STEP
Solutions to
Tackle Energy Poverty

Smart energy transition and the central role of prosumers

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

Smart Energy Transition

- The energy transition is not only about decarbonisation of energy - moving away from fossil fuels - but also, and even mainly about its **democratization** and **decentralization** - increasing the number and participation of energy **prosumers** (**pro**ducers and con**sumers**) in energy - and therefore also climate - policy.

- Individual prosumers, prosumer-companies, prosumer-cities are at the centre of this transformation as they co-create and co-govern it.

- One can use renewable energy sources by oneself as a prosumer or as a member of the energy community, for example a group of neighbours.

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

Renewable Energy Community

Renewable Energy Community (REC) is a legal entity:

- which is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity;
- the shareholders or members of which are natural persons, small and medium enterprises (SMEs) or local authorities, including municipalities;
- the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits.
- Article 2(16) Renewables Directive, more information: https://ec.europa.eu/energy/topics/renewable-energy/renewable-energy-directive_en

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

Cluster

- Energy clusters are civil law agreements between different entities including local governments, which aim at becoming energy efficient regions through a more effective use of local renewable energy sources. Energy clusters cover the area of one county or five municipalities.
- The energy clusters concept aims to use a higher proportion of renewable energy regionally and to make it possible to plan and predict the amount of energy for defined intersections or interfaces of the transmission network, as well as to reduce or optimise the exchange with the transmission network. Consequently, this presents the challenge to maintain a constant balance with regard to the generation and consumption of electricity at all times, since especially fluctuating renewable energy varies permanently.

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

Clusters' members (e.g):

- energy companies,
- local governments,
- RES producers,
- cities,
- municipal companies and public transport companies
- research Institutions,
- institutional customers, including companies with different energy consumption profiles,
- individual customers (natural persons however mostly as an aggregated group) can be member of the cluster.

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

Cooperatives

- Cooperatives are organizations enabling economic collaboration among individual actors, for example, to collectively install and use renewable energy sources.
- A cooperative can increase the value and reduce the cost of renewable resources for individual producers, aside from the social benefits that may accrue.
- Local energy cooperatives could be an alternative to the more conventional and highly centralized energy infrastructure.

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

Cooperatives

Energy cooperatives may also differ according to the types of services or products offered:

- Energy cooperatives can produce energy and supply energy to their consumer-members and non-member clients or feed it into the national grid. For this purpose, they can either use fossil fuels or renewable energy sources. In some countries, whole villages (so-called bioenergy villages) are organized using the cooperative model.
- Consumers may group together into energy cooperatives to purchase energy, as means to obtain better prices.
- Cooperatives may organize the distribution of energy, for example by operating electricity distribution lines.
- Cooperatives may also provide services related to the provision of energy, such as advisory or training services.

