



POWERPOOR

Empowering Energy Poor Citizens through Joint Energy Initiatives

The POWER-FUND Tool

Working on the ground with energy-poor households and policymakers to mitigate energy poverty levels.

April 2021

www.powerpoor.eu

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Work Package 2: Tools and methods for mitigating household energy poverty

Deliverable D2.4: POWER-FUND

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Table of abbreviations

Abbreviation	Explanation
EC	European Commission
EU	European Union
WPx	Work Package number x
Dx.y	Deliverable number y belonging to WPx
CF	Crowdfunding

1. Introduction

POWERPOOR aims at developing support programmes/schemes to support citizens suffering from energy poverty and to encourage them to use alternative financing schemes (e.g., establishing energy communities/cooperatives, or using crowdfunding campaigns). POWERPOOR will facilitate experience and knowledge sharing, as well as the implementation of small-scale energy efficiency interventions and the installation of renewable energy sources, increasing the active participation of citizens prompting them to take part in joint energy initiatives.

Within the course of the project, pilot energy poverty support programmes/schemes will be designed, developed, and implemented in eight different countries across Europe, namely Bulgaria, Croatia, Estonia, Greece, Hungary, Latvia, Portugal, and Spain, led by a network of trained and certified Energy Supporters and Mentors. The Energy Supporters and Mentors will support households suffering from energy poverty. The former will mainly support citizens to plan and implement energy efficiency interventions (both of small and large scale), the latter to participate in joint energy initiatives such as energy communities or cooperatives and to organise crowdfunding campaigns. Citizens suffering from energy poverty will be supported through various planned activities, as well through the establishment of Local Energy Poverty Alleviation Offices, and through the uptake of ICT-driven tools included in the Energy Poverty Mitigation Toolkit. Three tools are being developed to support this whole process.

- ❑ The POWER TARGET tool follows a data-driven approach aiming at supporting local and regional authorities to identify citizens suffering from energy poverty as well as groups or communities suffering from the phenomenon. This tool will use qualitative and quantitative indicators, such as energy-related data, building characteristics and other sociodemographic data.
- ❑ The POWER ACT tool will be a citizen centred application, utilised by citizens to facilitate behaviour change and support them in implementing energy efficiency measures.
- ❑ The POWER FUND tool will provide citizens with information on funding opportunities for a variety of projects that can help alleviate energy poverty, including: (a) an on-line marketplace for becoming a member of or creating an energy community / cooperative; and (b) information on how to organise crowdfunding campaigns.



Figure 1 The three tools as they are displayed in the POWERPOOR website

1.1 Purpose & Scope

The purpose of this document is to delve into the POWER-FUND tool. In particular, the functionalities of the POWER-FUND tool will be described by providing a guidebook of how to optimally use the tool and by also describing the resources used for the content. Within this document, step by step instructions for the tool's optimal usage are presented. Then the methodology and rationale behind POWER-FUND are given.

1.2 Structure of the document

The structure of this document is as follows:

1. **Section 2** describes the stepwise guidelines on optimally using the POWER-FUND tool.
2. **Section 3** describes the resources used to populate the tool and why they were selected.
3. **Section 4** concludes the deliverable at hand.

2. Tool development

The development of all the POWERPOOR tools is based on a co-creative approach where all the consortium partners contribute with their expertise and their knowledge of the national contexts. The aim of the POWERPOOR energy poverty mitigation toolkit is to be user friendly and concise, so that citizens suffering from energy poverty can be easily identified and offered support.

The initial understanding of what the toolkit should include resulted from the workshops held under task 2.1 and the requirements elicitation process, as reported in D2.1. In particular, attention has been given to the development of well-structured guidelines providing basic information for users about the concept of collective energy initiatives and crowdfunding.

After that, initial mock-ups of the POWER-FUND tool were developed and distributed to the partners for the first round of feedback (after they have already provided feedback on the POWER-TARGET and POWER-ACT tools). Once all the partners contributed with their feedback, these were integrated in the development process of the tool and a first version was deployed. This first version was demonstrated to the partners in one of our bi-monthly plenary calls where the partners contributed once again, and a second round of feedback was initiated.

The version showcased in this document is still under development and will be further refined before the tool's actual usage after the first Energy Supporters and Mentors have been trained and certified. Furthermore, extensive user testing and future feed will lead to updates and improvements to the content of the POWER-FUND tool by the end of the first engagement cycle.

2.1 Usability

The POWER FUND tool has been developed primarily for the use of the Energy Supporters and Mentors working on the field at national level, who will use it to propose to the identified end-users', i.e., people suffering from energy poverty, alternative ways of supporting and implementing specific actions.

