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BUENAS PRÁCTICAS

Actuaciones Cofinanciadas

Refurbishment and Improvement of energy efficiency at Cervantes Youth Center (CCJ). EDUSI "ALCOIDEMA"

Alcoy City Council

**Programa Operativo
Plurirregional de España**

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Fondo Europeo de Desarrollo Regional

BEST PRACTICES EDUSI "ALCOIDEMÀ" ALCOY CITY COUNCIL

REFURBISHMENT AND IMPROVEMENT OF ENERGY EFFICIENCY AT CERVANTES YOUTH CENTRE (CCJ)

This Best Practice focuses on the refurbishment of the building that houses the Centro Cervantes Joven -Youth Centre Cervantes- (CCJ) in Alcoy, as well as the set of interventions carried out to improve its energy efficiency. The aim is to recover and revalue this heritage asset while improving the climatic comfort conditions for users and opting for a more sustainable and integrated heating and cooling system.

The Cervantes Youth Centre is a unique two-storey eclectic-style building, designed by the architect Vicent Pascual in 1923. It is registered in the Catalogue of Interesting Buildings of the city and in 2014 it was partially refurbished through an employment workshop. For some years now, it has housed the Youth Council, the Espai Jove, the Club Jove, the Escola Municipal de Teatre, the CLIA headquarters, the psychological counselling programme for young people (APSI), the Pi classroom and various training and employment workshops. It is also very popular because it houses the reception area and the entrance to one of the city's Civil War air-raid shelters.

Besides being in need of general renovation, the CCJ facilities were not in optimal conditions to ensure an effective and efficient use of air conditioning and lacked summer air-conditioning.



Pictures of several classrooms after the refurbishment

In addition to a general cleaning of the façade, the whole exterior carpentry has been renovated, covering a total surface area of 310 m² and is now made of aluminium with hermetic enclosure, triple glazing and two insulation chambers.

Moreover, apart from a structural reinforcement of part of the first floor slab, the thermal transmittance has been improved by incorporating insulation and reducing the volume to be air-conditioned, thanks to the reduction in height. The old gas boiler has also been replaced by a heat pump system, designed to provide cooling in summer and heating in winter.

At the same time, an important intervention has been carried out to renovate and improve all the installations, both electrical and communications, lighting and an important part of the plumbing.

The cost of this operation is 999,439.93 €, of which 50% (499,719.96 €) is co-financed by the Operational Programme of the European Regional Development Fund 2014-2020 (ERDF). In this way, the operation has a direct impact on the 6,500 people between 14 and 25 years old (11'08% of the total population of the municipality) that make up the youth population of Alcoy and a general impact on the nearly 60,000 inhabitants of the city.

THE ROLE OF THE ERDF HAS BEEN ADEQUATELY ADVERTISED AMONGST BENEFICIARIES, POTENTIAL BENEFICIARIES AND THE GENERAL PUBLIC

Firstly, the minimum regulatory obligations such as the temporary sign, the permanent plaque and the inclusion of the performance in the single portal have been fulfilled.



With advertising in media (newspapers, radio, digital media)

During March 2023, a few weeks before the project was completed, an advertising campaign was planned which included radio spots on three local radio stations with maximum audience, advertising in the press and on three local websites, as well as advertisements on a local television station. The campaign was complemented through the publication of advertisements and interviews to the EDUSI-Alcoidemà delegate councilor in the local media.



[Link to the radio advertisements](#)

[Link to the TV spot](#)

Production of informative videos on the project and on its benefits once the work was completed.

Several videos have been produced, in different stages of the project. During the works, a video was broadcast on social media, in which the councilor delegate of the EDUSI-Alcoidemà and the municipal architect of Alcoy explained what the intervention consisted of and what were the sources of funding. [Link to video on the city YouTube channel](#)



Besides, a one-minute informative video has been shot, focused on highlighting the benefits derived from this action for the citizens and the role that the ERDF and the European cohesion policy have played in this transformation process. [Link to video on the city YouTube channel.](#)



The airing of these videos, in several formats adapted to the different channels, has been carried out on the City Council's social networks (Facebook, Instagram, Twitter and YouTube).

With a public event

On April 1, 2023, an open day was organized to inaugurate the building after its renovation. The event was attended by more than 300 people and included a free breakfast, a live music concert, demonstrations, exhibitions, and workshops. The attendees were also handed out merchandising elements with the logos and slogans of the printed program and the project was publicized through a display and information leaflets. The day included a specific advertising campaign in the media and social networks to encourage the target audience to attend, as well as a summary video that was subsequently disseminated through the municipal social networks..

