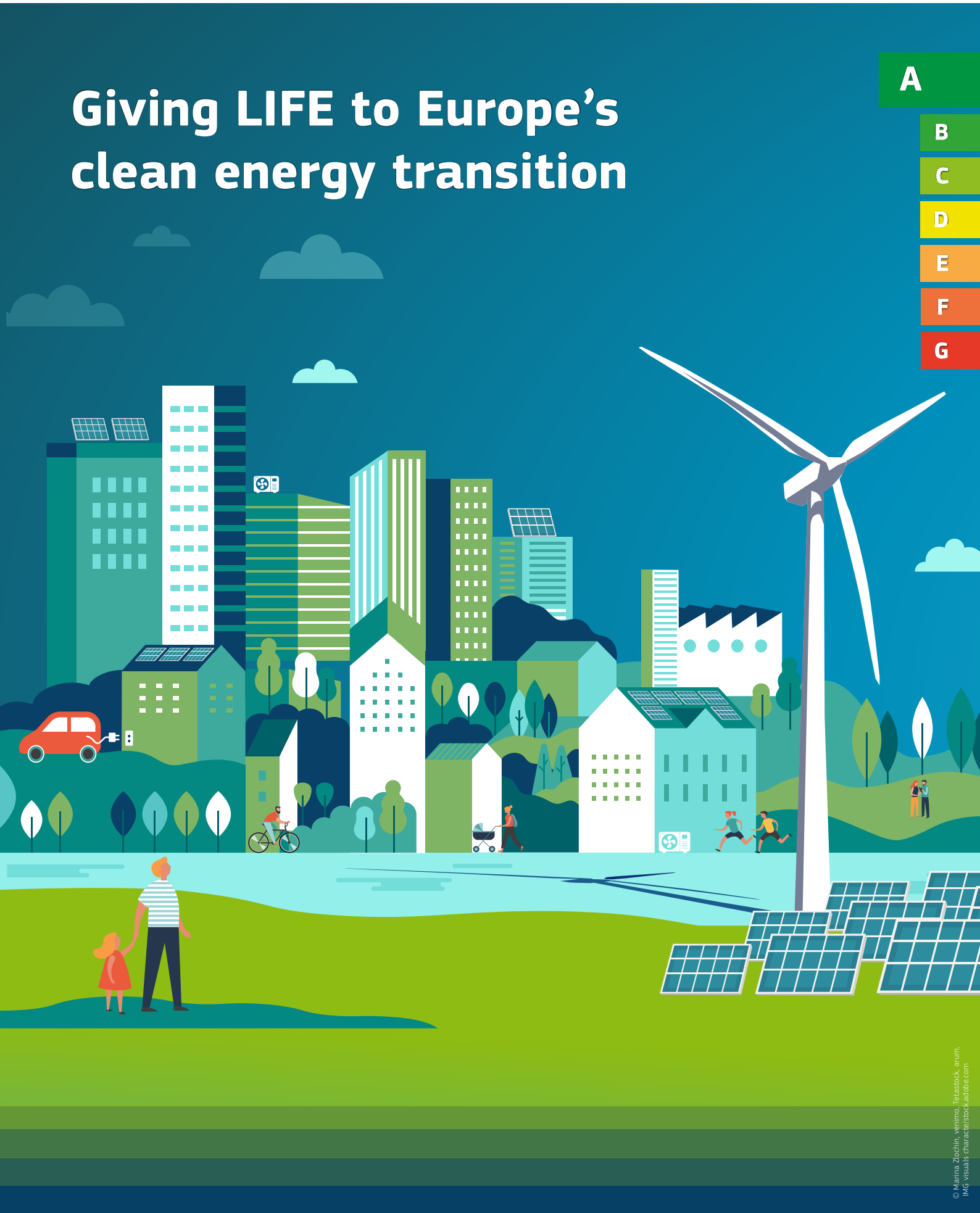
European Commission

Giving LIFE to Europe's clean energy transition



Giving LIFE to Europe's clean energy transition

European Commission
European Climate, Infrastructure and Environment Executive Agency

Unit: CINEA.D.D1 - LIFE Energy + LIFE Climate
Contact: CINEA Communication LIFE
Email: cinea-communication-life@ec.europa.eu

European Commission – W910 – B-1049 Brussels, Belgium
European Commission
B-1049 Brussels

Manuscript completed in February 2026
1st edition

Luxembourg: Publications Office of the European Union, 2026

PDF	HZ-01-25-159-EN-N	ISBN: 978-92-9405-346-6	doi:10.2926/7144046
PRINT	HZ-01-25-159-EN-C	ISBN: 978-92-9405-347-3	doi:10.2926/2931833

European Commission

Giving LIFE to Europe's clean energy transition

February 2026

© Marina Marr/stockadobe.com

TABLE OF CONTENTS

Foreword by

Dan Jørgensen

Commissioner for Energy and Housing
European Commission

For Europe, there can be no energy security, independence, or affordability without the clean transition and a closer Energy Union.

Our ambition is clear: we want to leverage the EU single market and cross-border cooperation to bring energy efficiency and clean energy solutions to every region, every business, and every citizen.

The LIFE Clean Energy Transition (LIFE CET) Programme turns this ambition into action.

With an earmarked budget of €1 billion for the 2021-2027 period, it has already mobilised 1 400 market actors engaged across 261 projects. Together we are supporting more efficient buildings, homes, and enterprises. We are scaling energy efficiency services and delivering cleaner heating and cooling solutions.

We are also empowering citizen participation in the energy transition. Through the combination of targeted financing, technical assistance, and participation in cross-border projects, we have enabled the establishment of more than 500 energy communities and 51 one-stop shops for energy renovations. We have also directly supported over 600 cities to develop their clean energy transition investment plans.

These projects improve lives and transform communities. And by making transformations at a local level, we empower the transition at a European level.

Let's look at LIFE CET projects funded in the 2021-2022 period alone. Combined, these projects are expected to decrease primary energy consumption by around 8 000 GWh/year (on a similar level as Ireland's 2023 household electricity consumption). They are also expected to boost renewable energy production to 4 664 GWh/year (comparable to Estonia's total net electricity production in 2023).

This publication puts a spotlight on the real people behind these positive impacts and places their accomplishments in the spotlight. The document compiles 28 concrete project stories alongside their objectives and expected achievements, showing how they deliver long-term benefits for communities, businesses, and citizens across Europe.

These examples prove that Europe's clean energy transition is not just a vision, but a shared and growing reality on the ground.

They show that supporting market demand for energy efficiency and clean energy solutions is not a cost — it is a long-term investment in Europe's prosperity, competitiveness, and resilience; it is a strategic priority to stimulate the future-proof and forward-looking economy.

Looking ahead, we must ensure that this programme can continue to drive the clean energy transition. Let us continue to implement this winning formula for Europe's clean, secure, and competitive future.

I wish you an inspiring read!

LIFE Clean Energy Transition programme

The LIFE Clean Energy Transition (LIFE CET) programme is the European Union's dedicated funding stream **for accelerating the uptake of energy efficiency and renewable energy solutions** across Europe. Since 2021, the Clean Energy Transition has been part of the LIFE programme – the EU's funding instrument for the environment and climate action – and it successfully builds on over 20 years of experience and results from the Intelligent Energy Europe and Horizon 2020 programmes.

With a **budget of nearly EUR 1 billion** for the period 2021-2027, LIFE CET funds **around 60-70 innovative projects every year** and has **supported 1 400 market actors in industry, the public sector, finance, research and civil society**, from across Europe, to drive forward an energy-efficient, renewable energy-based, climate-neutral and resilient economy. LIFE CET projects, funded in the period 2021-2022 alone, are expected to decrease primary energy consumption by around 8 000 GWh/year and boost renewable energy production to 4 664 GWh/year, thus contributing to security of supply and reduction of energy-related costs. For comparison purposes, in 2023, household electricity consumption in Ireland was 8 083 GWh and net electricity production in Estonia was 4 901 GWh.

The LIFE Clean Energy Transition is above all a policy implementation and market uptake accelerator programme – it turns policy into actions by creating favourable market and regulatory conditions that support businesses that are developing and deploying clean energy services and technologies in line with strategic EU energy policy objectives.

In the spotlight

TRANSFORMING MARKETS: INNOVATIVE SERVICES, APPROACHES AND PRODUCTS

LIFE CET projects foster conducive **market and regulatory conditions** for the development and deployment of clean energy services, approaches and products. Between 2021 and 2024, LIFE CET has directly supported up to 1 400 market participants and provided training to more than 65 000 market actors – spanning all sectors – in their efforts to reduce carbon emissions. Notably, 40% of the actors identified themselves as small and/or medium-sized enterprises. Aiming to boost the competitiveness of SMEs, over 370 companies have directly benefited from high-quality energy audits and facilitation services, enabling the adoption of cost-effective energy efficiency measures.

For example, LIFE CET supports the development and uptake of **industrialised renovation and smart building solutions**, including reliable energy performance data, notably Energy Performance Certificates, and smart building rating schemes. LIFE CET supports the roll-out and deployment of clean heating and cooling technologies. For instance, in the case of **deployment of heat pump technologies**, LIFE CET funds projects supporting businesses test and replicate heat-as-a-service models in buildings and establishing collaboration between industrial heat pump manufacturers and end-users. Moreover, LIFE CET **supports tailored activities for businesses of all sizes**, fostering the demand for and implementation of energy audit recommendations and cooperation between industrial actors, local authorities and energy utilities. Overall, LIFE CET provides key funding support for the development and uptake of smart energy services and technologies furthering the energy transition and the energy system integration of buildings and enterprises. It has supported **business models for innovative energy services and financing**, ranging from up-graded energy performance contracting schemes, to digitally enabled "smart" service models combining different service elements, value streams and benefits.

MOBILISING INVESTMENTS AND PRIVATE FINANCE

LIFE CET has pioneered the mobilisation of private finance for investments in energy efficiency and integrated renewables.

Since 2009, the programme funds **Project Development Assistance** for public and private project developers. Projects selected between 2021 and 2024 are expected to spark over EUR 820 million of clean energy investments, representing 30 times the EU funding. Project development assistance has created large-scale investment pipelines and piloted financial innovation in building renovations, district heating and cooling, public infrastructure, industry including SMEs, energy communities and mobility. In a context of scarce public funding, projects need to mobilise private financing schemes such as renovation loans and energy performance contracting.

over **EUR 10 billion** of investments launched

LIFE CET also **funds the development of innovative financing schemes** that mobilise private finance. For example, energy-as-a-service involves investment that is not made by the building owner, or the development of on-tax finance where the repayment of a renovation loan is attached to the building and repaid through fiscal charges.

The programme has **mobilised a significant number of banks and investors** to increase energy efficiency investments, for example through the development of energy efficient and green mortgages, or portfolio strategies for real estate funds. LIFE CET projects have significantly contributed to the development of private-led energy efficiency financing and investment frameworks. Innovative projects have been developed in cooperation with institutional investors and financial institutions, and underpinned the launch of the **Energy Efficiency Financing Coalition**.

ONE-STOP SHOPS FOR BUILDING ENERGY RENOVATION

The LIFE CET programme supports the development of one-stop shops (OSS), which offer integrated services for the clean energy transition in private and public buildings, in line with the EU Energy Efficiency Directive and the EU Energy Performance of Buildings Directive.

One-stop shops support homeowners and municipalities through every step of the renovation process. They provide tailored, competitive and affordable solutions, including technical design, permitting, selecting and contracting qualified professionals, access to finance (e.g. loans and grants), supervising and ensuring quality of the works. For services which reach a sufficient scale, financial engineering support is integrated to facilitate the use of financial instruments from public and private sources and enhance the uptake of EU funding like the Cohesion Fund.

Since 2018, the programme has set up **38 one-stop shops for the private residential sector in 16 EU Member States** (and 2 associated countries), and 13 one-stop shops for the public sector in nine Member States.

38 OSS for private residential sector set up

By facilitating advanced experimentation and gathering policy feedback, notably through participation in a growing community of one-stop shops practitioners, the programme catalyses the widespread deployment of one-stop shops across Europe.

TRANSITION TO CLEAN HEATING AND COOLING

The LIFE CET programme **provides support on the ground to increase the share of renewables and other zero-carbon technologies in heating and cooling**, thereby reducing EU fossil fuel imports in line with the REPowerEU objectives to phase-out Russian fossil fuels.

Several projects support the development of the necessary skills and competences required to modernise and operate clean District Heat and Cooling (DHC) systems, directly supporting the transition to efficient district heating and cooling as required under the Energy Efficiency Directive. In this context, the programme is supporting **66 district heating operators/ owners in 13 EU countries** in preparing investment plans for new district heating, or for the modernisation and fuel switch of existing district heating systems.

66 DHC operators/owners supported

Other projects are **piloting alternative business and delivery models for heat pump uptake** via standardised solutions tackling the barrier of high investment costs. Such projects focus both on heat pump deployment in existing buildings (in 11 countries) as well as in selected industrial sectors (in five countries). Furthermore, selected projects are developing and testing **clean solutions to address the increasing demand for space cooling**, thereby improving the well-being of citizens, while adapting to climate change.

SUPPORTING THE DEVELOPMENT OF ENERGY COMMUNITIES

500 energy communities

The LIFE CET programme has supported more than **500 energy communities** to implement different business models (from Renewable Energy Sources (RES) generation to heating and cooling or building renovation). Since most EU Member States initially only had limited experience with energy communities, these projects have pioneered models for collective energy projects in new contexts by providing replicable examples.

© rawintanpin/stock.adobe.com

In recent years, the programme has focused on supporting the cooperation between energy communities and local and regional authorities in developing **local services (one-stop shops)** helping citizens achieve and scale-up energy community projects. The programme has supported over 50 of those services, and been instrumental in piloting ways in which Member States can effectively develop enabling frameworks for energy communities, as prescribed in the EU Renewable Directive and the Internal Market for EU Electricity Directive.

European Energy Communities Facility

In March 2025, a novel EUR **10 million** Energy Communities Facility was launched: it will distribute small lump sum grants to 140+ early-stage energy community projects. This support is intended to target the riskiest phase of project development and help unlock local initiatives in contexts in which there is limited support.

BOOSTING CLEAN ENERGY TRANSITION SKILLS

In 2011, the LIFE CET programme has established the BUILD UP Skills initiative aiming at **supporting upskilling interventions** for professionals in the construction and renovation value chains. LIFE CET BUILD UP Skills has funded the development of national skills platforms that have carried out skills intelligence and developed national roadmaps. This work has recently been updated in 15 EU Member States and endorsed by key national stakeholders.

50 000 professionals taking part in pilot training sessions

As of 2025, the initiative has supported more than **100 projects**, with close to **50 000 professionals** taking part in pilot training sessions.

BUILD UP Skills is also piloting new approaches in the following areas:

- **qualification and training schemes** reflecting the skills required for the energy transition of the building stock, for example in relation to Zero Energy Buildings, heat pumps installation, circular construction, smart buildings or one-stop shops management;
- **innovative tools and methods** to attract more participants to training courses, for example training delivered directly at the construction site or through digital means;
- **measures boosting the demand** for and recognition of skills, for example awareness campaigns, skills passports and registers of trained professionals, as well as skills or qualification requirements as part of procurement procedures.

LIFE CET activities in this field focus on piloting new approaches that can contribute to unlocking the skills challenge in the building value chain for large-scale implementation through other programmes at national levels.

EMPOWERING CITIZENS IN THE CLEAN ENERGY TRANSITION – IMPLEMENTING POLICY ON THE GROUND AND ADDRESSING ENERGY POVERTY

This area of work focuses on supporting cities and regions in implementing the clean energy transition, engaging citizens and all key actors in local and regional economies, while ensuring a just and inclusive transition responding to the needs of vulnerable and energy poor citizens.

Implementing policies on the ground, projects boost the skills and capacities of municipalities and regional authorities to move energy and climate plans to implementation through integrated planning, decarbonisation strategies or local and regional heating and cooling plans. Furthermore, projects set up improvements of governance structures optimising the expenditure of public funding. Projects have engaged over **1 000 municipalities** in accelerating the implementation of the clean energy transition in their territories.

over **1 000** municipalities mobilised

In addition, the EUR **30 million EU City Facility** is successfully pioneering a novel cascade-funding instrument providing fast and simplified support to **600+ cities across Europe**. The funding enables cities to move their energy transition plans into investment concepts which are a first concrete step towards mobilising finance. The first 200 investment concepts (out of 400 in total) represent an **investment potential of EUR 24 billion**, and over EUR 1 billion have already been secured.

The programme tackles **alleviation of household energy poverty** through facilitating behavioural change and investments for improvement measures in energy-poor households, transforming housing stock in vulnerable districts, developing community models, building the capacity of public authorities and societal stakeholders across sectors, and setting up support schemes and institutionalised advice services. Since 2018, these projects have directly benefitted over **300 000 energy-poor citizens** to improve their living conditions and reduce their energy bills.

over **300 000** energy poor citizens with improved living conditions

SUPPORTING THE IMPLEMENTATION OF EU POLICIES AND LEGISLATION

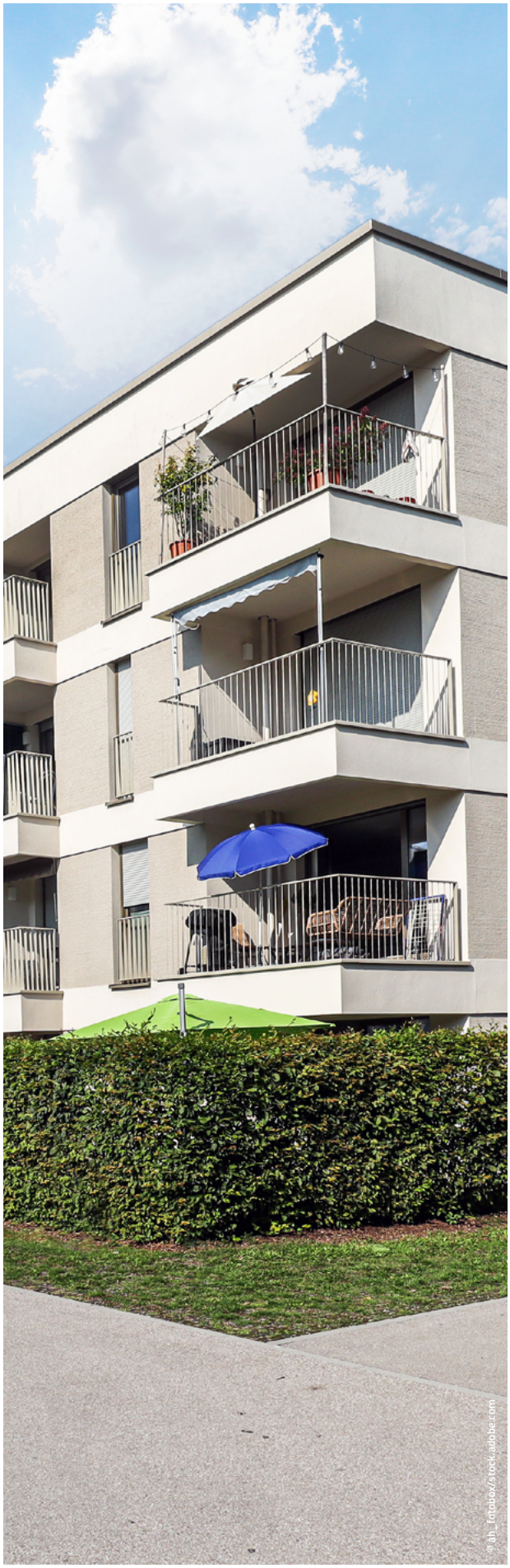
LIFE CET is overall a policy implementation programme "Turning Policy into Action". In addition, it funds **specific activities to support EU Member States in implementing EU legislation**.