Following the feedback that may emerge from the first engagement cycle, the project partners will discuss the possibility to translate the content of the tool to remove any language barriers for the end-users.

2.2 Knowledge base

The knowledge base at the heart of the POWER FUND tool has been developed based on the extensive expertise in the field of Innovative Finance and Energy Communities of the responsible project partners, the European Crowdfunding Network, Coopernico and Goiener, as well as on a number of available scientific and technical publications.

The information provided has been selected and structured in order to provide an easily accessible guide to crowdfunding and collective energy initiatives to citizens suffering from energy poverty looking for alternative solutions to implement selected actions aimed at improving energy access and/or reduce energy consumption and energy expenses in their households.

Technical terms have been kept to the minimum, while links to additional resources for those interested are available for each section.

2.3 Definitions

Collective Energy Initiatives¹

Collective Energy Initiatives are defined as initiatives where citizens come together to find new pathways to access energy or to tackle a certain issue such as energy poverty, empowerment of citizens in the energy market or even to find a new source for their electricity like switching from traditional retailers to renewable energy ones and/or to self-generation. The two more used type of initiatives are Energy Communities, which can be further divided into Citizens Energy Communities or Renewable Energy Communities, and Energy Cooperatives.

Collective Finance

Collective finance is defined as a way to provide economic back-up to projects and businesses on a local level, by gaining the support from a wide public of individuals and/or local communities.

Crowdfunding

Crowdfunding is defined as a type of collective financing that enables raising finance by asking a large number of people to contribute to a funding goal with a small amount of money with the help of the internet. It is normally distinguished in 4 main models: Donation, Reward, Equity, and Crowdlending (Bruntje & Gajda, 2016) (Shneor, Zhao, & Flåten, 2020).

¹ Collective Energy Initiative is here used as an umbrella definition for all types of energy communities and cooperatives recognised at European level. For more about the different types and definitions of energy communities see Gancheva, O'Brien, Crook, & Monteiro (2018) & Tounquet, De Vos, Albada, & Kielichowska, (2019).

3. Stepwise instructions for using the POWER-FUND tool

3.1 Accessing the tool

The POWER-FUND tool is accessible via the POWERPOOR website² or via a stand-alone, dedicated webpage³. In the website users can navigate to the TOOLKIT page by clicking on the respective category on the navigation bar that lands the user to the tools' page as depicted below. A shortcut to the tools' page has been also added in the project's website homepage.

