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Generalitat
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BUENAS PRÁCTICAS Actuaciones Cofinanciadas

“The expansion of the metropolitan bicycle parking offer”

Generalitat de Catalunya

Programa Operativo de Cataluña

Año 2022

Fondo Europeo de Desarrollo Regional

The project “The expansion of the metropolitan bicycle parking offer” is presented as a Good Practice.

The aim of this operation is to promote sustainable urban mobility and, in particular, cycling transport, electric mobility and the development of clean energy supply services. For this reason, the metropolitan offer of safe and organized parking stations for bicycles, called Bicibox, has been expanded.

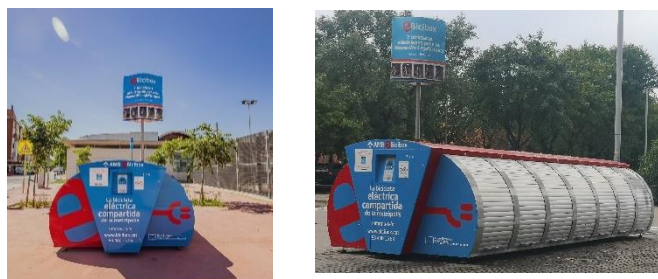
Bicibox is a public network of free and secure parking stations for private bicycles that is distributed throughout various municipalities of the Barcelona Metropolitan Area, created in 2011. Bicibox bike parks provide their users with a protected space for bicycles for a maximum period of 48 hours on workdays and 72 hours on weekends. In addition, it offers parking lots for public electric bikes.

The parking modules made of metal are energetically autonomous thanks to their own solar energy system and come in three sizes: 7, 14 and 20 spaces. Additionally, there are high-capacity parking modules that are installed in places of greatest demand, such as areas near train or metro stations.

An example of actions carried out within the project is a high-capacity parking station for 92 bicycles designed and built next to the suburban train station in the municipality of Gavà, promoting intermodality between bicycles and public transport. Moreover, 55 metal modules with 14 spaces have been installed to increase the offer of the Bicibox secure bicycle parking service in the Barcelona Metropolitan Area (AMB). Out of these modules, 10 are used for parking private bicycles and the remaining 45 for a fleet of electric bikes for public use.



High-capacity bicycle parking next to the suburban train station in Gavà



Modules for private bicycle parking and for the parking of a fleet of electric bikes for public use.

With the ERDF operation, the metropolitan offer of secure bicycle parking has been expanded to 12 municipalities of the Barcelona Metropolitan Area.

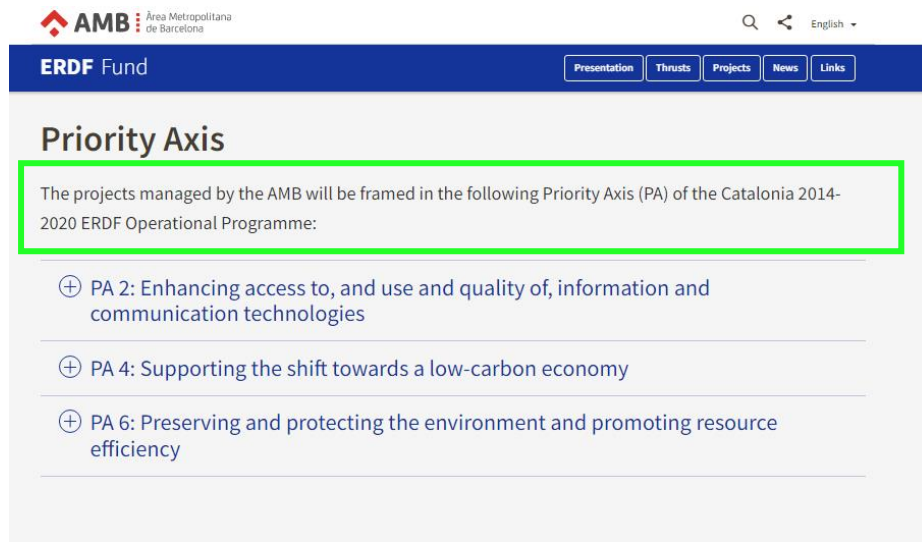
The project involves the total cost of €1,873,566.09 and an eligible cost of €734,509.82, with an ERDF aid of €367,254.91. The results of this project have benefited more than 80,000 passengers, facilitating intermodal transport between bicycles and public transport during 2017-2020.