Notably, the programme engages Member States in "Concerted Actions", a forum for national authorities to discuss implementation options and best practices for key pieces of EU legislation, i.e. **Energy Efficiency Directive, Renewable Energy Directive,** and the **Energy Performance of Buildings Directive**.

On products, LIFE CET flanks Member States' market surveillance activities to increase compliance with **Ecodesign and Energy Labelling Directive and Regulation** and is deploying a related support facility for economic operators. Furthermore, it valorises European Product Registry for Energy Labelling (EPREL) data through a user-tailored web-based application.

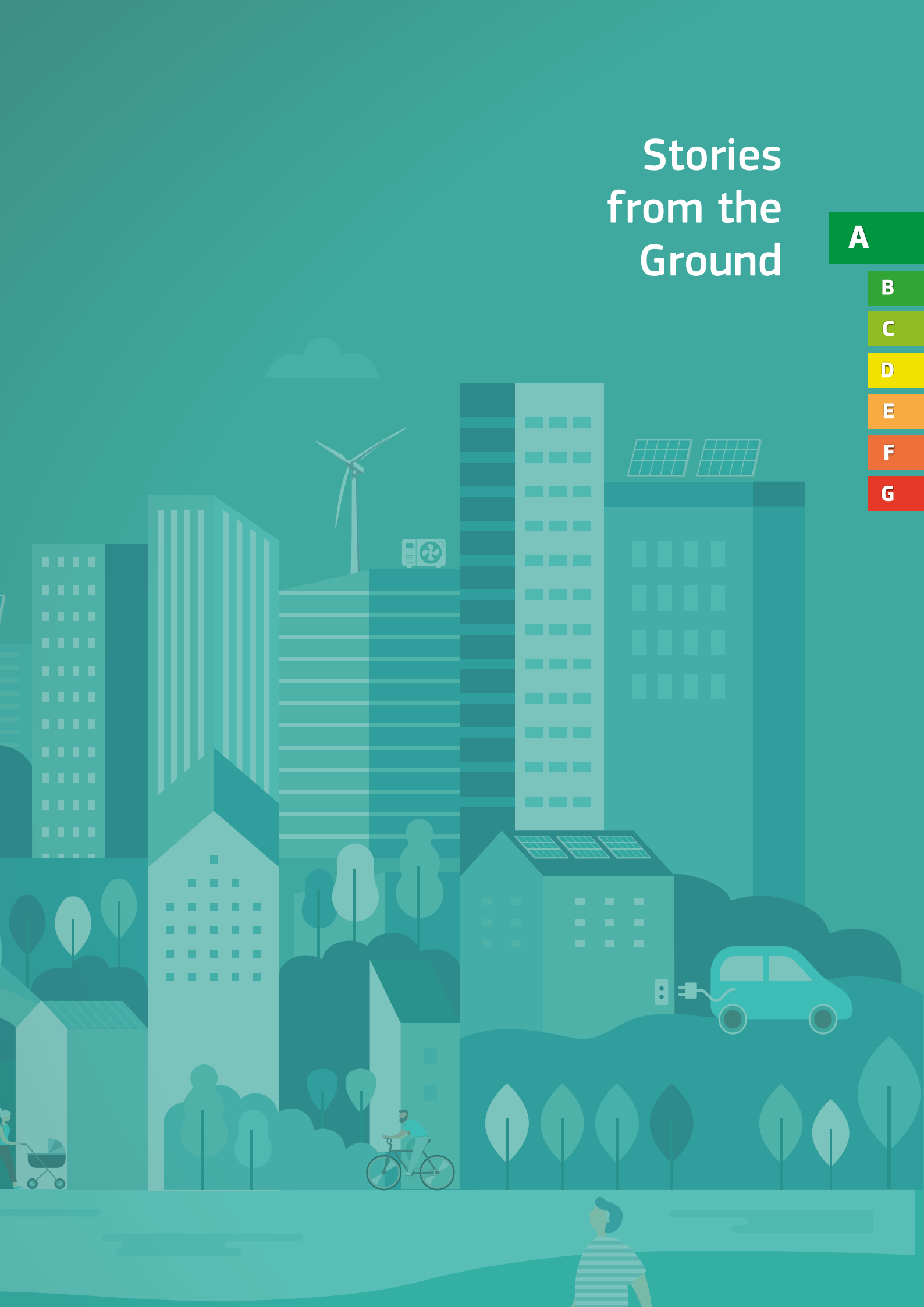
LIFE CET also funds the **Consultation Forum for Sustainable Energy in the Defence and Security Sector** (CF SEDSS) that addresses common energy considerations in the defence and security sector with the support of European ministries of defence and relevant defence stakeholders.

Finally, LIFE CET projects offer capacity building and technical advice for implementing bodies, e.g. for the operationalisation of the Energy Efficiency First principle, the calculation of energy savings, the deployment of renewable heating and cooling, and the identification of renewable acceleration areas for renewables.



© sh_fotobox/stock.adobe.com

Stories from the Ground



TRANSFORMING MARKETS: INNOVATIVE SERVICES, APPROACHES AND PRODUCTS

Net Zero energy renovation industrialised solutions packages (LifeGigaRegioFactory)

> This is the solution we needed to massively accelerate deep renovations. How can we increase the number of renovated homes tenfold, taking into account the full order books of SMEs, the cost of materials and the lack of manpower? Off-site renovation has enabled us to complete two projects involving 980 and 930 homes in less than 20 months each, instead of five years each.
>
> — **Paul Sachot**
> Innovation director by Est Metropole Habitat, a French social housing organisation

Aim of the project

The LifeGigaRegioFactory project recognises the need for a change of scale to be able to target 10% of the market by 2030 and 1 million homes renovated to a guaranteed zero-energy level in an industrialised way in Europe. The project aims to address this issue with a complementary consortium from Italy, Belgium, Germany and France, which involves housing organisations and organisations that act as market development teams in the different countries.

This collaborative effort leverages existing initiatives, such as the EU transnational open-source movement EnergieSprong, which supports the price decrease and the acceleration of deep energy retrofits through higher-quality plug-and-play prefab elements. This movement has already started taking root in the social housing sectors of the Netherlands, France, Germany and Italy, and will be activated in Belgium through this project.

The project is structured around three main axes. First, it focuses on the qualification and aggregation of smart housing initiatives, piloting collective purchasing strategies in collaboration with social housing organisations to facilitate large-scale collective industrial retrofits, encompassing several thousand homes per region.

Second, it provides coaching for companies that integrate and assemble industrial solutions, enabling them to develop fully industrialised offers.

Third, it aims to empower solution providers to scale up operations to meet the substantial demand from thousands of homes per region (through industrialisation giga factories) thereby generating the necessary investments

Expected achievements

The project aims to trigger the renovation of 12 000 homes to achieve net-zero energy performance, while significantly reducing costs and time for industrialised, fully integrated net-zero energy retrofits. In addition, the project aims to build capacity to renovate 500 to 1 000 homes annually in the most advanced regions.

Five years after project completion, the ambitious target is to have renovated 100 000 homes by 2030. This includes aiming for 35% of renovations in both France and Germany, 5-10% in Italy, 1-5% in Belgium, with the remainder spread across other EU countries. The project also intends to support the development of industrial tools to unlock the capacity to renovate 25 000 to 30 000 homes annually in these four countries by 2030.

An impressive milestone already attained by the project is winning the 2024 Gold World Habitat Award through the EnergieSprong initiative, acknowledging its global impact on habitat practices. The project consortium has actively supported social housing organisations in France, Belgium and Italy at different levels of maturity and experience in industrialised renovation projects, to analyse their assets and develop renovation strategies for their building stock. The project also supports the supply side of the renovation value chain in Belgium, Italy and Germany - integrators and solutions providers in the construction sector - with workshops and individual coaching to develop their renovation products.

The project contributes to the objectives of the Renovation Wave Strategy and to the implementation of the recast Energy Performance of Buildings Directive. Industrialised renovation could contribute to accelerating the pace of renovations in the EU, notably when addressing the worst-performing building stock. The Directive requires EU Member States to report, in their national building renovation plans, on the policies and measures (implemented and planned) for the promotion of modular and industrialised solutions for construction and building renovation.

Beyond energy policy, the project contributes to policies related to construction products, circular economy practices, such as the integration of bio-sourced and circular materials in construction products, and climate adaptation strategies, such as renovation designs that aim to reduce cooling needs during heatwaves.

PARTICIPATING COUNTRIES

PROJECT ACRONYM
LifeGigaRegioFactory

PROJECT COORDINATOR
Greenflex (FR)

PROJECT PARTNERS (COUNTRY)
Eedera srl impresa sociale (IT), Ressorts (FR), Green invest Berlin gmbh (DE), Centre scientifique et technique de la construction (BE), Energies demain (FR), Groupe hors-site (FR), Pole greenwin (BE), Pouget consultants (FR), Comite europeen de coordination de l'habitat social aisbl (BE), Buildup (BE), Association des organismes HLM d'Auvergne Rhone Alpes (FR), Est metropole habitat (FR), Greenflex (FR)

01/11/2022 > 31/10/2025

www.webgate.ec.europa.eu

TRANSFORMING MARKETS: INNOVATIVE SERVICES, APPROACHES AND PRODUCTS

Effective implementation of the EPBD in line with short-term and long-term policy requirements (EPBD.wise)

> Feedback from policymakers in the focus countries clearly showed that EPBD.wise fills a gap in the transposition of the EPBD into national law.
>
> — **Lukas Kranzl**
> TU Wien, coordinator of EPBD.wise

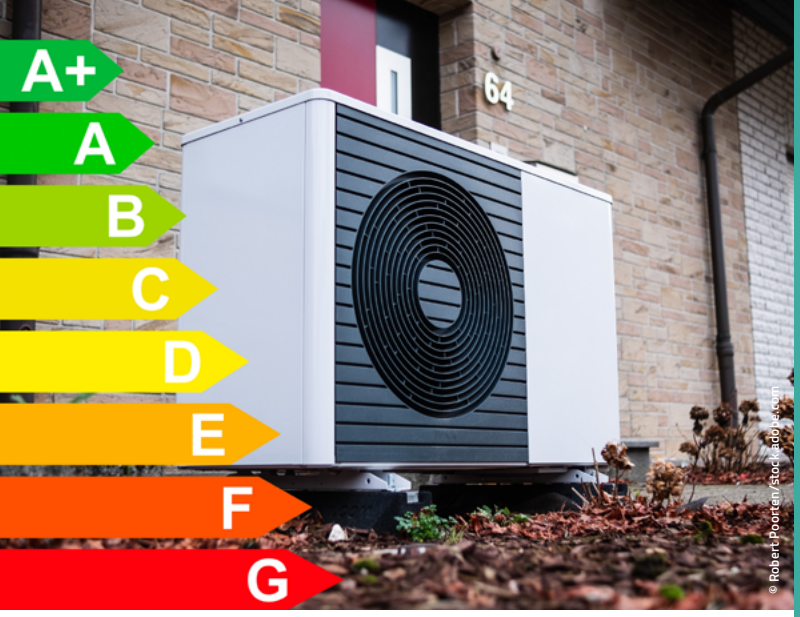
Aim of the project

The EPBD.wise project aims to support public authorities in six focus countries – Bulgaria, Greece, Hungary, Poland, Romania and Ukraine – in designing, implementing and evaluating instruments and key policy concepts under the revised Energy Performance of Buildings Directive (EPBD). This includes addressing the newly introduced zero-emission building (ZEB) standard, national building renovation plans (NBRPs), minimum energy performance standards (MEPS), and national trajectories. Additionally, it strengthens existing tools like renovation passports and energy performance certificates (EPC).

Throughout the project, the consortium will actively develop guidelines on implementing the new policies and instruments of the EPBD, assisting national policymakers in assessing their effectiveness through monitoring, reporting and policy evaluation to align with EU and national objectives. In addition, the project seeks to establish a replicable model, or "blueprint", to facilitate the EPBD's implementation across all EU Member States. The project will also engage intensively with stakeholders in the focus countries through policy forums and bilateral exchanges with implementing bodies.

Expected achievements

To date, the EPBD.wise consortium has published four key policy documents that summarise the main challenges and policy needs related to EPBD implementation and identify good practice examples and solutions. These documents specifically address policy needs concerning the ZEB standard, NBRPs, MEPS, national trajectories, renovation passports and EPCs. Furthermore, six high-level, full-day policy forums have been organised in the focus countries, with direct



involvement from local policymakers and industry representatives. These forums serve as crucial contact points, and a second round took place in autumn 2025. Additionally, the EPBD.wise team has organised two rounds of online roundtables to inform stakeholders about the project's results.

Recently, the consortium has focused on developing tailored policy packages and tools adapted to the specific needs of focus countries. These include guidelines on designing policies and instruments while ensuring consistency among EPBD provisions and with other EU strategies. To this end, the consortium has engaged closely with policymakers and stakeholders from the focus countries to discuss policy recommendations. The primary goal of stakeholder involvement is to create and strengthen societal support for implementing EPBD-related national and regional legislation.

The innovative character of the energy efficiency policy measures promoted by the project necessitates detailed legal design at both EU and national levels to ensure effective implementation. A planned legal study will address specific topics identified by consortium partners, involving legal research, case studies and legal recommendations. Finally, a replicable model for supporting Member States in designing EPBD-related policies will be available at the project's conclusion, ensuring consistent and effective implementation in line with EU objectives.

PROJECT ACRONYM
EPBD.wise

PROJECT COORDINATOR
Technical University Vienna (AT)

PROJECT PARTNERS (COUNTRY)
ADENE – Agência para a energia Portugal (PT), BPIE (BE), ÉMI nonprofit kft from Hungary (HU), e-think (AT), Efficient buildings Europe (BE), Housing and municipal reform support centre - HMRSC from Ukraine (UA), Italian national agency for new technologies, Energy and sustainable economic development - ENEA (IT), SERA global (AT)

01/01/2023 > 30/06/2026

www.bpie.eu/epbdwise

TRANSFORMING MARKETS: INNOVATIVE SERVICES, APPROACHES AND PRODUCTS

Accompanying SMEs in implementing energy efficiency measures (EnergyEfficiency4SME)

“

Through EnergyEfficiency4SME, we are turning opportunity into action for over a thousand SMEs across several energy-intensive sectors in Europe. By combining the know-how of chambers of commerce, sectoral associations and innovative tools like IMPAWATT, we give SMEs the practical support they need to move from energy audit recommendations to implementation.

This is about more than cutting energy costs – it's about helping the backbone of the EU economy stay competitive, embrace innovation, and play a meaningful role in Europe's journey to net-zero by 2050.

”

— **Ivana Rae Almora**
Project Coordinator

Aim of the project

Recognising that SMEs are the backbone of the EU economy and carry out business in some of the most energy-intensive sectors, EnergyEfficiency4SME aims to address their unique challenges. While larger companies benefit from energy audits, SMEs often require more guidance in implementing audit recommendations. Through the support of chambers of commerce and sectoral associations, this project seeks to enhance the skills of energy technicians within companies and improve their ability to access public incentives and private finance.

In the short term, EnergyEfficiency4SME aims to identify best practices from large companies that can be implemented by SMEs, while ensuring companies receive guidance from the chambers of commerce. The project actively carries out capacity building and training for company staff to ensure that companies can implement audit recommendations effectively. In the long term, the project seeks to support the EU's objective of achieving net-zero emissions by 2050. The tools developed during the project will be maintained and will serve as a first point of contact for SMEs on energy management topics, such as benchmarking and implementing energy management plans.

Expected achievements

Over its 36-month duration, the EnergyEfficiency4SME project aims to directly support 1 000 companies in implementing energy audits, with 140 new audits conducted within the project's lifetime. Improved skills and knowledge transfer are further focal points, as the project anticipates that 1 000 company staff and 200 energy auditors and other stakeholders will benefit from the action.

Different activities are planned, starting with the scoping study "High-level Economic Study on Energy Efficiency in Accommodation and Agri-foods & Metalwork," conducted by Deloitte, aiming to identify effective energy efficiency measures tailored to the sectors targeted by the project. These measures serve as guidelines for selecting companies to be audited and for their capacity building, including self-assessment opportunities available on the energy efficiency knowledge platform ImpaWatt.

The project is providing direct assistance to companies on technical aspects of implementing energy efficiency measures and supports them in finding adequate funding opportunities in each country. To achieve this, a financial tool has been developed to identify customised funding opportunities that fit to the energy efficiency projects of companies.

The EnergyEfficiency4SME project is primarily relevant for the EU objectives of energy efficiency under the recast Energy Efficiency Directive and contributes to the decarbonisation objectives of the European Green Deal.