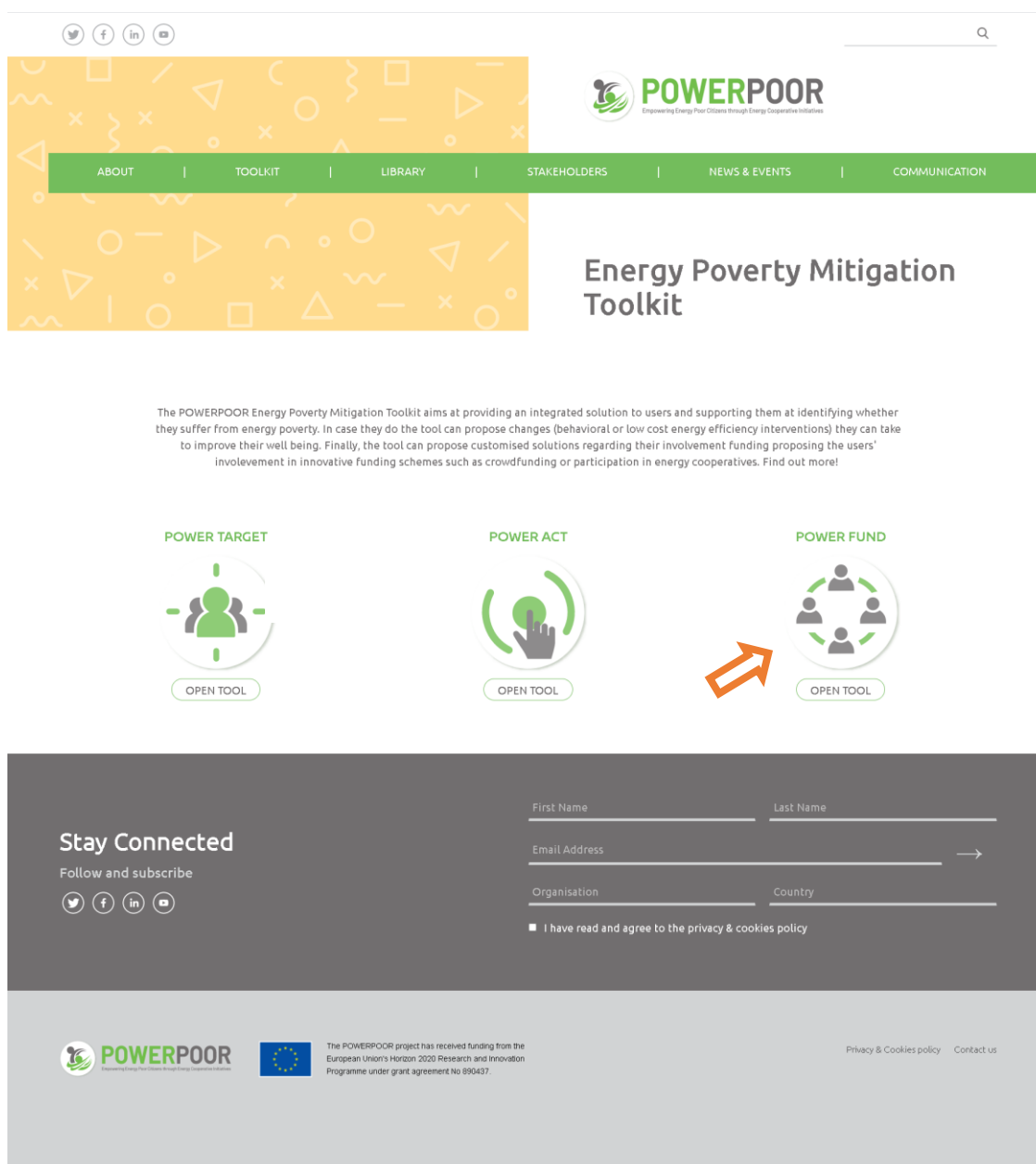


Figure 2 Accessing the POWERPOOR-Toolkit

² www.powerpoor.eu

³ <http://powerpoor.epu.ntua.gr/powerpoor-toolkit/>

A view of the standalone webpage of the POWERPOOR toolkit is depicted below.

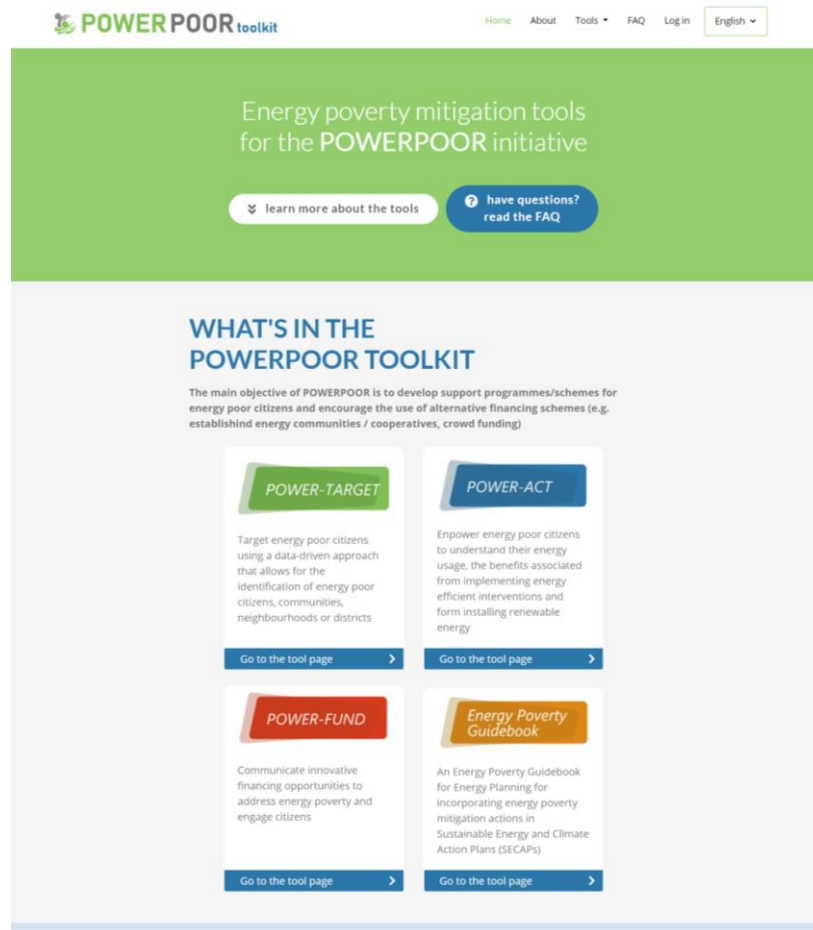


Figure 3 View of the tools in the stand-alone webpage.

