



COST Action CA19126 - Positive Energy Districts European Network (PED-EU-NET)

Open Call for Short-Term Scientific Missions (STSMs)

Important Dates:

Application: open continuously

Notification of Results: 14 working days after application submission

Mission Period: 01 July 2021 – 15 September 2021

This COST Action (PED-EU-NET) encourages Short Term Scientific Missions (STSMs). STSMs are research visits aimed at supporting individual mobility, strengthening existing networks and fostering collaboration between COST Action Participants. A STSM should specifically contribute to the scientific objectives of the COST Action, whilst at the same time allowing those partaking in the missions to learn new techniques and methods, gain access to specific facilities or instruments not available in their own institution/organization.

STSMs range from 5 days to 3 months and are aimed at providing learning opportunities, preferably but not solely to Early Career Investigators (ECIs)¹ through research exchange outside their home country on topics related to Positive Energy Districts. STSM applicants must be engaged in an official research programme as a PhD student or postdoctoral fellow or may be employed by, or affiliated to, an institution or legal entity which has within its remit a clear association with performing research. The institutions/ organisations where applicants pursue their main strand of research are considered as Home Institutions.

For the present Grant Period, the STSMs must take place between 01 July 2021 and 15 September 2021. [A list of potential topics of the missions can be found at the end of the document.](#)

The main objective of the Action is to drive the deployment of Positive Energy Districts (PEDs) in Europe by harmonising, sharing and disseminating knowledge and breakthroughs on PEDs across different stakeholders, domains and sectors. It will support cities and empower communities to achieve the city-wide positive energy transformation with pioneering ideas, methods and solutions. More information including the Action's Memorandum of Understanding (MoU) can be found in the following web page: (www.cost.eu/actions/CA19126).

Financial Support

The financial support is a contribution to the costs of a STSM and may not cover all costs. The financial contribution for a STSM will be a fixed grant based on the Applicant's budget request and the evaluation of the application by the STSM assessment committee. The total of a STSM shall not exceed EUR 2.000. Grantees must make their own arrangements for all provisions related to personal security, health, taxation, social security and pension matters.

¹ ECI is an individual who is within a time span of up to 8 years from the date they obtained their PhD/doctorate (full-time equivalent).

STSM Process

Before the STSM:

Eligible STSM applicants must:

- ✓ First contact the Working Group (WG) leader(s), which their STSM is linked to, or the STSM coordinator to express the interest. The list of contact information can be found at the end of the document.
- ✓ After the agreement is reached, complete an online STSM application, <https://e-services.cost.eu/STSM> and send the following by email to the STSMs coordinator of this Action:
- ✓ Application form (download [here](#)),
- ✓ Cover letter, explaining how your work will benefit from this STSM and how this STSM will contribute to the achievement of the objectives of the WG(s) and this COST Action. Please make sure you indicate how your personal and professional experiences and skills will make you a good candidate, and what you intend to do (800 words) during your STSM. Considering the current pandemic situation, the application must describe how the activities proposed to take place during the STSM can be safely conducted according to current international health and safety recommendations. How a candidate's work experience meets the requirements of the proposed tasks.
- ✓ A written agreement of the host institution, which must also confirm that the host institution is able to accept visitors under their anti-Covid19 health and safety policy; and the proposed activities can safely take place and that social distancing rules and prevention measures are in place,
- ✓ A letter from the Home Institution to support the mission and to confirm that travel for the applicant is allowed under their anti-Covid19 health and safety policy,
- ✓ CV (max. 2 pages), including list of publications.

Evaluation of the application and selection of the Grantee:

The applications will be assessed by the STSM Committee, which will perform the scientific and budgetary assessment of the applications based on the perceived contribution that the proposed STSM will make against the scientific objectives outlined in the Action's Memorandum of Understanding (MoU). The criteria for evaluation include:

1. Aim & Motivation

Does the STSM contribute to the objectives of the Action, and benefit the applicant and the host?

5 Excellent

4 Very Good

3 Satisfactory

2 Deficient

1 Poor

0 Failed

2. Relevance & Excellence

How appropriate is the STSM, considering the quality, scope, and feasibility of the outcomes?

5 Excellent 4 Very Good 3 Satisfactory 2 Deficient 1 Poor 0 Failed

How aligned is the STSM with the selected Working Group and objectives?

5 Excellent 4 Very Good 3 Satisfactory 2 Deficient 1 Poor 0 Failed

3. Methods & Techniques

How practical and feasible are the candidate's selected methods to answer the research questions or meet the objectives? Does the STSM add value to the Action and contribute to innovative solution, method, or theory?

