

# Renewable Energy Communities

## The One-Stop-Shop in Upper Austria

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**UP-STAIRS** Uplifting  
Energy Communities.

A graphic element for the UP-STAIRS logo, consisting of a network of red dots of varying sizes connected by thin red lines, forming a cluster that resembles a molecular structure or a network diagram.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 891775

# The Upstairs project

## Objectives

- Accelerating the creation of new energy communities and collective action in 5 pilot regions
- Supporting citizens and municipalities in becoming prosumers
- Testing new Energy Service models of One-Stop-Shops for local collective action
- Stimulating replication in other regions throughout the EU

## Impacts

- Setting-up and testing 5 One-Stop-Shops for energy communities and collective local action
- Triggering 66 million Euro in sustainable energy investments / energy-related investments
- Engaging 10,000 consumers in sustainable energy activities

[www.h2020-upstairs.eu](http://www.h2020-upstairs.eu)

**5**  
new One-Stop-Shops

A horizontal progress bar with a red segment on the left and a grey segment on the right, representing 5 out of 5 items.

**66**  
million Euro triggered

A horizontal progress bar with a red segment on the left and a grey segment on the right, representing 66 million Euro.

**10,000**  
consumers engaged

A horizontal progress bar with a red segment on the left and a grey segment on the right, representing 10,000 consumers.

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# The region of Upper Austria



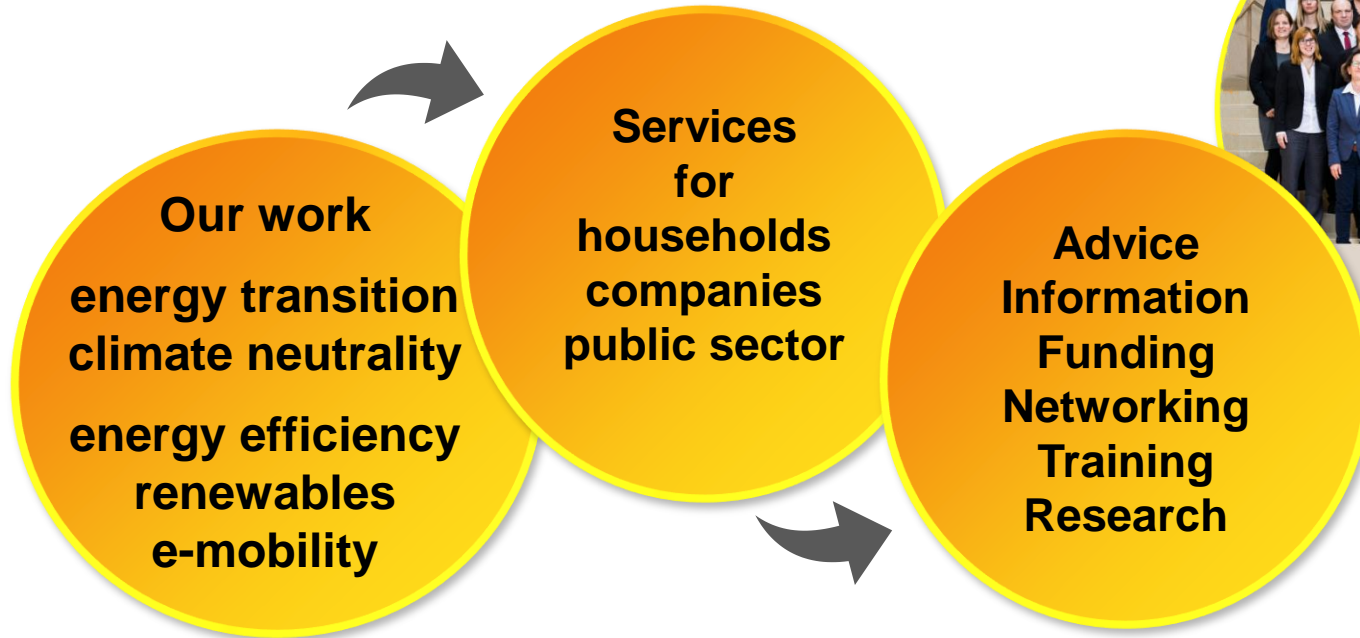
**Capital: Linz**  
**Population: 1.5 million**