PROJECT ACRONYM
EnergyEfficiency4SME

PROJECT COORDINATOR
Eurochambres (BE)

PROJECT PARTNERS (COUNTRY)
Wirtschaftskammer Tirol – WKO (AT), e7 energy innovation & engineering (AT), Energieinstitut der Wirtschaft (AT), Sdruzhenie Bulgarska Targovsko BG Promishlena Palata (BG), Energeiako Grafeio Kyprion Politon (CY), Kypriakon Emborikon Kai Biomichanikon Epimelitrion (CY), MTU Eesti Kaubandus Toostuskoda (EE), Chambre de Commerce et d'Industrie France (FR), Chambre de Commerce et d'Industrie Auvergne Rhone-Alpes (FR), Chambre de Commerce et d'Industrie Bourgogne Franche Comté (FR), Chambre de Commerce et d'Industrie Nice Côte d'Azur (FR), Chambre de Commerce et d'Industrie Nouvelle Aquitaine (FR), SEnerCon (DE), Azienda Speciale di Riviere Liguria (IT), Fondazione Venice ONLUS (IT), Camera di Commercio Industria Artigianato e Agricoltura di Genova (IT), Unione Regionale delle Camere di Commercio Industria, Artgianato e Agricoltura del Veneto (IT), Energy and Water Agency (MT), Malta Business Foundation (MT), Cámara Oficial de Comercio, Industria, Servicios y Navegación de Murcia (ES), Cámara Oficial de Comercio, Industria, Servicios y Navegación de Sevilla (ES), Cámara de Comercio, Industria y Servicios de Terrassa (ES), Cámara Oficial de Comercio, Industria, Servicios y Navegación de Valencia (ES)

01/11/2022 > 31/10/2025

www.ee4sme.com

TRANSFORMING MARKETS: INNOVATIVE SERVICES, APPROACHES AND PRODUCTS

Standardised heat pump solutions for sustainable food production (EXQUISHEAT)

> Sustainable heat pumps using industrial waste heat will make a major contribution to the decarbonisation of the European food industry.
>
> — **Prof. Dr. Uli Jakob**
> Managing Director JER

Aim of the project

EXQUISHEAT works to facilitate the roll-out of heat pumps in the European food and beverage industry. From October 2025 through September 2028, the project will focus on two main objectives:

- establish a roundtable platform for concrete collaboration between stakeholders from the food industry and heat pump technology providers, and;
- analyse industrial processes and develop three standardised heat pump solutions tailored for the food industry.

The project seeks to enable the widespread deployment of heat pumps by focusing on applications in the food industry. These include namely: hot water for sanitation and cleaning; pasteurisation; evaporation, concentration and drying; and refrigeration and cooling. Members of each key stakeholder group are represented in the project consortium, bringing in their expertise to create a framework for sustainable energy solutions in the food industry. This sector has considerable potential for the integration of industrial heat pumps, as most process temperatures fall within the accessible range of heat pumps, extending up to 200°C.

Expected achievements

EXQUISHEAT will establish a partnership between the EU's food companies and technology manufacturers to bridge the gap between users and providers of industrial heat pump solutions. The goal is to transition from a custom-built, project-by-project approach for each specific industrial plant and process, to more streamlined and standardised solutions for processes with similar energy needs. By the end of its implementation, EXQUISHEAT aims to have triggered the installation of at least 20 new heat pump systems in the food industry.

In addition, the project contributes to the implementation of the Fit for 55 package, notably the Renewable Energy Directive and the EU Net Zero Industry Act, strengthening competitiveness and the manufacturing capacity of strategic net-zero technologies to meet at least 40% of the EU's annual deployment needs by 2030.

PROJECT ACRONYM
EXQUISHEAT

PROJECT COORDINATOR
Veolia environmental services NV (BE)

PROJECT PARTNERS (COUNTRY)
Dr. Jakob energy research gmbH & co. KG - JER (DE), National energy conservation agency - NAPE (PL), European heat pump association (BE), Food-processing initiative e.v. - FPI (DE), Austrian institute of technology gmbH - AIT (AT), Refrigeration technology gmbH - GEA (DE), Asociacion cluster alimentario de Galicia - CLUSGA (ES), Clivet s.p.a. (IT)

01/10/2025 > 30/09/2028

https://ehpa.org/projects/exquisheat/

TRANSFORMING MARKETS: INNOVATIVE SERVICES, APPROACHES AND PRODUCTS

Deliver effective implementation of energy labelling and ecodesign policies (EEPLIANT4)

“

Market surveillance happens in the background, but its benefits are visible to all. Every compliant product sold in the EU is a win for consumers, businesses and our climate.

EEPLIANT4 helps ensure that no matter where in the EU you buy a fridge, tyre, electronic display, or other home cooking or heating appliance, the product meets the energy labelling and ecodesign requirements.

When Europe acts together, the market responds, and citizens benefit.

”

— **PROSAFE**
The Product Safety Forum of Europe

Aim of the project

The Concerted Action on Market Surveillance project aims to increase the effectiveness and efficiency of market surveillance activities conducted across the EU in line with the Energy Labelling Framework Regulation and the Ecodesign Directive. This entails the coordination of the monitoring, verification and enforcement activities of Market Surveillance Authorities (MSAs) and other organisations within the EU Single Market and Türkiye.

Further, the project also encompasses various cross-cutting activities designed to create long-lasting impact by developing digital tools, expertise and best practices across Europe, thereby facilitating more effective market surveillance in this field.

Expected achievements

Building on the successes of the Horizon 2020-funded project EEPLIANT3, EEPLIANT4 enhances the operational capacity of MSAs through joint activities, including laboratory testing. By ensuring more effective market surveillance and reinforcing enforcement in this policy field, the project supports the competitiveness of EU manufacturers and provides consumers with more reliable product information.

Moreover, EEPLIANT4 delivers actionable policy feedback to the European Commission on multiple Ecodesign and Energy Labelling Regulations. This includes offering intelligence on market trends, product compliance rates, and the enforcement measures employed by national authorities.

The development of a set of digital tools is also central to EEPLIANT4. This includes the expansion of the web crawler, initially developed in EEPLIANT3 to verify the compliance of energy labels for TV monitors in online retail, to more product categories and national markets, and potentially integrating artificial intelligence functions.

Regarding capacity building and knowledge transfer, the project envisages an exchange programme among MSA officials, closer cooperation with customs authorities, and the establishment of a dedicated e-library.

EEPLIANT4 provides a valuable contribution to the implementation of energy legislation, particularly to the better enforcement of the Energy Labelling Framework Regulation and the Ecodesign Directive, alongside related product regulations. Regarding future evolution, the project is expected to support the prospective implementation of the Ecodesign for Sustainable Products Regulation.

PROJECT ACRONYM
EEPLIANT4

PROJECT COORDINATOR
Prosafe (BE)

PROJECT PARTNERS (COUNTRY)
Mainly market surveillance authorities (MSAs) from the respective countries

01/05/2024 > 30/04/2029

www.eepliant.eu

MOBILISING INVESTMENTS AND PRIVATE FINANCE

European City Facility: Supporting cities to develop investment plans for the clean energy transition (LIFE EUCF)

> Municipalities and local authorities across Europe need instruments like the European City Facility to increase their resources, skills and capacity to develop and implement their clean energy projects. The EUCF shows how a streamlined instrument can make a big difference: in six years, cities secured EUR 1.17 billion in sustainable energy investments.
>
> — **Francisco Gonçalves**
> Energy Cities, coordinator of the European City Facility

© SASITHORN/stock.adobe.com

Aim of the project

The LIFE EUCF aims to empower cities by providing financial support, technical guidance and capacity building opportunities to develop and implement investment concepts that unlock local investments in energy efficiency and renewables. It achieves this through a cascade-funding mechanism, distributing fast-tracked, tailored grants of EUR 60,000 via calls for proposals open to European cities and municipalities.

Since 2020, the EUCF has received 1,500 applications across seven calls for proposals, distributing EUR 24 million to over 500 cities in 26 countries. This support has actively helped these cities overcome barriers in converting their energy and climate strategies into tangible investments.

Expected achievements

To date, the validated investment plans (228 out of a total of 420) indicate a potential pipeline of EUR 24 billion in energy efficiency and renewable energy investments. Once investment plans are validated, cities commit to a two-year monitoring phase. Preliminary results on 166 investment concepts show that around 30 cities are in an advanced stage of implementation and have already secured EUR 1.17 billion in investments.

This means that, on average, every EUR 1 provided by the LIFE EUCF has mobilised nearly EUR 117 in local clean energy investments, showcasing the effectiveness of the initiative in maximising EU funding and demonstrating the crucial role of technical assistance in unlocking energy efficiency and renewable energy investments.

Notable examples from beneficiary cities demonstrate the EUCF's impact.

In Matosinhos (Portugal), a EUR 133 million investment plan aims to renovate over 140 public buildings and social housing, improve efficiency of public lighting, electrify the municipal fleet, install photovoltaic plants on municipal buildings and create energy communities in social housing areas.

Mechelen (Belgium) developed a EUR 439 million investment plan to address the deep renovation of multifamily buildings, a critical challenge in Flanders' energy renovation policy. The EUCF support has stimulated the city to act with an entrepreneurial mindset, exploring innovative ways of financing energy renovation. The city will follow-up with LIFE CET Project Development Assistance support, to aggregate energy renovation projects at the neighbourhood or condominium level and facilitate investment through an on-tax payment scheme.

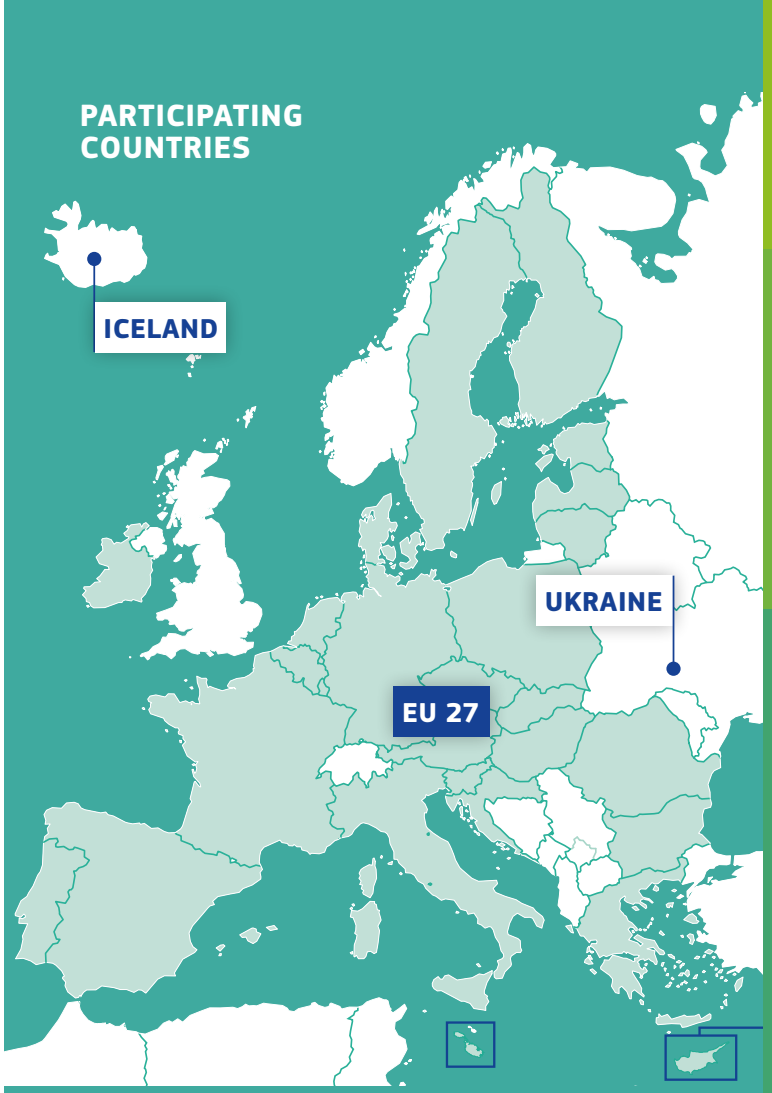
In Italy, Ravenna used its EUR 60 000 grant to unlock EUR 15 million of investment to retrofit four schools and build two new kindergartens and one primary school, estimating renewable energy production for 2.1 GWh/year and energy savings of 3.7 GWh/year.

Uptake and success are also happening in Poland, where for instance Warsaw used the EUCF grant to plan the implementation of an energy monitoring and management system across more than 1 180 public buildings, which will mobilise EUR 106 million to reduce energy consumption and operational costs and improve user comfort.

European cities need tools like this, which clearly deliver in mobilising investments. The EUCF is a powerful enabler, guiding more and more cities towards the clean energy transition. The success of the EUCF inspired the development of the **European Energy Communities Facility**, which uses a similar cascade-funding mechanism to empower and support the development of energy communities across Europe.

The EUCF collaborates with related initiatives, including the EU Energy Efficiency Financing Coalition, the Smart Cities Marketplace, the Covenant of Mayors and the EU Mission: Climate-Neutral and Smart Cities, to ensure integrated approaches and exploit synergies for financing and implementing local investment plans.

The EUCF provides a direct contribution to the implementation of energy legislation, and particularly toward mobilising financing to achieve 2030 energy efficiency goals, as stipulated in Art. 30 of the Energy Efficiency Directive.



PROJECT ACRONYM
LIFE EUCF

PROJECT COORDINATOR
Energy cities (FR)

PROJECT PARTNERS (COUNTRY)
adelphi (DE), Climate Alliance (DE), Enviros (CZ), Fedarene (BE), GNE Finance (ES) and Iclei Europe (DE) plus 19 associated entities covering most of the EU 27.

01/08/2019 > 31/12/2027

www.eucityfacility.eu

MOBILISING INVESTMENTS AND PRIVATE FINANCE

Energy Efficient Mortgage Initiative to boost greener homes (EeMMiP)

> Dreaming of a better future is the ambitious and strategic goal of us all. To achieve it, we must develop a sophisticated, streamlined ecosystem that optimises both micro- and macro-level stimuli, paving the way for a new financial paradigm and an innovative market value chain. This is the overarching objective of the Energy Efficient Mortgages Initiative.
>
> — **Luca Bertalot**
> EEMI Coordinator

© jittawit.21/stock.adobe.com

Aim of the project

The Energy Efficient Mortgages Initiative (EEMI), led by the European Mortgage Federation, seeks to integrate energy efficiency into the mortgage industry. Energy efficiency positively impacts the value of properties and the probability of default on mortgage loans. This increases the attractiveness of energy efficient mortgages to investors and motivates banks to develop such mortgages to respond to investor demand.

Since its launch in 2017, the EEMI has successfully mobilised the commitment of multiple banks across Europe to increase lending for energy efficient homes and home energy renovations. EeMMiP aimed to take banks to the next step by developing a specific ecosystem for energy efficient mortgages.

Expected achievements

A key achievement of the project is the deployment of the Energy Efficient Mortgage (EEM) Label on the market. The EEM Label was established to provide capital markets with a clear identification of energy efficient financial products. This entails concrete commitments from participating banks, namely, to develop at least one specific financial product and to report on the energy performance of their mortgage portfolios for the issuance of covered bonds. It is to be noted that covered bonds do not require loan-level reporting, as they are secured by the bank's loan book.

The EEM Label brings together 26 lending institutions, labelling 25 energy efficiency loan products. In addition, a reporting template is being introduced for customer loans, which are frequently used for energy renovations.

Another significant advancement is the design of the EEMI Ecosystem to adapt banks' customer approach to support homeowners in the renovation.

The Ecosystem is structured around three pillars.

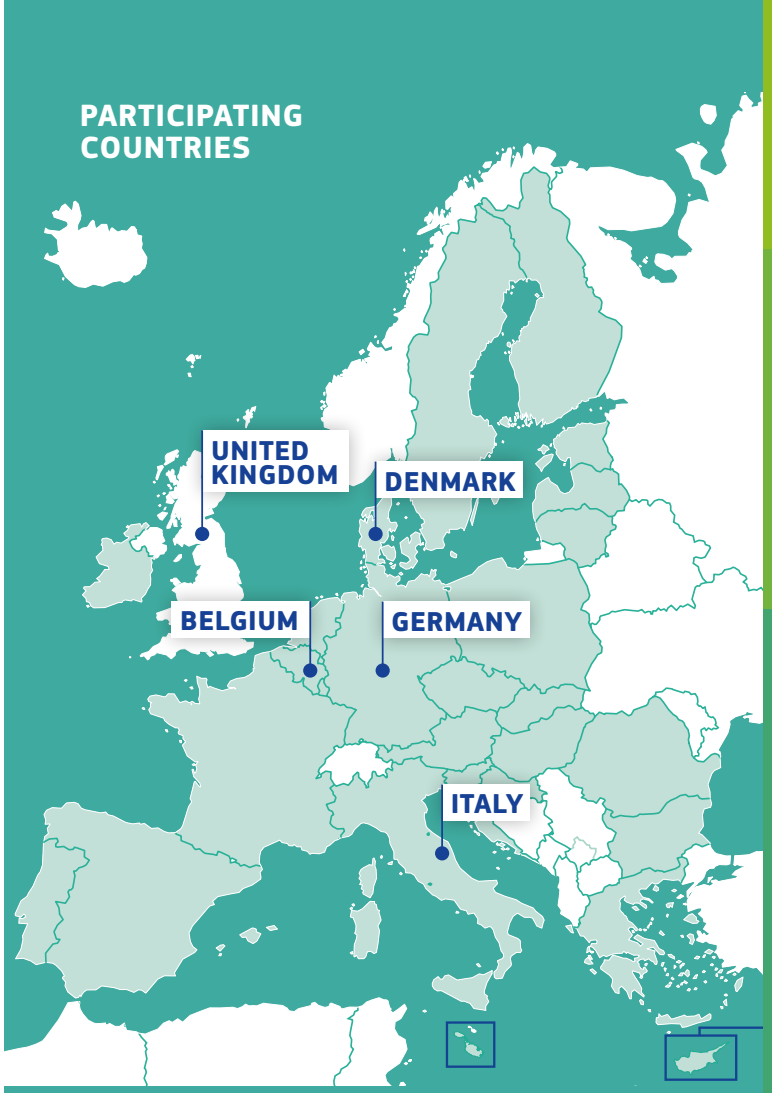
- a simplified simulator for the energy saving potential of a home which banks can offer to their customers on demand.
- a financial product adapted to home renovation such as an energy efficient mortgage or energy efficient renovation loan. In Italy, the project worked with the main loan broker, Mutui Online, which can identify the most suitable renovation loan or mortgage tailored to the specific customer needs.
- a marketplace connecting homeowners with contractors to carry out renovation works.

The Ecosystem approach is already being implemented by banks outside the direct scope of the project, including through other EU-funded projects, such as NEEM for the Nordic Energy Efficient Mortgages Hub, and ENGAGE with pilots in Spain and the Netherlands.

Furthermore, the EEMI has delivered an impressive effort in communicating to all market stakeholders. This included the first studies demonstrating that energy efficient mortgages have a lower probability of default – a critical factor in persuading banks. The core principles of the EEMI are now being factored into decision-making by regulatory bodies and the financial sector. A notable example is the European Banking Authority's recommendation that banks consider the energy efficiency of collateral when assessing a credit – marking a major turning point in the industry's approach. While the term "energy efficient mortgage" is now common amongst financial institutions, its definition and practical application are not yet unified.

