SOLAR-ERA.NET
Transnational Calls
PV3 and CSP3

Guidelines for Proposers

Version 2015_01_21

Contents

1. Introduction

The SOLAR-ERA.NET is a FP7 funded European network of national and regional research and technology development (RTD) and innovation programmes in the field of solar electricity generation, i.e. photovoltaics (PV) and concentrating solar power (CSP) / solar thermal electricity (STE).
The SOLAR-ERA.NET aims to contribute to achieving the objectives of the Solar Europe Industry Initiative (SEII) through carrying out the coordination and support actions for the implementation of the SEII between national and regional RTD and innovation programmes.
The SEII is embedded in the European Strategic Energy Technology Plan (SET-Plan) which aims to increase, coordinate and focus EU support on key low-carbon energy technologies in order to achieve the Europe's 2020 energy objectives in the future. The SEII is a joint initiative of the industry sector, EC and member states. The objective of the SEII is to boost the development of the PV and CSP sector beyond "business-as-usual" in the areas of Research and Development, Demonstration and Deployment. For the concerned solar electricity technologies, Implementation Plans have been developed; setting out priorities for RTD in Europe.
The goal of SOLAR-ERA.NET is to deliver joint strategic planning, programming and activities for RTD and innovation in the area of solar electricity generation. Joint activities, namely joint transnational calls, will be defined for key topics and priorities in accordance with the Solar Europe Industry Initiative (SEII).

Through these transnational calls, innovative industrially relevant projects shall be supported. Support and funding is provided by the national and regional agencies involved in these calls.

Organisations involved in promoting SOLAR-ERA.NET transnational calls and providing support and funding to innovative industrially relevant projects.

2. Scope and Structure of the SOLAR-ERA.NET Transnational Calls PV3 and CSP3

The general scope of the SOLAR-ERA.NET transnational calls are to: i) seek new and complementary RTD and innovation projects in the field of solar electricity technologies; ii) to strengthen the international collaboration in the field of solar power RTD and innovation, improving the effectiveness and efficiency of regional and national programmes; and iii) to contribute both to European industry competitiveness and to its innovation capability

The following topics are within scope of the third transnational call:

SOLAR-ERA.NET transnational call PV3:

- PV3.1 Innovative processes for inorganic thin-film cells & modules
- PV3.2 Dedicated modules for BIPV design and manufacturing
- PV3.3 Grid integration and large-scale deployment of PV
- PV3.4 High-efficiency PV modules based on next generation c-Si solar cells
- PV3.5 Solar glass and encapsulation materials
- PV3.6 Concentrator PV technology
- PV3.7 Si feedstock, crystallization and wafering
- PV3.8 Organic solar cells, perovskites and other emerging concepts

SOLAR-ERA.NET transnational call CSP3:

- CSP3.1 Cost reduction and efficiency increase in components
- CSP3.2 Dispatchability through storage and hybridisation
- CSP3.3 New heat transfer media for CSP plants
- CSP3.4 Innovative thermodynamic cycles

Not all national and regional programmes will accept applications in all topics (see section 6), and some will prioritise some topics over others. Please check with your national contact point if your project idea fits within the national constraints at preproposal stage before embarking on submitting a full proposal.

Applications follow a 2-step-procedure:

- Preproposals must be submitted by 27 March 2015, 17:00 CET.
- Full proposals must be submitted by 8 September 2015, 17:00 CET.

As selected projects will be funded by national / regional agencies, **all project partners must contact their respective national / regional programme funding organisation / contact points** (see Table 1) as early as possible but at least before submitting a preproposal.

Rules and requirements of all respective national / regional programmes apply on top of SOLAR-ERA.NET rules and requirements (see Tables 3 on page 15).

3. Structure of the SOLAR-ERA.NET Transnational Calls PV3 and CSP3

3.1 Participating States, Organisations and Programmes

The intention of the SOLAR-ERA.NET is to facilitate joint activities in the field of solar electricity technologies both at the transnational and at the national / regional level. In this context, the SOLAR-ERA.NET transnational calls PV3 and CSP3 are carried out to bring forward transnational applied RTD and innovation projects to be funded by the respective participating national / regional SOLAR-ERA.NET partners (see Table 1).

Table 1: National / Regional Funding Organisation Contact Points in SOLAR-ERA.NET Transnational Calls PV3 and CSP3

Country / Region	Organisation (Funding Organisation or Contact Point)	Contact(s) and Domain(s)
Austria	i) Austrian Promotion Agency (FFG) ii) Austrian Climate Research Fund iii) Austrian Federal Ministry for Transport, Innovation and Technology (BMVIT)	i) Anita Hipfinger (for call implementation and helpdesk): anita.hipfinger (at) ffg.at, +43 5 7755 5025 ii) Elvira Lutter (for strategic and general issues): elvira.lutter (at) klimafonds.gv.at iii) Ulrike Rohrmeister (for strategic and general issues): ulrike.rohrmeister (at) bmvit.gv.at
Belgium Flanders	IWT	i) Elsie De Clercq (for PV3): edc (at) iwt.be, +32 2 432 42 78 ii) Francis Deprez (for PV3): fd (at) iwt.be, +32 2 432 43 01
Belguim – Wallonia	Service public de Wallonie (SPW)	i) Julie Marlier (for eligibility issues): julie.marlier (at) spw.wallonie.be, +32 81 33 45 49 ii) Laurence Polain (for scope): laurence.polain (at) spw.wallonie.be, +32 81 48 63 42
Cyprus	Research Promotion Foundation (RPF)	Demetra Petsa: dpetsa (at) research.org.cy, +357 22205033
Denmark	Energinet.dk (ForskEL)	Jesper Bergholdt Soerensen (for PV3): jbh (at) energinet.dk, +45 30522218
Finland	Tekes	i) Karin Wikman: karin.wikman (at) tekes.fi, +358 50 5577723
France	Agence de l'environnement et de la maîtrise de l'énergie (ADEME)	i) Céline Coulaud (for CSP3): celine.coulaud (at) ademe.fr, +33 4 93 95 79 00 ii) Yvonnick Durand (for PV3): yvonnick.durand (at) ademe.fr, +33 4 93 95 79 00
Germany	Projektträger Jülich (PtJ)	Geschäftsbereich Erneuerbare Energien i) Hermann Bastek: h.bastek (at) fz-juelich.de, +49 2461 61 4849 ii) Martina Biedrawa: m.biedrawa (at) fz-juelich.de, +49 2461 61 9056
Germany-NRW	Projektträger ETN	Fachbereich Energie Dr. Melanie Schulte: me.schulte (at) fz-juelich.de, +49 2461 690 504
Israel	Ministry of National Infrastructure Energy and Water- Chief scientist Office	i) Rona Sarfaty: ronas (at) energy.gov.il ii) Gideon Friedmann: gideonf (at) energy.gov.il iii) Igor Derzy: igord (at) energy.gov.il
Netherlands	RVO	Otto Bernsen, otto.bernsen (at) rvo.nl
Poland	NCBR	Małgorzata Świderska: malgorzata.swiderska (at) ncbr.gov.pl, + 48 22 39 07 279
Spain	Ministry of Economy and Competitiveness (MINECO)	Severino Falcón: severino.falcon (at) mineco.es, +34 91 603 79 59 Alfio Rodeghiero: era-ict (at) mineco.es, +34 91 603 83 99
Sweden	Swedish Energy Agency (SWEA)	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.	i) Stefan Oberholzer (CSP3+PV3): stefan.oberholzer (at) bfe.admin.ch, +41 31 325 89 20 ii) Stefan Nowak (PV3): stefan.nowak (at) netenergy.ch, +41 26 494 00 30
Turkey	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu (Tübitak)	i) Dr. İsmail Doğan: ismail.dogan (at) tubitak.gov.tr, +90 312 4685300 (TEYDEB) ii) Kaan Karaöz: kaan.karaoz (at) tubitak.gov.tr, +90 312 4685300 (TEYDEB) iii) Dr. Bora Kat: bora.kat (at) tubitak.gov.tr, +90 312 4685300 (ARDEB)
United Kingdom	Innovate UK	i) Graham Mobbs (for eligibility issues): graham.mobbs (at) innovateuk.gov.uk ii) Christian Inglis (for scope): christian.inglis (at) innovateuk.gov.uk

