

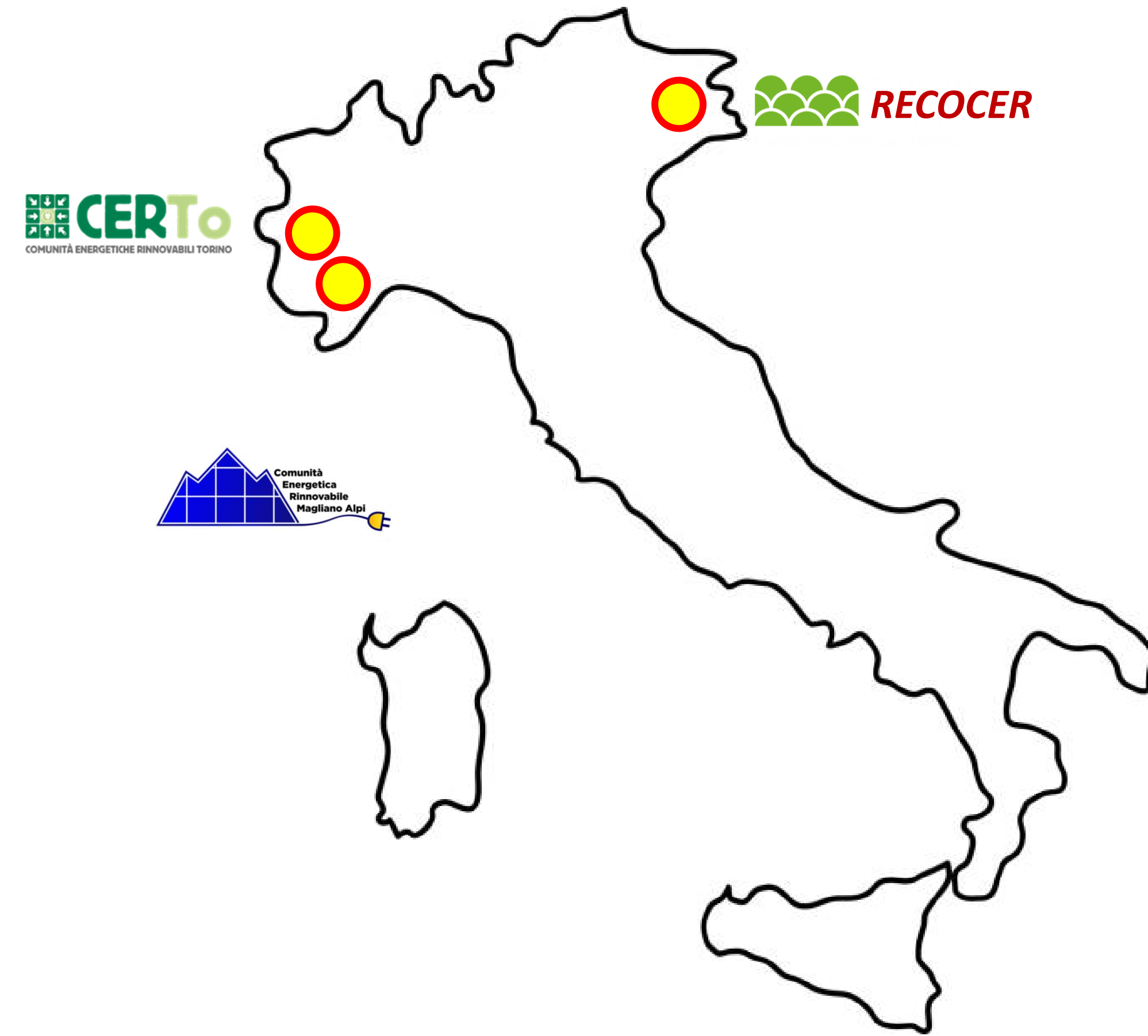
# Sustainable local communities addressing climate change

## some Italian best practices for energy transition

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# **RENEWABLE ENERGY COMMUNITIES**

**from European 2018/2001 (RED-II) Directive to Italian legislation**



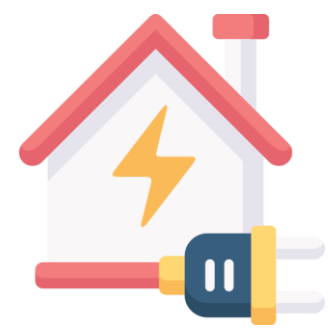
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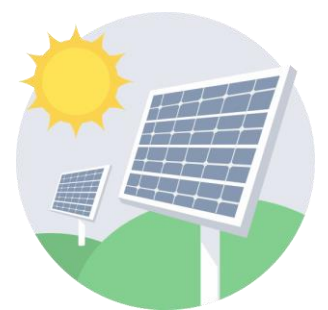
# Renewable Energy Communities (REC): *definition*

A **Renewable Energy Community (REC)** is a **legal entity** made up of energy **users**, **producers** and **prosumers** (*producers+users*) who are clustered to generate economic, social and environmental benefits deriving primarily from the **sharing of electricity** produced by **renewable** sources.