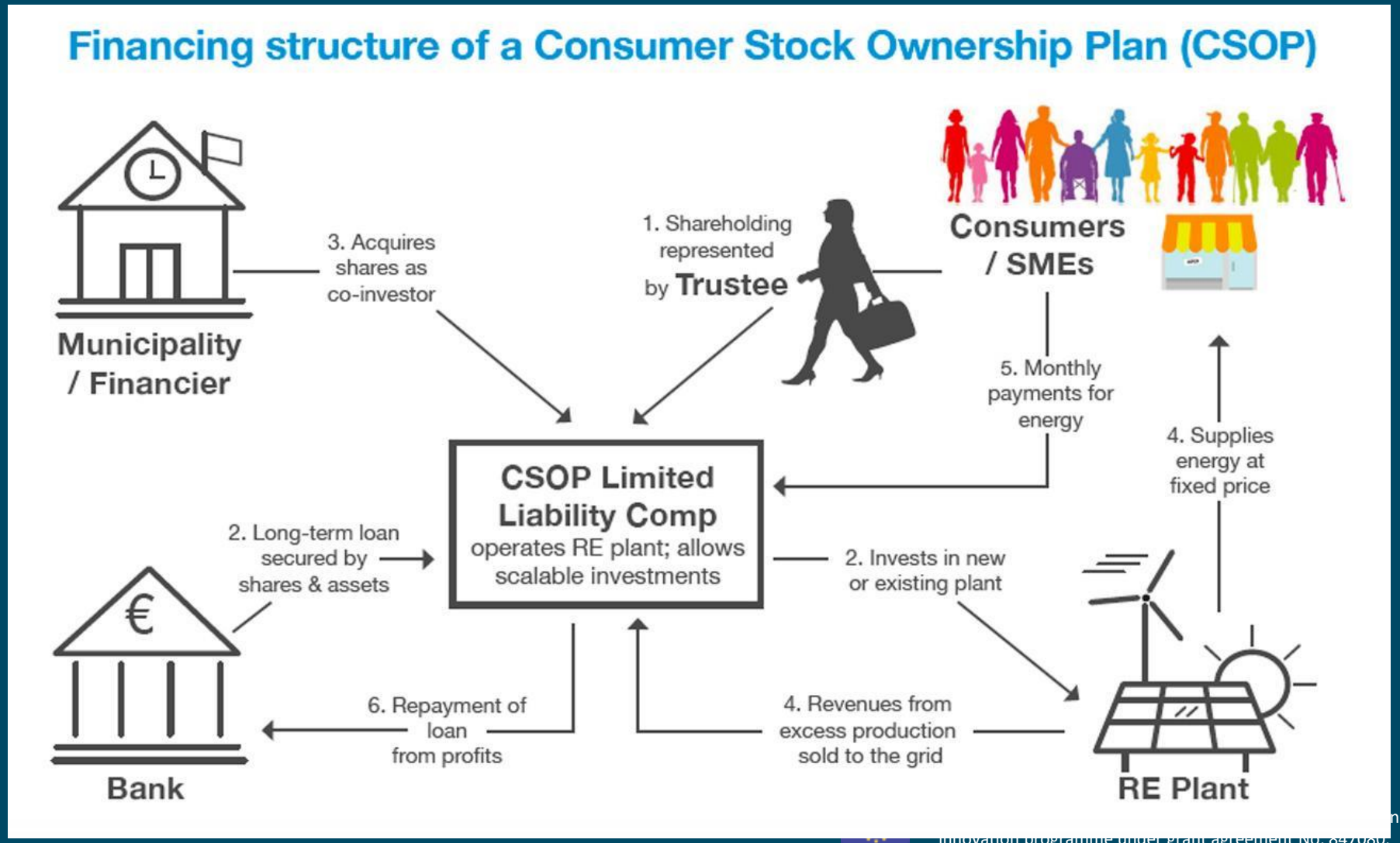
The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

A CSOP - Consumer Stock Ownership Plan

- **Enables consumers – especially those without savings or access to capital credit** – to acquire an ownership stake in a utility they use and thus to become "prosumers" (Prosumer: someone who both produces and consumes energy)
- It is a consumer-centred investment model for general services providing participation both financially and in regards to management decisions.
- Avoiding personal liability of the consumer-shareholders, a CSOP permits co-investments of municipalities, small and medium sized enterprises (SMEs) and other local stakeholders.
- An intermediary entity (CSOP-Ltd.) invests into a new or existing RES plant and operates it on behalf of different actors as co-owners.
- With the help of a CSOP, investments can be made into any kind of utility, for example water, energy, transportation and the like. When investing in renewable energy installations, CSOPs contribute to the energy transition and climate change mitigation by facilitating local, decentralised production.

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.

More:
https://www.score-h2020.eu/



nion's Horizon 2020 research and innovation programme under grant agreement No. 847080.

STEP
Solutions to Tackle Energy Poverty

Thank you for your attention!

www.stepenergy.eu

The STEP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 847080.