Differently from the other POWERPOOR Tools, POWER-FUND does not require a login account. Users will be able to access the tool directly, without registration.

3.2 Structure

The structure of the website is visible from the navigation bar located on the top right of the home page and is the following:

- ❑ Home Page
- ❑ Collective Finance
 - Invest Citizens
 - Funding Assistant
 - Raising Capital
- ❑ Collective Energy Initiatives
 - Join a Community
 - Create a Community
 - Operate a Community

3.2.1 Home Page

After clicking on the POWER-FUND button, users will be redirected to the tool's Home Page. The page provides an intro to POWER-FUND, what it can be used for, as well as a list of few selected action areas.

Scrolling down, two cards present the main sections of the tool, **Collective Finance** and **Collective Energy Initiatives**, with action buttons linking directly to the dedicated pages.

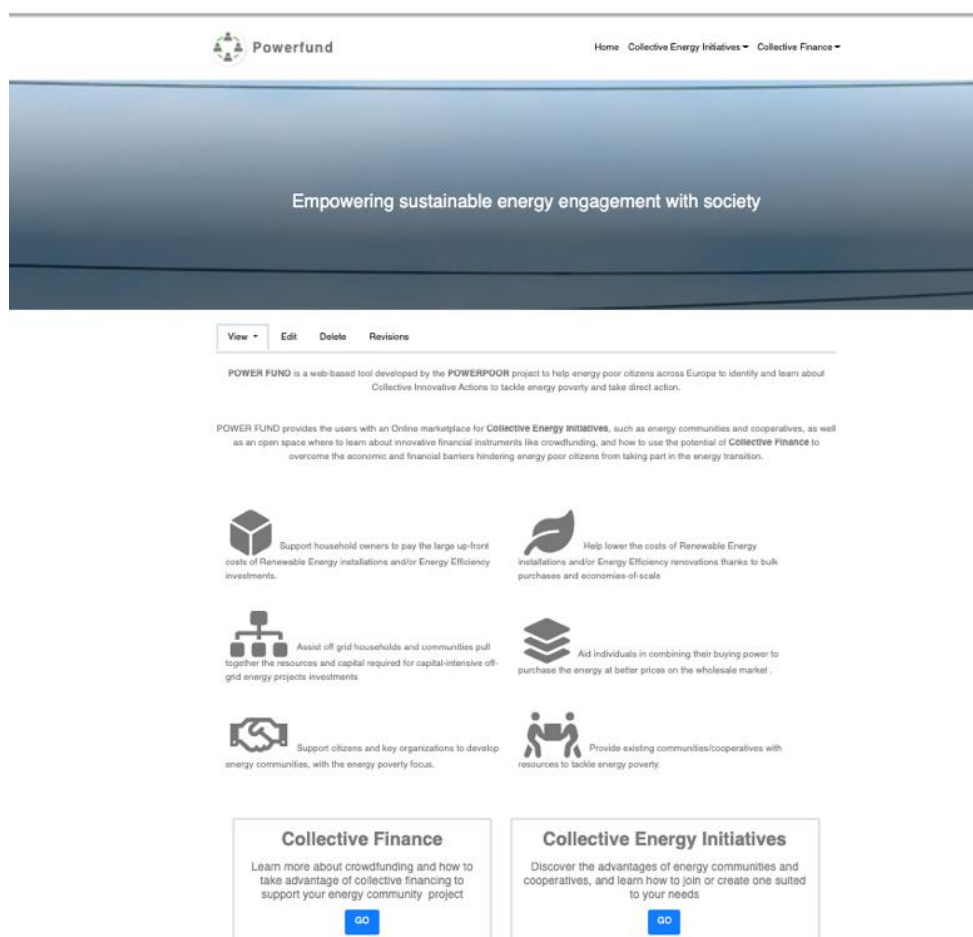


Figure 4 The Power Fund Home Page

3.2.2 Collective Finance

The Collective Finance section holds all the information about crowdfunding and how to use it to support energy poverty related projects.

At the top, a short text introduces the concept of collective finance, followed by a banner showcasing the logos of partner crowdfunding platforms that registered to the tool.

Details about the registered platforms and their main features are presented in a Carousel at the bottom of the page, along with the banner inviting the platforms to register.