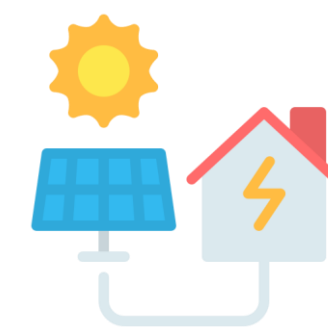
USER

Draws electricity from the grid and is the owner of the connection point to the grid, identified by a POD (Point Of Delivery) code



PRODUCER

Producer of energy from renewable sources, that is totally fed into the grid (potentially shareable energy)



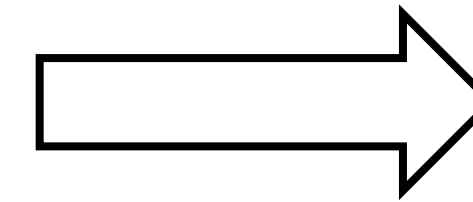
PROSUMER

Producer of energy from renewable sources, which is partly consumed on site (physical self-consumption) and partly fed into the grid (potentially shareable energy)

# Renewable Energy Communities (REC): *Italian legislation*



European 2018/2001 (RED-II) Directive



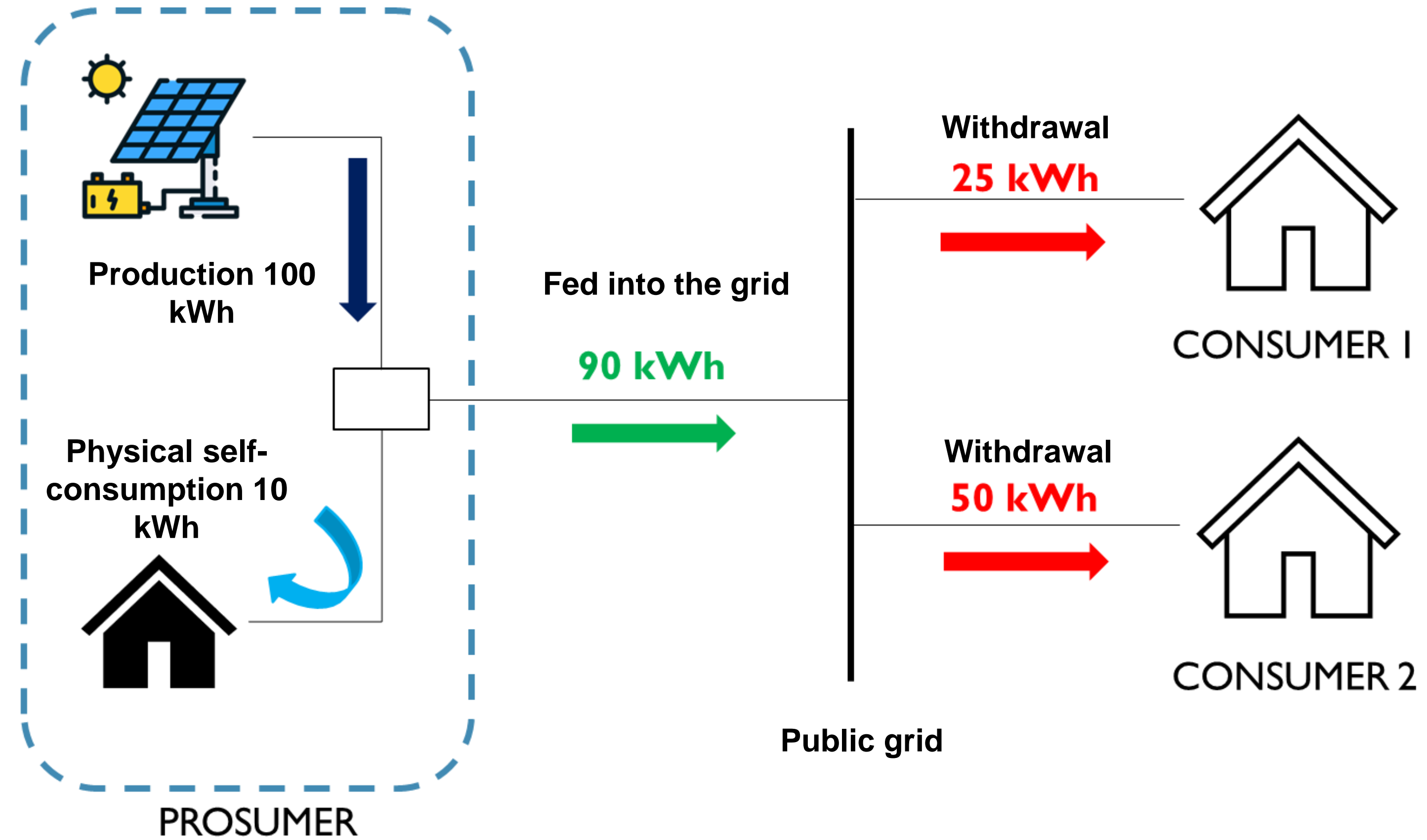
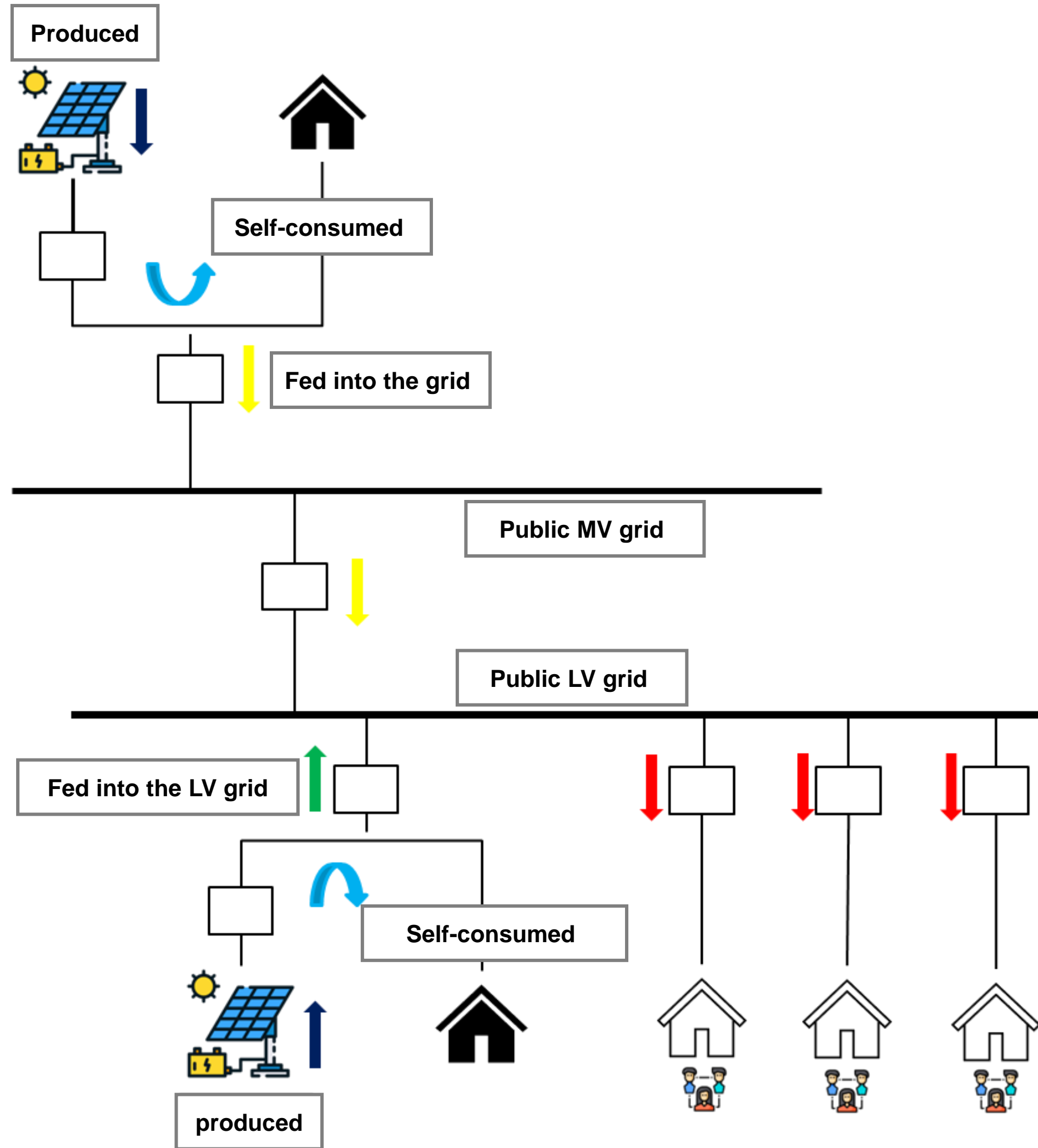
*transposition*



Italian Law

	<b>TRANSITIONAL TRANSPOSITION</b> 2020-2023 - Art. 42bis of D.L. 162/2019	<b>FINAL TRANSPOSITION</b> D.L. 199/2021 - executive law by Dec 2023
<b>Maximum power size (single plant)</b>	200 kW	1 MW
<b>area</b>	Members connected to the same <b>LV/MV substation</b>	Members connected to the same <b>HV substation</b>
<b>Eligible members</b>	Citizens/Families, Small and Medium Enterprises (SME), Municipalities	All Stakeholders (excluding companies for which energy is the core business activity)

