

# TANDEMS

Municipalities and Energy Communities  
Working Together to Accelerate a Just  
Energy Transition



KEY RESULTS, NUMBERS,  
AND INSPIRING STORIES



# CONTENT

1. Introduction .....	3
2. TANDEMS RESULTS.....	4
3. Fair Energy, European Teamwork.....	5
4. TANDEMS at a Glance – The Big Numbers ..	6
5. The Challenge & Why TANDEMS Matters. ...	7
6. Regional Stories – The TANDEMS Pilots .....	9
7. Best Practices to Replicate .....	12
8. Key Lessons for Future Action.....	16
9. What's Next – The After-LIFE Plan.....	18
Together for a Just Energy Transition.....	20

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# 1. INTRODUCTION

Across Europe, towns and cities are rethinking how energy is produced, shared, and owned. While economic competitiveness has risen high on the political agenda, the European Union has reaffirmed its commitment to ambitious climate targets: cutting greenhouse gas emissions by at least 55% by 2030 and achieving climate neutrality by 2050. Meeting these goals will take more than new technologies. It will require people to work together — community by community, region by region. And that is where TANDEM comes in.

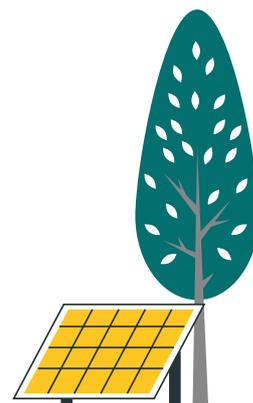
Launched in October 2022, EU-LIFE project TANDEM united partners from Austria, Bulgaria, Belgium (Flanders), and the Netherlands. Each region began from a different starting point, yet all shared the same vision: to equip citizens and municipalities with the tools, trust, and know-how to lead the clean energy transition — together. Over three years, TANDEM implemented real-life pilot projects—some in regions where energy cooperatives already existed, others where they were entirely new. Through this, partners built tools, exchanged knowledge, and practiced learning by doing, always aiming to make community energy more inclusive, faster to deploy, and easier to replicate.

Like a tandem bicycle, real progress happens only when everyone pedals in sync. In the TANDEM model, municipalities, citizens, and energy cooperatives ride together — each bringing different strengths, but moving in the same direction. It's a partnership built on rhythm, trust, and the agility to adapt when conditions change. This report tells that story. Through numbers and narratives, it shows how TANDEM is helping shift citizen-led energy from a marginal idea to a mainstream strategy—and why the EU's transition requires our collective effort, not just regulation.

„TANDEM has served as a catalyst in empowering energy communities across the EU to advance the clean energy transition.“



STAMATIS SIVITOS  
EU PROJECT OFFICER



## 2. TANDEMS RESULTS

### TANDEMS Easy-to-read guides:



#### **1. ENABLING FRAMEWORKS FOR ENERGY COMMUNITIES:**

A State of Play

Click to read!



#### **2. LIFE TANDEMS**

**Whitepaper:** Business Models

for Energy Sharing



#### **3. AN OPEN COLLABORATION**

**MODEL:** 4 Steps for Local Partnerships in the Just Energy Transition

Click to read!

## TANDEMS DELIVERABLES:

All TANDEMS Deliverables about the Pilot Testing

[TANDEMS-WP3-Deliverables](#)

**Deliverable 5.2**

[TANDEMS Policy Framework Report](#)

**D.5.1 Policy dialogues:**

[From shared learning and insights towards impact](#)

**AN OPEN COLLABORATION MODEL:**

[4 Steps for Local Partnerships in the Just Energy Transition](#)

## FURTHER RESOURCES:

**TANDEMS Website:**

[lifetandems.eu](https://lifetandems.eu)

**VITO's Coda Nexus Site:**

[TANDEMS: Local Energy Collaboration](#)

**LifeTANDEMS on EU Funding Tenders Portal:**

[Collaboration between cities/regions and energy cooperatives as vehicles to accelerate the energy transition](#)

**The TANDEMS Milestone Report on the project's Best Practice's**

[https://lifetandems.eu/wp-content/uploads/2025/09/Milestone-5\\_Best-Practice-TANDEMS.pdf](https://lifetandems.eu/wp-content/uploads/2025/09/Milestone-5_Best-Practice-TANDEMS.pdf)

### 3. FAIR ENERGY, EUROPEAN TEAM WORK

The TANDEMS project brought together a diverse and committed group of partners from **Belgium, the Netherlands, Bulgaria, and Austria** – united by a shared ambition: to make the energy transition fairer, more inclusive, and citizen-driven.