3.2 Objectives

The aim is to fund application oriented and **industrially relevant** transnational RTD and innovation projects in the field of solar electricity technologies.
The project proposals must clearly demonstrate:

- Potential commercial impact / relevance to industrial and market needs / contribution to the Solar Europe Industry Initiative and added transnational value
- Scientific and technological excellence
- Quality and efficiency of the implementation and the management

3.3 Topics of the SOLAR-ERA.NET Transnational Calls PV3 and CSP3

Topics for SOLAR-ERA.NET transnational calls PV3 and CSP3 are based on the Priority Topics defined within the Solar Europe Industry Initiative. Tables 3a and 3b on page 15 show which topics and types of research activity can be supported by which regional and national programmes.

Topics for SOLAR-ERA.NET transnational call PV3

PV3.1 Innovative processes and materials for inorganic thin-film cells & modules
Projects shall demonstrate that it is possible to manufacture modules of equivalent performance at an industrial scale in a cost effective manner to those manufactured by the current vacuum based deposition processes. The cost of equipment required for these (typically non-vacuum) processes will need to be 15-50% of that required for vacuum based processes. Novel light management concepts, global deployment of laser technology and control methods will ensure higher module efficiencies and better life time stable performance. In addition, it is expected that there will be a lower requirement for consumable materials due to a more effective, less wasteful deposition process.

PV3.2 Dedicated modules for BIPV
Projects shall aim at design of, and manufacturing technologies for PV elements (modules / laminates, semifabricates) that are especially suited for integration into building envelopes, building elements, infrastructure objects, etc. Such PV elements should have clear added value over standard modules and open up or strengthen market opportunities in the built environment. Alternatively, projects may focus on integration of PV elements into building components. Technologies proposed should also aim at low cost, increased efficiency and at optimisation of performance and the environmental profile. Compliance with the applicable codes and standards is a prerequisite. Projects may focus on design and functionality, on innovative materials and manufacturing technologies, or on both. Examples of the many aspects of interest are: excellent aesthetics combined with high performance, novel approaches to electrical (inter)connections, ease of installation and replacement, reliability and lifetime, robustness for (partial) shading, combined generation of electricity and heat, and incorporation of next generation technologies and more. Active involvement of potential users in the downstream part of the value chain (architects, building companies, manufacturers of building elements, etc.), as well as testing and demonstration of the products developed, are encouraged to be part of the projects.

PV3.3 Grid integration and large-scale deployment of PV

Technologies and concepts for maximum value and high penetration (including smart PV modules embedding additional functionalities and/or intelligence): Proposals shall address innovation in PV system components and/or in the operational management approaches. In the case of PV components, this may include maximizing energy yield, control of active and reactive power, integrated storage, system integration, network management, communications and smart module concepts, particularly in the context of deployment within the smart grid. In terms of operational innovation, this may include forecasting and prediction of both energy production and demand, together with innovative marketing and financial tools in the transition to a market without enhanced tariffs.

PV3.4 High efficiency PV modules based on next generation crystalline silicon solar cells

Projects shall aim at i) the development of new device architectures and approaches such as heterojunctions, rear-contact and rear-junction cells, PERL-like designs, using n- or p-type silicon, and new silicon wafer based hybrids or tandems (e.g. combined with perovskites) for solar cell efficiencies beyond 25% as well as ii) high-throughput and novel processes for layer deposition, metallisation, etc.; including the use of lasers, ion implantation and other advanced options. The goal is device, process and equipment design and optimisation in order to achieve cell efficiencies above 22% at competitive costs. Projects should cover the entire manufacturing process up to the module level and therefore also address cell handling, interconnection, and encapsulation. Here the goal is to achieve commercial module efficiencies above 20%. Finally, projects should demonstrate module reliability e.g. using climate chamber tests, outdoor testing where possible and provide an analysis of the environmental aspects using life cycle analysis approaches.

PV3.5 Solar glass and encapsulation materials

The development of thinner, stronger, conformal, lower cost glass through new compositions (mineral or organic), novel tempering, novel interlayers and, possibly, new module designs are all research topics that would make significant contributions to reducing weight and cost, as well as boosting module performance. Currently, the glass used for PV is typically 3 mm thick. A meaningful but very ambitious target would be to develop 1 mm glass for PV applications, whilst still retaining the necessary functionality and manufacturability. For flexible PV in particular, non-rigid, light weight, lower cost and high barrier encapsulant and optical glue materials with extended lifetimes approaching 40 years would be an optimal but very ambitious long term target. Most of the above project topics are long term in nature and, particularly for glass, will require significant resources from consortium partners such as glass makers to ensure success.

PV3.6 Concentrator PV technology

Development of components (cells, optics, trackers) and demonstration of systems: Projects should aim for advanced or novel designs at the component level, i.e. for materials, cells, optics, modules or trackers, or on novel system designs. The novel designs should have the potential to be manufacturable in a commercial environment and the new products should be not only tested as single units but in a statistically relevant way. The reliability and performance must be proven within the project. Projects may include the development of suitable manufacturing processes and testing sequences. Projects may focus either i) on a specific component like tracker, cell or optics, ii) on sub-units like cells and cooling or cells and optics, or iii) on complete CPV systems, including inverter

and energy management. The outcome of the project must have a clear added value in respect to lower cost and performance compared to the existing technologies in CPV.

PV3.7 Si feedstock, crystallization and wafering

The first field of interest is the evaluation of the influence of the main impurities and crystallographic defects on material characteristics and the cell efficiency for advanced crystallization techniques like large mono-like ingot growth and various Czochralski (Cz) technologies. Related aspects are to increase the sizes of the crystallized materials and the influence of different doping species for p- or n-doped material and the optimization of the processes with respect to yield. In order to have high sensitivity and comparability, a limited number of advanced industrial high-efficiency manufacturing cell processes will be used as an evaluation tool. The second field of interest is wafering. It has been demonstrated by using advanced equipment and adapted wires that it is possible to cut substrates as thin as 80 micron. Beyond thin wafers, silicon foils of less than 20 micron thickness can also be considered. Depending on whether the TRL's of the technology allow for it, the envisaged projects would aim at the fast evaluation and development of dedicated equipment to do fast evaluation of thin wafers (and foils) in terms of microcracks, lifetime and wafer strength, and to correlate this with the details of the wafering process (new types of wires and slurries). The outcome of these projects should aim at an industrial process with 80-100 micron wafer and a yield of 95 %.