The Energy Efficient Mortgage Initiative is particularly relevant to the EU Energy Performance of Buildings Directive, Article 17, which addresses mortgage portfolios and foresees a Delegated Act to establish a comprehensive portfolio framework for voluntary use by financial institutions. The development of the EEMI Ecosystem is also in line with Article 18 of the Energy Performance of Buildings Directive (EPBD), and with Article 22 of the Energy Efficiency Directive (EED) on one-stop shops.

The Initiative has also provided valuable input to the Sustainable Finance policy, particularly concerning the European Banking Authority and the European Central Bank regarding the capital treatment of mortgages. Furthermore, the EEMI has contributed to the activities of the Energy Efficiency Financial Institutions Group (EEFIG).



PROJECT ACRONYM
EeMMiP

PROJECT COORDINATOR
European mortgage federation / Covered bond & mortgage council (BE)

PROJECT PARTNERS (COUNTRY)
E.on solutions gmbh (DE), Universita ca' foscari Venezia (IT), Crif spa (IT), Copenhagen economics as (DK), Scottish government (UK), Provincia autonoma di Trento (IT)

01/09/2020 > 28/02/2023

www.energyefficientmortgages.eu

MOBILISING INVESTMENTS AND PRIVATE FINANCE

Social housing refurbishment in the Porto Metropolitan Area (PEER)

> PEER, Porto Energy ElevatoR, and its public front door, the Porto Energy Hub, turn climate ambition into delivery. By building a network of one-stop shops, we empower citizens and municipalities, mobilising over EUR 28 million for renovations, renewables and local energy communities, and cutting emissions across Northern Portugal.
>
> — **Rui Pimenta**
> CEO, Porto Energy Agency (AdEPorto), PEER Project Coordinator

Aim of the project

PEER supported the mitigation of energy poverty in the municipalities of the Porto Metropolitan Area (AMP), Portugal, by deploying the Porto Energy Hub (PEH). As a central element of the project, the Hub aimed to assist public and private stakeholders, including the municipalities of the AMP, private charity institutions, housing cooperatives and homeowners, in finding all information and services needed to implement energy renovation projects and renewable energy production in residential buildings.

Expected achievements

PEER materialised a substantial investment pipeline in the Porto Metropolitan Area for social and private housing renovations. Porto Energy Hub leveraged investments directly related to energy efficiency of EUR 28 million (leverage factor of 1:38). The project refurbished over 2 700 housing units through 32 social housing renovation projects promoted by nine local authorities in the Porto Metropolitan Area. Additionally, this led to the installation of 0.59 MWp of photovoltaic power which will produce an estimated 800 MWh/year of renewable energy. The project supported around 2 350 vulnerable families and deprived households in decreasing their energy bills. In addition, the project supported the drafting of relevant legislation of Porto City Council, which now includes tax benefits for residents who participate in renewable energy self-consumption schemes in the city. Large part of the investments was financed by national and EU funds.

A key success of the project is the creation of the Porto Energy Hub, a platform offering integrated services to support energy efficiency projects. This hub provides guidance on financing, business models and implementation, helping low-income homeowners and project developers to deliver energy upgrades. Initially serving the AMP-ND region, the Hub plans to expand to other areas.

The project contributes to the setup of one-stop shops (Articles 22 and 29 of the Energy Efficiency Directive), the mitigation of energy poverty (Article 24 of the Energy Efficiency Directive), and the exemplary role of the public sector in increasing energy efficiency (Articles 5 and 6 of the Energy Efficiency Directive).

PROJECT ACRONYM
PEER

PROJECT COORDINATOR
Adeporto - Agência de energia do Porto (PT)

PROJECT PARTNERS (COUNTRY)
S317 Consulting sa (PT), Telles de Abreu e associados (PT), RdA - Climate Solutions (PT), Unipessoal LDA (PT)

01/06/2021 > 30/11/2024

https://portoenergyhub.pt/en/homepage/

MOBILISING INVESTMENTS AND PRIVATE FINANCE

Financing tomorrow's buildings – boosting stakeholder coordination in France (FiRéno+)

> FiRéno+ acts as the national platform for financing energy efficient building renovation and supports a mutlistakeholder dialogue among key actors (public authorities, financiers, construction companies and homeowners).
>
> The project is expected to unlock an additional EUR 6 billion annually of private funding to support energy renovation financing.
>
> — **Guillaume Lorentz**
> Head of Bankable Sustainable Solutions

Aim of the project

The 'Financial Roundtables initiative' established finance roundtables in 18 EU Member States, bringing national stakeholders and financial institutions together in dialogue to explore mutually agreed solutions to accelerate clean energy investment. As part of the broader movement, the 'Sustainable Energy Investment Forum' organised over 50 national events in 22 countries since 2016. This mobilisation continues through the National Hubs of the European Energy Efficiency Financing Coalition, launched in 2024.

One of the standout successes of this initiative is FiRéno+ in France, which is paving the way for a surge in private investment in building energy renovations and integrated renewable projects. FiRéno+ plays an active role in shaping the future of France's building sector, focusing on boosting coordination among stakeholders and driving growth in the market for energy-efficient renovations and small-scale renewables. The project centres on residential buildings, private tertiary buildings and public buildings.

FiRéno+ pursued three primary goals:

- to collectively identify solutions on both the supply and demand sides, in order to remove the obstacles to increasing private investments in building energy renovations ;
- to encourage the emergence of mutually beneficial actions and long-term collaboration by breaking down silos among the sector's stakeholders, including public authorities, agencies, the financial and non-financial private sector, and property owners ;
- to build capacity by developing turnkey solutions to increase investments in effective renovations and small-scale integrated renewables (SSIR).

FiRéno+

Expected achievements

For over two years, FiRéno+ involved all the key French stakeholders in a joint discussion on possible ways to improve the financing of building renovation. Seven specialised working groups were established on specific topics, culminating in a total of 35 stakeholder meetings. These gatherings delivered a series of operational recommendations on each topic.

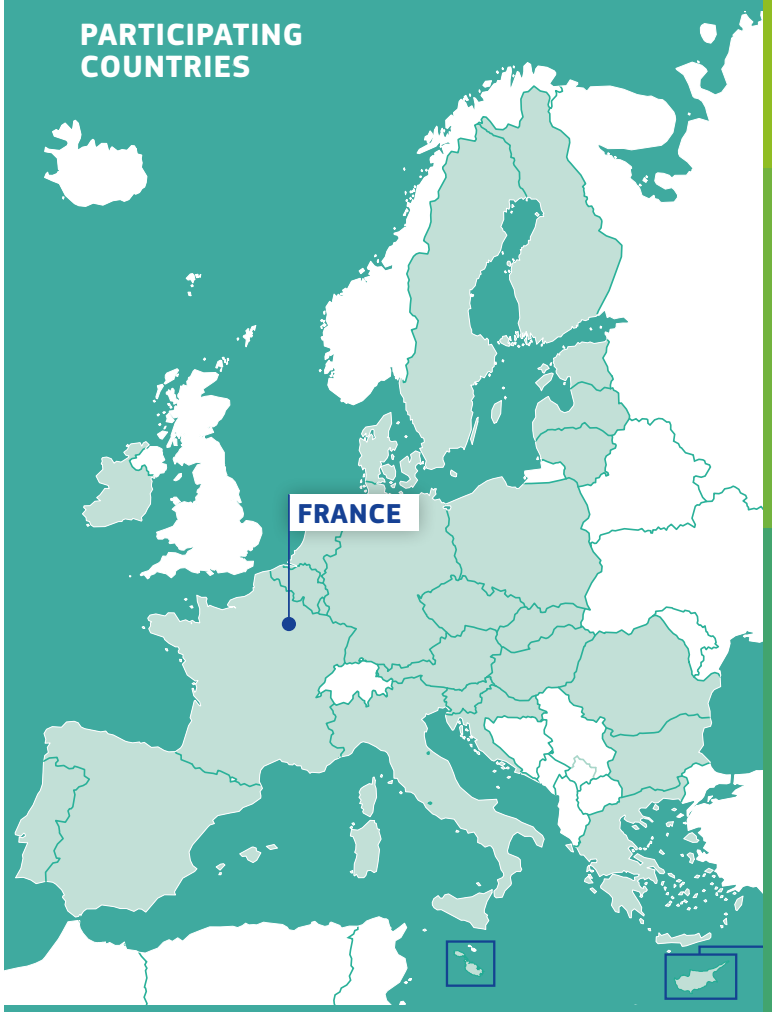
In the context of residential buildings, the working groups tackled several key topics.

They investigated how the banking sector could contribute to the systematisation of work loans when mobilising a property loan to amplify high-performance renovations. They also explored whether employer financing could exert a leverage effect on high-performance renovations and under what specific conditions this could be effective. Another topic addressed how public home renovation services could be effectively linked to banking services to increase the number and efficiency of renovations carried out by households. Lastly, the working groups examined what technical and financial support measures are necessary to strengthen investments in high-performance renovations and advance the development of building-integrated renewable energy sources in the overseas departments and regions of France (French DROM).

Regarding tertiary buildings, the working groups explored what innovative financial packages are required for investment in building renovations, what new fiscal incentive tools are needed to massify investments, as well as what could be new criteria for financing environmental renovations.

The results of FiRéno+ will feed into the work of the French hub of the European Energy Efficiency Financing Coalition, coordinated by ADEME, the national energy agency and a partner in this project. Further, the project contributes to the implementation of the Energy Performance of Buildings Directive and the Energy Efficiency Directive.

PARTICIPATING COUNTRIES



PROJECT ACRONYM
FR-BS – communicating as FiRéno+

PROJECT COORDINATOR
Sustainable finance observatory (FR) - formerly 2 degrees Investing Initiative

PROJECT PARTNERS (COUNTRY)
ADEME (FR), Res publica (FR)

01/12/2023 > 30/09/2025

www.fireno-plus.fr

MOBILISING INVESTMENTS AND PRIVATE FINANCE

Financial instrument to support Bulgarian municipalities in their clean energy transition (FLAG FICET)

> FLAG FICET provides Bulgarian municipalities with the financial resources and technical assistance needed to design and deliver projects that promote integrated, sustainable solutions and accelerate the shift to clean energy across the country.
>
> — **Lyubomir Tsarev**
> Head of Risk management Unit, Fund FLAG

Aim of the project

The ambitious climate policy objectives set by the European Green Deal pose significant challenges for Bulgarian municipalities regarding clean energy transition. These include the need for considerable financial resources for improving energy efficiency in buildings and implementing renewable energy measures, market barriers to accessing clean energy transition funding, and a lack of dedicated technical assistance for preparing clean energy transition projects. The Project Development Assistance (PDA) project, FLAG FICET, addresses these challenges by developing, demonstrating, and promoting an innovative financial instrument within the framework of Fund FLAG. This initiative actively supports municipal clean energy transition (CET) investments through collaboration and consultation with a wide range of stakeholders.

FLAG FICET helps Bulgarian municipalities in their preparation to face climate change mitigation and adaptation challenges over the next decade through clean energy measures. Additionally, it mobilises financial resources for municipal investments and aims to build capacity within the FLAG fund for developing, assessing, and financing CET projects. The project also seeks to raise awareness among Bulgarian municipalities regarding CET and the possibilities for financing green investments.

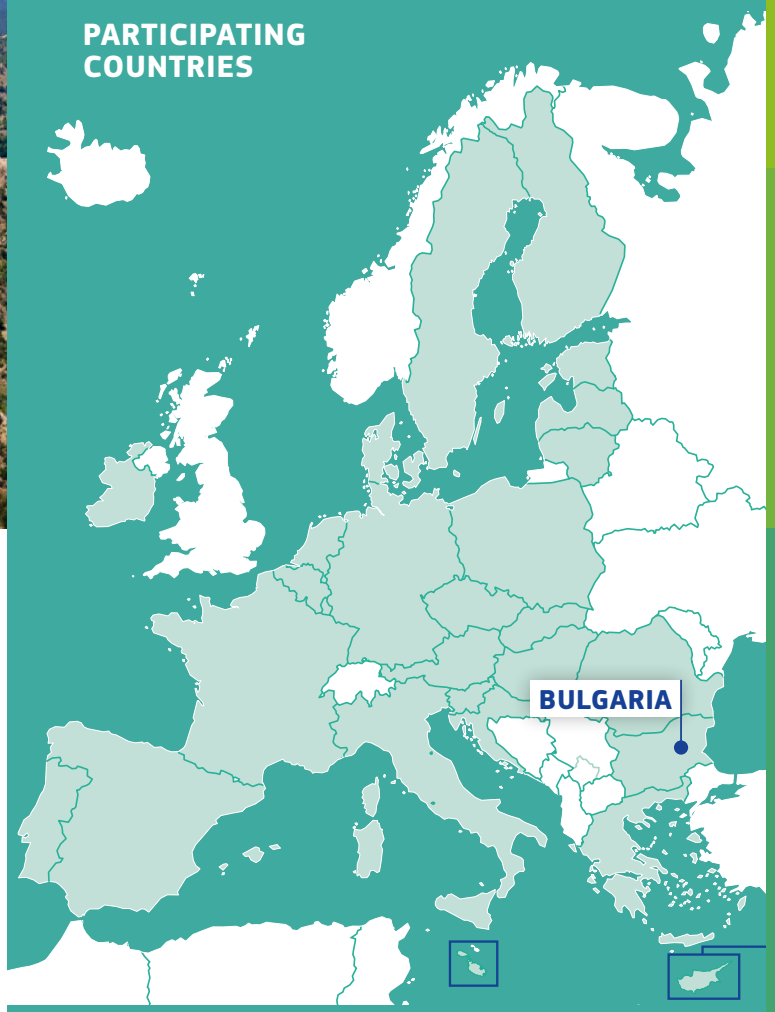
The specific objectives of the project include structuring and launching an innovative financial instrument within FLAG to support clean energy transition investments in Bulgaria. This effort aims to scale up experiences and good practices within the country and the EU while addressing market barriers to financing such projects. It also focuses on improving FLAG's capacity to structure financial instruments in new areas and administer those focused on green financing.

Expected achievements

With EU support under the PDA project FLAG FICET, several key achievements are anticipated. The project has structured and operationalised a new financial instrument focused on clean energy transition under the existing Bulgarian fund, FLAG. Calls for technical assistance and financing have been published for Bulgarian projects based on this financial instrument, with a specific application package developed to facilitate the process. A large number of projects have received technical assistance, and 22 projects with an investment volume of more than EUR 30 million have been funded so far. These funded projects mainly focus on energy efficiency measures in public buildings and eco-mobility initiatives. Additionally, by the project's end, it is expected that a significant number of additional investment contracts will be signed.

The project is fully aligned with the EU's climate and energy targets, objectives and roadmaps, particularly the European Green Deal, including the Green Deal Investment Plan and the REPowerEU plan, which necessitate substantial investments in sustainable energy, especially from the private sector. FLAG FICET contributes to these efforts by streamlining access to necessary resources and expertise for Bulgarian municipalities to successfully engage in the clean energy transition.

PARTICIPATING COUNTRIES



PROJECT ACRONYM
FLAG FICET

PROJECT COORDINATOR
Fund FLAG (BG)

PROJECT PARTNERS (COUNTRY)
Club economika 2000 (BG), Economic research institute at Bulgarian academy of sciences (BG)

01/10/2022 > 30/09/2025

www.flag-bg.com

ONE-STOP SHOPS FOR BUILDING RENOVATION

Inspiring neighbourhood renewal across Europe: The Basque Integrated Renovation model (BIRTUOSS)

Aim of the project

The Basque Country in Spain has launches an ambitious urban regeneration strategy through the Opengela programme. This initiative uses a comprehensive approach to address sustainability, energy efficiency and social cohesion challenges in neighbourhoods with ageing housing stock. The BIRTUOSS project offers an innovative strategy to transform vulnerable neighbourhoods by integrating energy-efficient renovation, social inclusion and citizen support. It reinforces a strong commitment to sustainable urban development. BIRTUOSS aims to upgrade and expand the One-Stop Shop Opengela service for Integrated Home Renovation, originally developed under the H2020 project HIROS4all, to facilitate the renovation of vulnerable neighbourhoods. The project aims to reach a larger group of homeowners, foster collaborations with local stakeholders, devise a sustainable business model, and broaden the service to encompass the entire Basque Region. This new approach to renovating multi-family buildings will significantly advance the implementation of building renovation passports.

Expected achievements

BIRTUOSS actively develops and implements an enhanced Opengela approach for multifamily building renovation. The initiative starts with a pilot project, the living lab at the Torreurizar Office, where the improved Opengela model is tested the improved Opengela model. This model has already been successfully replicated in other areas through complementary funding mechanisms. Consequently, the Opengela network now spans 25 neighbourhoods, featuring 22 operational one-stop shops (OSS). These OSS provide renovation services to 6 500 inhabitants and cover around 3 000 dwellings. The Directorate for Neighbourhood Regeneration and Urban Agenda of the Basque Government coordinates and funds these offices. The BIRTUOSS project contributes to the coordination of these one-stop shops by developing methodologies, tools and sharing lessons learnt and further improvements from the living lab.

The project expects to catalyse an investment of EUR 60 million for renovations, significantly contributing to the region's economic and social revitalisation. Aligning with EU policy directives, BIRTUOSS emphasises energy efficiency and performance of buildings. It supports Energy Efficiency Directive, particularly Article 22 on "Information and awareness raising" and Article 30 concerning the "National energy efficiency fund, financing, and technical support." Additionally, it aligns with Energy Performance of Buildings Directive, especially Article 18 related to "One-stop shops for the energy performance of buildings."

PROJECT ACRONYM
BIRTUOSS

PROJECT COORDINATOR
Departamento de Planificación Territorial, Vivienda y Transportes. Gobierno Vasco (ES)

PROJECT PARTNERS (COUNTRY)
Fédération européenne des agences et des régions pour l'énergie et l'environnement (ES), Viviendas municipales de Bilbao organismo autonomo local (ES), Fundacion EDE (ES), Ente Vasco de la energia (ES), Asociacion de industrias de conocimiento y tecnologia - Gaia - Euskalherriko ezagutza eta teknologia industrien elkartea (ES), Green building council-Espana - Consejo (ES), Para la edificacion sostenible-Espana (ES), Ciclica arquitectura SCCL (ES), Global, new energy finance SL (ES), Seikaz comunicacion SL (ES), Zabala innovation consulting SA (ES), Eraikune asociacion cluster de la construccion de Euskadi (ES), Universidad del Pais Vasco/ Euskal Herriko unibertsitatea asociacion cluster de industrias demedio ambiente de Euskadi (ES)

01/09/2023 > 31/08/2026

www.opengela.eus

ONE-STOP SHOPS FOR BUILDING RENOVATION

Powerful and scalable on-tax finance solution for municipalities to boost home renovation (FITHOME)

> FITHOME demonstrates how municipalities and partners can work together to make home renovation more accessible. By offering a clear process and full-service support, we help households take meaningful steps towards energy savings.
>
> — **Melissa Wolf-Baas**
> Project Coordinator
> FITHOME

Aim of the project

A significant number of homeowners in the Netherlands find themselves unable to organise and finance home retrofitting on their own. Subsidies and loans often remain out of reach due to financial constraints. This results in an energy gap in the Netherlands: while affluent and self-reliant homeowners can shield themselves against rapidly rising energy prices, potentially with government financial assistance, less self-reliant homeowners do not participate and continue to face increasing energy bills, exacerbating energy poverty.

