

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

Action number: **CA16232 European Energy Poverty: Agenda Co-Creation and Knowledge Innovation**

STSM title: **Second Visiting Fellowship Call**

STSM start and end date: **03/09/2018 to 04/11/2018**

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PURPOSE OF THE STSM

Regarding to the specific objectives of ENGAGER, the main goal of the research stay has been contributing to the Cost Action objectives on the following topics:

- Review of policies regarding energy poverty alleviation, with an emphasis on COST countries
- Meta analyses of existing policies to assess their innovation potential in combating energy poverty

Through these two main objectives, I've continued and consolidated the work that Working Group 4 has developed during the first year of the Cost Action. Specifically, I've carried out a meta-analysis of policies to tackle energy poverty in terms of innovation ("Innovation check").

The innovation check has mainly consisted in analysing existing policies to tackle energy poverty on the basis of an elaborated methodology and indicators in order to explore their contribution in terms of innovation. The objectives of the innovation check are:

- To analyse the framework conditions of the innovative policies
- To cluster the policies in different innovation areas or categories
- To detect gaps on the innovative initiatives addressing energy poverty.

In addition, part of the research conducted during the STSM period will be included as the case study in the deliverables expected for the first year of the Cost Action.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

This document presents a brief introduction to part of the research developed by the Working Group 4 during the first year of the Cost Action, and specifically the innovation check carried out during the ongoing Short Term Scientific Mission in the Cost member institution ECOFYS (Netherlands).

During the STSM period, different tasks framed in the process of carrying out the Innovation check have been developed :

- 1) **Exploration of the EU Energy Poverty Observatory (EPOV) policy database:** the first intention was using the policies included in EPOV database as a sample for the subsequent innovation check.

Finally this option was discarded due to the lack of available relevant information in terms of information.

- 2) **Innovation assessment criteria sheet building process.** We've developed an "Innovative criteria assessment sheet" structured in two main axis (related to governance and technological innovativeness) composed by dimensions and subdimensions.
- 3) **Policy sample selection.** Regarding the case selection procedure, research experts have been recruited from different countries to select appropriate cases. The experts recruitment was made through the research network ENGAGER. On September 2018 an online form was sent receiving more than 30 contributions in two weeks. Twenty-four experts from 16 different countries participated with approximately 60 existing policies that they considered innovative. This procedure was selected after verifying the non existence of a common definition of innovative policies to tackle energy poverty. The aim of the expert consultation procedure was generating an innovative policy database to analyse their characteristics to obtain a common framework.
- 4) **First analysis of the policy sample:** a first step of the case analysis has been performed applying an 'Innovation assessment criteria' using different sources and tools, such as documentary analysis of planning applications, news reports and community groups' websites supplemented with expert consultations.
- 5) **Presentation and discussion on the first analysis in the Paris Workshop "Innovative practices in tackling energy poverty in Europe".** The presentation took place during the second day (October 23) of the workshop, devoted to a working session of the working group to finalize the deliverables.
- 6) **Peer review of the first analysis.** After the comments and the suggestions expressed during the Paris meeting, I've started the second step in the analysis process. A first draft of the analysis on each policy has been sent to the experts that proposed the policies. We've asked these researchers to help us through a brief peer-review of the policies on which they are experts.

In addition to these tasks directly related to the Cost Action objectives and goals, during the STSM period I've achieved relevant steps in my PhD research process.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

The main results obtained during the STSM process has been:

Innovation criteria design:

We have designed a set of criteria built on the basis of two main axis: governance and technology innovativeness. Each of the axes has dimensions and subdimensions based on the gaps detected during the literature review. Connecting the two axis, from the technology to the governance, seeks to link our research with some of the broad discussions in the literature.

The technological axis (a) includes the following dimensions: (a.1) Technology innovation, composed by information about the degree of newness in the technological means and process; (a.2) the replicability and applicability of this technological innovation in terms of efforts, resources and implementation costs, and (a.3) the impact on renewable and alternative energy sources development. In order to define the technological dimensions and subdimensions we have used the seminal definitions and indicators from the Oslo Manual, the first multinational study to collect technological innovation indicators and their interpretation, and the extensive review of Garcia (2002) on technological innovation typologies.

Regarding the governance or organisational axis, it's connected with the core of the policy change. Here it's needed to differentiate between policy change and policy innovation. The governance axis (b) is composed by 5 dimensions, feeded by subdimensions. The first dimension connects with the mode of action of the measure (b.1) including the policy adequacy, the policy approach, the type of resources provided by the

measure and, finally, the funding method of the policy. The second is the framing and policy design (b.2), composed with information about the social inclusiveness character of the policy or how the measure targets its potential beneficiaries. The third dimension includes aspects linked to the participation and empowerment of the affected groups (b.3) including the behaviour changing, accesibility, and the affected groups empowerment. Finally, the two last dimensions refer to the cooperation between different actors (b.4) and the monitoring and evaluation capacity of the policy itself (b-5).

First analysis of the policy sample

The first step of the analysis process has consisted in scoring the different subdimensions of each policy in a scale from -3 to +3 (similar to a Likert scale, establishing the central valors as neutral or not relevant). Each subdimension would get 'points' in every dimension. Finally each axis would be represented by an index. The final goal of this process is to build a matrix with the two composed indexes for the technological and governance innovativeness. After this first analysis, a peer-review process has being initiated to refine and validate the results, according to the experience and knowledge from experts on each policy.

Ongoing research and future results

Most of the tasks initiated during the STSM period are not finished yet. Among others, the policy analysis is still an ongoing process that is planned for completion in December 2018. The main result expected of this process is a collective academic publication showing the results of the analysis performed.

FUTURE COLLABORATIONS

As I'm an active member of the Working Group 4, further collective research is expected. As an example, during the Paris meeting the guidelines for the next year were set. Three main research lines were defined as priorities, and I'll co-lead one of the sub-groups focused on the Right to Energy.

On the other hand, as a result of the research process performed during the STSM an academic publication is expected to be published during the next year.