We didn't just work across borders – we worked across contexts. Each region in the consortium brought its own history, strengths, and challenges to the table, offering a rich testing ground for new ideas and approaches.

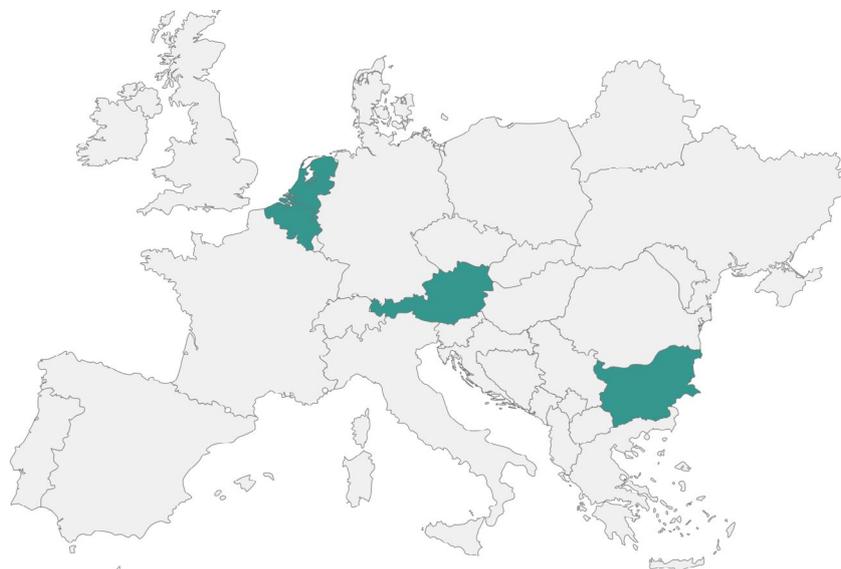
**In the Province of Antwerp, Flanders (Belgium)**, we collaborated with some of the country's most established energy cooperatives – Klimaant and ZuidtrAnt – and forward-thinking local authorities like the City of Mechelen and the regional innovation hub Kamp C. This setting allowed us to explore how citizen-led initiatives can scale up with institutional support.

**In the rural Achterhoek region (Netherlands)**, the focus was on collaboration between active municipalities and energy communities, represented by Agem. Here, local enthusiasm and strong community roots provided fertile ground for innovative, bottom-up solutions.

**In Bulgaria**, we worked in the cities of Gabrovo and Burgas, together with energy-efficiency experts Eneffect. Despite a different legal and institutional landscape, strong local leadership and new strategic alliances enabled us to launch Bulgaria's first municipal energy community – a major milestone for citizen energy in Eastern Europe.

Across all sites, the project was supported by the scientific and policy expertise of VITO and DuneWorks, who provided guidance, tools, and critical reflection throughout. And to make sure our work resonated beyond technical audiences, **Austrian partner Oikoplus** transformed complex pilot activities into compelling stories, helping us reach and inspire far more people than we had originally imagined.

Together, we showed that the energy transition is not just about technology or economics – it's about people, places, and partnerships. **With the right support, citizens and municipalities across Europe can lead the way.**



## 4. TANDEM'S AT A GLANCE – THE BIG NUMBERS

In just three years, TANDEM'S has achieved and, in many cases, exceeded its original targets. The numbers tell a story of local ambition turning into tangible results — and they show why the model works.



\*Based on final KPI check, June 2025.

These achievements are not just numbers on a page — they represent homes and businesses producing their own clean energy, citizens gaining the skills to plan, finance, and run energy projects, municipalities committing to replicate successful models, and communities reducing both carbon emissions and energy bills.