This operation is presented as a good practice because the following criteria are met:

- 1. High dissemination level among beneficiaries, potential beneficiaries and the general public**

Dissemination of the project on the web pages:

<https://feder.amb.cat/>



The screenshot shows the website of the ERDF Fund (Fons Europeu de Desenvolupament Regional) for the Barcelona Metropolitan Area (Àrea Metropolitana de Barcelona). The page is titled "Priority Axis" and contains a green-bordered box with the text: "The projects managed by the AMB will be framed in the following Priority Axis (PA) of the Catalonia 2014-2020 ERDF Operational Programme:". Below this box, there are three bullet points, each preceded by a plus sign in a circle:

- PA 2: Enhancing access to, and use and quality of, information and communication technologies
- PA 4: Supporting the shift towards a low-carbon economy
- PA 6: Preserving and protecting the environment and promoting resource efficiency

Projects



Metropolitan smart cities platform
City of smart cities



Socio-environmental restoration of metropolitan river areas
Besòs and Llobregat rivers, streams, and Collserola watersheds



Increased secure bike parking
More Bicibox parking places

Project presentation activities and events



On March 17, 2022, a workshop with municipal technicians was held on the occasion of the 10 years anniversary of the Bicibox service, and the ERDF co-financing was disseminated:



Publications on social media



Incorporation of the ERDF logo in a secure parking module



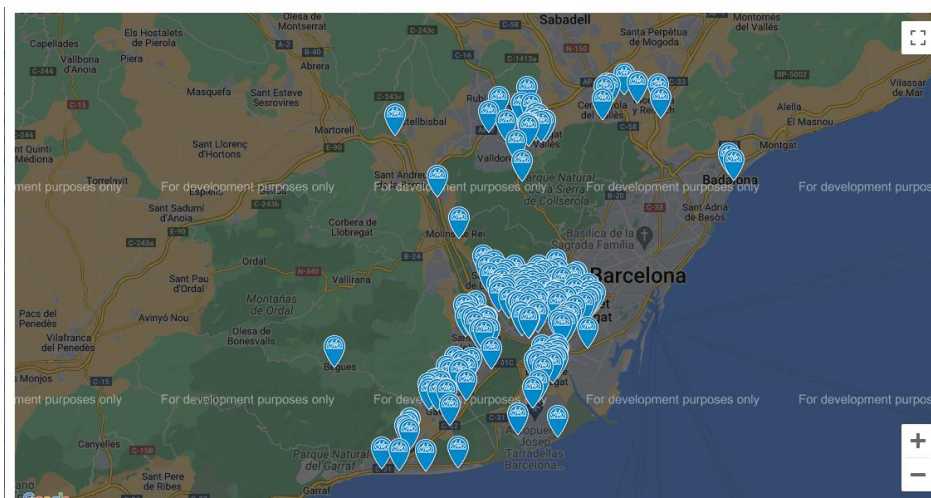
2. The incorporation of innovative elements

The project provides different innovative aspects in bicycle parking in urban environments. On the one hand, the Gavà parking module and other different modules are integrated into a single centralized management network that extends throughout the Metropolitan Area of Barcelona. This way, a user from a certain municipality can access any parking space in any metropolitan municipality with the same conditions.

On the other hand, the parking offer combines the parking of private bicycles and the parking of bikes for public use, therefore maximizing the goal of promoting cyclist mobility. Furthermore, the security of the parking modules minimizes the risk of theft and helps avoid carrying private padlocks.