[Video of the event.](#)



Through press releases, news and reports on the project

An exhaustive informative follow-up of the initiative has been carried out: project, approval, initiation, and implementation of the project, including in all this documentation clear references to the European financing through the ERDF Funds. Likewise, the notes have been sent to all the media, with wide and varied coverage by local and, in some cases, provincial and regional media.

Noticias

Publicada el día 14/01/2022

Licitadas las obras para mejorar la eficiencia energética del antiguo edificio de Cervantes

El precio de licitación es de 1 millón de euros. La Conselleria de Vivienda y Arquitectura Bioclimática financia el 35%. También se incluye en el marco de la Estrategia de Desarrollo Urbano Sostenible e Integrado Alcoi Demà cofinanciada por el Fondo Europeo de Desarrollo Regional FEDER en el marco del programa Operativo Plurirregional de España 2014-2020. El porcentaje de financiación de esta línea es del 50%. El resto del importe del contrato, es decir, el 15 %, se financiará con medios propios.

Las obras están cofinanciadas por la Unión Europea, a través del Programa Operativo FEDER de Crecimiento Sostenible 2014-2020 y por la Generalitat Valenciana, a través de un convenio con la Conselleria de Vivienda y Arquitectura Bioclimática

Se busca conseguir una reducción de la demanda energética con la mejora del envolvente térmica y la instalación de equipos de climatización con rendimientos mayores que permiten reducir el consumo energético

la sillería de la fachada y se reforzó estructuralmente parte del forjado de la primera planta. Además, se ha sustituido toda la carpintería exterior, que abarca una superficie total de 310 m2 y que ahora es de aluminio, con acristalamiento de triple vidrio y dos

imagen del edificio catalogado. También se ha intervenido para actualizar todas las instalaciones, tanto de climatización, de electricidad, de iluminación y una parte de la fontanería para mejorar la eficiencia y la gestión del propio edificio. La concejala de Juventud, Patrimonio

THE PROJECT INCLUDES INNOVATIVE ELEMENTS

The work on the facades consisted of a self-supporting wall cladding, made of two 12.5 mm laminated gypsum boards with a 70 mm wide structure every 40 cm and 70 mm thick rock wool insulation. Thanks to this procedure, the greatest number of thermal bridges has been eliminated, optimizing and enhancing the performance of the installed carpentry. In addition to regularizing the surfaces and concealing the installations, the wall cladding contains the necessary thermal insulation to improve the thermal transmittance of the facades.

In the other hand, the external carpentry of the facades, made of iron and wood, has been renewed with an airtight system and triple glazing. The blinds and lighting are self-regulating and programmable to favor different degrees of light intensity and to control consumption to the maximum.

Structural reinforcement of part of the second-floor slab. The vibrations caused by dynamic loads, which caused a very unpleasant situation, have been eliminated. By shortening the span of the metal joists through the creation of a substructure that helps redistribute the loads and avoids the wobbling of the floor slab, especially in the area destined for the "Construction Workshop".



On the other hand, the suspended ceiling system reduces the volume of air to be cooled and, at the same time, conceals the existing installations. By replacing the gas boiler with a system of heat pumps, designed to provide cooling in summer and heating in winter, the entire building is operated exclusively with electricity, without the need to contract gas or fuel supplies..

THE OUTCOME MEETS THE OBJECTIVES SET

As a result of this intervention, a renewed value has been given to this significant architectural element from the heritage catalogue. At the same time, the building is one of the most visited municipal centres with a greater number of activities taking place in it due, on the one hand, to the programming of the Youth Department, the different counselling and information services it houses and the training courses that take place in it, such as the employment workshops. It was necessary to have updated facilities that guarantee optimal conditions for users, something that has been achieved.

Another of the objectives achieved is energy saving and more efficient use of energy resources. With this reform, the Centre Cervantes Jove has gone from having an overall energy efficiency rating of C (24.62 kilograms of CO₂/m² of electricity consumption released into the atmosphere) to an overall rating of A (with a total of 4.99 kilograms of CO₂/m² of electricity consumption released into the atmosphere). Regarding non-renewable primary energy consumption, it has moved from a C rating (overall non-renewable primary energy consumption of 119.38 kilowatts per square metre per year) to an A rating (overall non-renewable primary energy consumption of 28.91 kilowatts per square metre per year). Finally, as regards the partial rating of the energy demand for heating and cooling, it has

moved from a D rating (with 64.64 kilowatts per square metre per year) to an A rating (overall non-renewable primary energy consumption of 28.91 kilowatts per square metre per year).