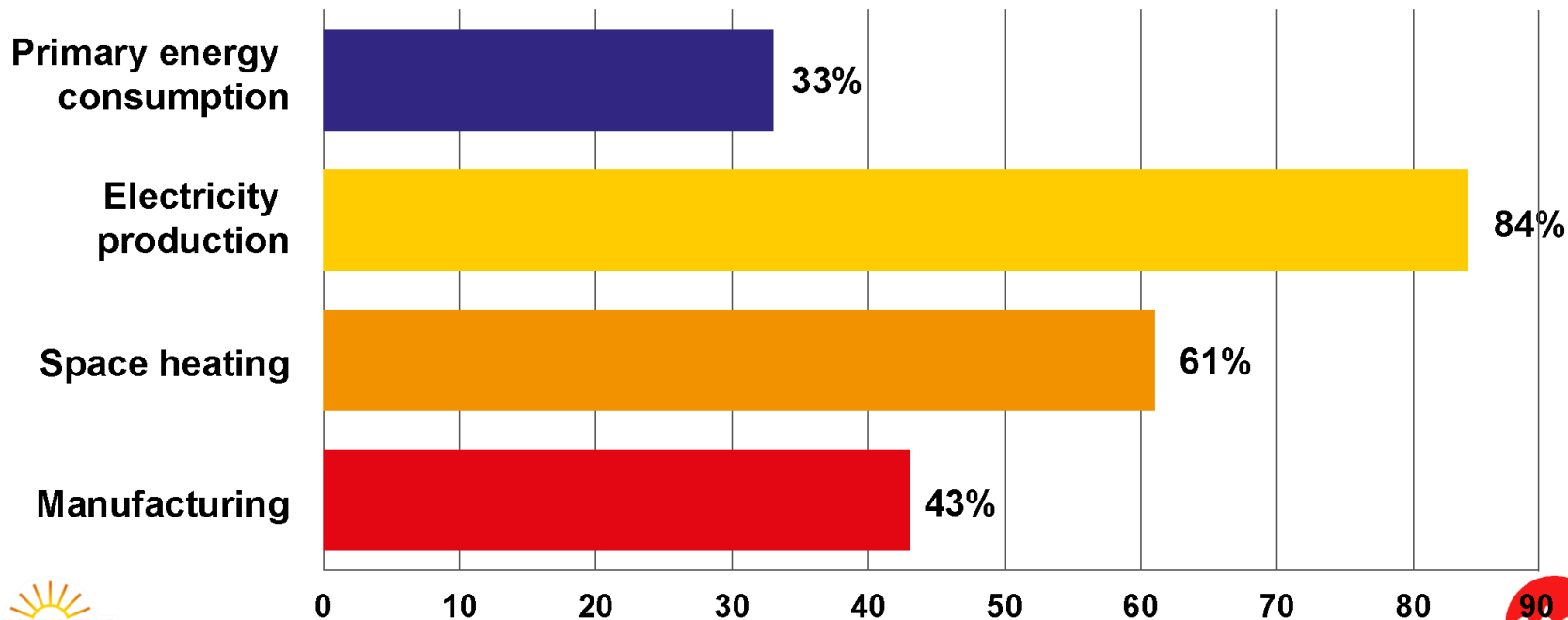
**Industrial & rural:**  
**25% of Austrian industrial exports**  
**50% live in small municipalities**

