LECSEA Final Conference
26 January 2023

Is there a future for Energy Communities?

Interreg 2 Seas Mers Zeeën
LECSEA
European Regional Development Fund

Dominiek Vandewiele, project manager of LECSEA
26 January 2023

Setting the scene

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EUROPEAN UNION
2 Seas Mers Zeeën
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Picture: Tom Nijsen

Picture: Tom Nijsen

Tom Nijsen is industrieel ingenieur. Als bezieler van 'Kermtstroomt' wil hij van zijn straat een zelfvoorzienende energiegemeenschap maken. © Steven Richardson

De voordelen van een energiegemeenschap: "Eén set zonnepanelen op iemands dak kost in onze straat amper 100 euro per gezin"

Sinds dit jaar kan je je officieel verenigen in een energiegemeenschap. Wat houdt dat precies in en wat zijn de voor- en nadelen? Is het een slimme manier om geld te besparen? We vroegen het aan industrieel ingenieur Tom Nijsen. Als bezieler van 'Kermtstroomt' wil hij van zijn straat een zelfvoorzienende energiegemeenschap maken. "Ik verdien nu dagelijks enkele euro's door op het laagste uur mijn grote verbruikers te plannen. Dat scheelt dikwijls 0,30 of 0,40 euro/kWh."

Trees Vandamme 11-01-23, 13:01 **Laatste update:** 13-01-23, 09:53

The advantages of an energy community: "one set of solar PV on somebody's roof in our street only costs 100 euro per family"

Het Laatste Nieuws, 11 January 2023

KERMT STROOMT

Is there a future for Energy Communities?

EU Clean Energy for all Europeans Package

A new legal concept, a new market actor, introduced via 2 European Directives

- **Citizen energy community (2019)**
- **Renewable energy community (2018)**

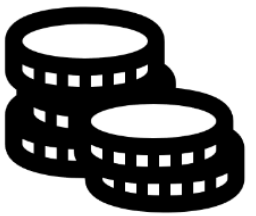
Transposition to all EU-member states legislation

- **Member states lack behind**
- **Some were pioneering, e.g. UK 'community Energy Strategy' (2014) or France 'collective self-consumption' (2015)**

The primary purpose 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.

Keep money in the local economy

Foster social acceptance for renewable energy



Keep individual investment affordable

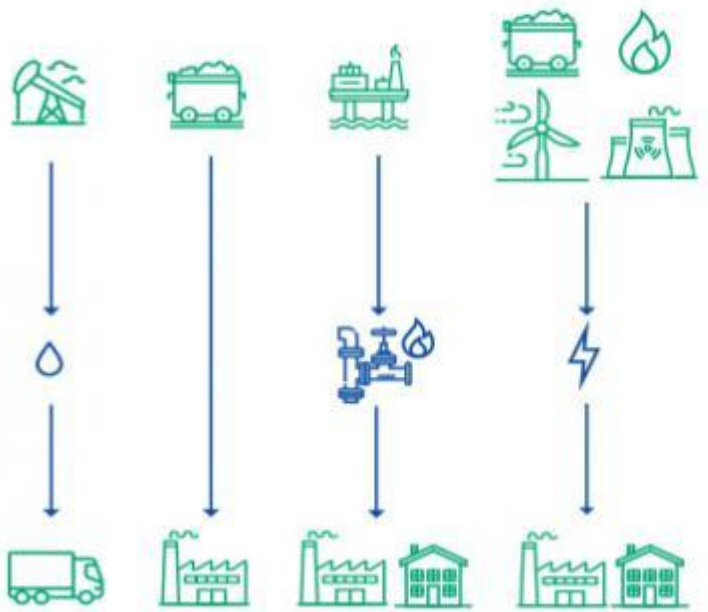
Lower energy bills

Benefit the local community

Take action on energy

https://energy-communities-repository.ec.europa.eu/energy-communities_en

The energy system today :
linear and wasteful flows of energy,
in one direction only



Future EU integrated energy system :
energy flows between users and producers,
reducing wasted resources and money

https://energy.ec.europa.eu/topics/energy-systems-integration/eu-strategy-energy-system-integration_en