### Renewable Energy Community (REC) vs. Citizen Energy Community (CEC)

A Renewable Energy Community (REC) is a citizen-led initiative in which members jointly own and democratically control their energy production. Its primary focus lies on renewable energy as well as on generating social, economic, and environmental benefits rather than profit. Typical examples include solar panels installed on community buildings or small-scale wind turbines in local areas.

An Energy Cooperative (EC), by contrast, is a community-owned organisation that enables members to collectively develop, own, and manage renewable energy projects. Functioning through cooperative structures, it allows members to share the benefits of the energy produced while ensuring democratic decision-making. Energy cooperatives often operate with a broader scope, engaging in diverse projects such as solar, wind, or biomass.

## 5. THE CHALLENGE & WHY TANDEMMS MATTERS

The idea of citizens and municipalities producing and sharing energy together isn't new. In fact, the European Union has officially recognised Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs) in its legislation as essential for meeting its 2030 and 2050 climate targets. But turning that vision into reality is far from simple.

Across Europe, the national rules for these energy communities vary — and in some cases, they barely exist. The definitions are often unclear, the frameworks incomplete, and the financing uncertain. For new initiatives, this can mean years of delays and frustration before a single solar panel is installed. This is where TANDEMMS picked up.

- In Bulgaria, there were no legal definitions at all when TANDEMMS began in 2022. Today, thanks to changes in 2023, RECs and CECs are defined in law — but key details, such as ensuring autonomy and supporting rural communities, are still missing.
- In the Netherlands, definitions are broad and inclusive, but without an authority to enforce the rules, there's a risk of misuse. Financing options remain patchy, depending on the region.
- In Flanders (Belgium), the legal definitions are clear and supportive of citizen participation. Yet, there is still no dedicated budget line for energy communities in major funding programmes.



TANDEMMS partners and colleagues from EU-LIFE sister projects at the European Sustainable Energy Week in Brussels  
Photography: Sam Glazier, 2025

Solar panel installation on the rooftop of a public swimming pool in Burgas, Bulgaria.  
Photography: City of Burgas, 2024



This patchwork of policy creates real risks: commercial players could dominate the space, citizens could be left out of decision-making, and the broader energy transition could lose public trust.

That's where TANDEMS set out to make a difference — by proving that energy cooperatives, working hand-in-hand with local governments, are the right vehicles to drive a just and accelerated transition. Energy cooperatives are rooted in their communities, motivated by shared benefits rather than profits, and experienced in guiding citizens through the technical and legal maze of starting their own projects.

By testing models in three very different regions — from established cooperatives in the Netherlands and Belgium to brand-new ones in Bulgaria — TANDEMS has shown that the barriers are not insurmountable. In each case, local leadership, clear collaboration, and citizen trust turned policy ambition into real, working projects.

“The aim was not just to launch projects, but to create models others can follow — even in regions starting from zero.”



JUSTIN PAGDEN  
AGEM

## 6. REGIONAL STORIES – THE TANDEM'S PILOTS

### Bulgaria – From zero to the first municipal-led energy communities

When TANDEM'S started in 2022, Bulgaria had no legal framework for energy communities. By 2023, new legislation introduced definitions for RECs and “civil energy communities” — a crucial first step, but still missing key details on autonomy, inclusiveness, and rural access.

Despite the policy gaps, TANDEM'S partners EnEffect and the municipalities of Gabrovo and Burgas proved that change is possible. Gabrovo, known for its award-winning sustainability policies, piloted energy cooperatives across municipal, commercial, and multi-family buildings. Burgas combined strong municipal leadership with crowdfunding and strategic partnerships to launch its own citizen-driven model.

Their success attracted five more municipalities ready to follow their lead, and the Gabrovo retrofits of multi-family buildings alone delivered 7.85 GWh/year in energy savings — far above the original 0.58 GWh target.

“It wasn't just about installing systems. It was about showing citizens and local leaders that this is their project, their energy, their future.”



TODOR POPOV  
MUNICIPALITY OF GABROVO



Key tools for mobilising  
citizens to set up an energy  
communities.