To address this challenge, the FITHOME project has created a powerful and scalable solution for municipalities, empowering homeowners to actively participate in the energy transition and combat energy poverty. Led by the Dutch SME De Woonpas, the consortium developed and successfully implemented an on-tax financing scheme, starting from the Dutch municipality of Wijk bij Duurstede (WBD), a beneficiary of the project, and replicating it in other Dutch municipalities.

Expected achievements

Throughout the project, the consortium actively conducted extensive technical and financial work to develop and implement an on-tax financing scheme, the “Municipal Sustainability Scheme” (GVR). This involved signing agreements with several municipalities, obtaining guarantees from the BNG Bank, establishing Special Purpose Vehicles, creating a network of qualified installers, and deploying support tools and software.

Additionally, the Dutch government requested De Woonpas to make the GVR scheme available as a license to other interested operators. The GVR scheme is now scaling up in at least 15 other municipalities in the Provinces of Limburg and Groningen, attracting projected investments of at least EUR 30 million. The project also lays the groundwork for energy renovations in the social housing sector (LIFE CET VECO project) and inspires the development of an on-tax financing scheme in Mechelen, Belgium.

Once a local authority joins the “Municipal Sustainability Scheme” (GVR), professional assessors visit homeowners to evaluate their properties, recommend energy improvements, and estimate costs and potential savings. Upon agreement, the municipality and the homeowner establish a formal contract, after which qualified contractors complete the renovations. The tax-based financing programme operates primarily through two Special Purpose Vehicles, SVGVR (Foundation Verzamelgelden) and SWGVR (Foundation Waarborg). The BNG Bank (Bank of Dutch Municipalities) lends money to SVGVR, which covers the costs of the renovation works on behalf of the municipality. Homeowners are then charged a “betterment tax” – a monthly tax on the increased value of the property – over 30 years, calculated to ensure that repayment of the debt is affordable for homeowners. The SVGVR receives the tax payments, while the SWGVR acts as a guarantee, applying a small percentage to the monthly tax to cover financial risks for municipalities in case of homeowner repayments issues. This process is also linked with the Dutch cadastral system, “Kadaster”, to monitor the collection of the betterment tax.

Aligned with Article 30 of the Energy Efficiency Directive, the project facilitates the establishment of financing facilities at regional and local levels. In addition, FITHOME offers one-stop shop services encompassing technical and financial support, and promotes the implementation of on-tax financing schemes.

PARTICIPATING COUNTRIES

PROJECT ACRONYM
FITHOME

PROJECT COORDINATOR
De Woonpas BV (NL)

PROJECT PARTNERS (COUNTRY)
Global new energy finance SL (NL),
Gemeente wijk bij duurstede (NL)

01/05/2020 > 30/04/2024

https://build-up.ec.europa.eu/en/resources-and-tools/links/fithome-project

ONE-STOP SHOPS FOR BUILDING RENOVATION

One-stop shop concept for Slovenian urban municipalities (Renov-AID)

> In Slovenia, Renov-AID unites fragmented renovation efforts into a coherent, scalable model, delivering deep energy upgrades through integrated services that make the journey from idea to completion straightforward and affordable.
>
> — **Renov-AID Project Team**

Aim of the project

The Renov-AID project directly addresses the lack of integration and support mechanisms for energy renovation in Slovenia by establishing innovative one-stop shops. It aims to simplify and make home renovations more affordable, thereby actively contributing to the target of renovating 3% of the national building stock annually. Renov-AID tackles three key renovation barriers: the information barrier, where citizens remain unaware of deep renovation possibilities, renovation products, and financing options; the fragmentation of the customer journey; and limited access to affordable financing.

Expected achievements

Renov-AID will launch the pioneering one-stop shops offering integrated home renovation services in Slovenia. These services include both physical and online communication, with varying degrees of complexity and scope: a support model one-stop shop in Ljubljana, and an advice model in Kranj and Velenje. In Kranj and Velenje, the services focus on enhancing awareness, providing training, and fostering cooperation among relevant stakeholder groups. In contrast, the one-stop shop in Ljubljana will centre on offering renovation information and advice, helping customers in designing their renovations, seeking financial support, controlling renovation quality, and carrying out post-renovation measurements. This ambitious level of support planned for Ljubljana is competitive with the most advanced regions in Europe.

The development of renovation services for homeowners enhances Eko Sklad, the existing public fund for renovation, which currently offers grants for energy renovations in single-family and multi-apartment buildings. Renov-AID will add functionalities

to the Eko Sklad platform, such as a financial calculator, an Eko Sklad eligibility checker, and a support module for homeowners' applications for funding, which will contribute to streamline and simplify home renovation processes. Moreover, the project will base its physical communication with homeowners on the existing network of EnSvet offices, which will in turn benefit from the project's activities. This strategic integration with Eko Sklad builds trust in the renovation services offered by the three one-stop shops, while ensuring their sustainability.

Setting up renovation services implies ensuring the necessary level of competence of the professionals involved in the renovations. Renov-AID prioritises capacity-building activities for EnSvet Energy Advisers and relevant municipal employees, such as architects, designers, urban planners and civil engineers. The focus will be on citizen services, renovation design, technical solutions and financial products.

The three cities of Ljubljana, Kranj and Velenje, where Renov-AID is developing one-stop shops, are among the 100 'Climate-Neutral and Smart Cities' selected under the EU Mission: Climate-Neutral and Smart Cities. Beyond the focus on the three cities, Renov-AID envisages broad replication across Slovenia, aligned with the implementation of Energy Efficiency Directive and the Energy Performance of Buildings Directive, which also necessitates citizens' access to renovation services. Finally, Renov-AID also has the potential to make a key contribution to Slovenia's Long-term Building Renovation Strategy (LTRS).

PARTICIPATING COUNTRIES

PROJECT ACRONYM
Renov-AID

PROJECT COORDINATOR
Institute for the innovation and development of the university of Ljubljana (SI)

PROJECT PARTNERS (COUNTRY)
The Slovenian Environmental Public Fund - Eko Sklad (SI), Building and civil engineering institute - ZRMK (SI), Construction cluster of Slovenia (SI), City of Ljubljana (SI), City of Kranj (SI), City of Velenje (SI), Prosperia - d. o. o. (SI)

01/11/2024 > 31/10/2027

https://iri.uni-lj.si/en/project/re-nov-aid-project/

TRANSITION TO CLEAN HEATING AND COOLING IN BUILDINGS AND CITIES

Developing street wide approach for housing for collective switch of energy systems to heat pumps packaged modules (LIFE Street HP Reno)

> LIFE Street HP Reno is driving the widespread adoption of heat pumps through collective purchases and serial installation processes. First pilot projects and engagement activities in France, Germany and Italy are building trust among homeowners, showing that cost-effective renovations are possible.
>
> — **Thomas Miorin**
> LIFE Street HP Reno Project coordinator, EDERA

Aim of the project

The project aims to help reduce the investment costs of heat pump installations in buildings, thereby increasing comfort and affordability for consumers. To that end, it will devise and launch collective purchases of heat pumps as part of integrated, prefabricated and industrialised energy modules. The focus is on existing buildings at the scale of entire streets in France, Germany and Italy.

The work builds on three axes: firstly, to characterise and qualify the typologies of individual houses at the district level, thereby better targeting buildings suited to the collective purchase of heat pumps. This approach is envisaged as one step towards deeper renovation processes that align with energy performance targets by 2050. Secondly, the project will develop and make available to stakeholders a set of financing packages and collective buy-in-scheme contracts. These are based on consumer panels' surveys and replicable economic models. Thirdly, the project will train and raise awareness among local authorities, installers and solution providers. This is complemented by conducting marketing campaigns aimed at residents to trigger viral effects.

Expected achievements

Anticipated outcomes include a decision-making tool for local authorities, cities, social housing organisations and renewable energy communities, facilitating the adoption and integration of these systems. Additionally, 10 financing packages will be developed to support heat pump adoption, whether as stand-alone options or in combination with other retrofit solutions. Furthermore, five collective buy-in scheme contracts are projected to lead to group purchasing targeting 800 homes.

The project contributes to EU policy implementation. Particularly within the framework of the REPowerEU plan and the Renewable Energy Directive, this initiative supports the goal to boost heat pump deployment and phase out dependence on fossil fuel imports.

By fostering innovative financing solutions, collective buying schemes and stakeholder engagement, the project addresses current economic barriers and promotes the adoption of sustainable heating solutions on a broader scale.

PROJECT ACRONYM
LIFE Street HP Reno

PROJECT COORDINATOR
Edera srl Impresa sociale (IT)

PROJECT PARTNERS (COUNTRY)
Pouget consultants (FR), Initiative Wohnungswirtschaft Osteuropa e.V. (DE), Cobenefit UG (DE), Vraiment Vraiment (FR), Ansvar2030 holding gmbh (DE), Commune de Tabanac (FR), Stichting global energiesprong alliance (NL), Union sociale pour l'habitat des pays de la Loire (FR), European heat pump association (BE), Ressorts (FR), Kliq-Berlin EG (DE), Stadt wangen im Allgau (DE), Energies demain (FR), Shiftup gmbh (DE)

01/10/2023 > 30/09/2026

https://www.energiesprong.org/projects/street-hp-reno

Investment strategies for efficient district heating (HeatMineDH)

> HeatMineDH is proving to be highly valuable in screening the decarbonisation opportunities for our network and their corresponding costs, enabling properly justified choices and plans for the future.
>
> — **Ivan Krajnović**
> Tehnostan district heating manager (Vukovar, Croatia)

Aim of the project

The HeatMineDH project aims to support district heating (DH) utilities and municipalities in achieving efficient DH targets over the next 10 years by building capacity upon the expertise of a consortium comprising universities, research centres, businesses and associations. The project employs a structured four-step approach to optimise the integration of low-grade renewable and waste heat sources into DH networks, providing tailored and effective solutions.

The first step involves assessing the existing situation by analysing available data and collaborating directly with utilities. This step is crucial for understanding the network's existing infrastructure and energy patterns. Next, the mapping of low-grade renewable and waste heat sources is conducted, utilising partially automated tools to collect various data. The findings are published online through the HeatMineDH Explorer, providing a comprehensive overview of available resources.

In the third step, the project develops roadmaps to integrate the most affordable and efficient energy sources, ensuring compliance with efficient DH targets. This phase includes hourly modelling of selected networks, considering aggregated energy demand and supply. Finally, the project involves planning investments, developing business models, and drafting contracts to implement a 10-year investment plan, ensuring a sustainable and financially viable solution for incorporating low-grade renewable and waste heat sources into the DH network.

HeatMineDH

Expected achievements

The project is ambitious in its intention to directly involve at least eight high-temperature DH networks. Six of these networks were already identified at the proposal level – Vukovar (Croatia), Göttingen (Germany), Milan West and Milan Pompeo Leoni (Italy), Szczecin, and Barlinek (Poland) – while two additional networks have been identified during the project, including Karlovac (Croatia) and Brunswick (Germany).
The installed power of these networks ranges from 10 MW to approximately 300 MW.

Key expected achievements include the provision of low-grade heat maps and feasibility studies based on techno-economic analyses for each network. The project also aims to provide investment plans to help achieve efficient DH targets with progressive investments, extending up to 2035 for each network. To ensure broad impact, active engagement with utilities and stakeholders coupled with training actions at various levels are planned. A review of European and local policies, directly and indirectly related to efficient district heating, will support strategy development and policy alignment. Dissemination of results is a key focus to foster replication, involving several "follower cases" engaged through webinars serving as knowledge exchange forums.

The Croatian case of Vukovar exemplifies the HeatMineDH approach applied to a small-sized network. Initial assessments revealed a yearly heat production of approximately 13 GWh with a nominal capacity of 18 MW, mainly through gas boilers (97%) and a marginal inclusion of solar thermal energy (3%). Mapping identified potential sources, such as areas for solar thermal expansion, waste heat from refrigeration units in supermarkets, and water sources for heat pumps from the local river. The analysis generated production scenarios predicting how extending the solar field, incorporating thermal storage, and integrating heat pumps could achieve a renewable heat share exceeding 50%, aligning with efficient DHC requirements for 2035.

This initiative contributes to EU policy implementation by aligning with strategies and policy developments in the heating and cooling sector, specifically referenced in the Energy Efficiency Directive on energy efficiency, Article 26 regarding heating and cooling supply, and efficient district heating and cooling. The project's comprehensive approach to integrating renewable and waste heat sources will provide valuable insights and strategies supporting the EU's objectives in the transition to efficient district heating.

PROJECT ACRONYM
HeatMineDH

PROJECT COORDINATOR
Accademia europea di Bolzano (IT)

PROJECT PARTNERS (COUNTRY)
Austrian institute of technology gmbh - AIT (AT), Euroheat & power (BE), Hawk hochschule fur angewandte wissenschaft und kunst fachhochschule hildesheim/ holzminden/ gottingen (DE), Solid solar energy systems gmbh (AT), Sveuciliste u Zagrebu, Fakultet strojarstva i brodogradnje (HR), Johanneberg science park AB (SE), Nodais AB (SE), Research institutes of Sweden AB - RISE (SE)

01/09/2023 > 31/08/2026

www.webgate.ec.europa.eu

How Danish municipalities are greening heat supply in housing (COHEAT2)

"As lead partner and project manager of COHEAT2, I have worked to accelerate private homeowners' transition to green heating and energy renovation within our regional climate strategy. It has been a challenge, so I am proud of what our partners have achieved through numerous activities, resulting in significant green investments.

When COHEAT2 began in 2022, Europe faced an energy crisis, making it economically attractive for homeowners to replace gas boilers with greener, cheaper solutions. However, as gas and oil prices fell, willingness to invest declined. In this context, our approach of creating Project Development Units (PDUs) – public/private partnerships between local authorities, heating companies, banks and real estate firms – proved effective. Together, we developed new tools and coordinated campaigns targeting homeowners, building trust and encouraging them to upgrade their homes."

— **Anders Tromborg Bræstrup**
Project Manager, Region of Southern Denmark


© dudlajzov/stock.adobe.com

Aim of the project

The COHEAT2 project aims to demonstrate how concrete investments in 100% green heating supply through district heating networks, heat pumps and energy renovations of residential buildings – with the goal of achieving a 70% reduction in CO_2 emissions by 2030 – can be accelerated and implemented. This will be accomplished through novel business, technology and replication models organised in sub-regional Project Development Units (PDUs) across the Region of Southern Denmark and its municipalities. COHEAT2 established three PDUs to coordinate energy renovations and clean heating systems in seven Danish municipalities. These units aggregated demand, built project pipelines and secured EUR 37.4 million in investments for energy renovations and green heating supply.

The project addresses the municipalities' obligation to ensure the green transition of heating for buildings and households currently not connected to district heating networks and those where district heating is not viable. Approximately 100 000 houses and buildings in the Southern Denmark Region must change their heating source by 2030. Rather than acting merely as regulators, the municipalities are transformed into energy project managers. The project is coordinated by the Region of Southern Denmark, involving close collaboration with local partners and key stakeholders: municipalities, district heating companies, energy advisers and consumers. Through cross-sector partnerships, these entities co-developed tools and planning standards, while banks played a more active role in green finance. Central to the COHEAT2 approach is the PDU model – a one-stop shop that empowers citizens, improves investment readiness, and supports vulnerable groups, where the developed tools allow the identification and promotion of and promoting investment solutions according to socio-economic and environmental criteria.

Expected achievements

COHEAT2 mobilised EUR 37.4 million in green heating supply and energy renovation investments, offering long-term benefits for emissions reductions, housing quality and local resilience. The project involved more than 30 municipalities and strong alignment with EU policy and provided a scalable, citizen-centred model for accelerating local renovation and fossil-free heating transitions.

The economic impacts of the project are significant. Through projects targeting more than 393 000 m^2 surface area focusing primarily on the residential sector, green district heating, and individual heating heat pumps – the investments supported energy renovation of dwellings. This aggregated approach led to reduced local authority costs, stimulated local green jobs and service markets, thereby driving economic growth and innovation.

The environmental and social impacts are equally substantial. The project led to a pathway towards a 70% reduction in CO_2 emissions from heating and fostered fossil-free transitions in public and residential buildings. Notably, the project improved comfort and health outcomes for residents. The initiative's model significantly proved that the civil-focus design of the project became key drivers for scalability and maintainability, with the establishment of three local PDUs involving 7 municipalities and efforts to replicate the concept in the 15 other municipalities in the region of Southern Denmark and nation-wide. The model is adaptable to diverse governance contexts and showcases strong synergy between local, national and EU policy goals. The international cooperation and adaptation models presented in this project implementation supports the EU's Clean Energy Transition objectives by pioneering mechanisms that can be replicated across the continent.

This comprehensive integration of local contributions aids the efficient standpoints from which stakeholders and policymakers investigate the project's values in policy implementation from the EU perspective and provides a blueprint for sustainable energy transitions in other regions. This is a key driver of CO_2 reduction for a modelling purpose data owned by an institution, supporting the engagement of citizens, policy sector stakeholders and the central government by increased transparency and accountable decision making.

PROJECT ACRONYM
COHEAT2

PROJECT COORDINATOR
Region of Southern Denmark (DK)

PROJECT PARTNERS (COUNTRY)
Danish district heating association (DK), ProjectZero (DK), Nyborg municipality (DK), Middelfart municipality (DK), EC Network A/S (DK), Planenergi (DK)

01/11/2022 > 31/10/2025

https://coheat.eu/about-coheat/

TRANSITION TO CLEAN HEATING AND COOLING IN BUILDINGS AND CITIES

Phase-out fossil fuels from urban heating & cooling (DecarbCityPipes 2050)

> Seven cities across Europe have shown the way forward for decarbonising their heat supply.
>
> The know-how they gained is already supporting other cities as they embark on their own transitions.
>
> — **Waltraud Schmid**
> Head of Energy Department, UIV
> Urban Innovation Vienna

Aim of the project

DecarbCityPipes 2050 united seven cities – Bilbao, Bratislava, Dublin, Munich, Rotterdam, Vienna and Winterthur – to create local heating and cooling plans with transition roadmaps, facilitating decarbonisation of the heating and cooling sector and advancing their aspirations for carbon neutrality. Their collaborative effort aimed to foster peer learning and to develop innovative solutions in data collection, planning tools, process management, and transition strategies.

