GOBIERNO DE ESPAÑA
MINISTERIO DE HACIENDA
SECRETARÍA DE ESTADO DE PRESUPUESTOS Y GASTOS
DIRECCIÓN GENERAL DE FONDOS EUROPEOS

Generalitat de Catalunya

UNIÓN EUROPEA

Una manera de hacer Europa

BUENAS PRÁCTICAS
Actuaciones Cofinanciadas

"Remodelling of research spaces at the building of the Barcelona Biomedical Research Park (PRBB) for a new Outstation of the European Molecular Biology Laboratory and the extension of the Department of Experimental and Science of the Pompeu Fabra University"
Secretary of State of R+D+i

Programa Operativo de Cataluña

Año 2018

Fondo Europeo de Desarrollo Regional

Submitted as Good Practice the project **"Remodelling of research spaces at the building of the Barcelona Biomedical Research Park (PRBB) for a new Outstation of the European Molecular Biology Laboratory and the extension of the Department of Experimental and Science of the Pompeu Fabra University"**

The purpose of the operation is the opening in Barcelona of a new site of the European Molecular Biology Laboratory (EMBL) at the building of the Barcelona Biomedical Research Park (PRBB) and the arrangement of new spaces for bioengineering groups of the Department of Experimental and Health Sciences of the Pompeu Fabra University, which recently has received the distinction "María de Maeztu", awarded by the Secretary of State of R+D+i within the framework of its program of Units of Excellence.

The European Molecular Biology Laboratory is one of the leading research institutions in the world and the Europe's flagship laboratory in life sciences. It operates in five sites in Europe and the sixth location will be at the Barcelona Biomedical Research Park. The creation of a new EMBL laboratory the PRBB in Barcelona means an important distinction that will increase even more, not only the prestige of the scientific community of the PRBB centres at international level, but also the research that is carried out in Barcelona.

It should be added that the integration of the EMBL Outstation at the PRBB also supposes the additional creation of a joint unit of scientific-technical services in mesoscopy (scale between micro and macro) between the EMBL and the Centre for Genomic Regulation (CRG).

The extension of the Department of Experimental and Health Sciences of the Pompeu Fabra University (DCEXS-UPF) is justified by the growth experienced in recent years and the increase of activity necessary to achieve the objectives established in the accreditation as of "María de Maeztu" Unit of Excellence.

During next years, the DCEXS-UPF should straighten fundamental issues in biomedical research, applying engineering tools in multicomponent networks of genes, cells, tissues, organs, organisms and populations, and to generate new solutions of Molecular Biomedicine based on interdisciplinarity and transversality.

Therefore, the DCEXS-UPF needs new spaces for the expansion of the existing research groups and for the new researchers with career paths of international excellence that will engage in order to merge knowledge and technology in the fields of biomedicine, computer science and engineering.

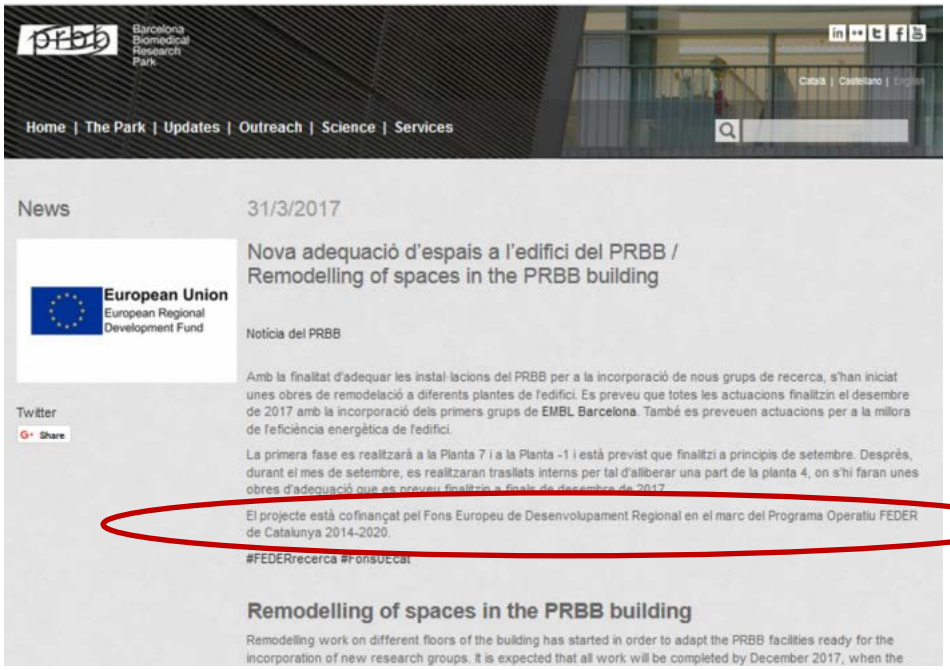
The project entails a total cost of € 1,375,000 and has received an ERDF grant of € 675,500. The results of this project have had an impact on the increase of researchers working in this improved research infrastructure, having more suitable spaces to carry out R+D+i activities. According to the information received from the research centres, 107 researchers currently occupy the improved spaces.