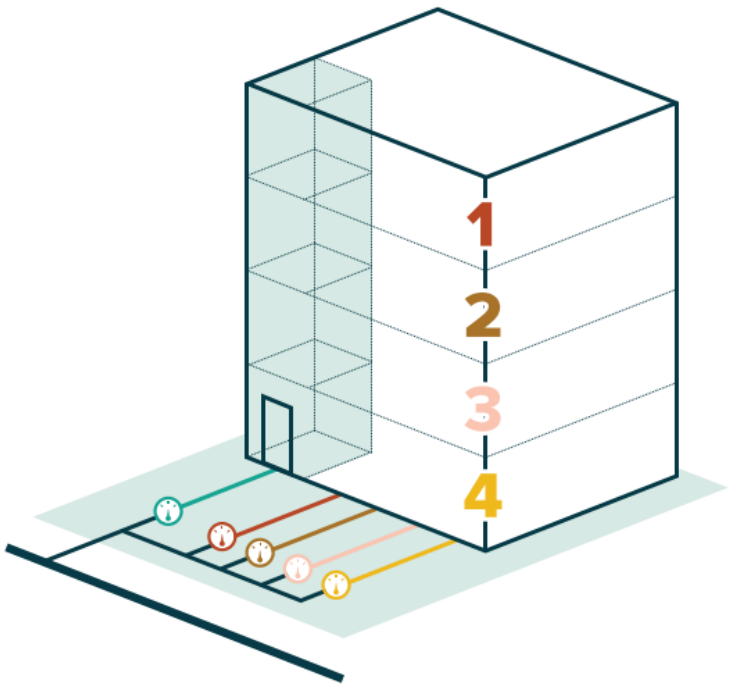
Energy Communities

Energy communities can take any form of legal entity, for instance that of an association, a cooperative, a partnership, a non-profit organisation or a small/medium-sized enterprise.

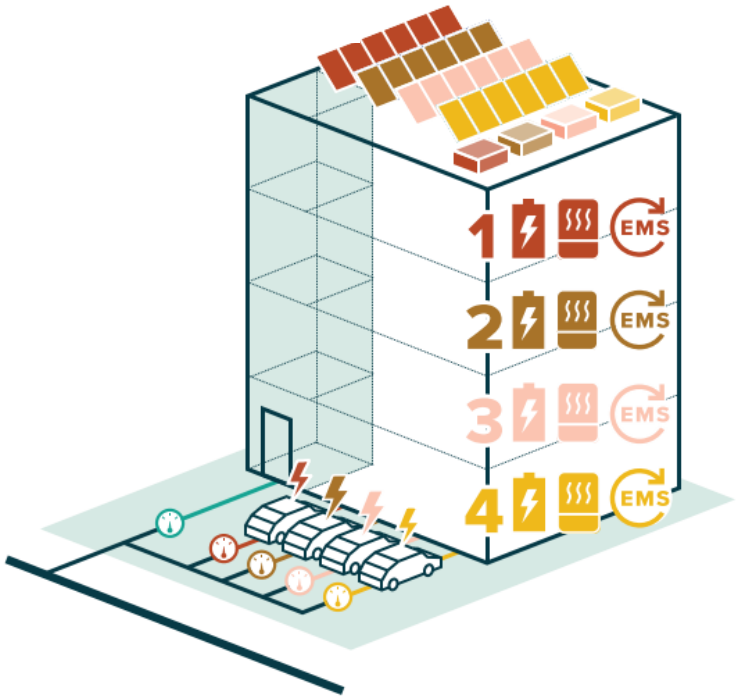
Engaged in electricity generation, distribution and supply, consumption, aggregation, storage or energy efficiency services, generation of renewable electricity, charging services for electric vehicles or provide other energy services to its shareholders or members.

Activities based on renewable energy sources, including generation, energy efficiency, supply, aggregation, mobility, energy sharing, self-consumption, and district heating & cooling.