# Renewable Energy Communities (REC): *sharing energy, an example*



Virtually shared energy =  $\min(90, 75) = 75$  kWh  
*(incentive about € 100/MWh)*

# RECs: PIONEERS AND BEST PRACTICES



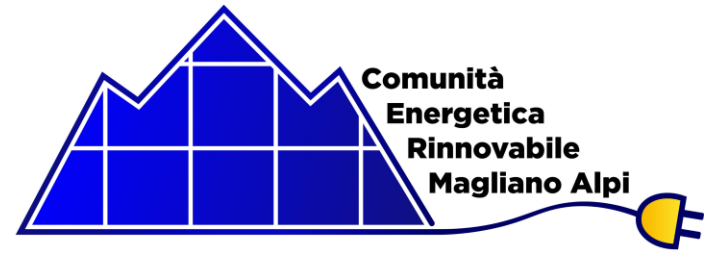
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# Renewable Energy Communities (REC): *Magliano Alpi and follow-ups*



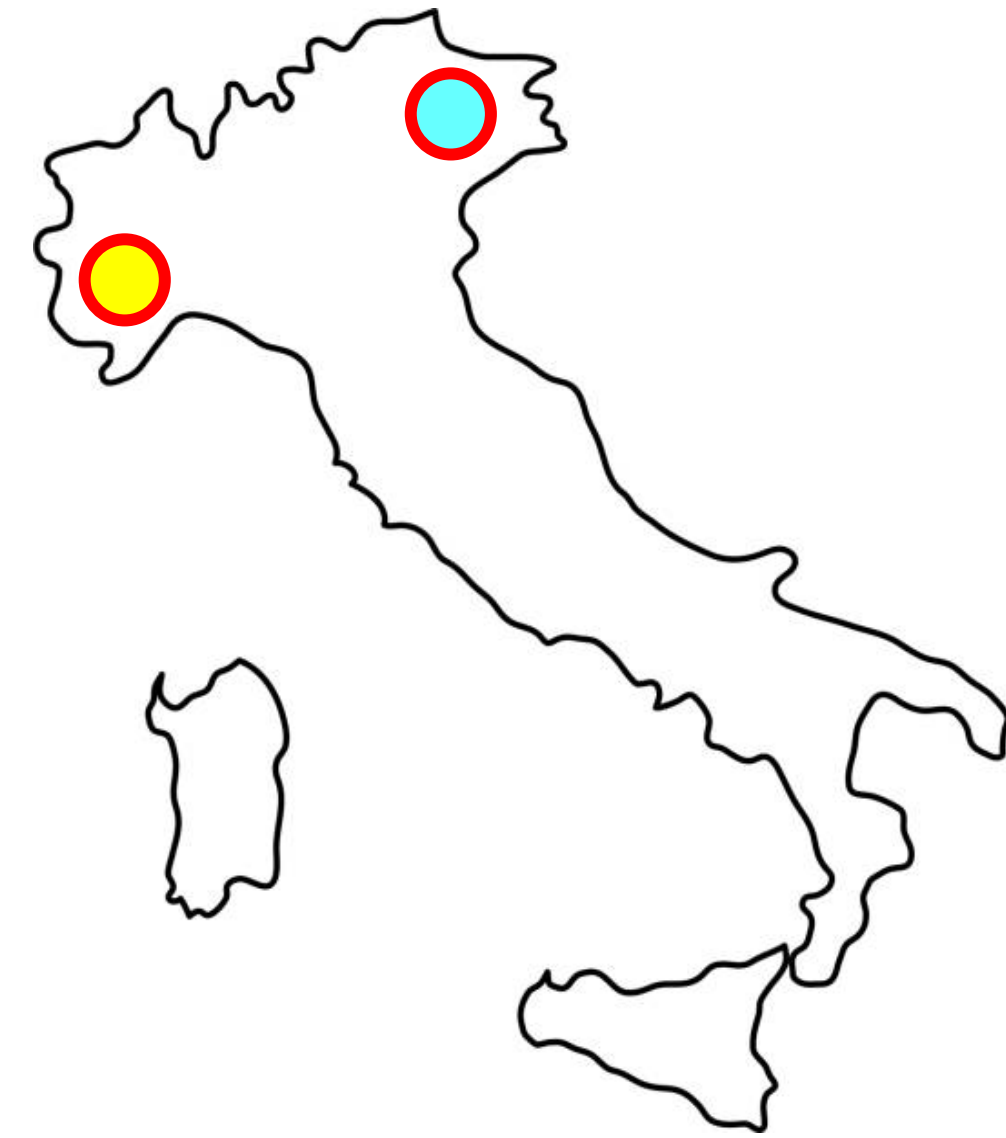
- December 2020: the **first** Italian **Renewable Energy Community (REC)** was founded in the City of Magliano Alpi <https://cermaglianoalpi.it/> with the scientific support of the Energy Center of the Politecnico di Torino



