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The IDAE, through its Programme for the Renovation of Existing Buildings (PAREER-CRECE), developed a series of grants to promote actions intended to make buildings in our country more energy efficient. The best practice presented is specific to social housing, which, within the framework of this programme, was eligible to receive additional grants if the building was covered by a public protection scheme of the competent body of the corresponding Autonomous Community.

The goal of the PAREER-CRECE Programme is to reduce the CO\textsubscript{2} emissions and the final energy consumption of buildings by improving energy efficiency, thermal envelopes, heating, cooling and lighting installations, as well as by replacing conventional energy with biomass and geothermal energy in combustion plants.

The action in the neighbourhood of La Txantrea involves improving the energy efficiency of 23 public housing buildings (23 homeowners’ associations), in which actions were carried out involving their thermal envelopes that resulted in improvements to their roofs, facades, floors and windows. The total eligible cost of this activity was €9,695,773, with an ERDF grant of €4,721,817.

The projects were presented directly by the homeowners' associations to the PAREER-CRECE Programme.

In the framework of the Social Housing category of PAREER-CRECE, projects were carried out to improve the thermal envelopes of buildings and the energy efficiency of their facilities at an eligible cost of €26,000,000, with an ERDF grant of €14,500,000, which resulted in a reduction in carbon dioxide emissions of 4,454 tCO\textsubscript{2}/year.

The energy efficient building renovation in the neighbourhood of La Txantrea is considered a best practice because it meets the evaluation criteria designed for this purpose:

1. **The role of the ERDF in the activity was properly communicated to potential beneficiaries and the general public.**

In addition to the mandatory publicity measures by the beneficiaries, both the activity itself and the European Regional Development Fund (ERDF) were widely disseminated in various media.
a) Compliance with communication obligations by the beneficiaries

The upgraded buildings satisfied the communication and publicity requirements by disseminating the ERDF grant through the installation of plaques, as specified in the conditions for the grants received.

Since the start of the action, regular meetings were held with local residents to involve them in the implementation of the renovation project and in the decision-making process. At these meetings, they were properly informed about the activity and the ERDF's co-financing. More than 200 information meetings were held with the homeowners' associations.

Press coverage
Presentation of results at various events: Ceremony to present the results of the project, held in Navarre on October 4, 2018.

b) Specific measures taken by the IDAE to promote the action

Official website of the programme which details the calls for the aid scheme and includes specific information regarding the financial support of the ERDF.

Distribution of informative material on the specific activity at energy fairs. Specific data sheets were prepared on the ERDF intervention in the La Txantrea neighbourhood and about the ERDF, for distribution at the 2017 and 2018 editions of the International Energy and Environment Trade Fair, GENERA, the most important in the energy sector.
**Presentation of results at national and international forums.** The IDAE takes part in multiple conferences/seminars organised by various entities, both public and private, in an effort to promote the aid schemes co-financed by the ERDF, as well as their results.

**Shares in the press:** press releases informing of the activity, its results, the aid programme and the ERDF.

**2. The action incorporates innovative elements**

The energy renovation of the neighbourhood of La Txantrea is a pioneering project in Spain. It features two innovative components worth highlighting: on the one hand, **the integrated management of home energy renovation services**, which involved the citizens, authorities, professionals and agents that participated in the renovation of the buildings; and on the other hand, **the performance of the works in a way that was least bothersome to the buildings' occupants** and did not require them to relocate for the duration of said works.
To achieve these objectives, the Government of Navarre played a facilitating role in promoting private investments into energy efficiency, implementing joint tenders (lots of work) to lower costs, and the realization of framework agreements with banks in order to facilitate financing for neighbourhood's residents.

In addition, it should be noted that the local residents were guided throughout the process of their buildings renovation journey, as both the technical and social aspects were covered, to help them in every phase of the process. To this end, the Government of Navarre opened a “one stop shop office” (Efidistrict) in the neighbourhood in order to advise residents on possible technical solutions, process grants and help them with the provision of financing. This office remains open to this day, supporting new energy efficiency initiatives in the neighbourhood.

3. Adaptation of the results to the stated objectives

The stated objectives were fully achieved, since the work, which was completed in a coordinated and joint manner, yielded improved thermal performance in 588 homes (50,106 m² of the renovated surface area), resulting in energy savings of 3,186 MWh/year, financial savings in energy consumption of €254,880/year, and avoiding emissions of 804 tCO₂/year.