# OÖ Energiesparverband

## The Energy Agency of Upper Austria

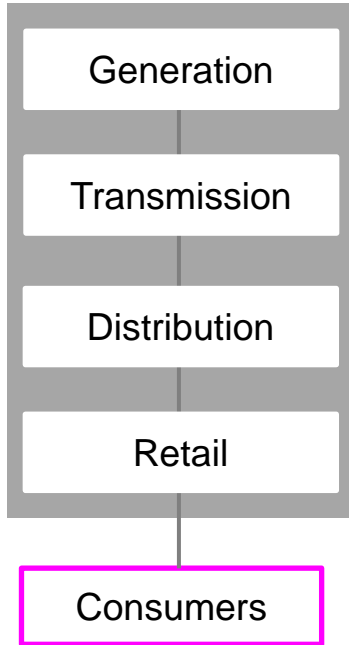


# Share of renewable energy in different sectors Upper Austria

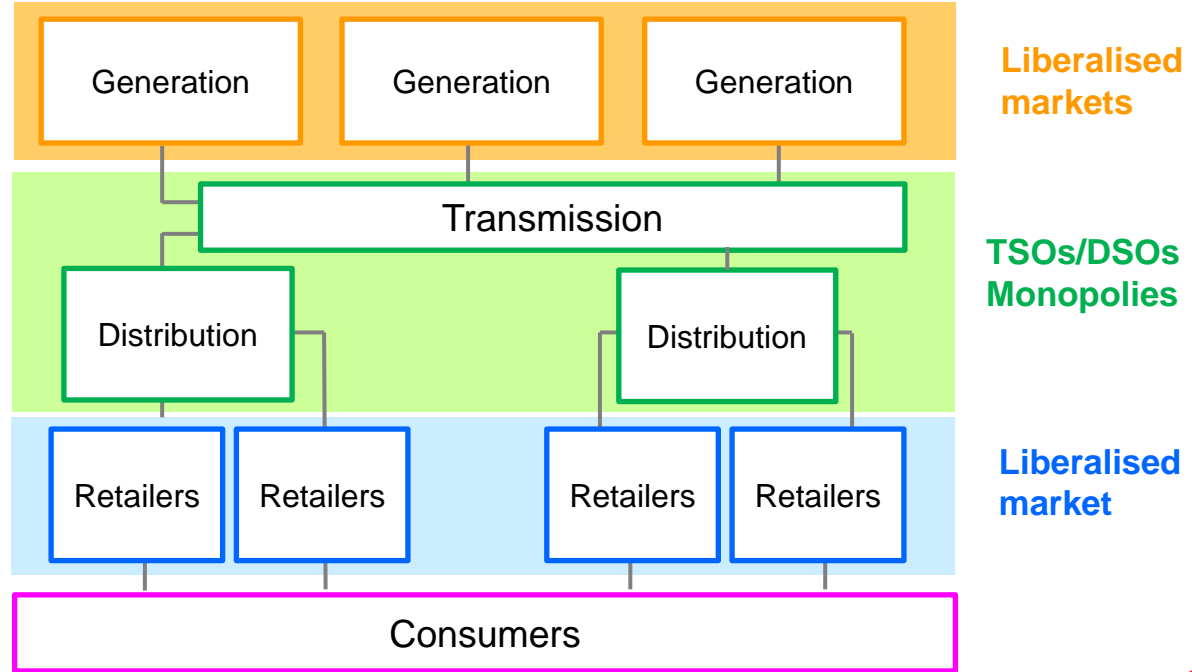


# How the electricity market works

In the past



Present



# Renewable Energy Communities (RECs)



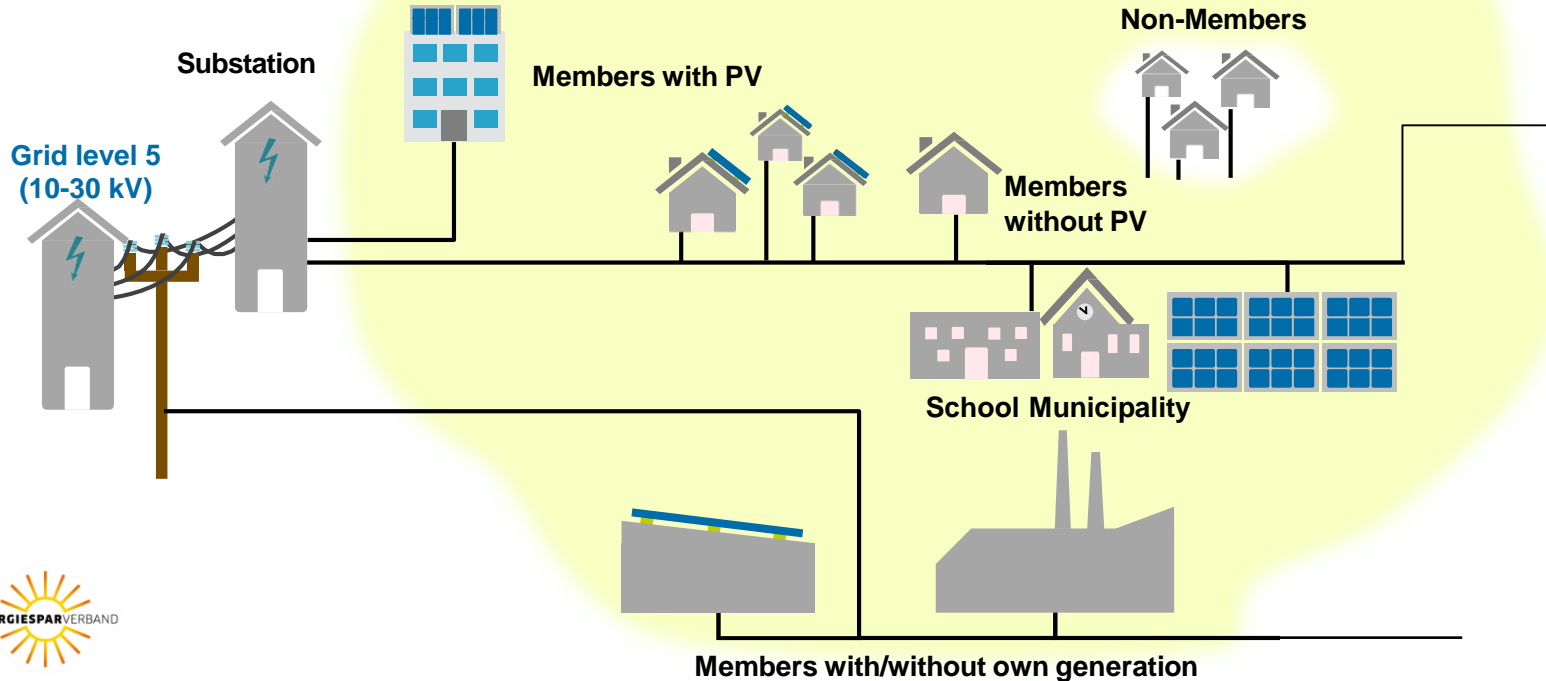
- Renewable Energy Directive enables a **new form of sharing economy** for the energy transition in so-called "Renewable Energy Communities" (RECs)
- **RECs are allowed to exchange renewable electricity among its members within geographic proximity without the involvement of an electricity retailer**
- Primarily environmental, economic or social community benefits rather than financial profits
- **Great potential for the energy transition and the involvement of citizens**
- **However, it is new and complex instrument -> significant support needed**



# RECs in Upper Austria (RECs)

**Proximity:** Generation and consumption must be

1. within the grid of one DSO (about 20 DSOs in the region with 2 big ones)
2. within the same area of the mid-/low-voltage grid (regional/local RECs)





# Upstairs One-Stop-Shop (OSS) in Upper Austria: Starting point



- Great potential for RECs, but a new and complex instrument -> significant support needed
- In 2021, the Austrian Parliament adopted the legal framework that enables the establishment of RECs in Austria
- ESV, the regional energy agency, developed a "One-Stop-Shop" (OSS) for RECs within the Upstairs project
- ESV well equipped to run an OSS and to support RECs:
  - existing OSSs for building renovation (homes) and energy performance contracting (for municipalities and businesses)
  - a range of other programmes for citizens (10,000 energy advice sessions, housing programmes), municipalities and SMEs
- A clear need for support on technical, regulatory, financial and organisational aspects