It is also worth mentioning that the modules are not permanently anchored to the ground, so they can be relocated very easily depending on demand. Furthermore, they are energetically autonomous, functioning only with solar energy.

Finally, there is a mobile application that provides the availability of the entire network, allowing centralized management to know the evolution of demand day by day, municipality by municipality or module by module.



3. Evaluation of the results obtained from the operation against the established objectives

The operation is part of a carbon reduction strategy to curb the use of combustion engine vehicles, and a change towards more sustainable mobility to promote the use of bicycles and public transport.

The good practice proposed to expand the secure bicycle parking network (implementing more modules of the Bicibox service) aims to encourage the use of bicycles, increasing trips in this transport mode and reducing trips by private vehicle. This change in habits in favor of cycling will imply a reduction in CO₂ and nitrogen emissions and, consequently, an improvement in air quality (in terms of both greenhouse gases and polluting emissions).

The proposed expansion of the secure parking offer has also made it possible to provide a metropolitan fleet of electric bicycles for public use, an initiative that has led to a significant change in the offer of sustainable modes of transport in the metropolitan municipalities of Baix Llobregat, making the use of private vehicles with combustion engines more dispensable.

Another expected result of the operation is the promotion of the use of public transport, to the extent that the use of bicycles facilitates multimodal trips (favoring access to stations and transport hubs).

As a complement, the increased mobility by bicycle also has an impact on people's health, promoting physical exercise and reducing air pollution, and on the local economy, boosting the growth of the bicycle sector: purchase and sale of bicycles, bike rentals, bicycle mechanic workshops, bicycle tourist services... and, consequently, creating new job opportunities for metropolitan citizens.

European funds must be valued positively, as a key aid to be able to ensure the implementation of projects such as the one presented, of a magnitude that would be impossible to face in the same period of time with only metropolitan economic resources.

4. Contribution to the resolution of a regional problem or weakness

The operation is dedicated to promoting urban and interurban mobility by bicycle, as a measure to reduce the use of private vehicles, and at the same time reduce polluted emissions. In this way, with the installation of secure bicycle parking modules, intermodality between bicycles and public transport is facilitated, contributing to accelerating a change in habits towards cleaner and more sustainable mobility.

In addition, the modal shift from private vehicles to bicycles has other environmental impacts worth considering, in particular: reducing the noise level, contributing to the physical fitness (health) of users, freeing up public space currently occupied by roads and the car parks. In short, this operation helps to build cleaner, more humane and more just sustainable metropolises.

The construction of secure bicycle parking modules and car parks also tries to address the problem of bicycle theft in large metropolitan urban centers, a problem that has been identified as a

significant obstacle in the mass use of bicycles in daily mobility, which usually requires combining the bicycle with public transport.

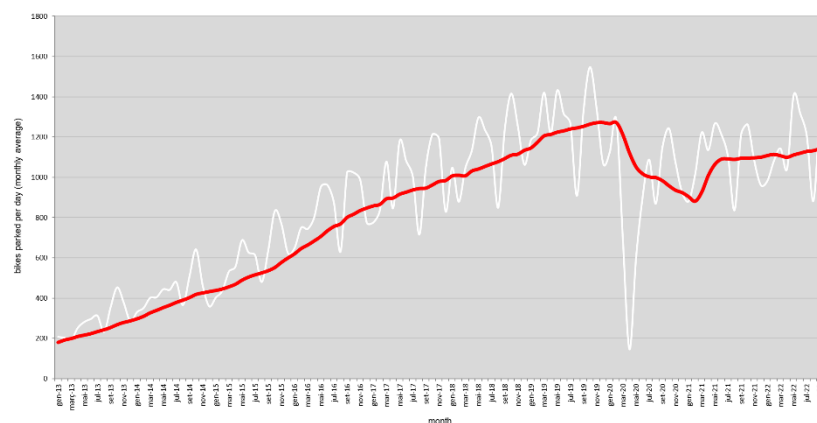
It is also worth noting the contribution of the Bicibox modules and car parks to the physical order of bicycle parking around the transport hubs, and how they also facilitate the availability of electric bicycles for public use to the general population to bring cycling mobility closer to everyone.