PV3.8 Organic solar cells, perovskites and other emerging concepts

Organic Photovoltaics (OPV) and other emerging concepts (e.g. dye sensitized solar cells, perovskite solar cells, nanotechnology based approaches) are often discussed as new technologies which may complement the more traditional PV technologies and open the space for new processes and applications. Deeper understanding of device physics – based on advanced electrical, optical and morphological characterisation – shall result in improved device performance. Development projects should focus on scaling up manufacturing processes and improving stability of efficient modules produced using scalable methods, such as roll-to-roll processing, with the aim of bringing product efficiency and lifetimes closer to those of optimised laboratory devices. Innately stable active materials should be targeted in order to reduce requirements for high-cost encapsulation barriers and seals. Module processing technology shall aim at scalability and freeform interconnection schemes. Reliability of packaging and contacting of modules has to be validated to ensure integration in long-lived applications. Reliable methods for assessing material stability should be developed and correlated to accelerated tests of encapsulated modules. For manufacturing via roll-to-roll and for flexible solar cells, mechanical stability should also be demonstrated. A viable industry is likely to establish itself initially through niche/specialist products that make use the advantages of OPV. To bridge the gap from laboratory research to sustainable products, demonstrator projects are required. Demonstrator projects should focus on the unique features of OPV, such as low-weight, high flexibility or conformity to arbitrary shapes and colours while demonstrating sufficient lifetime and efficiency for the specific application.

Topics for SOLAR-ERA.NET transnational call CSP3

CSP3.1 Cost reduction and efficiency increase in components

Innovative actions for cost reduction could be related to low cost structures, low cost reliable joints, new absorber tube manufacturing, new mirrors and other innovations in key components. Mirrors with higher reflectivity, new absorber tubes characteristics, advanced solar receivers and improving the general layout of the plant as well as optimisation of heat transfer fluid operation and control of reclamation systems by improved quality control measures and monitoring systems/devices for undesirable degradation products like hydrogen, low- or high-boiling substances and development of innovative monitoring systems for large solar fields will maximize the electricity produced, and hence increase the overall efficiency of the system. These efforts not only apply to the project itself but also to O&M routines. For example, new developments in mirror cleaning procedures present an obvious opportunity to increase the production of the plant.

CSP3.2 Dispatchability through storage and hybridisation with conventional or renewable sources

On one hand, improvements shall be achieved through hybridisation, i.e. biomass firing in auxiliary burners, pilot demonstration on solar/biomass and solar / natural gas or solar integration tests into existing fossil fuelled plants and, on the other hand, through new design storage tanks/systems.

CSP3.3 New heat transfer media for CSP plants

New transfer fluids shall be designed to reduce the freezing point and to increase the maximum temperature without chemical degradation or corrosion. Besides this, innovation in less environmentally hazardous oils would be a step forward towards more sustainable plants. Also, molten salts for power plants with thermal storage should be improved. In the case of molten salts corrosion control strategies without the use of hazardous materials should be developed. Direct steam generation in once-trough mode is also a promising option to reduce costs and environmental hazards. To achieve such improvements, research must be carried out not only on the fluids but also on the materials (solar receivers, pipes, pumps, etc.) in contact with the fluid. Advanced concepts like inert particles need to be conceptually validated in the small scale.

CSP3.4 Innovative thermodynamic cycles

Using other cycles such as Brayton or Stirling cycles may provide significant advantages in future plant designs.

3.4 Funding Rules

Within these SOLAR-ERA.NET transnational calls PV3 and CSP3, 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 Section 6 of these guidelines.

Each project partner will receive funds from his / her national or regional agency. No common source of funds (“common pot”) will be provided with respect to these calls.

Each project partner will be responsible for the preparation and submission of all necessary reports required by their funding agency in order to obtain funding in full accordance with national / regional rules.

3.5 Eligibility Issues

Different eligibility aspects have to be considered:

- Eligible consortia shall consist of a minimum of 2 partners from 2 different countries (or regions in different countries) participating in the respective SOLAR-ERA.NET transnational call. At least one partner in the consortium must be from industry. The project consortia may involve as many partners as necessary to successfully deliver the project.
- Applicants have to fulfil eligibility criteria of their respective national / regional programme / funding organisation and should contact their national/regional agency as early as possible in the process to understand if their project is within scope/eligible.
- The preproposal and full proposal submission must be recommended by at least 2 funding organisations from at least 2 different countries (or regions in different countries) of the SOLAR-ERA.NET call consortium.
- SMEs, large companies, academic research groups, universities, public research organisations or other research organisations may participate according to their national / regional financing regulations (see section 6 for specific regulations).

The roles and activities of each partner within the consortium should clearly add value to the objectives of the proposed project.
Depending on the nature of the project the consortium must demonstrate how it will exploit (for each partner) the expected results. Projects must demonstrate clear industrial benefit and present a clear exploitation and market plan during and beyond the funded duration of the project.
National / regional funding rules apply; therefore in some cases only certain topics or types of organisations are eligible (e.g. some programmes fund only industrial but no academic partners or vice versa, basic and/or applied research).
A consortium agreement between the project partners is required for funding (after final funding decision); the principles of the consortium agreement should be clear from the application form.
Further information is available in Sections 4 and 5.

3.6 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 will be expected to provide a non-confidential project summary and concise annual reports that will be published on the SOLAR-ERA.NET website in the interests of knowledge exchange. Further details of projects are strictly kept confidential.

3.7 Submission Procedure

The calls are set up as a two-step submission procedure, consisting of a preproposal phase and a full proposal phase. The procedure is explained in detail in Chapter 4. Further information is available with the Electronic Submission System available, at the latest, by end of January 2015.

Table 2: Dates and Deadlines for SOLAR-ERA.NET Transnational Calls PV3 and CSP3

Date	Activities
10 December 2014	Publication of the SOLAR-ERA.NET transnational calls PV3 and CSP3
10 February 2015, 12:00 CET / 11:00 GMT	Webinar on SOLAR-ERA.NET transnational calls PV3 and CSP3
27 March 2015, 17:00 CET	Submission of preproposals
mid-May 2015	Preproposal feedback to proposers
8 September 2015, 17:00 CET	Submission of full proposals and ev. national / regional funding applications
end 2015 / start 2016	Final funding decisions communicated to proposers
early 2016	Start of projects funded

3.8 Consortium Agreement

A consortium agreement between the project partners will be required. In order to accelerate the selection and contract offer process, an outline of the consortium agreement should be submitted with the full proposal.
Models for consortium agreements can be obtained from national and regional funding agencies or from the EC IPR Helpdesk: http://www.ipr-helpdesk.org
The project proposal must 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. The coordinators of the projects funded are requested to provide the Consortium Agreement signed to the Joint Call Coordination Office with the reporting documents (see section 5.3).