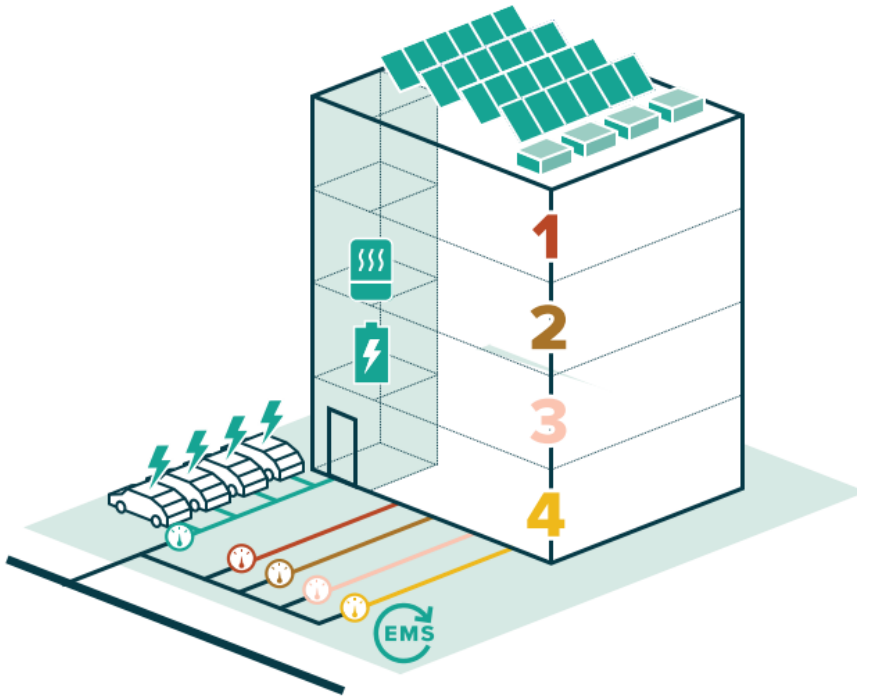
Situation 1
Consumption



Situation 2
4 individual active customers in 1 appartment-building



Situation 3
4 collective active customers in 1 appartment building



Collective parts

Public distribution grid

Home battery

Heat pump

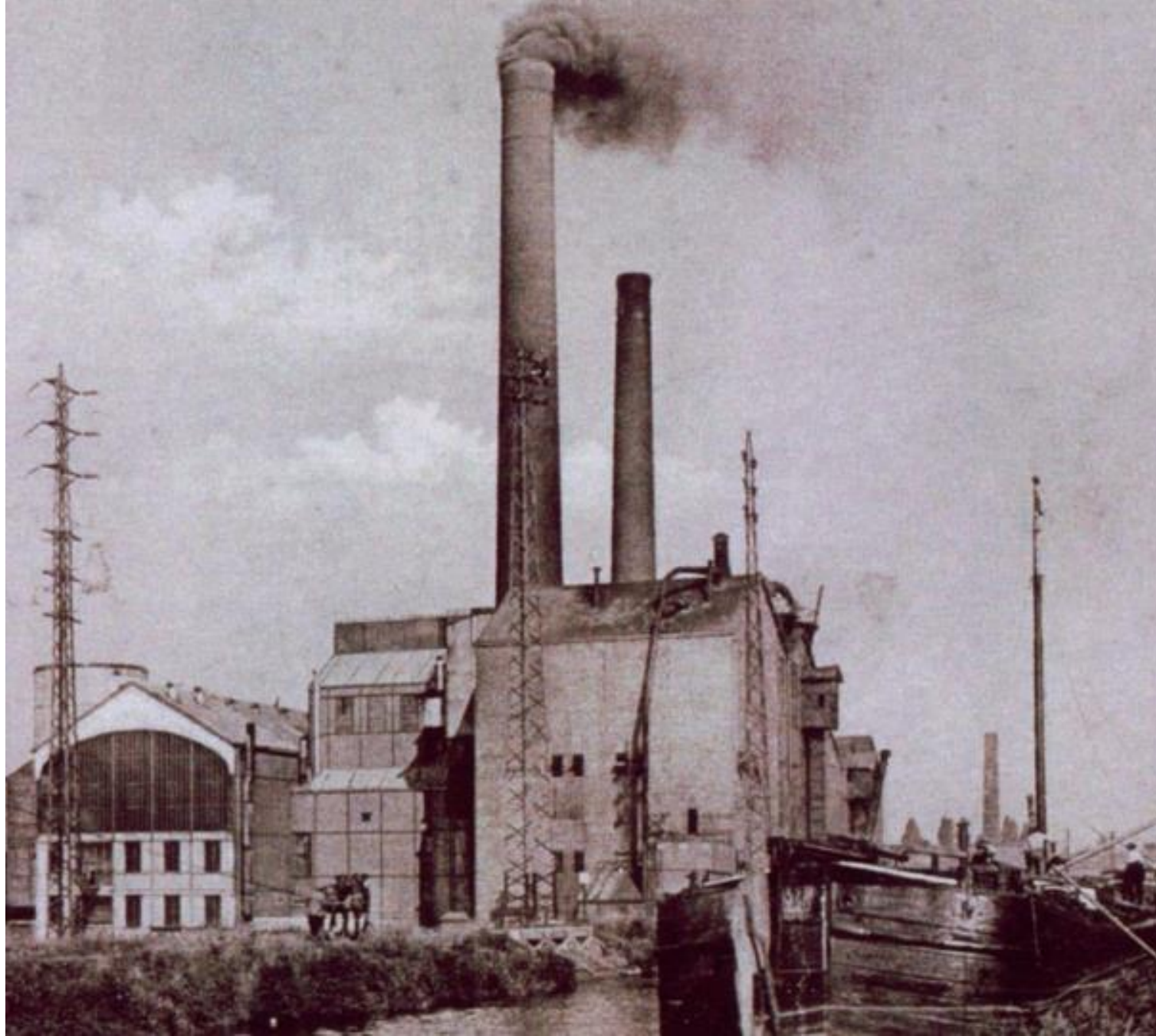
EMS Energy Management System

Meter

© Intercommunale Leiedal