© UIV Urban Innovation Vienna / Nick Sinner | 2025

Expected achievements

The project demonstrated how local authorities can build the capacity to address the decarbonisation of heating and cooling, collaborating with local utilities and other key stakeholders to establish suitable legal and financial conditions. In doing so, the following achievements stand out.

- The centrepieces of DecarbCityPipes 2050 were the development of comprehensive Heating & Cooling Plans and actionable Transition Roadmaps and Narratives for all involved cities. They define a three-step approach with clear responsibilities, timelines and key actions for decarbonisation within the heating and cooling sector.

- The project also engaged with policymakers and advocated for the advancement of heating and cooling decarbonisation by providing policy recommendations to the national and EU level.

- In addition, the project empowered more than 200 public officers, improved more than 50 policies and supported 80 cities across Europe to work on decarbonising the heating and cooling sector.

Appreciation from high-level policymakers was evident through attendance at substantial events, including a roundtable debate with MEPs, cities, utilities and experts at the European Parliament in Strasbourg on 5 October 2022. The consortium showcased their efforts at several high-level conferences, including the EU Sustainable Energy Week session on “REPower the EU: mobilising investments and citizen empowerment” in September 2022, as well as the Covenant of Mayors Investment Forum in October 2022 and the LIFE Platform Meeting on “REPower EU: Heating and Cooling solutions” in May 2024.

The findings of this project align closely with the European Energy Directive, particularly Article 25(6): DecarbCityPipes2050 set a positive benchmark for developing “local heating and cooling plans” in municipalities with a population higher than 45 000.

PROJECT ACRONYM
DecarbCityPipes 2050

PROJECT COORDINATOR
Urban innovation Vienna - UIV (AT)

PROJECT PARTNERS (COUNTRY)
City of Vienna (AT), City of Rotterdam (NL), City of Dublin energy management agency CODEMA (IE), City of Bratislava (SK), City of Bilbao (ES), City of Munich (DE), City of Winterthur (CH), Energy Cities (FR), University of Utrecht (NL), University of Halmstad (SE), Tecnalia (ES).

01/07/2020 > 31/12/2023

www.decarbcitypipes2050.eu

Sustainable local heating and cooling for South Europe municipalities (Plan4Cold)

> Plan4Cold is an opportunity for South European cities to comply with the new Energy Efficiency Directive obligation for cities with more than 45 000 inhabitants to define Local Heating and Cooling Plans, tackling the decarbonisation of the heating and cooling sector in an integrated approach that considers urban space, the built environment and citizens' behaviour. The plans developed will place the participating cities at the forefront of local heating and cooling planning and inspire other EU cities in the definition of Sustainable Local Heating and Cooling plans.

— **Joana Fernandes**
Project Coordinator

Aim of the project

Nearly half of the EU's energy demand and greenhouse gas emissions come from heating and cooling, and decarbonisation of this sector is crucial for the successful transition to a carbon-neutral energy system by 2050. In Southern Europe, cooling needs are more substantial than in other European regions, with climate change expecting a rise in demand for cooling.

Transforming the heating and cooling sector is a complex challenge, since a large number of stakeholders needs to be involved. Beyond the technical barriers of increasing renewable energy sources, there is also political, legal and social barriers to decarbonising the heating and cooling sector.

Plan4Cold seeks to assist local authorities, especially in pilot cities in Italy, Greece and Portugal, in drafting local heating and cooling plans. These initiatives align with Article 25 of the Energy Efficiency Directive (EED), which mandates that municipalities with more than 45 000 inhabitants prepare these plans. The plans will include analyses on how municipalities can promote energy efficiency and renewable energy, and a comprehensive assessment of heating and cooling systems described with each city's unique climatic, infrastructural and economic contexts in mind.

Expected achievements

The project targets to develop at least 10 Sustainable Local Heating and Cooling Plans in its pilot cities, which are in turn expected to motivate other municipalities to prepare their local heating and cooling plans by considering Plan4Cold's insights. The project creates dedicated guidelines, a toolbox of existing tools, useful resources tailored for Southern European cities as well as capacity-building sessions. The project will also set up local Communities of Practice to further involve local, regional and national stakeholders in the heating and cooling planning process.

The insights gained during the project will inform policy recommendations at the national, regional and local levels. These recommendations will boost the establishment of the necessary frameworks for the effective transposition and implementation of the EED at the local level.

PROJECT ACRONYM
Plan4Cold

PROJECT COORDINATOR
Agencia para a energia - ADENE (PT)

PROJECT PARTNERS (COUNTRY)
Federane (BE), REA Kvarner (HR), Climate alliance (DE), Fundacion Aasturiana de la energia (ES), Polytechneio kritis (EL), Regional development fund of Central Macedonia (EL), CRES (EL), APE FVG (IT), Ambiente Italia (IT), Svi.med. (IT), R2m solution srl (IT), Aream (PT), Inova+ (PT), ENA (PT)

01/10/2024 > 30/09/2027

https://fedarene.org/project/plan4cold/

SUPPORTING THE DEVELOPMENT OF ENERGY COMMUNITIES

Collaboration between cities/regions and energy cooperatives to accelerate the energy transition (TANDEMS)

"

TANDEMS took a hands-on approach to energy communities by working with real-world cases and delivering concrete, replicable tools. Our Bulgarian partners laid crucial groundwork within the local policy landscape. With our cost-price model, we demonstrated how energy sharing can work economically under specific regulatory conditions. And with our open collaboration model, we show that local actors can take the energy transition into their own hands – practically, effectively, and now.

"

— **Maro Saridaki**
TANDEMS Project Coordinator

Aim of the project

The TANDEMS project connects regions with diverse cultures, politics and technical landscapes – including the province of Antwerp (Belgium), Achterhoek (Netherlands), and Gabrovo and Burgas (Bulgaria) – to enable citizen participation in the clean energy transition. Key partners in TANDEMS exemplify the power of streamlined collaboration and lead the uptake in other European regions through the demonstration of replicable models and trainings. By the project's end, TANDEMS aims to introduced a diverse range of models and training sessions triggering 83 community energy projects, to support and/or initiate 60 citizen-led initiatives, and catalyse EUR 14.6 million of investments in sustainable energy. The overall impact of the project is widespread citizen participation and enhanced collaboration.

Expected achievements

Eighty-three varied and significant pilot projects are currently underway across the three thematic TANDEMS areas. These include wind and large solar projects in the Netherlands, and heat networks and solar and district renovation projects in Belgium and Bulgaria. The differences in size, contexts and business models among these projects provide valuable insights into the challenges and opportunities faced by energy communities.

One noteworthy achievement is Bulgaria's first municipally-led energy community established in Gabrovo. In Belgium, the award-winning Otterbeek energy community has gained recognition as Belgium's first social energy community, securing the first prize in the category of Local Energy Action at the 2025 European Sustainable Energy Awards. This community serves as a beacon of inspiration for a just clean energy transition, closely followed by various stakeholders. Across the border, TANDEMS has collaborated with the Dutch Federation of Energy Communities Enercrease to further operationalise, develop and implement a cost price model within Dutch energy communities.

Important outcomes include the development of EU and national-level policy recommendations, with a particular emphasis on business models for energy sharing. Additionally, a 'Blueprint design for an open collaboration model' has been produced, enhancing local governments and energy communities in their partnership-building efforts.

The project's contributions to EU policy, and the tangible, real-world insights gained, include events and policy dialogues conducted across pilot regions, have ensured that policy recommendations are grounded in real-world experiences. Partners have actively engaged with policy makers and stakeholders to overcome legal and practical barriers, contributing to national and regional legislation on energy communities.

A detailed analysis of cases in Belgium, Bulgaria and the Netherlands has informed a set of concrete policy recommendations, aligned with recasts of the Energy Efficiency, Renewable Energy Courses and Energy Performance of Buildings Directives. A whitepaper on business models for energy sharing was prepared and shared with the European Commission. Together, these actions provide tangible actionable insights for policymakers and foster their efforts to advance energy community frameworks across the EU.

PROJECT ACRONYM
TANDEMS

PROJECT COORDINATOR
Autonoom provinciebedrijf Kamp C (BE)

PROJECT PARTNERS (COUNTRY)
Vlaamse instelling voor technologisch onderzoek N.V. (VITO) (BE), Duneworks BV (NL), Achterhoeks Energieloket B.V. (Agem) (NL), Stad Mechelen (BE), Klimaan (BE), ZuidtrAnt (BE), Fondatsiya tsentar za energiyna efektivnost - ENEFEKT (EnEffect) (BG), Obshtina Burgas (BG), Municipality of Gabrovo (BG), Oikoplus (AT)

01/10/2022 > 30/09/2025

www.lifetandems.eu

SUPPORTING THE DEVELOPMENT OF ENERGY COMMUNITIES

Empowering local authorities to support new community energy initiatives (LIFE-LOOP)

> The biggest gain from LIFE-LOOP is the social criteria for public procurement. We developed and we tested it and now any municipality in Croatia can use it.
>
> — **Zoran Kordić**
> ZEZ Green Energy Cooperative

> With the LIFE-LOOP resource library it was like handing municipalities everything they needed on a plate. Whatever they needed we could provide!
>
> — **Natasa Iannou**
> Cyprus Social Innovation Agency

© M.Kai/stock.adobe.com

Aim of the project

The LIFE-LOOP project aims to empower local authorities to realise their sustainable energy plans and strategies by catalysing new community energy initiatives, particularly in Baltic and Adriatic countries. Three pilots are planned for Crete (Greece), Zagreb (Croatia) and Bistrița (Romania) with replication in five other satellite locations in Bulgaria, Cyprus and Italy. The focus is on community solar and energy efficiency, while exploring opportunities for wind, biomass, micro-hydro and clean transport.

Expected achievements

By July 2025, the LIFE-LOOP project achieved significant milestones that directly contribute to EU policy implementation. The LIFE-LOOP Accreditation Scheme, launched in January 2024 is the first initiative in Europe to recognise municipalities that actively support and collaborate with citizen-led energy communities. This scheme involves energy asset mapping, on-line training, a self-assessment and a matchmaking tool. 50 municipalities have signed the accreditation charter to date, and 38 have been accredited. Another considerable achievement is the enhancement of skills among municipal actors, with over 1 100 municipal actors participating in trainings. Ten additional community energy sites have emerged, and 62 municipalities are in the process of initiating local energy projects. Additionally, 20 960 citizens have participated in workshops, events, or directly interacted with the project.

The project's pilots have also achieved notable results. In Greece, three new municipality-led energy communities have been established, 40 municipal staff were trained, and the first educational programme for

energy communities was introduced. A One-stop shop (OSS) was established to support energy community development.

In Croatia, the first citizen-owned energy community installation was established, featuring a 200 kWp solar PV plant on a city market roof. An impressive crowdfunding campaign raised EUR 140 000 in just 10 days and mobilised over 15 000 citizens. This set-up a model that can be replicated, successfully implementing a public procurement process with social criteria, giving an advance to community energy projects. The City of Zagreb launched a central OSS for energy communities and engaged 180 citizens through a solar tour in partnership with ZEZ.

In Romania, over 3 000 citizens were engaged and a hybrid OSS was launched in Bistrița. Tulcea is currently installing a 20 KW PV system on a kindergarten rooftop, one of the first community funded projects in the country, and is undertaking awareness-raising campaigns to reach over 5 000 people.

Further replication in satellite locations has expanded the project's impact. In Gabrovo, Bulgaria, the existing OSS was enhanced to support multi-family buildings, and an energy community was established for a 150 kW rooftop PV installation.

In Cyprus, more than 200 citizens and five municipalities were engaged, and three community initiatives were set up.

In Italy, energy communities have been supported in Sardinia including setting up an umbrella community to increase impact and efficiency and a community solar project on a school linked to households equipped with smart meters.

The project has also developed a resource library with a toolkit, which includes different contractual, governance and financial models, made available for municipalities and others. The project produced a shared policy report, providing 64 evidence-based policy recommendations for 11 EU countries and 16 policy recommendations.

Through these achievements, the LIFE-LOOP project contributes crucially to the implementation of enabling frameworks for energy communities as outlined in Art. 22 of the Renewable Energy Directive. The project increases the pace of EU policy implementation by demonstrating real-world applications and scaling up community energy practices across Europe.

** This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.*

PROJECT ACRONYM
LIFE-LOOP

PROJECT COORDINATOR
Energy cities/energie-cites association (FR)

PROJECT PARTNERS (COUNTRY)
REScoop EU ASBL (BE), Zelena energetska zadruga za usluge (HR), Koinoniki synetairistiki epicheirisi syllogikis kai koinonikis ofeleias ilektra energy koinoniki synetairistiki epicheirisi ananeosimon pigo (EL), Cooperativadeenergie.ro Societate cooperativa europeana cu raspundere limitata (RO), Grad Zagreb (HR), Primaria municipiului Bistrita (RO), Energeiaki koinotita anatolikis kritis (EL), Regionalna energetska agencija sjeverozapadne hrvatske (HR), E'nostra societa cooperativa (IT), Center for social innovation ltd - CSI (CY), Municipality of Gabrovo (BG), Comune di Villanovaforru (IT), Comune di Ussaramanna (IT), Municipiul Tulcea (RO), Balkan green foundation (XK), Zelena Zadruga (Green Cooperative) (MK), Udruzenja gradjana regionalni centar za Obrazovanje i informisanje izodrzivog razvoja za jugoistocnu Evropu (BA), Energy cooperative elektropionir Belgrade (RS), Grad Kragujevac (RS), Grad Porec (HR), Grad Mostar (BA)

01/10/2022 > 30/09/2025

www.energy-cities.eu/project/lifeloop/

SUPPORTING THE DEVELOPMENT OF ENERGY COMMUNITIES

Simple and smart energy communities for all (SHAREs)

> It was a pleasure to witness how international knowledge transfer, motivated experts and an engaged local population can, in just three years, achieve remarkable results — from establishing six national one-stop shops to adapting the legal framework, expanding existing collective actions, and creating the first energy community in Croatia. Furthermore, SHAREs has made energy communities more tangible internationally by developing a flexible one-stop shop blueprint, which we have made freely available to all European countries.
>
> — **Angela Holzmann**
> Project Coordinator

Aim of the project

The SHAREs project aimed to empower local heroes – organisations, public authorities, or individuals who champion the establishment of energy communities – by providing them with a country-specific implementation toolkit and a customised communication campaign. This equipped them to launch collective actions in an efficient and effective manner. The project aimed to facilitate the active transfer of best practices from pioneer energy communities to pilots in Bulgaria, Hungary, Croatia, Georgia, Germany and Austria. Ultimately, the project's structured approach enabled it to adapt to evolving conditions and increased the number of pilot communities from 20 to 38, nearly doubling the original target.

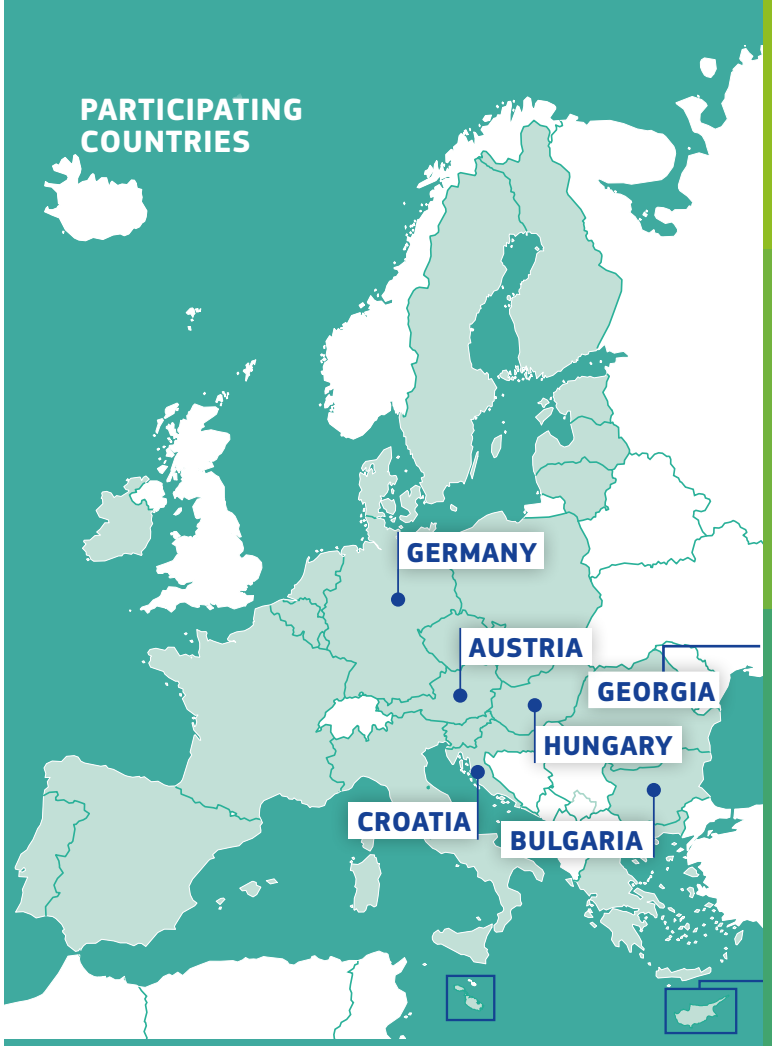
Expected achievements

The project successfully delivered a blueprint for national information hubs. This blueprint provides the structure and design of national one-stop shops for energy communities. Furthermore, it offers a comprehensive inventory of international and national tools for the initiation of energy communities and other collective actions. This blueprint served as an inspiration for countries to establish their own national information platforms, which then display information and tools relevant to their context. The blueprint has already been successfully implemented in Austria, Bulgaria, Croatia, Georgia, Germany and Hungary.

Additionally, the national information hubs provide a white label communication campaign to engage potential members. The campaign includes key messages for various target groups, target group profiles, recommended communication activities, and materials that any energy community can freely download, adapt and utilise to engage potential members.

The success of SHAREs has paved the way for its follow-up project SHAREs Plus, which kicked-off in September 2025 and will expand to North Macedonia, Cyprus, Romania and Ukraine together with partners from Bulgaria and Austria.

Managing the dynamic relationships between theory, practice and legislation was pivotal for the project's progress. SHAREs established six national working groups for policymakers and one transnational pioneer circle. These groups increased the flow of information, gathered input and feedback for the project's activities and enhanced its outreach. These efforts led to relevant policy learning to help design the transposition of energy community-related articles in the Renewable Energy Directive and the Internal Electricity Market Directive. In countries where energy communities are well-established, such as Germany and Austria, efforts focused on streamlining processes. In Georgia, Hungary, Croatia and Bulgaria, on the other hand, the emphasis was on raising awareness among decision-makers through events, discussions and study tours. Notably, in Croatia, these efforts culminated in the national regulator approving the connection of the first Citizen Energy Community Pilot and granting it a 10-year operations permit, further demonstrating the impact of SHAREs on EU policy implementation.