This operation is presented as a Good Practice because it meets the following criteria:

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

The operation has been properly disseminated among the beneficiaries, potential beneficiaries and the public. In this sense, in addition to the visit of the delegation of the European Molecular Biology Laboratory to the works at the PRBB and the signature of the agreement between the different partners where was made reference to the co-financing of the ERDF, the actions to highlight are the following:

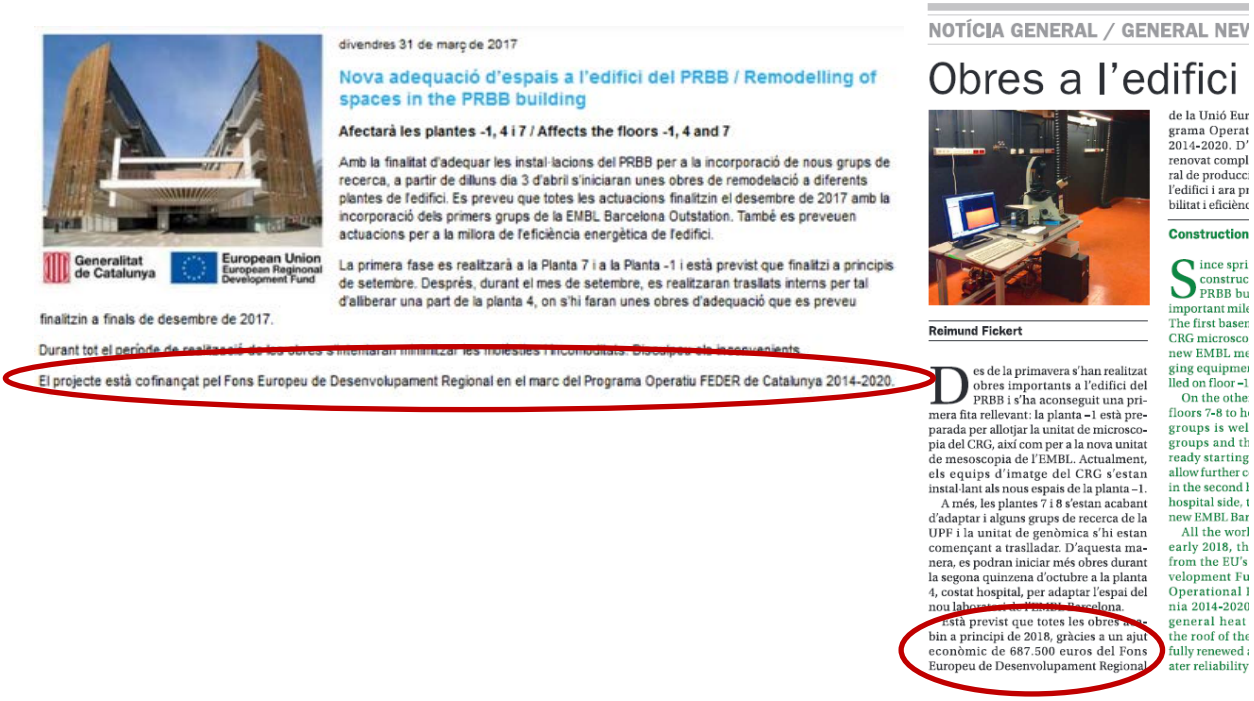
- During the course of the works, communication of the project within a **new on the PRBB web site**: *Remodelling of spaces in the PRBB building*:



- Announcements of the works in the main entrances of the building and in the spaces where the works were carried out:

- **Web site** including the financing banner of the ERDF: https://www.prbb.org

- **Communication portal** of the residents (PRBB Inside) to inform of the action and the obtained financing. Therefore, *El·lipse*, **monthly publication of the PRBB**, a newspaper aimed to the residents and the public also included information in its editorial.