The project has also had an impact on other municipalities outside the metropolitan area, which have started their secure parking network, and on other mobility agents (railway operators) who have also created their own secure bicycle parking network for their users.

5. Degree of coverage of the population to which it is addressed

The impact of the project on the target audience of the operation is evident in view of the increase in demand for the Bicibox service in recent years within the municipal sphere, an increase only slowed down by the consequences of the COVID-19 pandemic on mobility.

Specifically, the project's actions are estimated to have generated more than 80,000 bicycle-public transport trips during the 2017-2020 period, and have continued to do so in subsequent years, as can be seen in the following graph:



The metropolitan experience of creating a secure bicycle-parking network, as a successful tool to promote cycling mobility, has been transferred to other medium and large cities in Catalonia. Specifically, in recent years, new secure parking systems similar to the Bicibox service have appeared in Terrassa, Sabadell, Vilafranca del Penedès, Granollers, Mollet, Vilanova i la Geltrú... In all these cases, and even in many others outside of Catalonia, the AMB has offered technical and administrative assistance for the implementation of a secure bicycle-parking offer.



6. Compliance with horizontal principles (sustainable development, equality between men and women and the principle of non-discrimination) and environmental regulations

The project aimed at expanding the metropolitan bicycle-parking offer complies with the principles of sustainable development. To this end, the operation has been carried out meeting the sustainability criteria, with care for the environment as a principle of action and provision of the service. The actions have a direct impact on the improvement of air quality as they promote sustainable modes of transport. In addition, the Bicibox modules use solar energy to cover their energy consumption, and are made of metal to facilitate their subsequent recycling.

The project also pursues equality between men and women and the principle of non-discrimination. In this sense, the Bicibox service (as a free service) guarantees the use of secure bicycle parking modules and parking spaces for all citizens, paying special attention to aspects such as access to mobility and the inclusion of less favored groups.

7. Synergies with other policies or public intervention instruments

The operation has contributed to intervention line 11 of the *Metropolitan Action Plan for the 2019-2023 mandate (PAM)*, which proposes the promotion of sustainable mobility throughout the metropolitan territory, and mentions the extension of the Bicibox service in the first of the three actions associated with objective 11.5.

It should also be noted that the *Metropolitan Urban Mobility Plan-PMMU 2019-2024* -reference framework for the mobility of the 36 metropolitan municipalities- considers the bicycle as one of the key strategic lines to promote the change of mobility habits since it offers the opportunity to decrease pollution levels and improve air quality. For this reason, the AMB promotes and facilitates its use with secure parking for private bicycles (Bicibox), among others, with two actions to which the ERDF project has contributed significantly:

- Complete the installation of Bicibox modules at railway stations and main bus stops of metropolitan interest.
- Incorporate new Bicibox modules around the main facilities and points of interest in the municipalities, and expand the network to all metropolitan municipalities.

On the other hand, it is worth mentioning that the *Metropolitan Commitment for a net mobility* or the *Environmental Sustainability Program*, both developed by the AMB, also establish

complementary measures that, together with the expansion of the secure bicycle-parking network - private and shared - will guarantee the results expected.

Finally, this operation has no direct environmental impact. However, to the extent that it contributes to reducing the use of combustion engine vehicles, it facilitates the achievement of those objectives related to air quality established by the following regulations in force:

- Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.
- Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control.
- National Air Quality Plan 2017-2019.
- Action plan for the improvement of air quality in the zones of special protection of the atmospheric environment-Horizon 2020.
- Catalonia Energy and Climate Change Plan 2012-2020.



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