# REC OSS in Upper Austria: Preparation

- **Comprehensive preparation is critical!!**
- **Internal upskilling/training**
  - Defining the service offer (what the OSS covers and what not)
  - Following closely the development of the regulatory framework
  - Interacting with relevant authorities and funding programmes
  - Identification of key stakeholders in our region
  - Developing internal information and FAQs on technical, regulatory, financial and organisational aspects
  - Survey to municipalities on their interests and information levels on RECs
- **Developing and testing service tools**
  - Identification of "pioneer communities" ("test customers") to support OSS learning process
  - Information materials, FAQs
- **Information and service roll-out**
  - dissemination of info material (website, leaflets etc.)
  - launching the OSS
  - events



# The OSS service offer (1)



**Advice and support** on regulatory, technical, financial and organisational aspects of developing and operating RECs

## Key topics/most frequent questions

- regulatory framework: geographic boundaries; legal forms (association or cooperative); membership (how many and who); what is a REC allowed to do and what not
- financial aspects: funding programmes; tax questions (we do not answer them!)
- technical and organisational aspects: grid connection/interaction with DSOs; load optimisation; accounting systems; service providers; what to do at which step
- complexity!

## Key advice target groups

- municipalities (mayors, energy/environment coordinators, council members)
- citizens interested in RECs
- SMEs service providers of RECs



# The OSS service offer (2)



- Information on RECs in **over 55 events with 2,900 participants (18 were own ESV events dedicated only to RECs)**, training courses, conferences, roundtables, workshops, mostly on-site
- target groups: citizens, municipalities and other key stakeholders
- **1,070 individual advice sessions** (on-site, by phone, video meetings) were held



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# The OSS impact



- ESV convinced the regional government to launch a dedicated small financial support programme for preparations RECs (if specific legal or technical support is needed), **the national government adopted this programme on national level**
- **over 170 RECs are in operation in Upper Austria with over 3,000 members**
- **7.7 MW PV installed, 7.7 Mio Euro investment**
- OSS will be continued beyond the Upstairs project



# Lessons learnt on operating an OSS

- **Continous training/upskilling of "advice staff":**
  - frequent changes in regulatory issues, funding programmes, electricity markets
  - clients often have very detailed questions and are up-to-date from the internet!
  - frequent exchanges between staff and with funding operators, regulator, authorities
- **Promotion**
  - no promotion, no demand for services!
  - continous task that needs a budget, dedicated staff and links to other public services (e.g. funding programme authorities, planning permission offices etc.)
- **Commercial independence**
  - not linked to the sales of a product/service, otherwise not credible
- **A longer-term approach**
  - takes quite a while to build up a service, make it known etc.
  - therefore, should be planned and implemented with the multi-annual perspective (5 years)



# Lessons learnt on RECs



## Two main types emerge

- "neighbourhood/family" RECs (e.g. family members with homes in close proximity)
- municipality-driven RECs

## Key motivations for RECs

- increase PV self-consumption, possibility to build more PV -> "independence"
- economic benefits (sometimes overestimated)
- frustrations with DSOs
- energy crisis (high electricity prices, worries about energy security)

## Progress

- **need for support will continue** (market and policy changes, new actors)
- cooperation with DSOs improved significantly
- large companies often very disappointed that they can not participate
- RECs are here to stay!



# European Energy Efficiency Conference 2024

7 – 8 March 2024

Wels, Austria

- **Conferences**
  - Energy Efficiency Policy Conference
  - Industrial Energy Efficiency Conference
  - Smart E-Mobility Conference
  - Young Energy Efficiency Researchers
- **Large tradeshow on sustainable energy**

[www.wsed.at](http://www.wsed.at)







# Barcelona Metropolitan Area (AMB)

## Covenant of Mayors Investment Forum

October 25<sup>th</sup> 2023

Marcel Camps  
Energy Transition Office  
[mcamps@amb.cat](mailto:mcamps@amb.cat)