It is also interesting to note that thanks to this action, the professionalisation of the energy building renovation sector has been enhanced, leading to the development of ambitious energy savings plans that have resulted in the execution of high-quality projects that have upgraded aging and deteriorated buildings to meet the needs of the 21st century. Furthermore, the project improved the perception that residents have regarding the complexity of carrying out energy efficiency improvements in their homes, making the renovation processes more cost-effective, less bothersome to occupants and more environmentally friendly.
4. Contribution to solving a problem or weakness detected in the territorial area of execution of the action

The problem or weakness that was identified in La Txantrea is that it is a neighbourhood of social houses that were built between 1950 and 1979 (approximately 6,335 homes), with very simple structures made of brick walls, with no air cavity or insulation layers, or with buildings made using prefabricated concrete panels, both of which have high thermal losses and condensation problems on the more exposed sides of the buildings, resulting in homes with inadequate thermal comfort.

In addition, the neighbourhood was in a situation of economic crisis (unemployment) affecting its younger population, who for the most part purchased their homes through a mortgage, thus making it difficult to incur new housing-related costs.

The holistic approach of this action, enable to solve key problems for the neighbourhood's residents, such as securing the financing required to carry out the works, as well as having the technical support needed to facilitate decision-making on matters related to improving the energy efficiency of their homes.

5. High degree of coverage of the target population

The involvement of the citizens, as well as the participation and mobilisation of users, were essential to the success of this project. Currently, the La Txantrea neighbourhood has a population of 19,895 inhabitants, with a great neighbourhood tradition and culture.

The Energy Building Renovation in the neighbourhood of La Txantrea was carried out in collaboration with neighbourhood associations, and was defined by the neighbourhood itself and carried out on a neighbourhood scale, tailored made to its real needs.

Meetings were held with the owners involved in the building envelope renovation process to define key aspects of the project: type of wall and insulation, solutions for balcony enclosures, solutions for ventilation installations in homes, solution for outdoor laundry rooms, etc.
6. Consideration of the cross-cutting criteria of equal opportunity and non-discrimination, as well as social responsibility and environmental sustainability

All the work was done in a social houses neighbourhood, with an aging population and in a situation of economic crisis.

When selecting the projects, the “Empresa Navarra de Suelo y Vivienda” (NASUVINSA), Navarre Land & Housing Company belonging to the Government of Navarre, worked in concert with the residents, who took part in selecting the architecture studios that drafted the projects and the companies that were awarded the works.

To ensure equal opportunity, regular meetings were held throughout the process with all the residents to make important decisions regarding the technical solutions to be applied, costs, subsidies and financing.

In addition, through this initiative, the companies awarded the renovation works were encouraged to hire unemployed residents in the neighbourhood to perform said works.

The energy ratings of all the buildings involved in the project were improved by one, two or more letters, yielding overall savings in the final energy consumption, as well as reduced CO$_2$ emissions, thus helping to lower their energy dependence on fossil fuels.

It should be noted that environmental sustainability principles, as well as other measures, were applied through the preferential use of materials with a low environmental impact, such as rock wool insulation and natural cork.

7. Synergies with other public intervention policies or instruments

The actions in the La Txantrea neighbourhood are part of the objectives set forth in the 2020 Energy Plan of Navarre, as well as in the Navarre Housing Plan, which, as of 2017, includes more aids for energy renovation projects that coordinate actions in several buildings, including tax exemptions for low-income owners.

A synergy directly related to this action is the construction, in 2019-2020, of a biomass-fuelled district heating network to provide a renewable source of heating and hot water to the cooperatives in the La Txantrea neighbourhood. This project will heat more than 4,500 homes and 50% of it will be subsidised by the 2014-2020 ERDF Operational Programme of Navarre.

Along this line, the Government of Navarre, through the Navarre Land & Housing Company, within the framework of the European Horizon 2020 programme, won the SustaiNaVility project (2018-2021), whose scope of action is the Autonomous Community of Navarre and which aims to promote public and private investments in energy savings and efficiency, as well as to integrate renewable energies in both industrial production processes and urban facilities.
The City Council of Pamplona has implemented other projects that will help to improve the neighbourhood and the quality of life of its inhabitants, such as the transformation of the former Salesians School into a civic centre, the first in the neighbourhood. Also being planned is the construction of the Txantrea-Magdalena Park, which will be the fifth largest park in the city, along with the development of urban gardens and the implementation of sustainable mobility policies that will convert the main road that crosses the whole neighbourhood, from east to west, into non-motorised transport routes for pedestrians and bicycles.

Finally, we must mention the replicability effect of this action, not only nationally, but in Europe and all over the world. Officials from the building renovation departments of Barcelona, San Sebastian, Vitoria and Zaragoza held meetings to compare and exchange related practices and strategies about this initiative, which has been taken as a reference in regional programmes of the European Union.

Likewise, officials from the Cideu Network (Ibero-American Centre for Urban Energy Development), an association composed of 124 cities, 12 of them in Spain, visited La Txantrea to see this project first-hand.

Other agencies, such as the National Energy Agencies of Turkey and South Africa, have expressed an interest in this programme and in Pamplona's experience to IDAE.
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