PROJECT ACRONYM
SHAREs

PROJECT COORDINATOR
Oesterreichische energieagentur Austrian energy agency (AT)

PROJECT PARTNERS (COUNTRY)
Ourpower energiegenossenschaft sce mit beschraenkter haftung (AT), Chernomorski izsledovatelski energien tsentar (BG), B. & S.U. Beratungs- und service-gesellschaft umwelt mbh (DE), Deutscher genossenschafts- und raiffeisenverband ev (DE), Wirtschaft und infrastruktur gmbh & co planungs KG (DE) Association of young professionals in energy of Georgia (GE), Regionalna energetsko-klimatska agencija Sjeverozapadne Hrvatske (HR) Regionalna energetska agencija Sjeverozapadne Hrvatske (HR), Magyar termeszetvedok szovetsege (HU), Reflex Kornyezetvedo Egyesulet (HU)

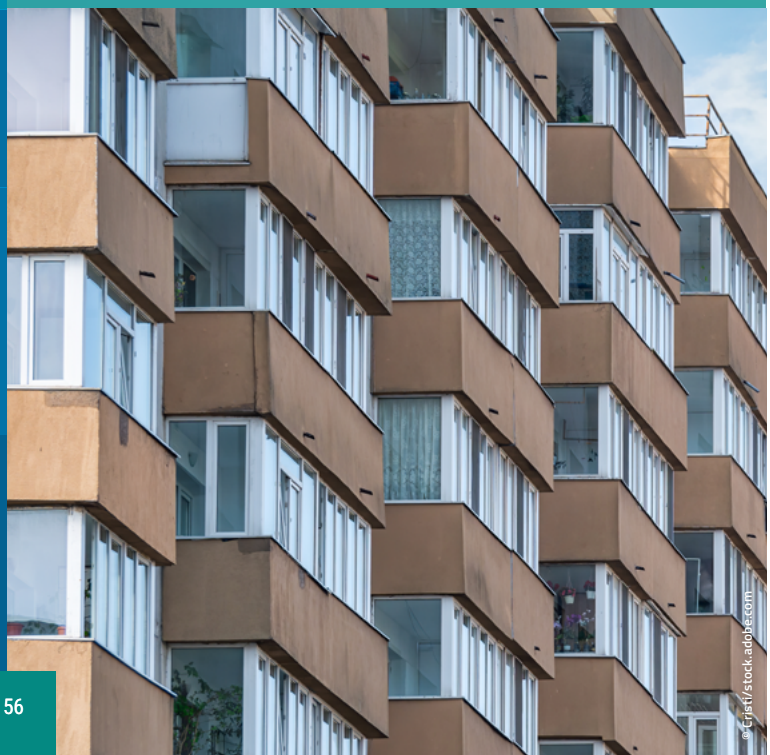
01/09/2021 > 31/08/2024

https://shares-project.eu/

CITIES, REGIONS AND JUST TRANSITION

Building interventions in vulnerable districts against energy poverty (CEESEN-BENDER)

> CEESEN-BENDER demonstrates that energy renovation is not only a technical matter, but also a social opportunity – because every renovated building means a warmer, healthier and more affordable home for thousands of citizens struggling with energy poverty across Central and Eastern Europe.
>
> — **Matija Eppert**
> Project Coordinator, DOOR



© Cristi/stock.adobe.com

Aim of the project

CEESEN-BENDER aims to empower and support vulnerable homeowners and renters living in multi-apartment buildings (MAB) built after the Second World War and before the 1990s by facilitating the renovation process in five Central and Eastern European (CEE) countries: Croatia, Slovenia, Estonia, Poland and Romania. The project aims to identify and prioritise energy-poor households and buildings most in need of renovation, thereby addressing both technical challenges, such as complicated decision-making structures of MABs, and social obstacles. These efforts are directed towards providing trustworthy support for homeowners, their associations, and building managers. Beyond the development of pilot area and building-specific renovation roadmaps, the project aims to equip homeowners, landlords and building managers with knowledge on the legal, financial, technical and social aspects of energy renovation. Additionally, the project seeks to advocate for changes in regulatory requirements and policies to reduce the costs and time needed for project preparation, thereby creating more favourable conditions for energy efficiency improvements.

Expected achievements

The project is expected to develop five pilot area roadmaps, each prioritising building renovations based on their potential for maximising emissions reductions through energy savings and enhancing the quality of life for vulnerable households. Moreover, it will develop 30 tailored building-level roadmaps for at least 1 500 apartments. These roadmaps will focus on the technical aspects of the pre-construction phase, including financing, planning, permitting, decarbonisation of heating and cooling, and the integration of renewable energy.

At the completion of the project, it is anticipated that 3 500 homeowners, landlords and building managers will be trained. Training will also include focused sessions for 30 energy professionals on the topic of energy poverty. The trained professionals will gain a comprehensive overview of how to implement energy renovations in a cost-effective way.

To facilitate energy improvement, the project will develop a renovation prioritisation tool that leverages energy consumption and socioeconomic data. The goal of this tool is to identify buildings with high levels of energy-poor households. Alongside this tool, a return-on-investment calculator will be developed to help homeowners estimate the economic benefits and payback periods of undertaking renovation works. This will ensure transparency and confidence in investment decisions and a further push in economic benefits back to the household.

The mid-term stage of implementation has already delivered significant achievements. The project analysed the ownership structure and physical characteristics of buildings in all five pilot sites, including completed energy poverty surveys with 2 000 households across 400 multi-apartment buildings. To support evidence-based models and illustrate the multiple benefits of energy renovations, the project installed indoor air quality monitoring systems in over 30 buildings across the pilot sites. Additionally, a first version of the return-on-investment calculator has been developed, tailored to market data from each participating country. This tool allows residents to calculate economic benefits and payback periods of renovation works, thus promoting more informed decisions and increased uptake of energy renovation measures.

The project plays a crucial role in contributing to several key EU policies oriented towards improving housing energy efficiency and protecting citizens from energy poverty. With these developments, CEESEN-BENDER particularly supports the implementation of Articles 22 and 24 of the revised Energy Efficiency Directive. The project is also aligned with the EU's Renovation Wave Strategy and the Energy Performance of Buildings Directive by targeting the worst energy-performing building stock across the participating EU Member States, driving forward the clean energy transition.

PROJECT ACRONYM
CEESEN-BENDER

PROJECT COORDINATOR
Society for sustainable development design - DOOR (HR)

PROJECT PARTNERS (COUNTRY)
University of Tartu (EE), Local energy agency Spodnje Podravje (SI), Alba local energy agency (RO), Climate alliance (DE), Medjimurje energy agency ltd (HR), Mazovian energy agency (PL), Tartu regional energy agency (EE), Municipality of Alba Iulia (RO), Central Eastern European sustainable energy network (EE), Euroland ltd (HR), GP Stanorad (HR), Estonian union of Cco-operative housing associations (EE), Housing cooperative „Warszawska Spółdzielnia Mieszkaniowa" (PL)

01/09/2023 > 31/08/2026

www.ceesen.org/about-us/ceesen-bender/

CITIES, REGIONS AND JUST TRANSITION

Raising summer energy poverty awareness to reduce cooling needs (Cooltorise)

> Cooltorise shows that summer energy adaptation activities – already crucial in the Mediterranean region – are essential for protecting vulnerable households from heat. As climate change intensifies, these solutions will become increasingly relevant and will need to be transferred to Northern Europe, empowering communities and fostering climate resilience across the continent
>
> — **Carmen Sánchez-Guevara**
> Project Coordinator

© jittawit.21/stock.adobe.com

Aim of the project

The Cooltorise project aims to reduce summer energy poverty in households by improving their indoor thermal comfort and reducing energy needs, thereby decreasing their exposure to heat-related health risks. This is achieved by leveraging trained energy poverty agents who advise energy-poor households on possible no/low-cost measures through tailored workshops. Additionally, the project entails collective interventions at the community level to mitigate the urban heat island effect.

Expected achievements

The COOLTORISE project has made significant strides in raising awareness and introducing the topic of summer energy poverty, also known as cooling poverty, into policy debates at EU, national and regional levels. This accomplishment is attributed to policy advocacy activities, including policy briefs, participation in events, meetings with relevant stakeholders, and extensive media coverage. The complexity of the issue is underscored by numerous variables, such as the built environment, surrounding infrastructure, and behavioural patterns, as well as the limited prevalence of cooling equipment. In response, the project has popularised strategies such as “climate shelters” and “heat plans” to counter increasingly frequent and intense heat waves across Europe.

The project consolidated several key achievements. Firstly, it increased the summer energy culture for over 3 500 households in Spain, Italy, Bulgaria and Greece, encompassing more than 8 000 consumers, many of whom are in vulnerable situations. Strategies implemented at the local level included advice on behavioural and low-cost measures to optimise energy bills, the installation of low-cost solutions to reduce

indoor overheating and augment thermal comfort, and outdoor interventions to lower urban temperatures and mitigate the urban heat island effect. These activities were supported by over 50 local organisations.

The project also trained more than 350 summer energy poverty agents (SEPAs), who facilitated project activities with vulnerable households. These provided advice aimed at reducing energy bills and improving comfort. Noteworthy, their profiles varied across countries, covering university students, corporate volunteers and social workers. Post-training, these agents are prepared for similar future work or volunteer. Meanwhile, the project refined and applied a methodology tailored to identify priority areas at risk of summer energy poverty for urban interventions. In addition, it developed a collection of guides and materials with tips to tackle summer energy poverty, both indoors and outdoors, available in all project languages.

In addition, Cooltorise tested the delivery of low-cost kits for households, focusing on cooling poverty. These kits are typically provided for winter or heating related energy poverty and were transferred to vulnerable consumers so that they could start learning lessons related to similar support during the summer. The project also focussed on raising awareness about the role of the urban dimension and micro-climatic conditions in addressing summer energy poverty.

The project tested a summer heat warning protocol, extending the reach beyond nursing homes and hospitals to include social services and vulnerable citizens. The project activities garnered interest and support from public authorities and local entities, creating opportunities for continuation and replication. For example, in Madrid, the project established a service-learning programme at the University, involving students as SEPAs. It also linked with the local health system to refine its heat warning alarm protocols.

The Cooltorise project directly contributes to EU policy implementation. The project is referenced in the Staff Working Document to the EC Recommendation on Energy Poverty, and aligns with the Energy Efficiency Directive Articles 22 and 24. Additionally, it supports policies related to climate change adaptation, including the mitigation and management of the effects of heat waves and the urban heat island effect. The national Spanish platform on climate change adaptation, which is driven by the Ministry of Ecological Transition, has recognised Cooltorise as a good practice with a dedicated monographic.

PARTICIPATING COUNTRIES

PROJECT ACRONYM
Cooltorise

PROJECT COORDINATOR
Universidad politecnica de Madrid (ES)

PROJECT PARTNERS (COUNTRY
Asociacion ecoserveis (ES), Asociación bienestar y desarrollo (ES), Aisfor srl (IT), Comune di Parma (IT), Sdruzenie Tzentar za Ustoychivost Iikonomichesko Razvitie – CSEG (BG), Obshtina Peshtera (BG), Vilabs OE (EL)

01/09/2021 > 31/08/2024

www.cooltorise.eu

CITIES, REGIONS AND JUST TRANSITION

Re-thinking financing at local level - capacity building for cities and regions (PROSPECT+)

> The study visit with the Upper Austria Energy Agency gave me insight into Energy Performance Contracting from the perspective of the ESCO, the EPC client and the EPC facilitation office. I saw how EPC can be done and went home with new ideas and inspiration for projects in my municipality.
>
> — **Igor Barton**
> Municipality of Benedikt

> Before the programme I knew a little about energy communities, now I have more knowledge and I am able to discuss the topic with my peers and colleagues from the municipality.
>
> — **Sara Freitas**
> Lisboa E-Nova

Aim of the project

Local and regional authorities (LRAs) are pivotal actors in the fight against climate change and the transition to clean energy. While they contribute significantly to greenhouse gas emissions, they also have the potential to drive substantial reductions and lead the transition to a low-carbon economy. To make this happen, LRAs must strengthen their capacity to make investment-ready plans and secure private capital. The PROSPECT+ project directly addressed this need, equipping LRAs with practical tools and targeted knowledge. Through a robust, well-tested capacity-building programme that paired authorities with expertise in innovative financing schemes with those seeking to learn, PROSPECT+ supported more than 200 LRAs in transforming their sustainable energy and climate plans into concrete actions. It encouraged cooperation among public bodies and fostered multi-level governance, paving the way to the promotion of innovative finance for sustainable energy transition.

Expected achievements

Concluded in March 2025, the PROSPECT+ project successfully implemented four cycles of capacity-building activities focusing on innovative finance for implementing sustainable energy plans at the local and regional levels. The formation of 55 learning groups allowed 290 local and regional authorities to participate in a peer-to-peer learning journey, exploring innovative finance mechanisms, such as Internal Contracting, third-party financing, citizens finance and Energy Performance Contracting, which was by far the most popular scheme chosen by the mentees.

Each cycle included several learning groups, which could take the shape of peer-mentoring (one-to-one relationship between a mentor and an advanced mentee), study visit (between 2 and 7 mentees matched with a mentor) and local groups (same as study visit but carried out in national languages and with national focus – mainly established to overcome language barriers). All types of groups followed the same approach, which included an in-person meetings where mentees could visit the project implemented by the mentor, get to know all personnel involved in the realisation of such project and meet their peers.

Beyond the Capacity Building Programme, the project engaged in policy feedback work, organising two high-level Policy Dialogues, running a Community of Practice and an extensive stakeholder consultation across more than 20 countries, which resulted in a comprehensive report on the findings and recommendations for European decision-makers. Moreover, the team developed specific tools to support local and regional authorities in decision-making processes related to their CET plans and actions, such as the Project Finance Readiness Tool – designed to help local authorities assess the financial maturity of their planned sustainable energy projects; the Recommendations – Decision Matrix Tool - designed to assist local government organisations navigate through a wide range of innovative financing schemes; or the SYNERGISE+ tool – designed to help decision-makers prioritise actions from Sustainable Energy and Climate Action Plans (SECAPs).

The project consortium estimates that over 1 100 clean energy transition measures were influenced by the learning impacts of the Capacity Building Programme, leading to over EUR 1 billion investment in the implementation of CET measures. Furthermore, the project contributes significantly to the EU policy implementation by supporting key provisions of the Energy Efficiency Directive, including: Article 5: promoting public sector leadership on energy efficiency; Article 6: Exemplary role of public bodies' buildings; Article 30: focusing on strengthening the public sector's ability to lead on energy efficiency through the creation of a national energy efficiency fund, along with strengthening decision-makers' capacities by providing financing and technical support.

The PROSPECT+ initiative activities will continue thanks to the new LIFE PROSPECT CUBE project, which will continue building capacity among LRAs with new and updated features.

PARTICIPATING COUNTRIES

PROJECT ACRONYM
PROSPECT+

PROJECT COORDINATOR
Institute for European energy and climate policy (NL)

PROJECT PARTNERS (COUNTRY
Fedarene (BE), Eurocities (BE), Energy cities (FR), University of Piraeus research center (EL), Energiesparverband OberOsterreich (AT), Energetsko podnebna agencija za Podravje (SI), Tipperary energy agency (IE), Ayuntamiento de Valladolid (ES), Sdružení energetických manažerů měst a obcí ZS (CZ), Adelphi research (DE)

01/09/2021 > 31/03/2025

www.h2020prospect.eu

CITIES, REGIONS AND JUST TRANSITION

Clean Energy Transition Assistance Centres – cities on their way to net zero (CETAC)

> The Assistance Centre will offer advice to residents looking for energy savings and it will help address the social problems associated with energy poverty at the same time.
>
> — **Václav Šebek**
> CETAC Project Team

Aim of the project

To realistically advance towards net-zero emissions, municipalities must boost their capacity to influence neighbourhoods and businesses. This involves not only a regulatory role but also equipping municipal professionals with the necessary skills and fostering a collaborative relationship with their citizens and businesses. CETAC creates a strong support system for municipalities by establishing Clean Energy Transition Assistance Centres (CETACs), which will serve as an active interface for collaboration between local governments, businesses, and citizens. Municipal representatives are involved from the beginning in the design, development, and operation of CETACs. Through these centres, the project facilitates the development and implementation of effective climate policies that drive decarbonisation at the local level.

Recognising the unique challenges in Central and Eastern Europe (CEE), CETAC's provides tailored solutions that address the specific needs of these regions. The project focuses on enhancing the competencies of more than 150 municipal representatives, ensuring they can effectively bridge the gap between the municipalities and their citizens and businesses. This collaborative approach fosters a sense of community ownership and responsibility towards clean energy initiatives.

Expected achievements

The creation of CETACs enhances the competencies of more than 150 municipal representatives, enabling them to effectively become an interface between the municipalities and their citizens and businesses. Municipal representatives are empowered to provide services tailored to the specific needs of each municipality, effectively acting as a bridge between the communities they serve and available energy efficiency measures and clean energy solutions.

CETAC will establish a help desk to offer free consultations supported by standardised methodology. Among other services, a local database with a community-driven digital section and an accessible registry of certified professionals will be established. Furthermore, this includes a section for energy auditors and photovoltaic panel installers in some countries. Responses to enquiries are then strengthened around timely support regarding the energy-saving measures, renewable energy options, and available subsidies from energy auditors and photovoltaic panel installers and their supply of services. The project will provide support to entrepreneurs in reducing their operational costs through the implementation of clean energy solutions. Additionally, the project will provide guidance on energy-related challenges faced by vulnerable households.

CETAC fosters cooperation between municipalities, the local community, and the business sector, promoting a collaborative approach to decarbonisation. Each centre in the municipalities will also offer a physical meeting space equipped with tools to enhance the efficiency of the consultations. The space includes access to forums introducing a digital platform to facilitate community engagement. Also, each centre promotes public information campaigns and databases residing effectively integrating local community management to create and utilise data. All these measures will, through the CETACs, facilitate renewable energy adoption, marking substantial steps forward in the transition towards cleaner energy solutions.

CETAC firmly aligns its activities with the goals of the EU's Fit for 55 Package, particularly articles 5–7 of the Energy Efficiency Directive (EED). These articles emphasise the public sector's role in achieving decarbonisation objectives. By enhancing the exemplary role of the public sector, CETAC directly contributes to the successful implementation of the EED, ensuring compliance and making strategic efforts supporting the endorsement of the Directive.