- 2021-2025: **Magliano&Friends** initiative, a **network of Italian Municipalities** who share expertise and know-how to create new RECs (starting from the end of 2023 the Italian Government will make **€ 2,2 BILLION** available to support RECs in cities with less than 5,000 inhabitants)



- 2022-2023: € 5,4 million invested by the Autonomous Region of Friuli Venezia Giulia with the scientific support of the **Energy Center** of the Politecnico di Torino and the partnership with the City of **Magliano Alpi** to implement **RECOCER Project** [www.recocer.eu](http://www.recocer.eu) where REC are designed for 15 Municipalities with 50,000 inhabitants



# ENERGY COMMUNITIES: MEDIUM-TERM OUTLOOK



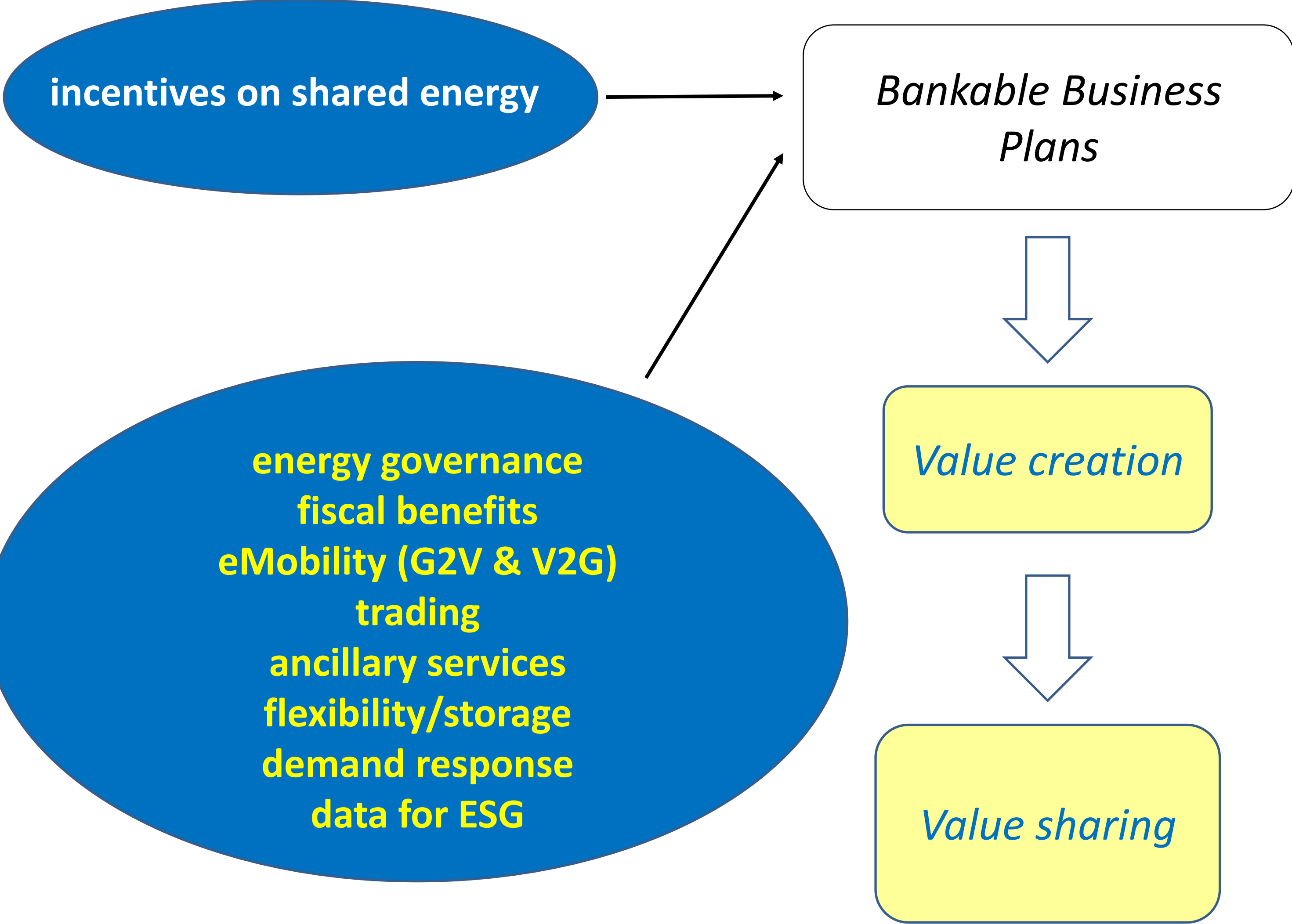
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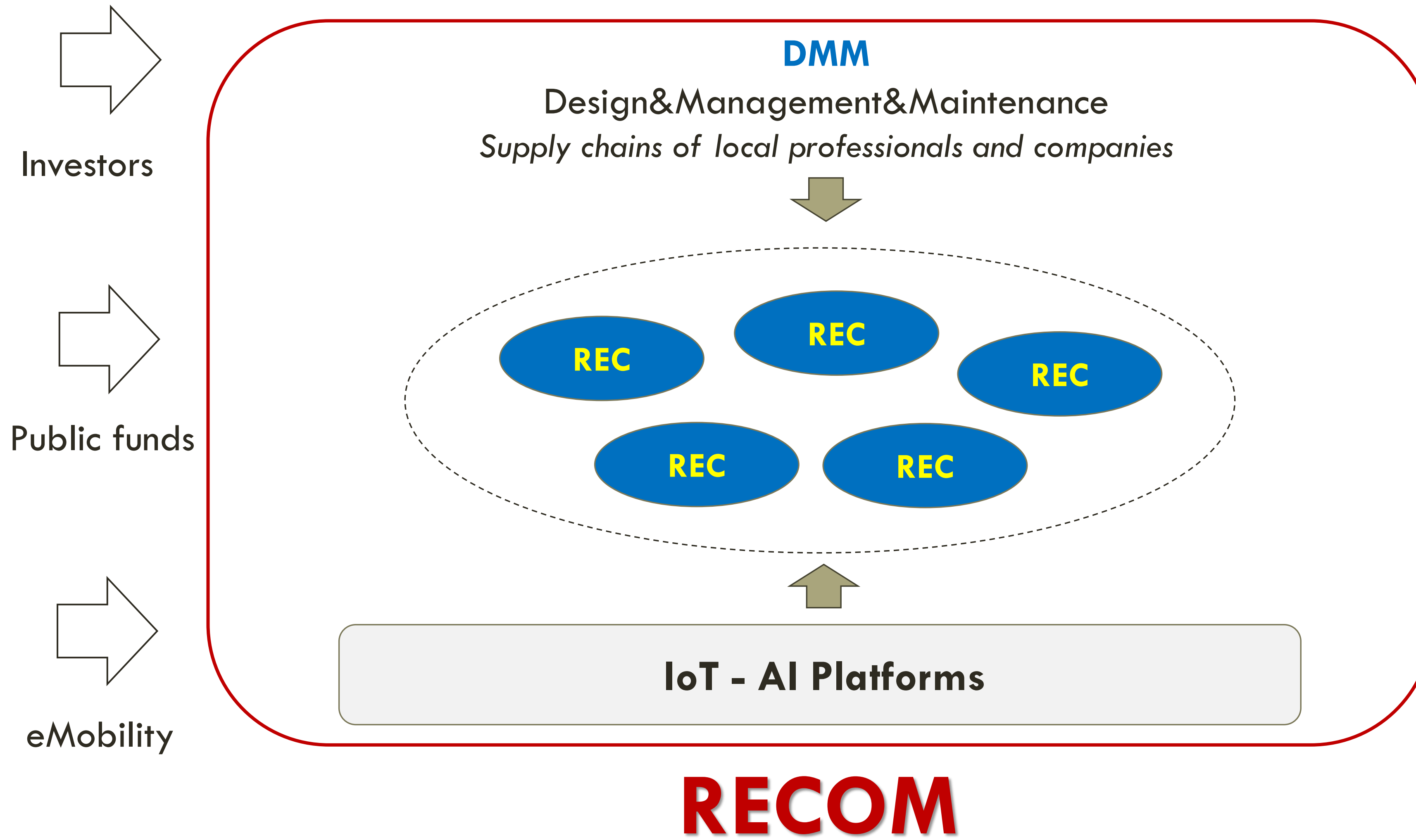
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# Energy Communities: creating value to be locally shared