3.9 Project Budget and Duration

The project duration is limited to a maximum of 36 months. National / regional requirements may differ from this (see specific requirements from page 17 on).

4. Application and Evaluation Procedure for SOLAR-ERA.NET Projects

The SOLAR-ERA.NET application process is a 2-step procedure: preproposal and full proposal.

1. Before submitting a preproposal, **all project partners must contact their respective national / regional programme funding organisations** in order to discuss the project line-up and the funding conditions.
2. A preproposal is mandatory. It has to be submitted by the coordinator through an online application form available via www.solar-era.net within the deadline set.
3. The national / regional organisations will then carry out their eligibility check (and pre-evaluation) based on the preproposal and the respective national / regional funding rules. Applicants will be provided with feedback after the review of their preproposal, including the information on whether or not they are recommended for submitting a full proposal. Recommendations for the full proposals according to the national / regional rules and principles will then be provided.
4. The preproposal has to be recommended for full proposal submission by the respective funding organisations from at least 2 different countries (or regions in different countries) of the SOLAR-ERA.NET call consortium.
5. The full proposal must be submitted by the project coordinator through an online application form available at www.solar-era.net respectively within the Electronic Submission System (ESS) within the deadline set. Additionally, national / regional funding applications may have to be submitted to funding organisations involved / concerned according to their specific rules (see section 6).
6. A centralised evaluation will be performed by independent international evaluators and the funding organisations concerned, according to the evaluation criteria specified in the call.
7. Based on the result of the international evaluation* within SOLAR-ERA.NET, projects will be recommended (or not) for funding by the organisations concerned. In addition, national / regional agencies may do their own evaluation according to their requirements. The national / regional organisations make the final funding decision.

   * Some of the funding agencies apply a minimum threshold value of 10 points (out of 15), i.e. full proposals that do not achieve an average score of 10 points are not funded by the respective funding agencies.

4.1 Preproposal

The preproposal gives an overview on the whole project. It is mandatory and has to be submitted in English by the project coordinator through the online form available at www.solar-era.net respectively within the Electronic Submission System (ESS).

The eligibility and evaluation criteria are as follows:
At the SOLAR-ERA.NET level:

- Date and time of receipt of preproposal on or before deadline
- Presence of requested SOLAR-ERA.NET preproposal form
- Minimum of 2 partners from 2 different participating countries or regions (Regions must be from different countries.) participating in the SOLAR-ERA.NET transnational call PV3 or CSP3. A minimum of one partner in the project must be from industry.

- Preproposal project is recommended for submission for a full proposal by at least 2 funding organisations concerned from at least 2 different countries (or regions in different countries) of the SOLAR-ERA.NET call consortium

At the national / regional level:

- Programme regulations observed if applicable (e.g. presence of requested national / regional proposal forms, financial viability check)
- Funding budget available
- Assessment of relevance to the national / regional funding programme

After the eligibility check/evaluation of preproposals, project coordinators will be provided with feedback from the SOLAR-ERA.NET call consortium, including the information on whether or not they are recommended for submitting a full proposal and eventually with recommendations for the full proposals according to the national / regional rules and principles. Proposal / project coordinators will inform their partners on SOLAR-ERA.NET decisions.

4.2 Full Proposal and National / Regional Funding Applications

The full proposal is based on the preproposal. Any major changes in terms of partners, objectives and activities, costs and funding have to be explicitly communicated as early as possible to SOLAR-ERA.NET coordination office (info@solar-era.net) and to all funding agencies involved.

The full proposal describes the project in more detail and all national project parts. In addition to the full proposal form provided by SOLAR-ERA.NET, the corresponding national / regional funding application form may be requested by the respective funding organisation according to their respective programme rules. To receive funding, the national / regional parts of the project must fulfil their national / regional criteria. This will create different submission and financing situations for partners from different countries.

The eligibility and evaluation criteria are as follows:
At the SOLAR-ERA.NET level:

- Date and time of receipt of proposal on or before deadline
- Presence of requested SOLAR-ERA.NET full proposal form
- Minimum of 2 partners from 2 different countries or regions (Regions must be from different countries.) participating in the SOLAR-ERA.NET transnational call PV3 or CSP3
- Preproposal was recommended for submission for a full proposal by at least 2 funding organisations from at least 2 different countries (or regions in different countries) of the SOLAR-ERA.NET call consortium. A minimum of one partner in the project must be from industry.

At the national / regional level:

- Programme regulations observed if applicable (e.g. presence of requested national / regional full proposal forms, financial viability check)
- Funding budget available

The evaluation is carried out on the transnational as well as according to national / regional requirements which for some funders may include additional assessment. The evaluation procedure is outlined below:

1. Evaluation by independent international experts: The full project proposal is evaluated with regard to i) its potential commercial impact / relevance to industrial and market needs / contribution to the Solar Europe Industry Initiative and added transnational value, ii) scientific and technological excellence and iii) quality and efficiency of the implementation and the management by international experts. (International experts are required to sign a confidentiality agreement prior to undertaking any project evaluations.) The evaluation form is available on www.solar-era.net. The common scientific / technical evaluation is forwarded to the relevant funding agencies. Funding agencies include these scientific / technical evaluations within their national / regional evaluation.
2. Evaluation on the national / regional level: some of the participating national / regional agencies reserve the right to do their own evaluation of the respective funding applications, based on the individual merits of the project elements viewed in the context of the proposed transnational project and the roles of the national / regional project partners.
3. Ranking: Based on the evaluations, the projects are ranked. In principle, a higher ranking increases the chances of projects for being funded. Yet, funding availability and other relevant issues on national / regional level can have an impact on fundability of projects.
4. Proposals for funding: The Call Committee with representatives from SOLAR-ERA.NET organisations participating in the transnational call and potentially funding projects will commonly propose the funding of projects to the national / regional agencies. The project coordinators receive a letter on evaluation results, outcomes of the Call Committee meeting and further procedure about ten weeks after the submission deadline.
5. Funding decisions: The national / regional agencies make the final funding decision according to their requirements and rules.

5. Funding and Reporting

5.1 Contract

Funding contracts 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 might be the existence of a consortium agreement that also includes IPR related issues. As the national funding contracts may not all become effective at the same time, the project parties 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 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 is responsible in providing concise reporting according to the requirements (concise reporting at the start and end of project with a publishable summary and further information for internal reporting, participation in questionnaires, provide the Consortium Agreement signed).
Any substantial change in an on-going project must be reported immediately to the involved funding organisations. The project partners should be aware that changes might have effects on funding.

5.4 Dissemination

Project partners are required to refer to SOLAR-ERA.NET in their publications, exhibitions, lectures and press information concerning results of the SOLAR-ERA.NET projects. Acknowledgement should be: Project xy is supported under the umbrella of SOLAR-ERA.NET by (list of all national and regional agencies supporting the project).
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.