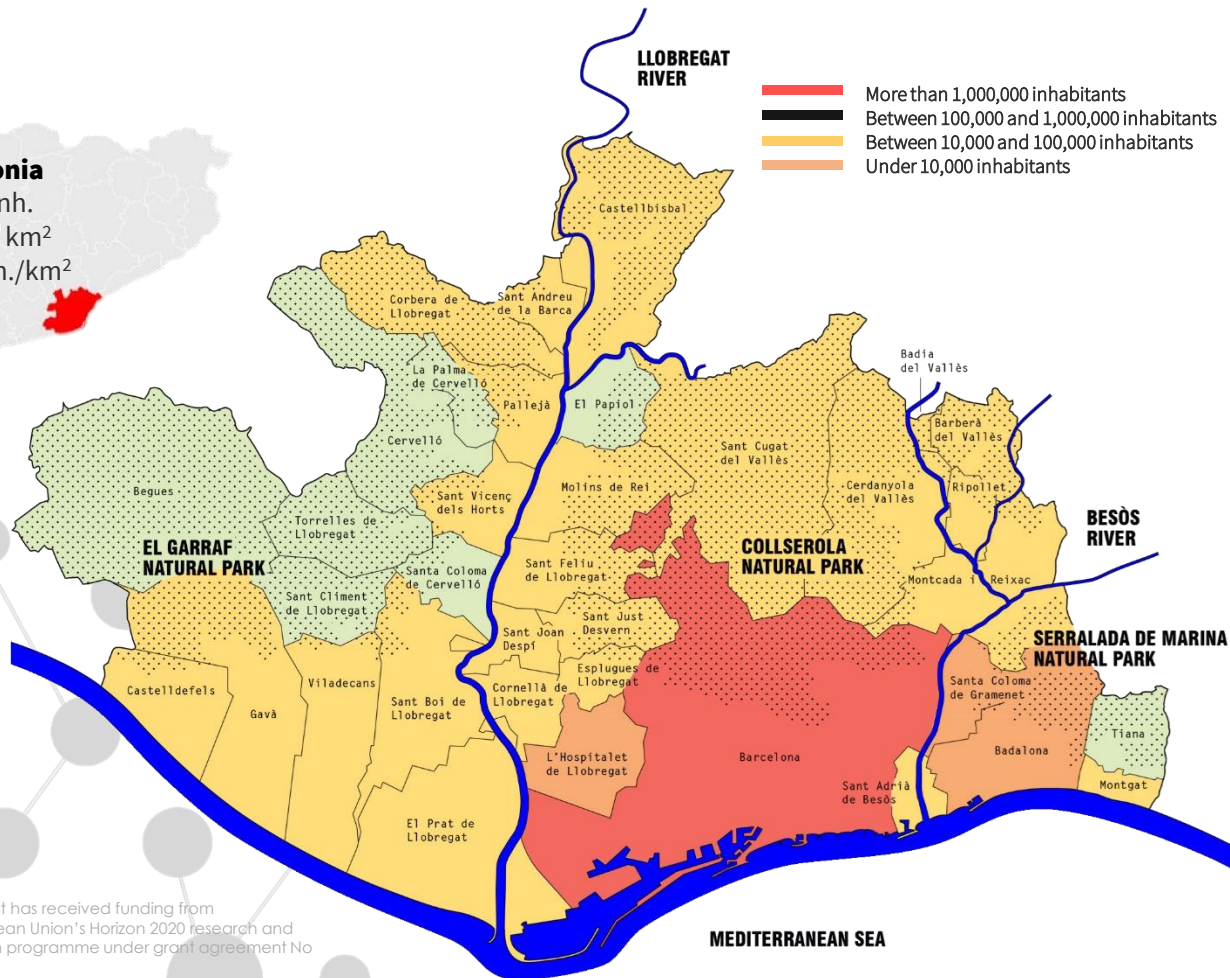


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# Metropolitan Area of Barcelona