PROJECT ACRONYM
CETAC

PROJECT COORDINATOR
Seven, The Energy Efficiency Center Z.U. - SEVEn (CZ)

PROJECT PARTNERS (COUNTRY)
Viesoji Istaiga 'Atnaujinkime Miesta' - Amiestas (LT), Association of municipalities Polish network «Energie Cities» - PNEC (PL), Ekodoma (LV), Augšdaugavas novada Pašvaldības Centrālā Pārvalde - AUG (LV), Statutární Město Ostrava - OST (CZ), City and municipality of Serock (PL), Initiative Wohnungswirtschaft Osteuropa e.V. - IWO (DE), Asociatia orase energie in Romania - OER (RO), Municipiul Făgăraș - PMF (RO), Voluntary association of local self-government bodies energy efficient cities of Ukraine - EECU (UA)

01/10/2024 > 30/09/2027

https://www.svn.cz/cetac

BOOSTING CLEAN ENERGY TRANSITION SKILLS

Awareness campaigns on nearly zero-energy buildings skills (nZEB Roadshow)

> The path to climate neutrality starts with energy-efficient buildings. Through mobile training units, gamified demonstrations and direct engagement, we raised awareness of nZEBs, motivated both homeowners and professionals, and connected the real estate market with newly trained experts – proving how education can drive real market demand.
>
> — **Dragomir Tzanev**
> Executive Director of EnEffect (Bulgaria), coordinator of the NZEB Roadshow project

Aim of the project

The main objective of the project was to organise national-scale marketing and communication campaigns in five European countries — Bulgaria, Croatia, Greece, Italy and Romania — to promote nearly Zero Energy Buildings (nZEBs) and the related skills. The primary assumption underpinning the project's intervention logic was the necessity for national markets to be driven by the demand for quality buildings, which in turn would stimulate the need for skilled professionals. A real "business case" for this shift needs to be developed to ensure sustained impact. The campaigns focused around "nZEB weeks/days" organised in selected cities across the involved countries. These promotional events took varied forms, including policy conferences, exhibitions of building products and technologies, practical demonstrations, and gamification in real and virtual reality environments. Additionally, they featured training courses for designers and construction workers, information sessions, consultations, on-site training, career orientation and construction job fairs. The project successfully leveraged expert training centres known as "Building Knowledge Hubs," initially developed in the Train-to-NZEB project. This was augmented by the design and construction of mobile demonstration units, as well as building mock-ups and gamified tools.

Expected achievements

The main achievements of the project include the successful execution of 58 nZEB roadshow events across the five target countries, which involved over 19 000 participants. More than 410 collaborations took place at events with producers and retailers of construction products, resulting in 80 Memorandums of Understanding being signed. The project facilitated 31 joint events with public authorities and conducted 9 training sessions for municipal staff on green procurement. Additionally, over 4 100 people have gained improved knowledge and skills regarding nZEBs.

Significant infrastructure achievements include the construction of mobile training and education platforms/units in Bulgaria, Croatia and Romania. Guidelines for the design and operation of these units were also developed, along with a guidebook for games and demonstrations on energy efficiency in buildings. Moreover, the project delivered guidelines on stakeholder engagement and stimulating training demand for skills.

The nZEB Roadshow model of stakeholder and public engagement serves as a blueprint for replication in other countries. Furthermore, the project team made a commendable contribution to the EU Sustainable Energy Week (EUSEW) 2023, organising a highly successful session during the policy conference and hosting a project stand at the Energy Fair. This stand showcased some of the gamified tools employed during the national campaigns. The final publishable report provides an excellent overview of the key project results.

In terms of EU policy implementation, the project directly supports the EU Pact for Skills, specifically the Large-Scale Partnership for the Construction Ecosystem, signed by social partners in 2022. This partnership aims to have 30% of workers participating in upskilling or reskilling actions annually by 2030.

Overall, the project has effectively advanced the goals of the LIFE Clean Energy Transition programme by promoting nZEBs and enhancing the skills necessary for their construction, thereby contributing significantly to EU energy and skills policies.

PROJECT ACRONYM
nZEB Roadshow

PROJECT COORDINATOR
Foundation center for energy efficiency - EnEffect (BG)

PROJECT PARTNERS (COUNTRY)
University of Zagreb, Faculty of civil engineering (HR), Hellenic passive house institute (EL), Zero energy and passivhaus institute for research srl (IT), Association «Cluster for promoting nearly zero energy buildings» (RO), Bulgarian construction chamber (BG)

01/06/2020 > 31/05/2023

www.nzebroadshow.eu

BOOSTING CLEAN ENERGY TRANSITION SKILLS

Mobilising the Hungarian building sector for better trained renovation professionals (ConstructSkills4LIFE)

> “Building a sustainable future starts by equipping the workforce with skills and knowledge to innovate responsibly. At ConstructSkills4LIFE, we believe that every construction project is an opportunity to create lasting positive change for our environment and communities. This is essential for Hungary to meet the 2030 EU climate and energy targets.”
>
> — **Dorottya Hujber**
> Coordinator, ÉMI Non-profit Ltd.

© Dmitro/Stock.adobe.com

Aim of the project

Since 2011, LIFE Clean Energy Transition has been supporting the BUILD UP Skills initiative, which aims to enhance the skills of building professionals and boost the capacity in the renovation market to achieve the EU’s climate and energy policy objectives. This initiative initially funded national roadmaps for skills development to meet the 2020 targets. In an effort to reach the 2030 targets, LIFE Clean Energy Transition launched calls to update these national roadmaps, culminating in updated roadmaps in 15 countries, including Hungary. ConstructSkills4LIFE specifically contributed to revising and endorsing Hungary’s national roadmap. As part of the wave of BUILD UP Skills ‘roadmaps’ projects, the objective of ConstructSkills4LIFE was to revise the National Roadmap for Hungary to establish the conditions necessary for training building professionals to meet the EU and national 2030 targets.

Expected achievements

ConstructSkills4LIFE successfully relaunched the national stakeholders’ platform responsible for the 2013 Pillar I roadmap under the BUILD UP Skill Hungary (BUSH) project, ultimately engaging 91 platform members by the project’s conclusion. With the support of this national platform, ConstructSkills4LIFE updated its ‘Status Quo Analysis’ in July 2023, evaluating existing skills, the training opportunities as well as the unmet needs and gaps.

In October 2023, ConstructSkills4LIFE became one of the pioneering BUILD UP Skills roadmap projects to publish a draft roadmap, which was presented at the 15th BUILD UP Skills exchange meeting. This initiative sparked ongoing exchanges among national roadmap development processes. Notably, ConstructSkills4LIFE

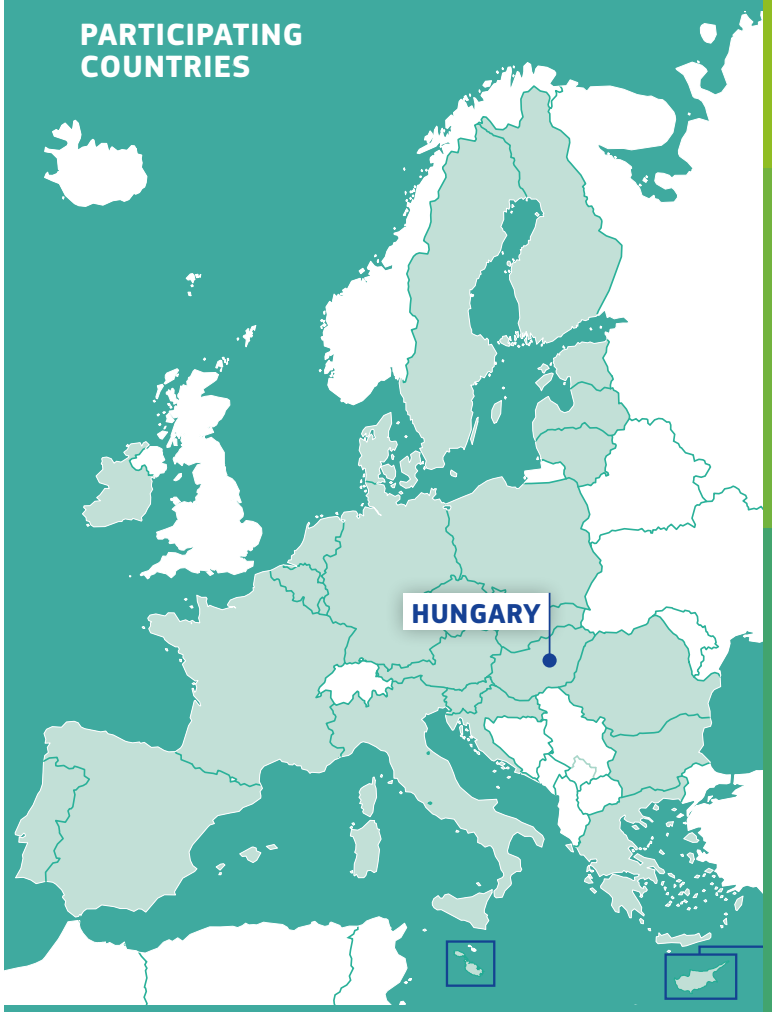
dedicated considerable effort and expertise to developing a national roadmap comprising 30 specific measures aimed at supporting the energy transition in the Hungarian construction sector.

These measures included: a policy and strategy overhaul of higher education to address new challenges, including climate change and sustainability, as well as more competitive training programmes with a focus on market needs and industry cooperation. Additionally, the roadmap encompassed innovative training programmes, such as training vocational trainers and introducing micro-credentials for energy efficiency training, alongside a greater emphasis on life-cycle design, smart solutions and nature-based solutions. Human resources initiatives within the roadmap aimed at raising awareness, providing career guidance, and encouraging the inclusion and retraining of professionals from the fossil energy sector. In terms of economy and finance, ConstructSkills4LIFE advocated for improved education financing, support for digitalisation, increased wages, stability in vocational education and training in the legal framework.

The roadmap received extensive endorsement from the Hungarian building sector, securing 44 endorsements, including three from relevant ministries, 14 major professional chambers and sector associations, 10 training institutions, and 17 companies within the building value chain. Through consultations with these ministries, the project effectively contributed to the strengthening of skills and upskilling among building professionals. Notably, the Ministry of Construction and Transport invited the project to explore whether pertinent proposed measures of the roadmap could be integrated into the National Construction Economic Strategy for 2024-2028.

Addressing the projected 3% renovation rate dictated by the 2030 targets, the project's Status Quo Analysis highlighted the need for a 30% increase in trained professionals, totalling 4 800 annually: 3 200 'blue-collar' (EQF levels 1-5) and 1 600 'white-collar' (EQF 6-7) workers. While identifying new training needs, such as smart buildings and circularity, persistent gaps remained in areas previously identified, including building renovation and near zero-energy buildings. Further barriers included the high retirement rate of building professionals, opportunity costs for lengthy training, insufficient business interest, inadequate funding, and lack of sufficient public support for vocational and higher education. Overall, ConstructSkills4LIFE made significant contributions to fostering necessary upskilling efforts, thus enabling conditions for meeting EU policy objectives.

PARTICIPATING COUNTRIES



PROJECT ACRONYM
ConstructSkills4LIFE

PROJECT COORDINATOR
Non-profit limited liability company for quality control and innovation in building - ÉMI (HU)

PROJECT PARTNERS (COUNTRY)
Geonardo environmental technologies ltd. (HU), Hungarian coordinating association for building engineering (HU), Budapest university of technology and economics (HU), Békéscsaba center of vocational training (HU)

01/10/2022 > 30/06/2024

www.constructskills4life.eu

BOOSTING CLEAN ENERGY TRANSITION SKILLS

Energy agencies leading the energy transition (ManagEnergy)

> “Local and regional energy agencies play a pivotal role in delivering on Europe’s clean energy transition and decarbonisation ambitions. Through ManagEnergy, we support them – and the cities and regions they work with – by providing capacity building, training, visibility, networking opportunities and information. By drawing on the expertise of experienced agencies across our consortium, we accelerate the replication of proven approaches and innovative ideas across Europe.”
>
> — **Seamus Hoyne**
> ManagEnergy Coordinator, Dean of Flexible and Work Based Learning, TUS

Aim of the project

ManagEnergy is a European Commission initiative devoted to empowering local and regional energy agencies as leaders in the clean energy transition across Europe. With over 300 active energy agencies throughout the continent, these organisations are pivotal in executing sustainable energy strategies and investments on both regional and local levels. Since its launch in 2003, ManagEnergy boosted the capacities of these agencies by providing essential tools and resources to implement the energy transition. The initiative sees energy agencies as critical knowledge centres for sustainable energy, working closely with local authorities, the public sector, citizens and businesses to advance renewable energy and energy efficiency solutions. ManagEnergy’s holistic approach actively involves energy agencies, cities and regions in its efforts.

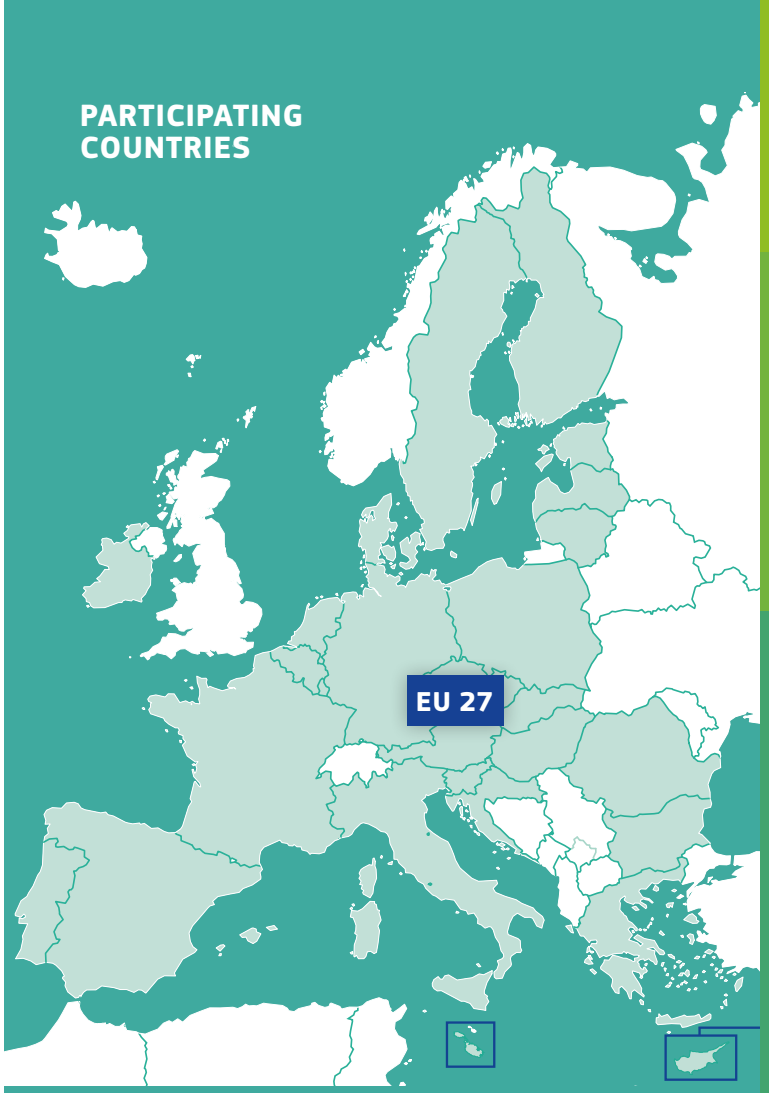
Expected achievements

ManagEnergy has achieved notable successes and set ambitious targets for its current programme, from 2022 to 2026 with a budget of EUR 1.8 million. Building on the accomplishments of ManagEnergy II (2017-2022), the current initiative continues to organise Master Classes and Expert Missions aimed at enhancing the capabilities of energy agencies and local authorities. These events have reached nearly a quarter of all energy agencies in Europe, concentrating on vital subjects such as Market Facilitation, Innovative Financial Instruments, Energy Communities, and One-stop Shops. Eight Master Classes have been concluded so far, with participation of 185 energy agency professionals across 21 Member States. Additionally, the initiative has facilitated EUR 500 million in sustainable energy investments through 18 Expert Missions.

A work-shadowing programme has also been instrumental, enabling 24 participants to visit other energy agencies. This exchange provides them with practical skills and insights into areas like energy performance contracting (EPC), one-stop shops (OSS), and citizen engagement. Moreover, ManagEnergy has organised three ManagEnergy Talks and five thematic seminars, with the third Talk drawing 234 attendees. These events expand the initiative's influence, encouraging climate leadership and community-based energy solutions.

In alignment with EU energy and climate objectives, ManagEnergy is committed to fostering cooperation among energy agencies and enhancing the involvement of cities and regions. By doing so, the initiative supports the implementation of EU energy policies. Its training and coaching activities are instrumental in improving the skills of agency staff and stakeholders, equipping them with the knowledge necessary for effective project development and implementation in support of the energy transition. This concerted effort ensures a swift and effective clean energy transition, in direct alignment with EU goals.

By integrating these aspects, ManagEnergy not only achieves its targeted outcomes but also makes a significant contribution to the broader objectives of EU energy policy.



PROJECT ACRONYM
ManagEnergy

PROJECT COORDINATOR
Technological university of the Shannon (IE)

PROJECT PARTNERS (COUNTRY)
REGEA (HR), Fedarene (BE), OÖ Energiesparverband (AT), Tipperary Energy Agency (IE), ESCAN (ES), Energap (SI), AURA-EE, B.&S.U. (DE) and Akaryon (DE)

01/12/2022 > 30/11/2026

https://managenergy.ec.europa.eu

European Climate, Infrastructure and Environment Executive Agency

This brochure provides an overview of how the LIFE Clean Energy Transition (LIFE CET) sub-programme is delivering clean and energy efficiency solutions to EU citizens and businesses. The brochure highlights the achievements of 28 EU-funded projects, according to the following themes: transforming markets through innovative services, approaches and products; mobilising investments and private finance; one-stop shops for building renovation; transition to clean heating and cooling in buildings and cities; supporting the development of energy communities; cities, regions and just transition; and boosting clean energy transition skills. The LIFE CET sub-programme is the European Union's dedicated funding stream to accelerate the uptake of energy efficiency and renewable energy solutions across Europe. It is part of the LIFE Programme.

LEARN MORE

ec.europa.eu/life
LIFE programme
lifeprogramme
@LIFEprogramme
LIFE programme
@LIFEprogrammeEU

Watch the LIFE programme video
Check the LIFE projects happening in your country

Publications Office of the European Union