6. Eligible RTD Topics and Activities as well as Specific Requirements

Eligible topics and types of RTD activities are shown in table 3 for each funding organisation participating in SOLAR-ERA.NET transnational calls PV3 and CSP3. Type of activity is as follows:
I = Industrial / applied research
E = Experimental development
F = Fundamental / basic research

Table 3a: Eligible topics and RTD activities per funding organisation participating in SOLAR-ERA.NET transnational call PV3 highlighted in orange *(*in italics: final approval of participation and funding budget still pending in this Region).*

Country / Region	Organisation	Topic PV3.1 Innovative processes for inorganic thin-film cells & modules	Topic PV3.2 Dedicated modules for BIPV design and manu-facturing	Topic PV3.3 Grid integration & large-scale deploy-ment of PV	Topic PV3.4 High-efficiency PV modules based on next generation -c-Si solar cells	Topic PV3.5 Solar glass and encapsu-lation materials	Topic PV3.6 Concen-trator PV technolo gy	Topic PV3.7 Si feedstock, crystallisati on and wafering	Topic PV3.8 Organic solar cells, perovskites and other emerging concepts
Austria	FFG	I+E	I+E	I+E	I+E	I+E	I+E	I+E	I+E
Belgium-Flanders	IWT	I	I	I	I	I	I	I	I
Belgium-Wallonia	SPW	I	I	I	I	I	I		I
Cyprus	RPF	I+E	I+E	I+E	I+E	I+E	I+E	I+E	I+E
Denmark	energinet.dk		I + E	I + E					I + E
Finland	TEKES	I+E	I+E	I+E	I+E	I+E	I+E	I+E	I+E
France	ADEME	I+E+F	I+E+F		I+E+F	I+E+F	I+E+F	I+E+F	
Germany	PtJ	I+E	I+E	I+E	I+E	I+E	I+E	I+E	
*Germany-NRW**	*ETN*	*I+E*	*I+E*	*I+E*	*I+E*	*I+E*			*I+E*
Israel	MNIEW-SC	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F
Netherlands, the	RVO	I+E (+F)	I+E (+F)	I+E (+F)	I+E (+F)	I+E (+F)	I+E (+F)	I+E (+F)	I+E (+F)
Poland	NCBR	I+E	I+E	I+E	I+E	I+E	I+E	I+E	I+E
Spain	MINECO	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F
Sweden	SWEA	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F	I+E+F
Switzerland	SFOE	I+E	I+E	I+E	I+E	I+E	I+E	I+E	
Turkey	Tübitak	I+E+F	I+E	I+E	I+E+F	I+E+F	I+E+F	I+E	I+E+F
UK	Innovate UK	I+E	I+E	I+E	I+E	I+E	I+E	I+E	I+E

Table 3b: Eligible topics and RTD activities per funding organisation participating in SOLAR-ERA.NET transnational call CSP3 highlighted in orange *(*in italics: final approval of participation and funding budget still pending in this Region).*

Country / Region	Organisation	Topic CSP3.1 Cost reduction and efficiency increase in components	Topic CSP3.2 Dispatchability through storage and hybridisation	Topic CSP3.3 New heat transfer media for CSP plants	Topic CSP3.4 Innovative thermodynamic cycles
Austria	FFG	I+E	I+E	I+E	I+E
*Belgium-Wallonia**	*SPW*	*I*	*I*		*I*
Cyprus	RPF	I+E	I+E	I+E	I+E
France	ADEME	I+E+F	I+E+F	I+E+F	
Germany	PtJ	I+E	I+E	I+E	
*Germany-NRW**	*ETN*	*I+E*	*I+E*	*I+E*	*I+E*
Israel	MNIEW-SC	I+E+F	I+E+F	I+E+F	I+E+F
Poland	NCBR	I+E	I+E	I+E	I+E
Spain	MINECO	I+E+F	I+E+F	I+E+F	I+E+F
Sweden	SWEA	I+E+F	I+E+F	I+E+F	I+E+F
Switzerland	SFOE	I+E	I+E	I+E	I+E
Turkey	Tübitak	I+E	I+E	I+E	I+E

The specific requirements of funding organisations participating in SOLAR-ERA.NET transnational calls PV3 and CSP3 are listed in the tables below.

Austria

Specifications for SOLAR-ERA.NET transnational call PV3, FFG, Austria

Agency	Austrian Promotion Agency (FFG) – Austria
Contact	i) Anita Hipfinger (for call implementation and helpdesk): anita.hipfinger (at) ffg.at, +43 5 7755 5025 ii) Elvira Lutter (for strategic and general issues): elvira.lutter (at) klimafonds.gv.at iii) Ulrike Rohrmeister (for strategic and general issues): ulrike.rohrmeister (at) bmvit.gv.at
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallisation and wafering • PV3.8 Organic solar cells, perovskites and other emerging concepts • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New heat transfer media for CSP plants • CSP3.4 Innovative thermodynamic cycles
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	The organisations which are eligible for funding and the eligibility criteria for cooperation are listed in the national guidelines (www.ffg.at/SOLARERANET) The national rules on eligible costs for Austrian participants are available from the FFG at www.ffg.at/kostenleitfaden. Universities can claim max. 20% overhead costs as an additional charge to the personnel costs. For further Information (possible Instruments, usual funding rules) please go to www.ffg.at/SOLARERANET
Budget	0,5 million euro (for both PV3 and CSP3)
Further specification	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.

Belgium-Flanders

Specifications for SOLAR-ERA.NET transnational call PV3, IWT, Flanders, Belgium

Agency	IWT, Flanders Belgium
Contact	Elsie De Clercq, edc (at) iwt.be Francis Deprez, fd (at) iwt.be
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallisation and wafering • PV3.8 Organic solar cells, perovskites and other emerging concepts
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / Applied research
Eligible applicants	The Agency potentially supports, through its "industrial R&D project" scheme for companies ("SME-scheme" included) all firms, from SMEs to LEs with a Flemish seat. To implement the project, the applicant may also work with other firms (as partner or as subcontractors) and with ROs (outsourcing or as research partner). The basic funding rate of the "industrial R&D project" scheme is 25% for development projects and 50% for research projects. Within the SME scheme the basic funding rate is 25%. Additional support may be granted. Small firms (SEs) may be eligible for an additional 20% and mid-sized firms (ME's) for an additional 10%. Since the project involves substantial collaboration at the international level, it is eligible for an additional 10%. The total funding percentage cannot exceed 80%.
Budget	1 million euro (PV3 call only)
Further specification	National application forms have to be handed in to IWT at the same deadline as the full proposal phase – download from www.iwt.be

Belgium-Wallonia

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with SPW, Wallonia, Belgium

Agency	Service Public de Wallonie (SPW)
Contact	Julie Marlier, julie.marlier (at) spw.wallonie.be, +32 81 33 45 49 (for eligibility issues) Laurence Polain, laurence.polain (at) spw.wallonie.be, +32 81 48 63 42 (for scope)
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV 3.8 Organic solar cells, perovskites and other emerging concepts • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.4 Innovative thermodynamic cycles The Agency does not support projects in the following topics: • PV3.7 Si feedstock, crystallisation and wafering • CSP3.3 New heat transfer media for CSP plants
Type of RTD	SPW supports applied research projects
Eligible applicants	SPW potentially supports all private and public applicants, namely: • Large Enterprises (40% of total costs) • Small and Medium Enterprises (from 60 to 80% of total costs) • Research Centres (75% of total costs) • Universities (100% of total costs) Eligibility criteria : - 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; - The beneficiary must have a stable financial situation; - The beneficiary must have Operational offices in the Walloon Region; - The project must add benefit to the regional economy; - All information needed for evaluation should be available; - A Walloon complementary funding request's form must be submitted to the SPW-DGO6 for full proposal.
Budget	0,5 million euro (flexible)
Further specification	Participation of a private company is mandatory (minimum 40% of total Walloon budget). National application forms have to be submitted within five working days after the call deadline – download from http://recherche-technologie.wallonie.be/go/era-nets/solar.html. A financial viability check has to be carried out before being recommended for full proposal. Please contact Julie Marlier to receive the SPW-DGO6 cost model.