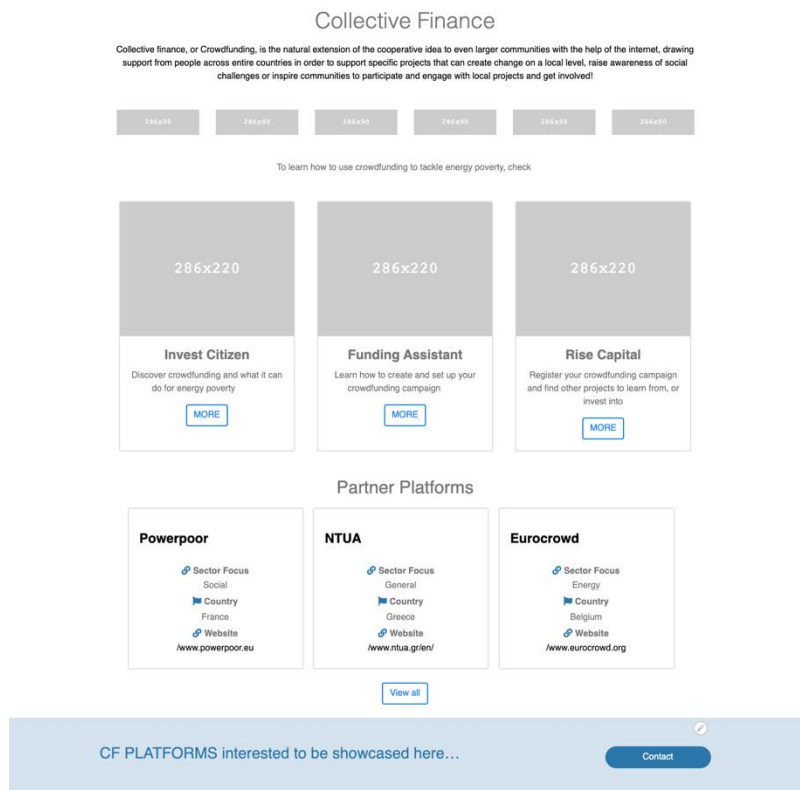


Figure 5 Collective Finance main page

In the center of the page, three cards introduce the links to the sub-pages of the section providing an in-depth focus on crowdfunding (**Invest Citizens**), a step-by-step guide on how to use it (**Funding Assistant**), as well as a space to register new crowdfunding campaigns and/or find crowdfunded projects to learn from (**Raise Capital**).

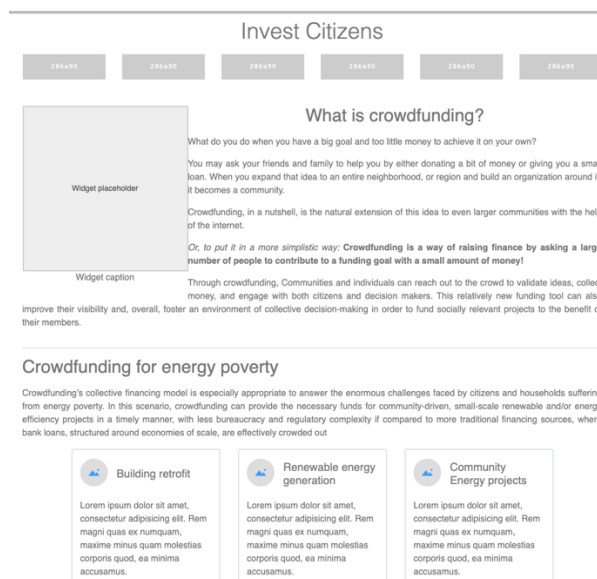


Figure 6 Invest Citizens

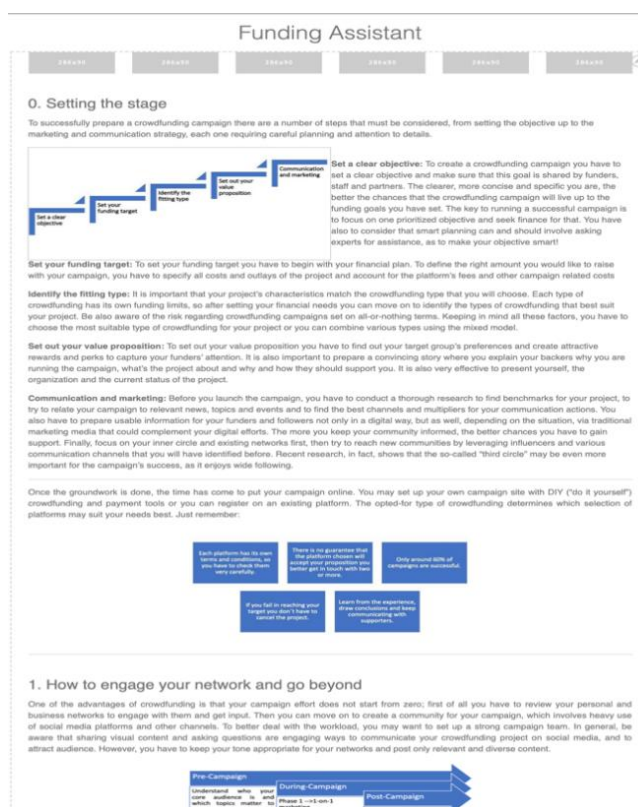



Figure 7 Funding Assistant

The **Raise Capital** page is under development and will be published soon. However, Figure 8 (below) provide an example of how a campaign will be displayed once the section is published.