## Catalonia

7.6 M inh.  
32,108 km<sup>2</sup>  
236 inh./km<sup>2</sup>



**3.3 M**  
inhabitants

**636** km<sup>2</sup>

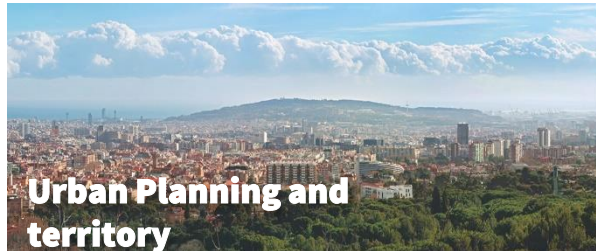
**5.093**  
inh./km<sup>2</sup>

**36**  
municipalities



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# Competencies



**2023-2027**  
**current political term**

**Metropolitan Council**  
90 members  
36 Mayors + 54 City Councillors  
**Governing Body**

President  
Executive Vice-president  
Area Vice-presidents

General Manager



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# AMB Energy Communities strategy

## Actions: Key actions

- Installation of 22 MWp in public buildings
- Launched 2 private contracts to promote self consumption and Energy Communities
  - Citizens
  - SME's
- 5 pilot face-to-face OSS and 1 online
- PV and self consumption public perception poll
- PV Energy training program for the OSS workers (IC's)
- Recruiting process in order to supply OSS with support: 3 workers
- Developing the communication campaign



# AMB Energy Communities strategy

## Perception poll

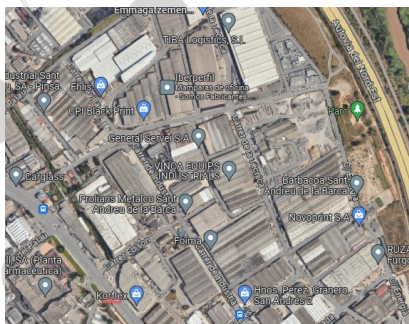
- Public perception poll results to design the communication campaign:
  - 1200 phone interviews during may and june projected on municipalities, age and gender.
  - Results:
    - Although 80% of homes have natural gas, only 53% heat it with natural gas, the rest either do not heat it or do it with radiators (25%) or with heat pumps (17%).
    - Between 18 and 23% cannot keep the house at an adequate temperature during winter/summer.
    - The average value of monthly electricity bills is €70/household.
    - A little more than 60% of the population sees it likely or very likely to install solar panels on their roof.
    - The biggest problem is the costs (65%), followed by agreeing with the neighbors (60%) and finally lack of information (55%)  
Great willingness to share energy with neighbors (62%-72%) Ignorance of aid (70%)
    - Households without people over 65 and with children are the most likely to install solar panels



# AMB Energy Communities strategy

## Engaging activities

- Launched 2 private contracts to promote self consumption and Energy Communities
  - Citizens: 35 sessions - Assistance: 849 citizens
    - 1 special session (shared self consumption in a multi-family building)
  - SME's: 27 sessions - Assistance: 436 SME's
    - 2 special session for local industrial associations



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# AMB Energy Communities strategy

## PV Energy training for the OSS workers (IC's)

- 20 hour self-learning course
- 2 online sessions: kick-off and final meeting
- 1 visit to a collective self-consumption PV installation in a multi-residential building
- 90 trainees in 2 editions: Spring and Autumn 2022



# AMB Energy Communities strategy

## Communication campaign

- Service brand: “La Teulada”
- Launched the general brand in March ( 5 in person OSS + 1 online)
- Expanding the brand and broad communication campaign in September (if allowed by election cycles) – 188.000 €





# La Teulada OSS

## AMB OSS

- 3 public workers → 4 in 2024
  - Support OSS already operational
  - Itinerant OSS in municipalities that still do not have OSS (appointment)
- First communication campaign: Mailing of 24.000 residencies
- 15' Energy saving measures and PV potential report → 30' report
- Checklist of good practices in PV offers