Cyprus

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3, RPF, Cyprus

Agency	Research Promotion Foundation (RPF), Cyprus
Contact	Demetra Petsa: +357 22205033; dpetsa (at) research.org.cy
Topics	All topics of PV3 and CSP3 will be supported.
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	The Host Organisation (HO) of the Cypriot Consortium could be: • Research / Academic Organisation (cat. A.1 and A.2), or • Enterprise (cat. B.1, B.2, B.3 and B.4), or • Public Benefit Organisation (cat. Γ.1 and Γ.2), located permanently in the areas under the control of the Republic of Cyprus (excluding the UK Sovereign Base Areas). The participation of Partner Organisations (PA) in the Cypriot Consortium is not compulsory. However, the Cypriot consortium may include up to three (3) Partner Organisations. Funding rates can be obtained from relevant national call documents. Proposals with score less than 10 out of 15 points will not be funded by the RPF
Budget	0,2 million euro (covering both PV3 and CSP3 calls)
Further specification	Please refer to the National Call documents (available on RPF webpage http://www.research.org.cy)

Denmark

Specifications for SOLAR-ERA.NET transnational call PV3 with Energinet.dk (ForskEL), Denmark

Agency	Energinet.dk (ForskEL), Denmark
Contact	Jesper Bergholdt Soerensen: jbh (at) energinet.dk
Topics	The Agency potentially supports projects in the following topics: • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.8 Organic solar cells, perovskites and other emerging concepts
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	The Agency potentially supports all private and public applicants, namely: • Large Enterprises • Small and Medium Enterprises • Public Research Institutions • Non-Profit-Organisations The maximum rate of support for research organisations is 90% of total costs (for all type of R&D); for SMEs: max. 80% for Industrial research and max. 60% for Experimental Development of total costs; for LE's: max. - 65% for Industrial research and max. 40% for Experimental Development as defines in the EU State-aid rules.
Budget	0,3 million euro
Further specification	National application forms have to be used for the full proposal phase – download from http://www.energinet.dk Rules applying to the ForskEL programme have to be used for Danish partners in the ERA NET call. The application also has to be relevant to the Danish national ForskEL call 2016, which has deadline 10 September 2015.

Finland

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with Tekes, Finland

Agency	Tekes, Finland
Contact	Karin Wikman, karin.wikman (at) tekes.fi
Topics	Tekes potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallization and wafering • PV3.8 Organic solar cells, perovskites and other emerging concepts
Type of RTD	Tekes potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	Tekes potentially supports: • SMEs and Large Enterprises • Public Research Institutions The maximum rate of support for research organisations is up to 70% of total costs; for SMEs up to 60% and for large enterprises up to 50% More information on funding rates and funding principles: www.tekes.fi/en -> innovation funding
Budget	0,7 million euro for RTD performers, flexible budget for enterprises
Further specification	Only consortia under industrial leadership are eligible for funding. Finnish applicants are asked to contact Tekes before submission of the preproposal. National application forms are required at the full proposal stage A financial viability check will be carried out. More information: www.tekes.fi

France

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with ADEME, France

Agency	ADEME (France)	
Contact	Yvonnick DURAND (for PV3), yvonnick.durand (at) ademe.fr	Céline COULAUD (for CSP3), celine.coulaud (at) ademe.fr
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallization and wafering The Agency does not support projects in the following topics: • PV3.3 Grid integration and large-scale deployment of PV • PV3.8 Organic solar cells, perovskites and other emerging concepts	The Agency potentially supports projects in the following topics: • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New heat transfer media for CSP plants The Agency does not support projects in the following topic: • CSP3.4 Innovative thermodynamic cycles
Type of RTD	The Agency potentially supports all type of RTD, namely: • Industrial / applied research • Experimental development • Fundamental / basic research	
Eligible applicants	The Agency potentially supports all private and public applicants, namely: • Large Enterprises • Small and Medium Enterprises • Public Research Institutions • Non-Profit-Organisations More precisely, public research labs and other research organisations (public and private), i.e. organisations wich are involved in continuous scientific research or experimental development activity which are legal entities. The maximum rate of support for public research organisations is 100% of total costs (only for Basic Research) and max 65% for industrial research; for SMEs: max. 80% for Industrial research (or applied research) and max. 60% for Experimental Development; for LE's: max. 65% for Industrial research and max 40% for Experimental Development	
Budget	approx. 0,3 million euro (in total over the PV and CSP area)	
Further specification	National application forms are required at the full proposal stage. More information: contact yvonnick.durand@ademe.fr or celine.coulaud@ademe.fr.	

Germany

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with Projektträger Jülich, Germany

Agency	Projektträger Jülich, Germany
Contact	Hermann Bastek, h.bastek (at) fz-juelich.de Martina Biedrawa, m.biedrawa (at) fz-juelich.de
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallisation and wafering • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New heat transfer media for CSP plants
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	The Agency potentially supports all private and public applicants, namely: • Large Enterprises • Small and Medium Enterprises • Public Research Institutions • Non-Profit-Organisations 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
Budget	Further information available at Projektträger Jülich (see contact).
Further specification	Only consortia under industrial leadership are eligible for funding. National application forms ("easy-Online Skizze") have to be used for the full proposal phase, submission via https://foerderportal.bund.de/easyonline/ A financial viability check has to be carried out before being recommended for full proposal.

Germany-NRW *(participation and funding budget of the Region still pending)*

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with Projektträger ETN, Germany

Agency	Projektträger ETN, Germany
Contact	Melanie Schulte, me.schulte (at) fz-juelich.de
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.8 Organic solar cells and other emerging concepts • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New fluids for CSP plants • CSP3.4 Innovative thermodynamic cycles
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	The Agency potentially supports all private and public applicants, namely: • Large Enterprises • Small and Medium Enterprises • Public Research Institutions • Non-Profit-Organisations The maximum rate of support for research organisations is 100% of total costs (for all type of R&D); for SMEs: max. 80% for Industrial research and max. 60% for Experimental Development of total costs; for LE's: max. 65% for Industrial research and max. 40% for Experimental Development.
Budget	PENDING
Further specification	Only consortia under industrial leadership are eligible for funding. Own application forms have to be used for the full proposal phase (please contact ETN).

