



ProLight

Affordable housing for remodelled neighbourhoods across Europe



About the Project

The European objective of green and sustainable growth will require a boost in technological advancements but also a rethinking of our lifestyle, our communities and our societies.

The building sector is undoubtedly a key intervention area to achieve climate energy targets, to mitigate social tensions and to stimulate local investments by promoting innovation.

A priority in the European Green Deal is the design and construction of retrofiting of existing buildings in demonstration districts, targeting nearly zero-energy buildings (nZEB) and positive energy.

6 demonstration districts consistent with the new European Bauhaus principles shaping more beautiful, sustainable and inclusive forms of living together where:

- ... accessible spaces promote the dialogue between diverse cultures and ages,
- ... innovative solutions and regenerative approaches are inspired by natural cycles that replenish resources and protect biodiversity,
- ... the consideration of creativity, art and culture will satisfy our needs beyond the material dimension.

Our 6 demonstration districts include urban planning, construction design, renovation and buildings in operation. Community engagement and decommissioning are also considered by the ProLight project.

This multi-actor approach explicitly takes into account that energy is part of natural resources within all involved demonstration districts, so that in the end, the envisaged solutions will lead to better quality of life for all targeted end-users.

Buildings in EU

40%

of energy consumption

36%

of greenhouse gas emissions

ProLight

16

partners from 10 countries

< 2,88M €

Project budget

Expected Results

Within the project duration we'll overcome existing barriers and drive the development of innovative technologies to deliver the economic and environmental benefits required, ensuring a fast replication and roll-out across all European regions.



1. Urban planning

Integrated infrastructure, E-mobility



2. Energy audit

Construction planning, BIM, Regulation aspects



3. Procurement procedure

Tender, Smart solutions



4. Building retrofit certification

Validation, Test phase



5. Long-term operation

Maintenance, Advertisement

6 Demonstration districts across Europe





4



ProLight
Vaasa

1




ProLight
Vienna

2



ProLight
Urbana New Living

6



ProLight
Kozani



Vienna, Austria

The Austrian demo site will work in close collaboration with the Viennese municipal department, bringing together users and other local stakeholders in order to provide an innovative heating and cooling solution for affordable housing. At this site, a geothermal heating system will be implemented and combined with renewable solar thermal generation. This will allow for the heat that is supplied to the ground during summer to be stored for the winter months.



Gernika, Spain

Gernika TEK is the first energy community in Gernika. 200 solar panels on the roof of the San Fidel school are supplying renewable energy to the school and to the infrastructure around: 150 homes, shops and public buildings such as the cultural centre.

The implementation of the project will help to avoid the emission of 885 tonnes of CO₂ per year, which is equivalent to planting 3,500 trees that absorb carbon dioxide emissions for 25 years.



Vaasa, Finland

In Vaasa, first, a new building of student housing will be built close to Palosaari campus area. Second, ProLight intends to demolish and reconstruct a new student village. Aside from providing students with energy-efficient housing, this demo site aims to guide the community towards more resource-efficient habits. This is why the Vaasa Energy Business Innovation Centre and the Student Housing Foundation in Vaasa (VOAS) will collaborate to create the LivingApp.

Milan, Italy

The Urbana NEW LIVING project, a social housing neighbourhood, aims to optimise energy use by implementing digital services for its residents. Planet Idea will provide solutions that promote innovation, environmental sustainability, and social inclusion. To this end, an application will be developed to enable residents to interact with the neighbourhood's smart solutions. This initiative will enhance the community's quality of life from an economic, social, and environmental perspective.



Kozani, Greece

The Greek demo site aims to design and implement energy efficiency solutions and smart net metering for residential buildings, donated by the Greek state to the vulnerable population in the City of Kozani. In this pilot case, ProLight project will consist in renovating a social dwelling of people with lower income, which will be selected with specific criteria among 500 of them, by improving its thermal insulation, installing solar thermal equipment as well as smart devices and sensors to measure and adapt its behavioral patterns.



Matosinhos, Portugal

In this Portuguese neighbourhood, the ProLight project will work to build a renewable energy community that is up to the positive Energy District (PED) standard. The neighbourhood has already been subject of envelope and hot water interventions, that were funded under structural funds. Additionally, the project will implement photovoltaic energy production to be used by the inhabitants. The demo site will be coordinated by AdEPorto on behalf of the municipality of Matosinhos.



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