Match making

## Flanders (Belgium) – Scaling up without losing local identity

In Flanders, energy cooperatives such as ZuidtrAnt and Klimaan already had a strong presence. TANDEM helped them scale up while staying rooted in their communities. The Otterbeek energy community in Mechelen won the 2025 EU Sustainable Energy Award, becoming an international inspiration.

Innovation hubs like Kamp C piloted their own REC and developed a six-day training programme for municipalities to set up local energy communities with cooperatives. Cities experimented with energy sharing in dense, diverse neighbourhoods, exploring how to make the benefits reach vulnerable households.

The result: stronger cooperation between municipalities and citizen-led initiatives, €14.6 million invested in sustainable energy, and 68 local and regional authorities committed to replicating best practices.

“Scaling up is not about becoming big — it’s about spreading what works and keeping the trust of your community.”



LIESBET VEULEMANS  
ZUIDTRANT

“We are a very warm community. We share everything and now we can share the energy.”



OTTERBEEK  
RESIDENT



Solar panel installation on social housing assets.  
Photography: Klimaan, 2023

## The Netherlands – Maturing from local projects to regional energy players inspiring policy changes

Agem Energy Experts in the Achterhoek region began working with eight municipalities aiming for energy neutrality by 2050 working in 2013. Under TANDEMS, Agem moved beyond solar and wind projects, towards developing a cost-price model to keep energy affordable.

By supporting 15 Local Energy Communities (LECs) and working closely with municipal governments, Agem demonstrated how a cooperative can evolve into a mature social enterprise — balancing commercial viability with community benefit.

TANDEMS also brought Dutch partners together with Bulgarian and Belgian counterparts to exchange business models, citizen engagement strategies, and governance approaches — making replication much easier across borders.

“Every project is a step, but the real win is building structures that last — and that citizens trust.”



MAROESKA BOOTS  
AGEM



TANDEMS partners discussing future opportunities and challenges for energy sharing in Europe.  
Photography: OIKOPLUS, 2025

# 7. BEST PRACTICES TO REPLICATE

Over three years, TANDEMS partners tested dozens of approaches to make energy communities more inclusive, more effective, and easier to replicate. Some of these methods have already travelled far beyond the original pilot regions — adapted by other municipalities and cooperatives across Europe.

Here are four of the most transferable good practices, with insights into how they work, why they succeed, and what to watch out for when applying them elsewhere.

## 7a. Learning by Doing – Turning experiments into models

**Pilots:** All pilot partners, coordinated by VITO and Kamp C

In community energy, success rarely comes from following a fixed plan. The TANDEMS approach embraced structured cycles of action, reflection, and adaptation, allowing pilots to adjust in real time. Tools such as the learning history workshops, the systemic iceberg model, and “eye-opener” sessions helped partners analyse key moments — both breakthroughs and setbacks — and decide on next steps.

**Impact:** The Open Collaboration Method helped move 83 community energy projects from concept to reality, with many adopting improvements mid-way instead of waiting for a project review at the end.

**Why it works:**

- Builds trust by showing quick, tangible progress
- Creates space for setbacks to become learning opportunities
- Strengthens cooperation across different types of partners

**Keys to success:**

- Dedicate time for reflection, even under tight deadlines
- Use a skilled facilitator to keep sessions focused
- Document both the what and the why behind decisions



## 7b. Justice Framework in Action – Making the transition fair

**Pilots:** Kamp C, ZuidtrAnt, Gabrovo, Otterbeek

A just energy transition means more than cutting emissions — it's about who benefits, who decides, and who feels included. In TANDEMS, a justice framework was applied, to ensure:

- All groups, including vulnerable ones are acknowledged (**Recognition justice**)
- Decision-making processes are inclusive (**Procedural justice**)
- Benefits, burdens and risks are shared fairly (**Distributive justice**)

Examples include adjusting meeting formats to encourage broader participation, redesigning public events to collect citizen input, and ensuring tenants with low incomes also benefit from projects.

**Impact:** In Otterbeek, distributive justice shaped a model that explicitly channels benefits to low-resource tenants. In Gabrovo, procedural justice improved municipal–citizen cooperation during the cooperative's launch.