5 Excellent 4 Very Good 3 Satisfactory 2 Deficient 1 Poor 0 Failed

4. Planning

Is the quality and feasibility of the work plan reasonable and satisfying? Are the STSM objectives, questions, methods, plan, and desired outcomes coherent, balanced and compelling?

5 Excellent 4 Very Good 3 Satisfactory 2 Deficient 1 Poor 0 Failed

5. Diversity and Inclusiveness

Does the applicant promote gender equality? (0-1)

Is the applicant an Early Career Investigator? (0-1)

Is the applicant or the host based in an Inclusiveness Target Country? (0-1)

Does the applicant have a publication plan after the mission? (0-1)

After the STSM:

The STSM grantee is required to submit a short scientific report to the Host institution and the STSM Committee for formal approval within 30 days after the end date of the STSM. Written approval of the scientific report by the aforementioned persons must be uploaded in e-COST for archiving purposes. The report must contain the following information:

- ✓ Purpose of the STSM,
- ✓ Description of the work carried out during the STSM,
- ✓ Description of the main results obtained,



- ✓ Foreseen publications / articles resulting from the STSM (if applicable),
- ✓ Confirmation by the host institution of the successful execution of the STSM,
- ✓ Other comments (if any),
- ✓ A short version of this report, which can be added to the Action homepage,
- ✓ Signed agreement that the STSM report can be used by the COST Action for publications.

The failure to submit the scientific report on time will effectively cancel the grant. The STSM Coordinator will inform the Grant Holder about the acceptance of the report via e-mail. Afterwards, the Grant Holder will execute the payment of the fixed grant directly to the grantee or to the home institution as stated in the application form.

Priority STSM topics

In this open call, the Action offers i) a fix topic with a dedicated host and ii) a list of WG priority topics as follows. If you are interested in undertaking a research mission on any of these topics, please contact the WG leaders or the host partner(s) for further discussion.

I. Fix Topic

Mission Title: Framework for Categorizing Technical PED Tools

Scope: The mission will focus on WG2- PED Guides and Tools. Within this WG, the applicant is expected to carry out work under SG3 – Technical tools for design and planning, more concretely on creating a framework to categorize technical tools and assisting the Action in collecting and categorizing tools, using the mentioned framework, through action members' and other practitioners' literature.

The framework will be oriented to the categorization of tools linked with Energy Communities and Local Energy Markets, which, due to their essence in terms of regulation and governance, could be considered as a less-ambitious (in terms of energy positiveness), but more easily understood and managed Positive Energy District. By characterizing and ranking those tools in terms of impact, governance, optimal size, relation with surroundings, etc., the framework will assist in the solving of some challenges that still gravitate around PEDs' implementation, for instance:

- PEDs are, by nature, areas where innovative solutions should be experimented. Due to the difficulties found in setting regulatory sandboxes, would be possible to have an "official label" for PEDs, recognized at EU-level, to facilitate the testing of solutions?
- Can/should we count green energy that is being generated near the frontier of the PED? How? In case we turn PED frontiers more virtual and less geographical, which tools should be put in place to ensure homogeneity between PEDs?
- What's the best dimension of a PED in order to make it scalable: big, involving a lot of entities? Smaller? In terms of governance – big vs small –, which one is better?



Moreover, the applicant will have a hands-on experience within one PED tool, by being placed in either POCITYF or SPARCS teams (two H2020 SCC-1 where EDP NEW is part of the consortium) in order to work on the development of one of the following PED-related tools: 1) Management Platform for Energy Communities; 2) Replication-oriented tool, allowing municipalities to identify major PED potential of respective cities. Case the scenario 1 is chosen, the applicant will also have the opportunity to work on the setting up of a Local Energy Market.

Duration of the mission: minimum of one month

Host: EDP NEW (Centre For New Energy Technologies, S.A)

EDP NEW is a subsidiary of the EDP Group with the mission to create value through collaborative R&D in the energy sector. EDP NEW is entirely committed to research and development with a strong focus in technology demonstration projects. The result of an internal reorganisation process in 2014, EDP NEW centralises the Group's R&D activities and is established inside EDP Labellec – EDP's laboratorial facilities and technical excellence centre. EDP NEW has carried out work in several EU H2020 in all the energy value chain, adopting an integrated and sustainable approach towards disruptive solutions that empower its partners and bring value to the shareholders. EDP NEW has proven competencies in cross cutting topics, such as project management, use cases writing, architecture design, scalability and replicability analysis, new business models' analysis and development, validation of technologies in laboratorial environment and demonstration in real conditions. EDP NEW is divided into five knowledge areas, reflecting EDP Group overall orientation to innovation, namely: Smart Energy Systems; Positive Energy Communities; Renewable Energy Sources Technology; Renewables' Integration and Flexibility; Digital for Energy.