Israel

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with the Ministry of National Infrastructure Energy and Water – Chief scientist Office, Israel

Agency	Ministry of National Infrastructure Energy and Water- Chief scientist Office
Contact	i) Rona Sarfaty: ronas (at) energy.gov.il ii) Gideon Friedmann: gideonf (at) energy.gov.il iii) Igor Derzy: igord (at) energy.gov.il
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallisation and wafering • PV3.8 Organic solar cells, perovskites and other emerging concepts • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New fluids for STE plants • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells
Type of RTD	The Agency potentially supports all type of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	Ministry of national Infrastructure, Energy and Water – Chief Scientist potentially supports all private and public applicants namely: • Large Enterprises • Small and Medium Enterprises • Public Research Institutions • Research organisations The maximum rate of support for applied research is max. 100% of total costs, both for industrial / applied research and experimental development. Details depend on the funding instrument used and can be solicited (see contact).
Budget	PENDING (further information at the agency)
Further specification	Israel funds depend on a national open call for Submission of Proposals for a Pilot and Demonstration Project, for start-up companies and for the academia.

Netherlands

Specifications for SOLAR-ERA.NET transnational call PV3, NL Agency, Netherlands

Agency	RVO (Directorate Energy Innovation), Netherlands
Contact	Otto Bernsen, otto.bernsen (at) rvo.nl office (at) tkisolarenergy.nl (for call execution)
Topics	RVO potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallisation and wafering • PV3.8 Organic solar cells, perovskites and other emerging concepts
Type of RTD	RVO potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development • Fundamental / basic research
Eligible applicants	The organisations which are eligible for funding and the eligibility criteria for cooperation are listed in the general national guidelines http://www.rvo.nl/subsidies-regelingen/tenders-tki-solar-energy/offici%C3%ABle-bekendmakingen
Budget	To be defined by TKI Solar
Further specification	Currently the Dutch policy on top sectors, and specifically the top sector energy, forms the context of RTD projects and joint calls. In these top sectors there is a special and active role for industry organised in so called innovation contracts. For an update of these innovation contracts and international calls, it is important to follow notifications on the RVO website: http://www.rijksoverheid.nl/onderwerpen/ondernemersklimaat-en-innovatie/investeren-in-topsectoren/energie

Poland

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3, NCBR, Poland

Agency	NCBR, Poland
Contact	Małgorzata Świderska, malgorzata.swiderska (at) ncbr.gov.pl, + 48 22 39 07 279
Topics	NCBR potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallization and wafering • PV3.8 Organic solar cells, perovskites and other emerging concepts • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New heat transfer media for CSP plants • CSP3.4 Innovative thermodynamic cycles
Type of RTD	NCBR potentially supports all types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	According to The Act of 30 April 2010 on the National Centre for Research and Development following entities are eligible to apply: • Scientific institutions; • Scientific consortia; • Scientific networks; • Centres of science and industry; • Centres of science of the Polish Academy of Sciences; • Entrepreneurs with the status of a research and development centre; • Organisation units with the status of a legal person and the registered office in the territory of the Republic of Poland; • Enterprises conducting R&D activity in other than aforementioned organisational form.
Budget	0,5 million euro (in total for PV and CSP topics), available from 2015
Further specification	National funding applications must be submitted by Polish project partners to NCBR. All Polish project partners submitting national funding applications are obliged to use the rate of exchange of The European Central Bank dated on the day of opening the call. The general rules for maximum rate of support for: • research organisations is 100% of total costs (for all type of R&D); • small enterprises: 100% for fundamental research, max. 80% for Industrial research and max. 60% for experimental development of total costs; • medium enterprises: 100% for fundamental research, max. 75% for Industrial research and max. 50% for experimental development of total costs; • large enterprises: 100% for fundamental research, max. 65% for Industrial research and max. 40% for experimental development of total costs. Note: in the present call the basic/fundamental research is not a subject of the NCBR support. Additional overheads incurred indirectly as a result of the research project; general and administrative expenses are accounted for as a lump sum, up to 25% of the remaining eligible costs in a project, without category of “studies, analyses and experts’ opinions”, according to the formula: overheads = (personnel costs + depreciation + land + operational costs) x % rate The maximum rate (in %) of the overheads is the same for all types of entities qualified in the call.

Spain

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with MINECO, Spain

Agency	MINECO / Spain
Contact	Severino FALCON, severino.falcon (at) mineco.es Juan TRIGO, juanfrancisco.trigo (at) ciemat.es José HERRERO, jose.herrero (at) ciemat.es Alfio Rodeghiero, era-energia (at) mineco.es era-energia (at) mineco.es
Topics	The Agency potentially supports projects in all topics. However, for PV, priority topics are: • PV3.1 Innovative processes for inorganic thin-film cells & modules. • PV3.2 Dedicated modules for BIPV design and manufacturing. • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells. • PV3.6. Concentrator PV technology • PV3.7 Si feedstock, crystallization and wafering
Type of RTD	The Agency potentially supports all type of RTD, namely: • Experimental development • Fundamental / basic research
Eligible applicants	MINECO consider as eligible applicants: • Large Enterprises • Small and Medium Enterprises • Public Research Institutions • Non-Profit-Organisations Non profit organization (public research labs, other public or private research organisations, i.e. organisations which are involved in continuous scientific research or experimental development activity which are legal entities with a registered seat in Spain) will be funded by the MINECO call “RETOS Acciones de Programación Conjunta Internacional (APCI)”: The maximum rate of support for research organisations is 100% of total costs (for all type of R&D) All other profit organizations (SMEs, Les) are welcome without MINECO grants. However, they could apply for other national calls for loans such as those of CDTI or MINECO (RETOS COLABORA) following the general procedures.
Budget	For organization which apply in the call of RETOS Acciones de Programación Conjunta Internacional (APCI): • Total funding per participant up to 40.000 € per year for theory and simulation groups. Total APCI funding per project up to 55.000 euros year. • Total funding per participant up to 77.000 € per year for experimental groups. Total APCI funding per project up to 105.000 euros year. These funds could be complemented by other regional, national or international calls. At present, profit organization are not expected to be funded under the call RETOS Acciones de Programación Conjunta Internacional 2015. Call 2016 is under studied. Further information at MINECO.
Further specification	Spanish funds depend on national open calls. MINECO and its depending bodies are updating their open call programs for 2015. Once the updating is completed, MINECO will confirm the potential support for this ERANET open call and its topics

Sweden

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with the Swedish Energy Agency, Sweden

Agency	Swedish Energy Agency (Energimyndigheten)
Contact	Tobias Walla, tobias.walla (at) swedishenergyagency.se Linn Sjöström, linn.sjostrom (at) swedishenergyagency.se
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallization and wafering • PV3.8 Organic solar cells, perovskites and other emerging concepts • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New heat transfer media for CSP plants • CSP3.4 Innovative thermodynamic cycles
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development • Fundamental / basic research
Eligible applicants	The Agency potentially supports all private and public applicants, namely: • Large Enterprises • Small and Medium-sized Enterprises • Public Research Institutions • Research organisations • Other types of organisations The maximum rate of support for *fundamental research* is 100% of total costs; for *applied research* max. 100% of total costs for non-profit research organisations, max. 80% of total costs for SMEs and or max. 65% of total costs for LEs; for *experimental development* max. 100% of total costs for non-profit research organisations, max. 60% of total costs for SMEs and max. 40% of total costs for LEs.
Budget	0,86 million euro
Further specification	The SOLAR-ERA.NET proposal forms can be used for the preproposal stage. National application forms have to be used in the full proposal phase. Further information can be obtained from the national contact points. Funding of enterprise RTD is subject to Swedish legislations *Förordning om statligt stöd till forskning och utveckling samt innovation inom energiområdet* (SFS2008:761).