THE PROJECT ADDRESSES A REGIONAL PROBLEM OR WEAKNESS

Besides needing a general renovation, the CCJ's facilities did not meet the optimal conditions to guarantee optimal and efficient use of the air-conditioning, as well as lacking any air-conditioning for the summer months. This intervention, in addition to improving energy efficiency, has made a significant contribution to soundproofing the building, which is essential since a large part of the centre's activity is and will be teaching in the future, as it has already been announced that the University of Alicante will use part of the building to set up its campus in the city.

At the same time, an important intervention has been carried out to renovate and improve all the installations, both electrical and communications, lighting, internet connections, and an important part of the plumbing. All this will result in an improvement for both the users of the current services offered and the future uses of the building.

Energy consumption, apart from being an environmental concern, has also become one of the most important municipal expenses, and its containment is seen as an imperative need. Therefore, thanks to this new high-efficiency system, along with the other actions, it will be possible to reduce consumption, which will be reflected in a more cost-effective billing.

THE ACTIONS APPLIES THE HORIZONTAL CRITERIA OF EQUAL OPPORTUNITIES AND NON DISCRIMINATION, SOCIAL RESPONSIBILITY AND ENVIRONMENTAL SUSTAINABILITY

The principles of equal opportunities, non-discrimination and social responsibility have been taken into account at all times in the programming, management and direction of this action. The Alcoy City Council establishes and promotes these principles through the "Municipal Plan for Equal Opportunities for Women and Men".

Particularly significant is the improvement in the classrooms dedicated to employment skills training, classrooms that in recent years have hosted the "Forma't Alcoi" workshops, which have mainly been attended by women between the ages of 40 and 60, who have participated in mixed programmes aimed at improving the employability of job seekers by providing them with professional qualifications and promoting their integration into the workforce.

In accordance with the criteria of social responsibility, the accessibility needs of people with reduced mobility have been taken into account, including the specific measures required by law.

Finally, in relation to environmental sustainability parameters, the introduction of new insulating materials that help to distribute and regulate heat, the reduction of volumes, and the replacement of the heating system mean a reduction in energy consumption and a commitment to more efficient systems, at the same time contributing to a considerable reduction in CO2 emissions into the atmosphere each year.

DEGREE OF COVERAGE OF THE POPULATION TOWARDS WHOM IT IS DIRECTED

The refurbishment of the Centre Cervantes Jove has direct repercussions on all citizens, as it is a heritage element included in the Catalogue of Singular Buildings. However, it has a special importance for a specific sector, the youth of Alcoy, which is the majority public of the centre at present. The direct impact falls on the 6,500 people aged between 14 and 25 (11.08% of the total population of the municipality) who make up the youth population of Alcoy and who

use or may use the services offered by the Youth Department, while the general impact covers the nearly 60,000 inhabitants of the city, who have seen this important element of their heritage catalogue recovered and given value.

Inside the building are located the different services offered by the Youth Department, including the Espai Jove, the Education, Sex Education and Psychological Counselling offices; the Joop Jove Oportunitat, Youth Correspondents, CreaJove, Youth Associations Training Plan and Youth Animation Training Plan programmes; as well as a varied list of activities such as Urban Skills, Retroweekend, Alcoi Màgic, Clubjove or AlcoiSona. On the other hand, the CCJ building also houses one of the classrooms that the Department of Employment uses to teach its training and employment plans.

SYNERGIES WITH OTHER POLICIES OR INSTRUMENTS OF PUBLIC INTERVENTION

This project was selected within the "Urban Actions" of the Second Vice-presidency, Department of Housing and Bioclimatic Architecture of the Generalitat Valenciana. Out of a total of 450 applications, 70 projects were approved for the whole of the Valencian Community, including the refurbishment of the Centre Cervantes Jove (CCJ) with a regional subsidy of 35%, i.e. 350,000 euros.

Likewise, with the results obtained with this refurbishment and with the adaptation of the facilities to optimise energy efficiency, it contributes to the integral improvement of the urban environment, to the mitigation and adaptation to climate change in line with the National Plan for Adaptation to Climate Change and advances towards the reduction of pollution in all its forms.

The refurbishment of Cervantes also makes it a smart building, as all its processes are automated and centralised to improve management and savings. On the other hand, it has environmental sensors that are integrated into the city platform, another of the projects included in the EDUSI-Alcoidemà, through the Thematic Objective (TO) 2: improving access, use, and quality of information and communication technologies. These actions are in line with and complement the planning to turn Alcoy into a smart city, one of the priority objectives of Alcoy City Council.