Address: Rua Cidade de Goa, 4 | 2685 – 039 Sacavém, Portugal (near Lisbon)

Key contact point: José Miguel Costa (josemiguel.costa@edp.com)

II. WG Priority Topics

WG1- PED Mapping, Characterisation and Learning

WG1 aims at mapping existing concepts, strategies, projects, socio-technical innovations related to PEDs in Europe. It will identify the main PED characteristics and key performance indicators (KPIs), scientifically validate PED definition, advance understanding on socio-technical measures and devise roadmap for the implementation of PEDs.

Contacts: Michal Kuzmic (Michal.Kuzmic@cvut.cz) and Paolo Civiero (pciviero@irec.cat)

Recommended topics:

- Which are the key enabling parameters for national level strategies towards reaching PEDs (legislation, policy, pricing, market relations, standards etc.)?
- Which are the key enabling parameters for municipal level strategies towards reaching PEDs (regulatory policies, collaborative culture etc.)?



- Enhancing the institutional practice learning potential through user-friendly interface for information and data sharing in PEDs

WG2- PED Guides and Tools

WG2 aims at developing guides and tools to support the implementation of PEDs. It will synthesise existing knowledge in a coordinated manner across traditionally technical domains (digital planning, building information management, etc.) and acknowledged crucial governance concerns (e.g., institutional structure, funding and business models) and generate insights into new guides and tools for optimizing the design, operation, financing and opportunities of PEDs.

Contacts: Nienke Maas (nienke.maas@tno.nl) and Savis Gohari Krangsås (savis.gohari@ntnu.no)

Recommended topics:

- Which type of tools exist (collection of tools) for implementation/support of PEDs?
- How can existing tools help to devise framework for new tools development. Preferable tools to look at:
 - Platform for Energy communities (could include the governance perspective) – how can it relate to P2P energy market, who can deal / trade with the Energy communities
 - Simulation platform
 - Replication tools

WG3- PED Laboratories, Monitoring and Replication

WG3 aims at developing common protocols for monitoring and evaluation of PEDs and PED Labs across Europe to track progress and provide feedback on improvement and adaptation in the PED demonstration projects. For this we will review the existing monitoring concepts, demonstration projects and facilities relevant for monitoring PED Labs. Based on this review we will identify and evaluate current methods applied in the monitoring, evaluation, and replication of PEDs/PED Labs.

Contacts: Ghazal Etminan (Ghazal.Etminan@ait.ac.at) and Oscar Seco (oscar.seco@ciemat.es)

Recommended topics:

- What are the most critical research gaps/questions in PED labs?
- What could make PED facilitation, mobilization, incubation, replication and acceleration better?
- How can we Integrate different advanced technologies within the district?
- How can we assess and monitor multiple benefits/impacts arising from PED projects?
- What are the KPIs for different stakeholders to translate in monitoring indicators?



WG4- Dissemination, Outreach and Exploitation

WG4 aims at broadening the impacts and outreach of the COST Action, raising the awareness of PEDs and highlighting their relevance to different stakeholders so as to ensure the transfer of knowledge and translation of experience within and beyond the network Leaders/contact people:

Contacts: M-Beatrice Andreucci (mbeatrice.andreucci@uniroma1.it) and Mari Hukkalainen (mari.hukkalainen@vtt.fi)

Interconnection between WGs

One of the objectives of the Action is to increase synergy, inter- and intra- disciplinary collaboration between different aspects of PEDs. Thus, this call encourages those candidates that want to contribute to development of the conceptual and operational interconnection between PEDs topics.

Contacts: Vicky Bo Ki Albert-Seifried (vicky.bo.ki.albert-seifried@ise.fraunhofer.de), Laura Aelenei (Laura.aelenei@Ineg.pt) and the STSM coordinator, Savis Gohari Krangsås (savis.gohari@ntnu.no)

Potential Hosts

The following institute(s) express(es) the interest in hosting STSM projects, please contact the corresponding partner(s) for further discussion.

- ZHAW Zurich University of Applied Sciences, [Department Life Sciences and Facility Management](#)
Contact: Prof. Dr. Matthias Haase (Matthias.Haase@zhaw.ch)