Solarization



Let's solarize Greece!
#PeoplePowerGreece

With energy poverty being one of the most dramatic symptoms of the Greek crisis (6 out of 10 households are struggling to pay their energy bills), investing in the abundant sun, the country's biggest asset, will be key to a Greek recovery. The solarization of the country will put money back in real people's pockets by reducing their energy bills, it will put people back to work with new skills and opportunities, and it will support a renewable energy revolution that is sweeping the globe.

Country
Greece

Funding Model
Reward

Funding Target
€826737.00

Money Raised
€34928.00

Figure 8 Sample Registered Campaign

The registered campaigns will only show some basic information as well as a link redirecting to the host platform website for those interested in knowing more.

3.2.3 Collective Energy Initiatives

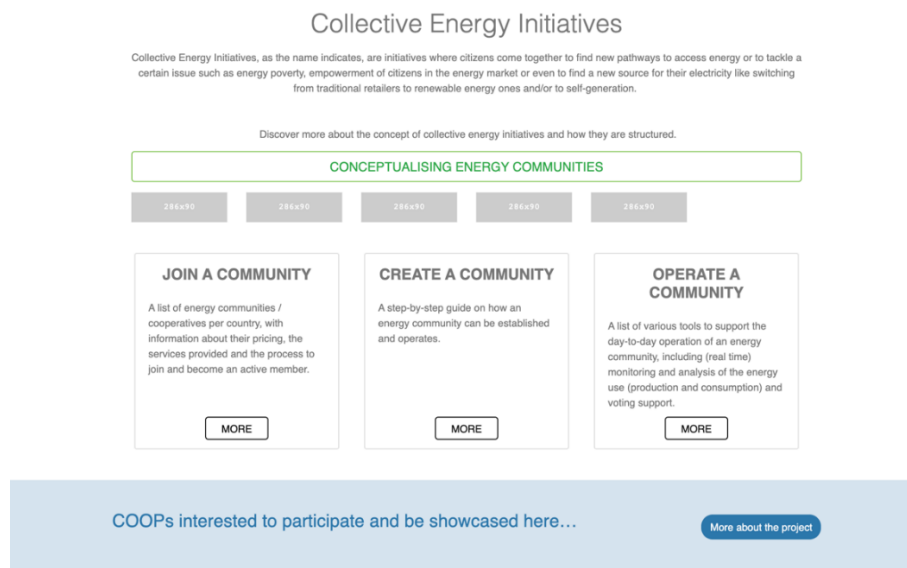


Figure 9 Collective Energy Initiatives main page

The Collective Energy Initiative section holds all the information about energy communities and cooperatives.

Similarly, to the Collective Finance main page, at the top, a short text introduces the concept of Collective Energy Initiatives followed by a banner showcasing the logos of partner cooperatives/communities that registered onto the tool. The banner inviting the cooperatives to register is located at the bottom.

In line with the recommendation of the User Requirements Report (D2.1) an action button after the intro text gives the possibility to access an additional page about **conceptualising energy communities**, describing the different configurations they can take and listing a few examples of the services they can offer.