- **Social networks** (Facebook, Twitter) with references to the ERDF co-funding.

2. Inclusion of innovative elements

One of the most innovative elements that has been incorporated into the Barcelona Biomedical Research Park is the creation of a unit of scientific-technical services based on mesoscopic image techniques that unites molecular and cellular biology (micro scale), on the one hand, and the larger scale physiology (macro scale), on the other. This platform, unique at a national and international level, will serve the research groups of the Park and other researchers of the European scientific community in the field of mesoscopic imaging and mathematical modelling of tissues and multicellular organs.

In addition, the new University research groups that occupy the new spaces will work in close collaboration to fuse knowledge and technology in the fields of biomedicine, computer science and engineering.

3. Linkage between obtained results from the supported actions and the established objectives

The remodelling of the building of the Barcelona Biomedical Research Park has adapted the facilities to a new stage. On one hand, new spaces were adapted for the new site of the European Molecular Biology Laboratory; and on the other hand, different floors of the building were rehabilitated for new bioengineering groups of the Pompeu Fabra University, as well as for the joint unit of scientific-technical services in mesoscopy between the EMBL and the CRG.
These objectives have been fully achieved, and the research groups have the necessary infrastructure to carry out their research.

4. Contribution to resolving a regional problem or weakness

The new Outstation of the European Molecular Biology Laboratory will focus on tissues and the analysis of systems of other biological problems, in order to provide a better understanding of the dynamic activities of multicellular structures: how to create functional tissues and organs and understand which mistakes may cause a disease.

The new research of the DCEXS-UPF groups includes characterizing biological networks that guide the behaviour of multicellular systems (cells, tissues and organs) over time and that respond to physiological and pathological changes, focused on diseases prevailing in industrialized countries (eg. cancer, cardiovascular diseases, inflammatory or degenerative processes). As well as doing mathematical models that help in the treatment of pathologies such as cancer (eg. surviving chemotherapy or immuno modulators).

5. High degree of coverage of the target population

The unit of scientific-technical services in mesoscopy will serve the research groups of the PRBB and researchers and research centres around the world.
The knowledge derived from the research of the groups located in the appropriate spaces with the ERDF co-financing will directly influence the increase of knowledge and development of more effective treatments in diseases of high prevalence in our society, such as cancer, cardiovascular diseases, and inflammatory or degenerative processes.

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

The operation has been developed in compliance with the applicable regulations, both EU and national and regional regarding gender and environmental sustainability.
The Barcelona Biomedicine Research Park takes into account in all its activities the compliance and respect for the horizontal principles of sustainable development and promotion of the protection and improvement of the quality of the environment, equality between men and women, including the integration of gender, non-discrimination, in particular accessibility for people with disabilities, and environmental regulations, in addition to the principle of transparency.

7. Synergies with other policies or instruments of public intervention

The action is totally in line with the strategy of research and innovation for the smart specialisation of Catalonia, because it greatly strengthens the health and life sciences industries. The new spaces will have a superior capacity for the implementation of transversal facilitating technologies, such as biotechnology, and will improve the environment of the innovation ecosystem, especially in the quality of training and talent.

Therefore, the scientific community is physically connected with the clinical reality provided by the Hospital del Mar.

Finally, the adequacy of the spaces at the Barcelona Biomedical Research Park not only affects the 1,400 people currently working in the six centres of the Park and the Hospital del Mar. These new facilities will support institutions located in the metropolitan area of Barcelona such as the Institute for Research in Biomedicine (IRB), the Institute of Photonic Sciences (ICFO), and the Institute for Bioengineering of Catalonia (IBEC), or researchers in hospitals such as Bellvitge, Hospital Clínic and Vall d'Hebron, due to the research network among the R+D+i institutions.

Finally, it is worth stressing the synergy of the operation with the action co-financed with ERDF funds to adapt services, spaces and facilities for the EMBL “outstation” and the Genomic Regulation Centre (CRG) .The 2 operations have facilitated the installation in Barcelona of the new spaces of the European Molecular Biology Laboratory (EMBL).

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