**Keys to success:**

- Keep justice considerations visible at every stage, not just at the start
- Use concrete questions to identify gaps in fairness
- Involve both municipal and cooperative voices in the discussion



Minister of Energy Tinne Van de Strate and Sophie Loots\* at the Heatnetwork Warmte Verziverd.

\*Woman in Energy of the Year Award nominee at EUSEW 2025  
Photography: Jesse De Meulenere, 2023

## 7c. Business Models for Energy Sharing – Making the numbers work for citizens

**Pilots:** BioZon (NL), applied also in Gabrovo and Otterbeek

Energy sharing changes the way communities interact with the grid — and with each other. TANDEM developed a business model framework that maps the business architecture, model, and case for an energy community project. It helps answer crucial questions: How are energy prices set? How do benefits flow back to citizens? What are the long-term implications for sustainability and affordability?

**Impact:** The cost-price model developed in the Netherlands gave citizens clear insight into pricing, built trust in the cooperative, and provided a replicable template for other projects.

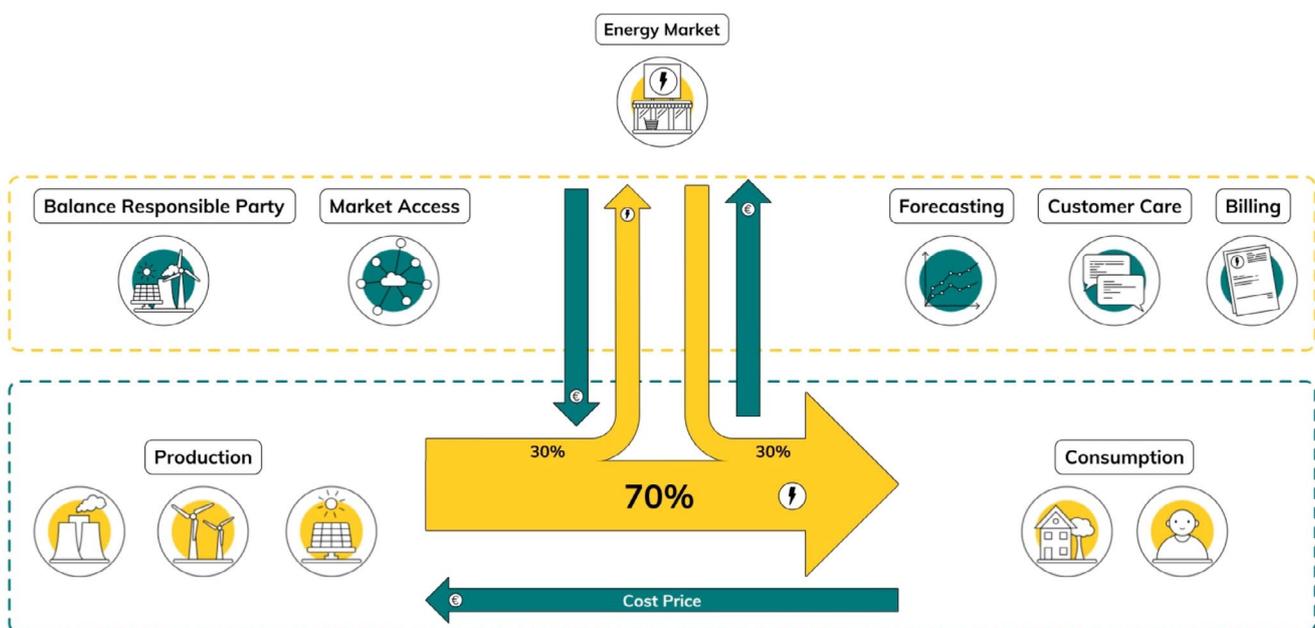
**Keys to success:**

- Ensure financial transparency from the start
- Adapt the model to local energy regulations
- Pair financial modelling with citizen engagement to build trust
- Keep additional costs for the energy system low

**Learn more about business models for energy sharing here:**

[How to Share Energy – TANDEM Explains Cost-Price and Open Collaboration Models](#)

### The Energy Sharing Model



## 7d. Blueprint for an Open Learning & Training Centre – Empowering municipalities

**Pilots:** Kamp C (BE)

Many municipalities want to start energy communities but lack the know-how. Kamp C created a six-day learning journey for municipalities, cooperatives, and citizen initiatives, moving step-by-step from formulating initial ambitions and discovering shared values, to becoming fully functioning energy communities.