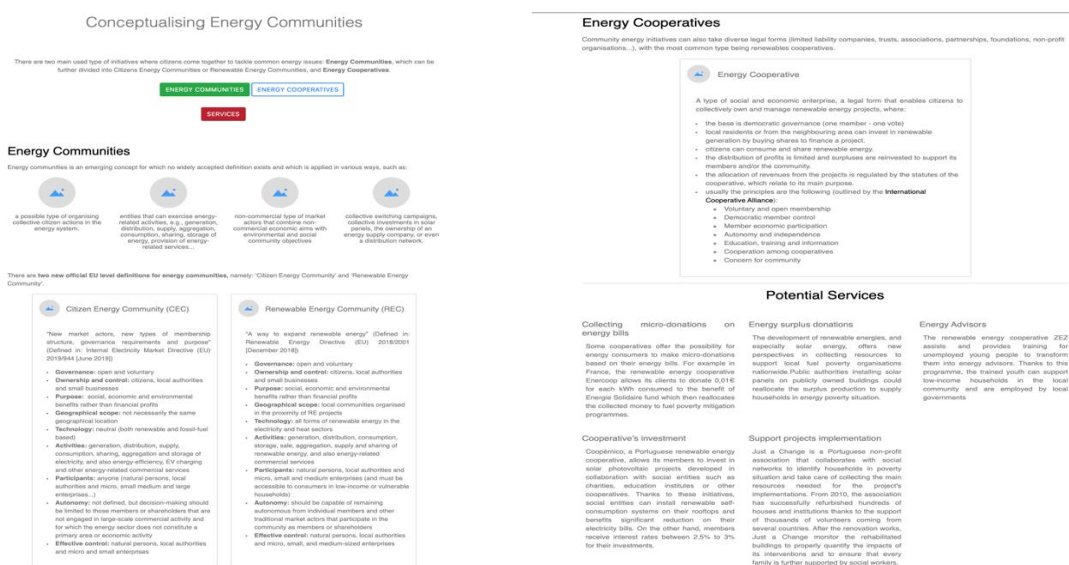


Figure 10 Conceptualising Energy Communities

The three title cards at the center link to the sub-pages of the section providing access to the energy communities/cooperatives marketplace listing the registered communities with all the required information needed for people to join them (**Join a Community**), a step-by-step guide on how to create an energy community (**Create a Community**), as well as list of useful tools to aid in the day-to-day management and operation of a community (**Operate a Community**).

Join a community

Here you'll find a list of energy communities / cooperatives per country, with information about their pricing and management policies, the services provided and the process to join and become an active member;

Coopernico
 Renewable Energy Cooperative
 2100

A Coopernico foi fundada por um grupo de 16 cidadãos vindos de diferentes áreas profissionais e com diferentes backgrounds, mas que partilham uma preocupação...

Interested to know more on POWERFUND here...

Contact


Figure 11 Join a Community


In the Join a Community section, the registered communities are showcased with a synthetic card providing basic information, which expands to a dedicated page with more data.


Coopernico

A Coopernico foi fundada por um grupo de 16 cidadãos vindos de diferentes áreas profissionais e com diferentes backgrounds, mas que partilham uma preocupação comum: o desenvolvimento sustentável!


Desde então, muitos mais cidadãos se juntaram à Coopernico e participam nas nossas atividades e na gestão da cooperativa.


 Website
<https://www.coopernico.org/>


 Email
coopernico@coopernico.org

 Phone
(+351) 213 461 803


 Location
Rua de São Nicolau 73
1100-548 Lisbon
Portugal

 **Geographical reach**
Country


 **Type of Initiative**
Renewable Energy Cooperative

 **Coop**
Coopernico

 **Services**
Energy surplus donations
Grants or other economic support for energy poor citizens
Shared self-consumption that includes energy poor citizens

 **Additional Services**
Collective acquisition of renewable energy installations

 **Name Legal Representative**
Rita Marouço

 **Members**
2100

 **Membership Fee**
60.00

Figure 12 Sample Registered Community

An interactive map, currently under development, will be added later on to the Join a Community page, giving users the ability to use a set of filters and geolocation to identify communities in their country and/or region.

Create a community

GUIDELINES

Here you'll find a some guidelines and tips on ho to set up and create your own community

STEP 1: Get organized: build up your group!

- Gather people who are motivated: persons with technical skills and knowledge are important, but the key in energy communities is to be formed by people who are motivated and will be engaged in the long term. (Keep in mind: the motivation can come from the interest and knowledge, but it can also come from a necessity)
- Identify key leaders within your group, or welcome potential leaders to your initiative.
- Take into account the existing groups around you that are already creating community in a broad sense, be them energy communities or not. Learn from their successes and mistakes, they may help and boost the energy community.
- Keep your team informed and engaged: maintain the communication, activities, discussions... (this links to the second step!)

STEP 2: Define your goals

a) Ask questions to yourselves: Who are you? Why did you get organized? What do you want to do? How are you going to do it?

- Storytelling is key to define and express your own reasons and objectives. → Build a common understanding of what you are and what you want.

b) Define in which type of activities you are going to engage:

- Energy efficiency and savings
- Energy production
- Energy management (sharing, storing, self-consumption...)
- Energy supply
- Energy distribution^[1]
- Other energy services
- Education
- Mobility

Figure 13 Create a Community

Operate a community

Operating a community can be a complex task. To make it easier, here you find a list of tools and useful links that can help you operate and manage different aspects of your community:


- Monitoring and analysing the energy use (consumption and production)
- Energy billing
- Energy market
- Participation and decision making

B

Pylon

A neutral energy data facilitator for the provision of added-value services to every-day consumers and other stakeholders.