# La Teulada OSS

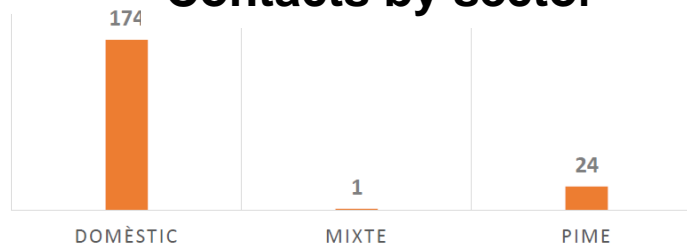
## La Teulada KPI

- Users up to date: 199
- Average satisfaction: 9,7

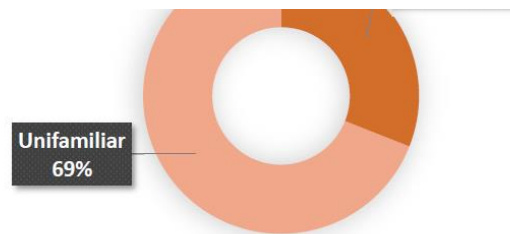
## Number of contacts by month



## Contacts by sector

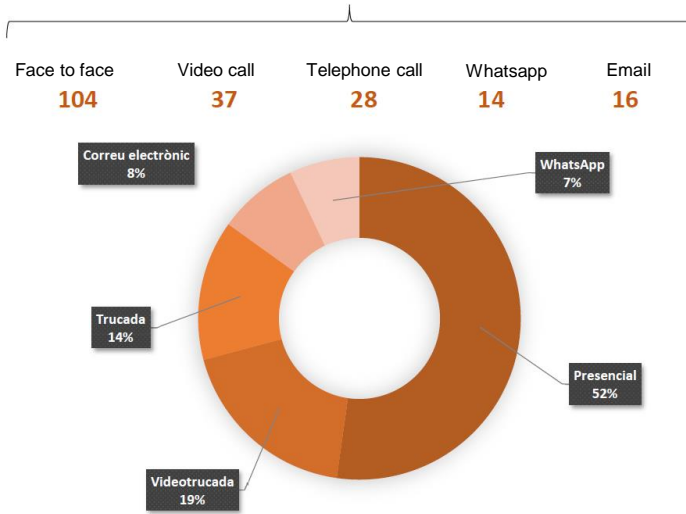


## Type of contact by building

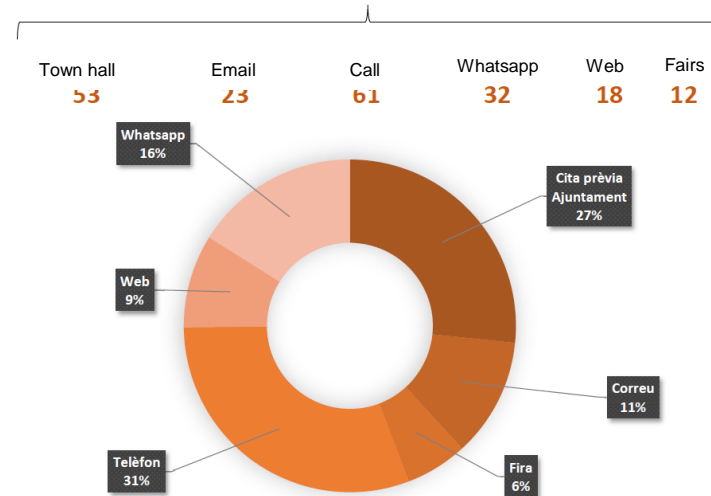


# La Teulada OSS

## Total contacts



## Total contacts



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# Impact

## La Teulada KPI's

- 199 users from 15<sup>th</sup> march to 30<sup>th</sup> September
- 90 Implementation Champions
- Over 1.000 citizens reached
- 450 SME's reached



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# Challenges and barriers

Legal	Technical	Social
<ul style="list-style-type: none"><li>● Lack of legislation and absence of transposition of the EU directive 2019/944.</li><li>● Difficult collaboration between public and private entities.</li></ul>	<ul style="list-style-type: none"><li>● Lack of DSO assistance in shared self consumption legalization.</li></ul>	<ul style="list-style-type: none"><li>● Lack of energy culture</li><li>● Highly dense populated area</li><li>● Multi-family buildings vs single family buildings</li></ul>





# THANK YOU!

Marcel Camps  
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