**Impact:** From 2026 onwards, municipalities across Europe will be enabled to adopt and apply the TANDEM Open Collaboration Model independently, launching their own energy community projects based on the practices established in this programme.

**Keys to success:**

- Combine technical knowledge with participatory methods
- Keep the group diverse — mix municipal staff, cooperative members, and citizens
- Provide follow-up support after the training ends

**Why these practices matter:**

These best practices share three traits that make them highly transferable:

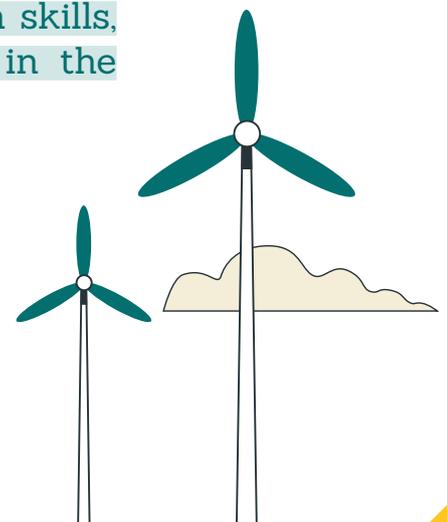
- » 1. **They are adaptable** – Each can be scaled up or down, depending on resources.
- » 2. **They are people-centred** – Technical success is paired with social acceptance and trust.
- » 3. **They build capacity** – Skills and structures remain after the project ends.

Together, they form a practical toolkit for any region aiming to accelerate a just energy transition — whether starting from a strong base, like Flanders, or from scratch, like Bulgaria.

“Replication starts with trust, grows with skills, and lasts when people see themselves in the project.”



ERIKA MEYNAERTS  
VITO





## 8. KEY LESSONS FOR FUTURE ACTION

The TANDEMS project has shown that a just and inclusive energy transition is not only possible – it is already happening. To ensure that the momentum is kept, we would like to recommend the following actions:

### **1. Keep citizens in the driver's seat:**

Energy communities only succeed when people feel ownership, trust, and real benefit. This means removing financial and legal barriers, creating entry points for vulnerable groups, and recognising that participation is more than a consultation exercise – it is co-creation. EU and national policies should prioritise citizen-centred frameworks, with cooperatives and communities in leading roles.

### **2. Support municipalities as facilitators, not controllers:**

Local authorities are powerful allies, but their role is strongest when they act as connectors and enablers. They can provide space, funding mechanisms, and trust-building, while leaving ownership and decision-making to citizens. The Mechelen PV-sharing model or Gabrovo's support for Bulgaria's first energy community show how municipalities can lower risks and open doors without taking over.

### **3. Make fairness the standard, not an afterthought**

Justice – recognition, distribution, and participation – must be designed into every project. The Otterbeek social energy community proved this: by integrating social tenants as co-owners from the start, it made the transition more inclusive and reduced energy poverty. This principle should be scaled so that vulnerable households are never left behind in Europe's clean energy shift.

#### 4. Replicate with adaptation, not copy-paste

Each region has its own legal, cultural, and financial landscape. Replication works best when principles inspire, rather than when projects are cloned. Noaberwind's insistence on 100% local wind ownership, or Burgas's solar pool initiative, cannot simply be copied – but the values of fairness, citizen benefit, and municipal partnership can inspire others. Sharing adaptable toolkits, templates, and training is key.

#### 5. Ensure long-term support

Citizen-led initiatives often falter without financial continuity and professional guidance. National and EU programmes must provide stable, multi-year support – including funds for capacity-building, advisory structures, and peer-to-peer learning. Public energy service companies, open training centres, and one-stop-shops, as piloted in TANDEMS, are examples of support structures that should be institutionalised.