<https://pylon-network.org/>



HomeRule

Comple project's tool to help operate energy communities, with a focus on managing one building/home energy needs.


<https://www.compile-project.eu/products/home-rule/>



GridRule

Comple project's tool to coordinate individual community members and optimize the whole community energy needs.

<https://www.compile-project.eu/products/grid-rule/>



Demokraian

An online voting platform for horizontal decision-making

<https://www.demokraian.org/>

B

EnergyID

A public platform where citizens can register and insert and monitor their energy consumption and verify if they are consuming less or more than a similar citizen in their country.

<https://www.energyid.eu>

Figure 14 Operate a Community

3.3 Registration forms

The POWER-FUND tool presents a number of sections showcasing content provided by third parties, namely, **Partner Platforms** and **Partner Energy Initiatives**, as well as a number of **crowdfunding campaigns** that users and platforms can register to be shown in the tool.

For each type of external content, the tool provides an anonymised registration form with key minimum mandatory fields.

The forms are tailored to the specific content and can be accessed by clicking on the call to actions banners in the dedicated pages, i.e., Collective Finance, Raise Capital and Collective Energy Initiatives.

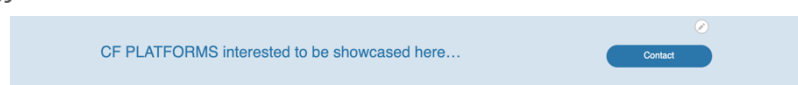


Figure 15 Call to Action Banners

Create Partner Platform

[Home](#) » [Node](#) » [Add content](#)

Title *

Description

Name Legal Representative

Crowdfunding Model *
- Select a value -

Sector Focus
- None -

Country *
Afghanistan

Email

Phone

WEBSITE *

URL *

Start typing the title of a piece of content to select it. You can also enter an internal path such as `./node/add` or an external URL such as `http://example.com`. Enter `<front>` to link to the front page. Enter `<noLink>` to display link text only. Enter `route-<button>` to display keyboard-accessible link text only.

Link text

☐ Published

Save

Figure 16 Crowdfunding Platform Registration Form (Backend)

The Create Partner Platform form is reserved to crowdfunding platforms that wish to register on the tool and be showcased in the Carousel located on the Collective Finance main page.

Create Energy Initiative

[Home](#) » [Node](#) » [Add content](#)

Name of the Energy Initiative *

Description

Website *

This must be an external URL, such as `http://example.com`.

Email *

LOCATION

Country
- None -

Phone *

Type *
- Select a value -

Services
None
Reduced energy tariffs
Micro-donations
Energy surplus donations

Additional Services
- None -

Geographical Reach
- None -

Name Legal Representative *

Coop Name *

Number of Members *

Membership Fee

☐ Published

Save

Figure 17 Energy Initiative Registration Form

The Create Energy Initiative form is reserved to energy communities and cooperatives that wish to register on the tool and be showcased in the online marketplace in the Join a Community section.

Create CF Campaign

[Home](#) » [Node](#) » [Add content](#)

Name of the Crowdfunding Campaign *

Description

Country

Video Link

This must be an external URL such as <http://example.com>.

Image *

[Open File Browser](#)

Nessun file selezionato

One file only.
64 MB limit.
Allowed types: png gif jpg jpeg.

Crowdfunding Model *

Money Raised *

Funding Target

Hosting Platform *

☐ Published

Figure 18 Crowdfunding Campaign Registration Form

The Create CF Campaign form is reserved to any user, (individual, platform, or cooperative) that wish to showcase an existing campaign the Raise Capital section.

4. Conclusions

POWERPOOR aims at enabling citizens suffering from energy poverty to alleviate the phenomenon through implementing small scale interventions and behavioural changes as well as through participating in joint energy initiatives, including innovative financing schemes that can support large scale interventions and enable them to all together mitigate energy poverty. To be able to support citizens suffering from energy poverty the project needs to enable them to find solutions to implement the required changes. The POWER-FUND tool will enable national partners and energy poor citizens to easily target those in need and gain the necessary knowledge and access to take advantage of Collective Innovative Actions like crowdfunding and energy communities to tackle energy poverty and take direct action.

The aim of POWER-FUND is to be easy to use for the Energy Supporters and Mentors working on the field willing to alleviate the phenomenon as well as to be based on an easy to comprehend and already established knowledge base.

The proposed structure of the tool will be tested in the field during the first engagement cycle and will be accordingly adjusted if needed in the POWERPOOR toolkit integration and roll-out planned to take place on December 2021.

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