# Communities of RECs (**RECOM**): clustering RECs for a «one-stop-shop»



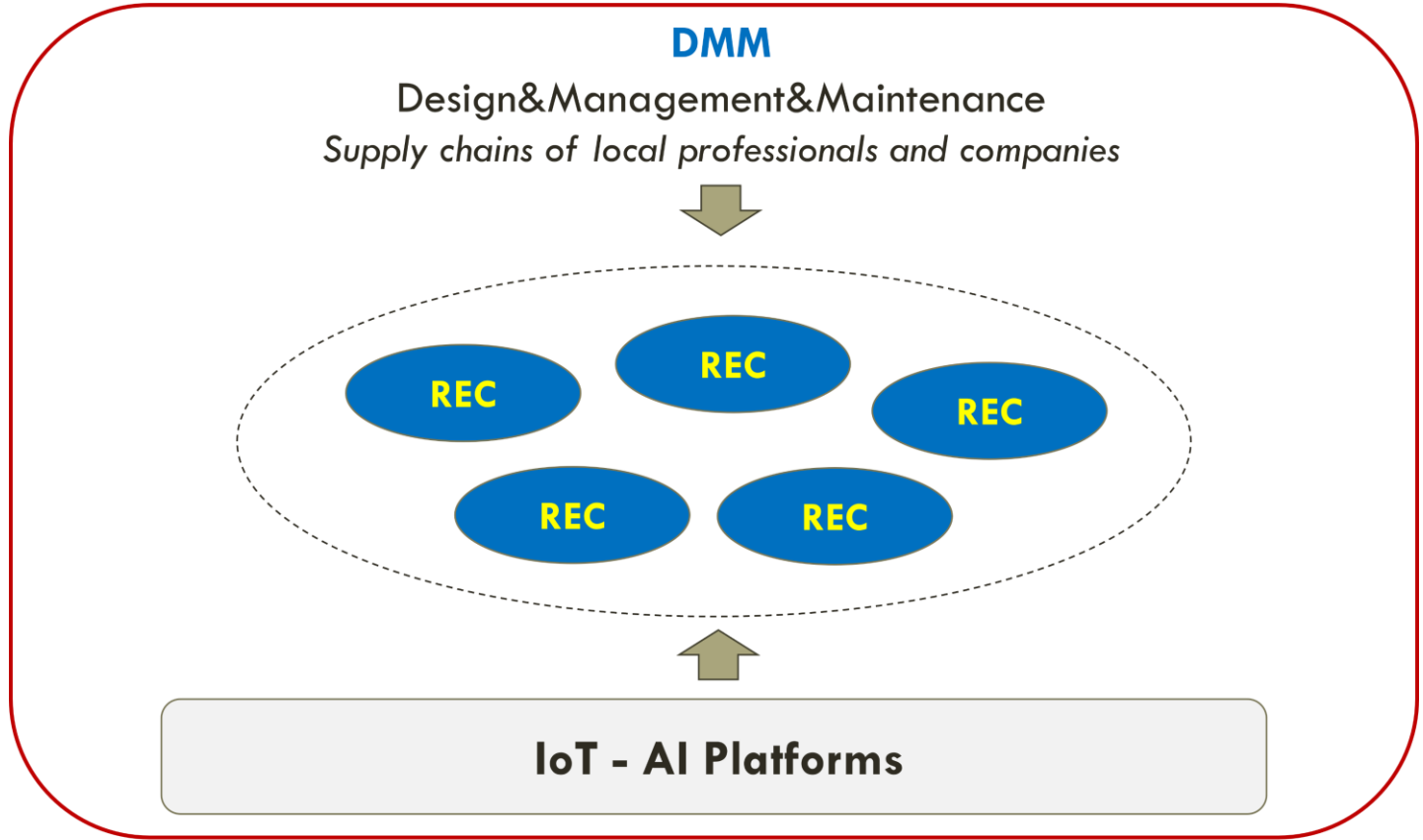
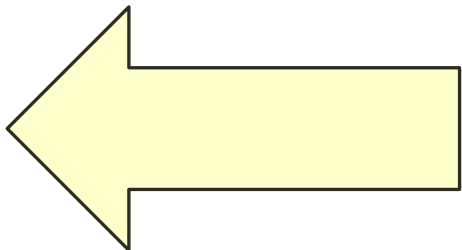
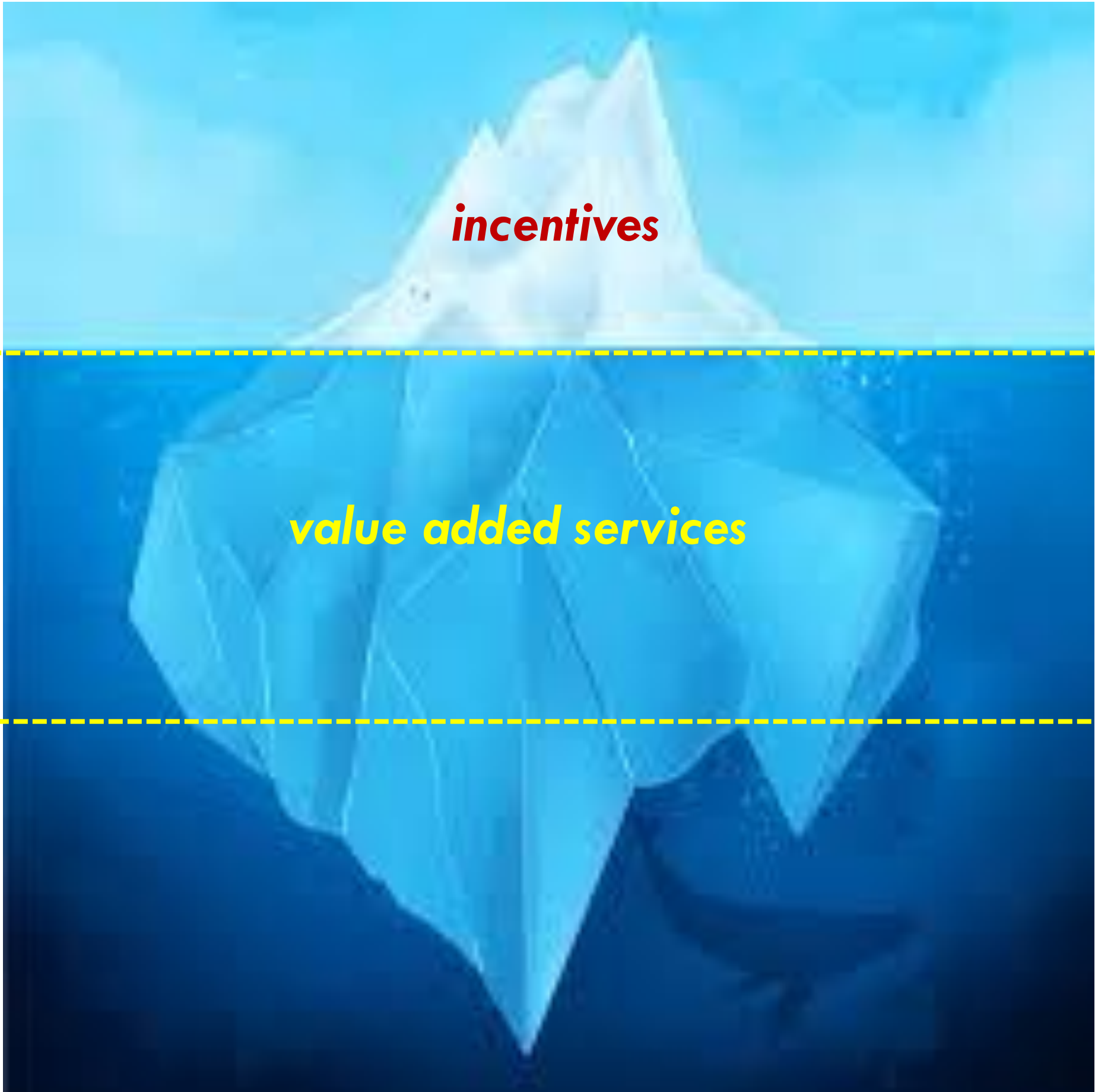
High-level **technical know-how**, **smart platform** and **operational capacity** are necessary for **REC management**