#### 6. Invest in learning and reflection

Transition is never linear. TANDEMS showed the power of reflexive monitoring: pausing, asking “are we doing the right things?”, and adapting along the way. Embedding this culture of reflection into new projects, training centres, and policy processes will make Europe's transition more resilient and adaptive.

#### 7. Build bridges between local and European policy

Pilots matter, but their lessons only last if they feed into broader frameworks. TANDEMS partners actively shaped EU dialogues on energy sharing and business models. Future efforts must continue to connect local experimentation with national and European legislation, ensuring citizen-led energy projects inspire and form mainstream policy.



## 8. WHAT'S NEXT – THE AFTER-LIFE PLAN

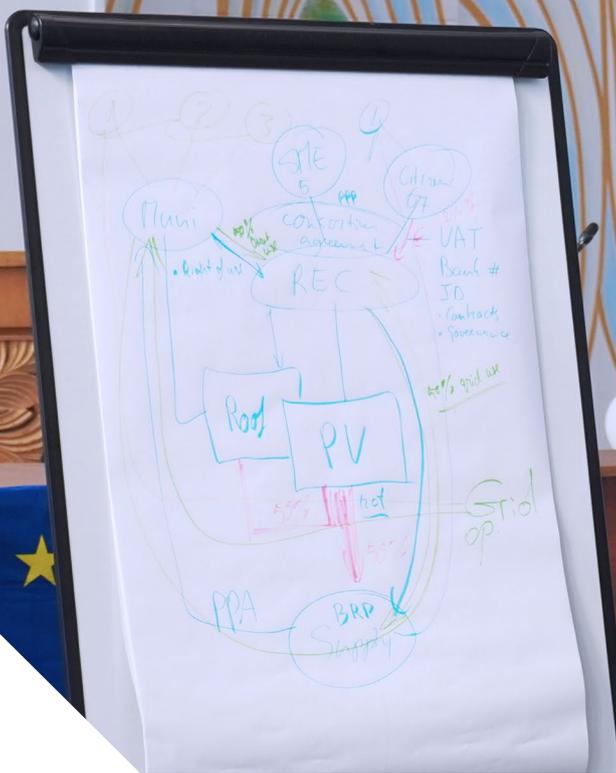
The TANDEM'S journey does not end with the close of EU funding at the end of the project in 2025. In fact, the next five years will be about upscaling, transferring, and deepening the work that has already begun.

### Replication and Transfer

The models tested in the Netherlands, Belgium, and Bulgaria are ready to travel. Over the 2025–2030 After-LIFE period, partners will:

- **Replicate** successful pilots in new municipalities within the three core regions
- **Transfer** key results — such as the Open Collaboration Model, the cost-price energy model, and the six-day municipal training programme — to other EU countries
- **Adapt** methods to new sectors, from mobility and heat networks to citizen-led renovation programmes





Discussing energy sharing models at a stakeholder meeting in Gabrovo. Photography: OIKOPLUS, 2024.

## Planned Activities 2025–2030

The After-LIFE plan focuses on:

- Continuous support for 108 local and regional authorities already committed to replication, and attracting more
- Providing ongoing training and mentoring for municipal-cooperative teams
- Continuing the cross-regional exchange through workshops, online sessions, and joint study visits
- Maintaining the TANDEM website and knowledge hub for tools, guides, and policy updates

## Staying Connected

**Website:** [lifetandems.eu](http://lifetandems.eu)

“The energy transition is not just about technology or laws. It is about people working together, building trust, and ensuring that no one is left behind. The TANDEM project sparked new communities, inspired policies, and created practical tools. Most importantly, it showed that a democratic, citizen-led energy system is within reach.”



**MARO SARIDAKI**  
Kamp C

# TOGETHER FOR A JUST ENERGY TRANSITION

TANDEMS has shown that when municipalities, citizens, and cooperatives pedal in sync, the journey toward climate neutrality gains both speed and fairness. The tools, stories, and partnerships built during this project are ready to be used, adapted, and multiplied — in your community, and across Europe.

[Let's keep pedalling.](#)

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