Switzerland

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with the Swiss Federal Office of Energy, Switzerland

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: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells • PV3.5 Solar glass and encapsulation materials • PV3.6 Concentrator PV technology • PV3.7 Si feedstock, crystallisation and wafering • CSP3.1 Cost reduction and efficiency increase in components • CSP3.2 Dispatchability through storage and hybridisation • CSP3.3 New heat transfer media for CSP plants • CSP3.4 Innovative thermodynamic cycles
Type of RTD	The Office potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development
Eligible applicants	The Office potentially supports all private and public applicants, namely: • Large Enterprises • Small and Medium-sized Enterprises • Public Research Institutions • Research organisations • Other types of organisations The maximum rate of support for *applied research* is max. 100% of total costs for non-profit research organisations, max. 50% of total costs for SMEs and LEs; for *experimental development* is max. 50% of total costs for non-profit research organisations and max. 50% of total costs for SMEs and for LEs. Details depend on the funding instrument used and can be solicited (see contact). Note: Swiss participation in SOLAR-ERA.NET is NOT affected by the recent vote in Switzerland and negotiations on Horizon2020 participation. Swiss organisations are basically eligible and fundable according to the specifications given in this section.
Budget	Further information available from the Office.
Further specification	The SOLAR-ERA.NET proposal forms can be used for the first stage. Depending on the supporting instrument used, additional information and/or forms may be required. Further information is available at the office.

Turkey

Specifications for SOLAR-ERA.NET transnational calls PV3 and CSP3 with Türkiye Bilimsel ve Teknolojik Araştırma Kurumu, Turkey

Agency	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu, Turkey
Contact	TEYDEB - 1509-International Industrial R&D Projects Grant Programme Dr. İsmail Doğan, ismail.dogan (at) tubitak.gov.tr Kaan Karaöz, kaan.karaoz (at) tubitak.gov.tr ARDEB - 1001-The Support Program for Scientific and Technological Research Dr. Bora Kat, bora.kat (at) tubitak.gov.tr
Topics	The Agency potentially supports projects in the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules (TEYDEB+ARDEB) • PV3.2 Dedicated modules for BIPV design and manufacturing (TEYDEB) • PV3.3 Grid integration and large-scale deployment of PV (TEYDEB) • PV3.4 High-efficiency PV modules based on next generation c-Si solar cells (TEYDEB+ARDEB) • PV3.5 Solar glass and encapsulation materials (TEYDEB+ARDEB) • PV3.6 Concentrator PV technology (TEYDEB+ARDEB) • PV3.7 Si feedstock, crystallisation and wafering (TEYDEB) • PV3.8 Organic solar cells, perovskites and other emerging concepts (TEYDEB+ARDEB) • CSP3.1 Cost reduction and efficiency increase in components (TEYDEB) • CSP3.2 Dispatchability through storage and hybridisation (TEYDEB) • CSP3.3 New heat transfer media for CSP plants (TEYDEB) • CSP3.4 Innovative thermodynamic cycles (TEYDEB)
Type of RTD	The Agency potentially supports the following types of RTD, namely: • Industrial / applied research • Experimental development • Fundamental / basic research
Eligible applicants	The Agency potentially supports all private and public applicants, namely: TEYDEB • Large Enterprises • Small and Medium Enterprises • Public Research Institutions (as subcontractors) • Research Organizations (as subcontractors) The maximum and minimum rates of support for large enterprises are 60% and 40% of total costs for industrial research, respectively; rate of support for SMEs is 75% for industrial research; ARDEB • Universities • R&D institutes • Public and private corporations . 100% funding for ARDEB 1001-The Support Program for Scientific and Technological Research projects.
Budget	2 million euro (TEYDEB), 1 million euro (ARDEB)
Further specification	TEYDEB – 1509 Programme Only consortia under industrial leadership are eligible for funding. National application forms have to be used for the full proposal phase – download from https://eteydeb.tubitak.gov.tr A financial viability check has to be carried out before being recommended for full proposal. ARDEB – 1001 Programme A short project proposal form, national project budget form and CVs of the project personnel required.

United Kingdom

Specifications for SOLAR-ERA.NET transnational call PV3 with Innovate UK, United Kingdom

Agency	Innovate UK [Technology Strategy Board]– United Kingdom
Contact	Technical and Scope Questions - Christian Inglis, christian.inglis@innovateuk.gov.uk Eligibility Questions - Graham Mobbs, graham.mobbs@innovateuk.gov.uk
Topics	The Agency intends to prioritise support for projects covering the following topics: • PV3.1 Innovative processes for inorganic thin-film cells & modules • PV3.2 Dedicated modules for BIPV design and manufacturing • PV3.3 Grid integration and large-scale deployment of PV • PV3.6 Concentrator PV technology • PV3.8 Organic solar cells, perovskites and other emerging concepts
Type of RTD	The Agency potentially supports: • Industrial / applied research • Experimental development The agency does not support academic research, this is covered by other national programmes
Eligible applicants	The Agency potentially supports: • Large Enterprises • Small and Medium Enterprises Up to 50% grant funding for Large Enterprises, up to 60% grant funding for Small and Medium Enterprises Industrially focused Research Technology Organisations are eligible to apply but only in combination with a UK business
Budget	Intention of up to 1 million euro** *Note that this is a maximum and subject to national spending reviews taking place during the 3rd Eranet competition*
Further specification	All UK participants must be separate legal and non-linked entities. Companies must have been trading for at least 12 months and VAT registered and provide evidence they have the resources and finances to undertake the project. Projects led by a UK company must be managed by the lead partner, project management cannot be subcontracted. Single entity companies cannot lead projects and companies with fewer than 5 Full Time staff cannot lead a project, unless agreed prior to application with Innovate UK Subcontracting is limited to 25% of the UK partner grant. Participants can either be a partner or a subcontractor, they cannot be both. Industrial Sector Research Technology Organisations are eligible for no more than 30% of the UK total project costs. Maximum grant limit is €250,000 euro per UK business partner in any single project. No single organisation can receive more than €500,000 euro from the UK call budget. A single organisation canbe a partner in a maximum of 2 projects. Applications will be reviewed to identify if there are any obvious reasons for exclusion on the basis of national track record such as the participant having already received funding for the same or a very similar activity. Eligible costs and rules will mirror those used for industrial partners in the Innovate UK C R & D programme.