*We should not multiply management structures* for the sake of efficiency and economy of scale

**RECOM** is a private company aiming at **clustering** and **managing** REC, providing *one-stop-shop* for investors

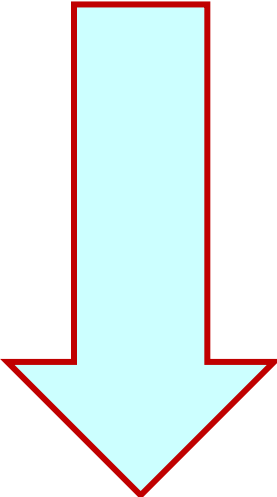
A RECOM is a «**Virtual Energy Company**» (VEC)

# Communities of RECs (**RECOM**): value creators for «energy democracy»



**RECOM**

RECOM **leaves locally** the value created by energy transition



This will imply the **redesign of the business models of energy utilities**



# Local communities: REC-driven strategies to address climate change

Local communities aiming at addressing climate change are successful if they can rely upon **three enabling factors**: **a) legislation**, **b) economic benefits** and **c) awareness** (leading to «green» behavioral change).

- a) The European Directives **2018/2001** (RED-II, on «Renewable Energy Communities» - REC) and **944/2019** (on «Citizen Energy Communities») provide a **sound legal basis**, since EU member States **MUST** transpose them into a law that cannot be changed.
- b) In Italy many **fiscal benefits**, **non-repayable funds** and **grants** are today available for energy transition. Some examples are: 50% to 75% tax deduction on building retrofit (electrifying thermal loads, i.e. making heating and cooling electric); 50% tax deduction on PV installation; € 110/MWh for 20 years on shared energy within RECs, also benefiting from the sale of energy to the grid; funds for eMobility charging stations; € 2,2 billion on RECs created in cities with less than 5,000 inhabitants + (starting from 2024-2025) «a lot of money» for the «submerged part of the iceberg» (see slide #10).
- c) The combination of legislation («**you can do it**») with economic benefits («**doing it is a business**») easily leads to **raising awareness** and changing your behaviour in producing, using and saving energy.

**RECs are powered by IoT/AI digital platforms**, so they represent a **database** capable of measuring results and giving evidence of virtuous approaches.

**In Europe** (and notably in **Italy**, who is a forerunner in transposing RED-II Directive) **RECs are one of the key catalysts** of effective strategies to address climate change.

**THANK YOU FOR YOUR  
ATTENTION**

**Sergio Olivero**



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