceptional cases, smaller research type projects can be supported through the SFOE research programme application rules. The maximum funding rate for <i>applied research</i> is max. 100% of total costs for non-profit research organisations, max. 50% of total costs for SMEs and LEs; for <i>experimental development</i> is max. 50% of total costs for non-profit research organisations and max. 50% of total costs for SMEs and for LEs. • Preproposals selected for the full proposal round: Applicants have to use <i>both</i> SOLAR-ERA.NET <i>and</i> national SFOE full proposal forms. If the national SFOE full proposal is not submitted in time, SOLAR-ERA.NET full proposals cannot be evaluated.

Turkey

Specifications for SOLAR-ERA.NET Cofund 2 Joint Call

Agency	TÜBİTAK
Contact	Kaan Karaöz: kaan.karaoz (at) tubitak.gov.tr, +90 312 2981816 Salih Hacıalioglu: salih.hacialioglu (at) tubitak.gov.tr, +90 312 2981242 (ARDEB)
Topics	The Agency potentially supports projects in the following topics with TRL values between 4 and 7: <ul style="list-style-type: none"> • Advanced industrial PV technologies • Emerging PV technologies • Building and infrastructure integrated PV • Operation and diagnosis of PV plants • CSP low cost and next generation technologies
Type of RTD	The Agency potentially supports the following types of RTD, namely: <ul style="list-style-type: none"> • Industrial / applied research • Experimental development • Fundamental / basic research
Eligible applicants	The Agency potentially supports all private and public applicants, namely: <ul style="list-style-type: none"> • Private – SME • Private – large companies • Higher education institution • Public research organisation <p>The rates of support for large companies and SMEs are 60% and 75% of total costs for industrial research, respectively.</p> <p>The rate of support for fundamental research is 100% of total costs for applicants.</p>
Budget	EUR 2'000'000 (national budget)
Further specifications	National application forms have to be used for the full proposal phase – download from http://www.tubitak.gov.tr . A financial viability check has to be carried out before being recommended for full proposal.