RE/SOURCED introduces a mid-scale and self-sufficient renewable smart grid in an urban environment, based on circular economy strategies like shared use, refurbishment, repurposing and more efficient use of materials

Creation of an energy community



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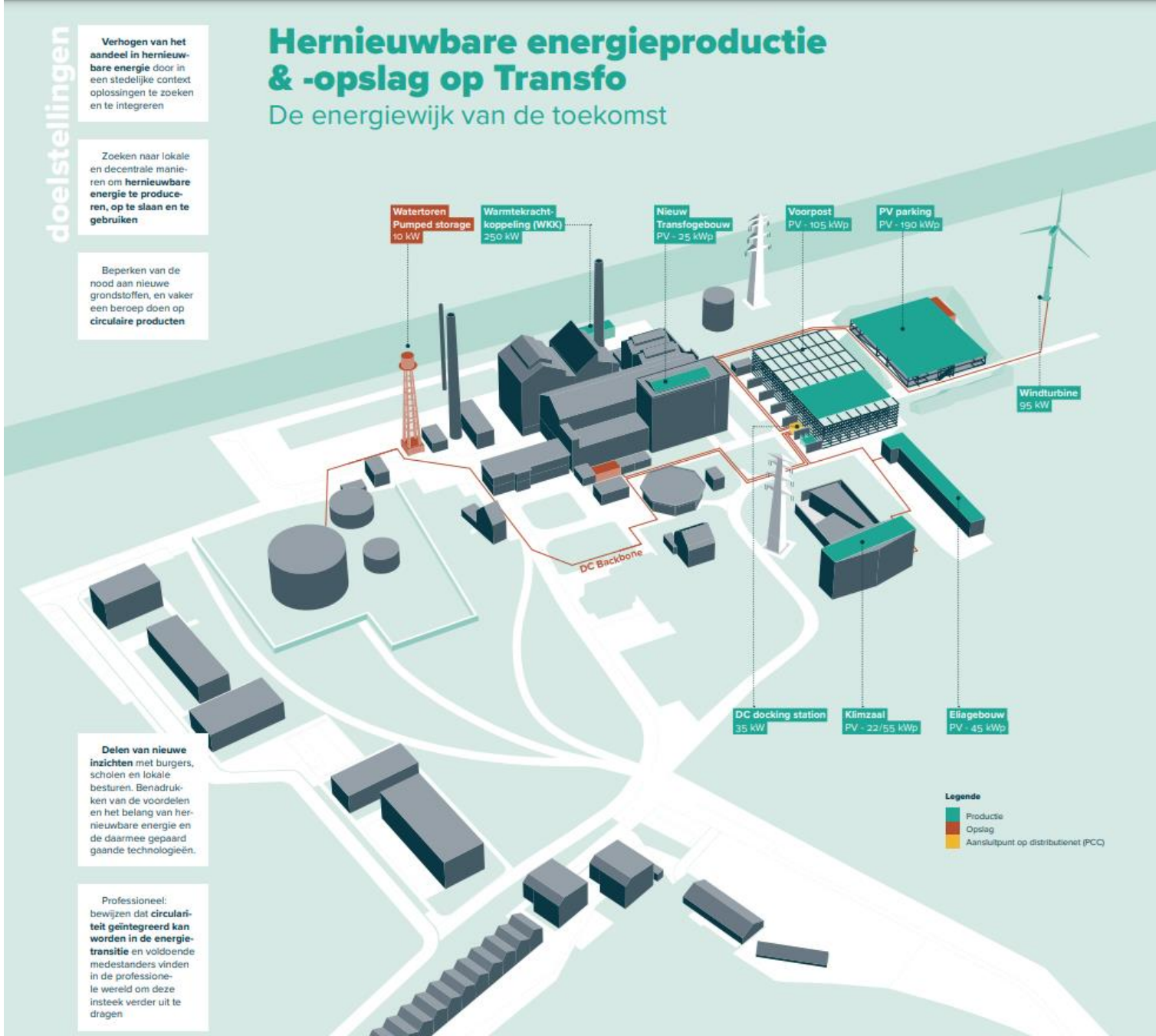
A reverse incentive arises:

a circular smart microgrid on the scale of the Transfo-site pays more contributions



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LEIE DAL

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What is LECSEA?

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Local Energy Communities in the 2-Seas Region

9 partners, 4 countries

Catalyse Energy Communities in the 2-SEAS region

From new legal option to use cases

7 pilot projects & investments

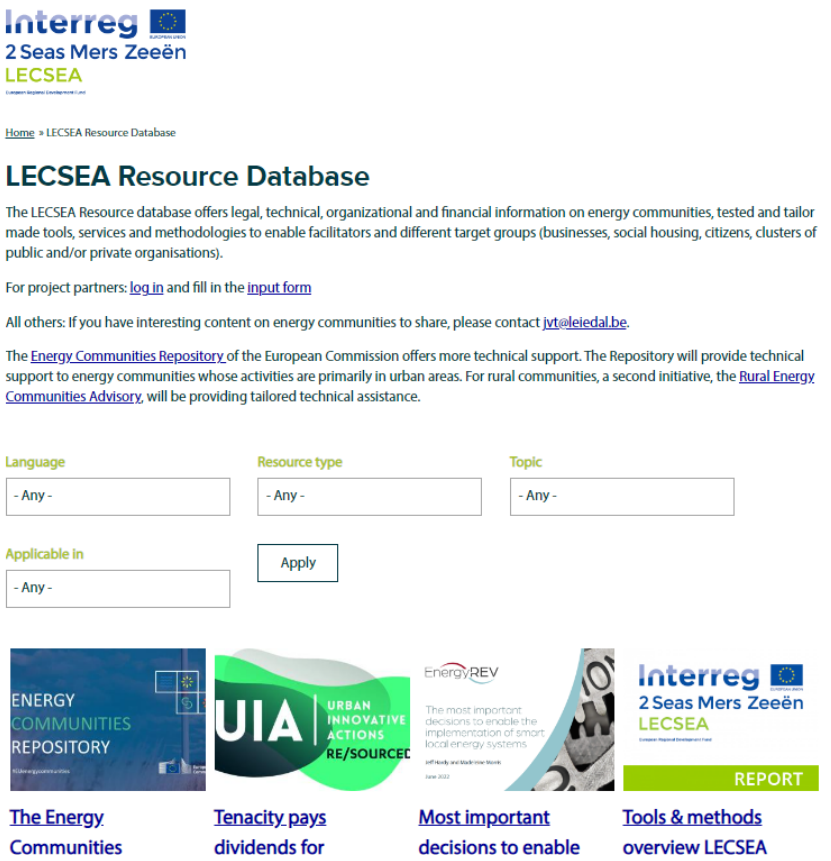
Why LECSEA?

More adoption of low carbon technologies is needed in the 2-Seas Region.

A successful take-off of energy communities in the 2-Seas Region should lead to unlocking extra potential of sustainable energy shared in energy communities.

A higher acceptance and adoption of sustainable energy technologies with businesses, citizens and other organisations.

What's in it for you?



The LECSEA Resource Database

www.lecsea.eu

What's in it for you?

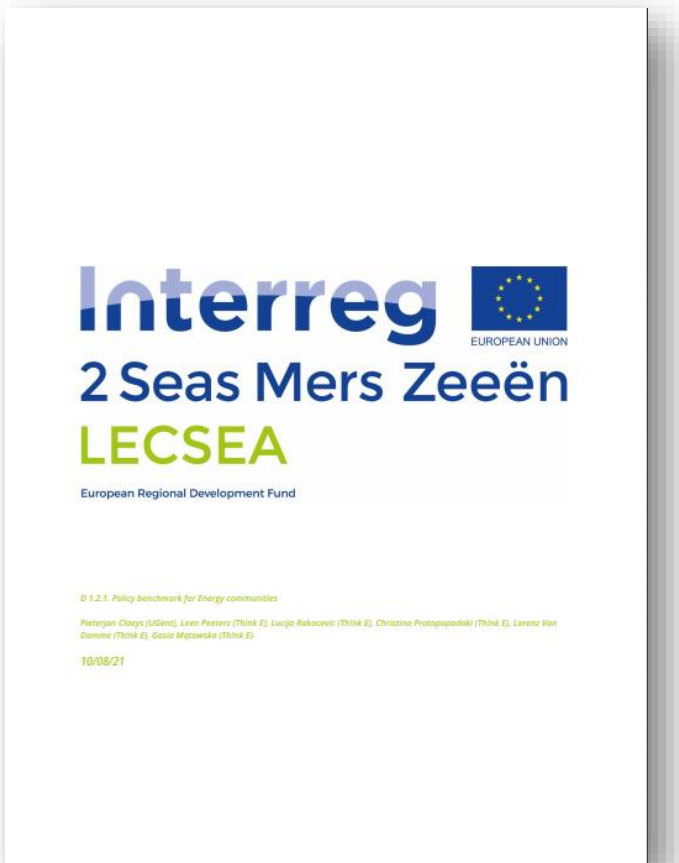
FIGURE 2. DIMENSIONS OF COMMUNITY ENERGY, ACCORDING TO THE COMMUNITY ENERGY TOOLKIT. (SOURCE: COMMUNITY ENERGY TOOLKIT)

Tools and methods for emerging energy communities

www.lecsea.eu

FIGURE 3. PREVIEW OF THE COMPILE COOLKIT KNOWLEDGE PLATFORM.

What’s in it for you?



Policy benchmark

Overview of legal developments in Belgium (Flanders), France, the UK, the Netherlands and Ireland

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What's in it for you?

Most prominent barriers

- Socio-economic barriers
- Technical barriers
- Institutional and regulatory barriers

Best practices

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What's in it for you?

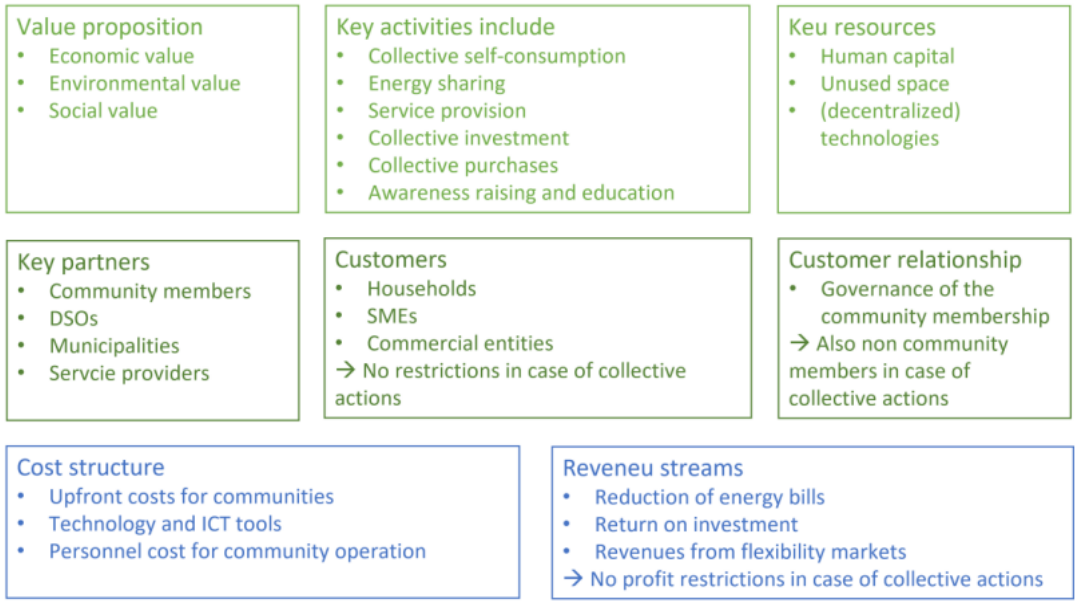

FIGURE 1: BUSINESS MODEL CANVAS FOR ENERGY COMMUNITIES AND COLLECTIVE ENERGY ACTIONS (SOURCE: TUERK ET AL. (2021))

Tools and methods to create business models for Energy Communities

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