

*Una manera de hacer Europa*



"Construction and equipping of a building to locate the new Integrative Processes and Technologies Transfer Centre"

Institut Químic de Sarrià (IQS)

**Programa Operativo de Catalunya**

Año 2020

**Fondo Europeo de Desarrollo Regional**



**The project "Construction and equipping of a building to locate the new Integrative Processes and Technologies Transfer Centre of the Institut Químic de Sarrià (IQS) is presented as a Good Practice.**

This project consists of the construction of a new building and provision of equipment and scientific and technical instruments to locate the new Centre for the Transfer of Integrative Processes and Technologies (CTPTI) within the campus of the Institut Químic de Sarrià (IQS) in Barcelona.

The CTPTI will constitute an infrastructure for advanced research and technology transfer to industry in order to promote technological development and innovation in the Catalan industry in sectors that show the greatest potential for growth. The research and technology activities are focused at developing research projects of excellence, through the introduction of new value-added products that include bioprocesses, continuous chemical processes, advanced materials and nanotechnology.

Bioprocesses allow the development of alternative production processes to traditional chemistry and achieve a better use of resources, orienting their application to the production of food, pharmaceutical products, energy production and waste reuse.

Continuous chemical processes allow new ways of manufacturing products reducing risks related to high pressures and temperatures and increasing the safety of facilities and personnel while achieving greater respect for the environment and optimization of energy resources.

The activities in advanced materials and nanotechnology allow working on the manipulation of matter at a very small, atomic and molecular scale, achieving technological advances in new materials with multiple applications (biomedicine or smart materials).

The project includes the construction of a building with 1,150 m<sup>2</sup> of useful surface and supply services, the provision of pilot plant and laboratory equipment and the start-up of research and technology transfer activities with the incorporation of researchers and the expansion of R + D + i management services.

The project has a total cost of € 3,120,153, a total eligible cost of € 2,491,862 and an ERDF grant of € 1,245,931 (50% ERDF co-financing). It involves the participation of a total of 11 researchers (4 women and 7 men), 4 of them newly hired.



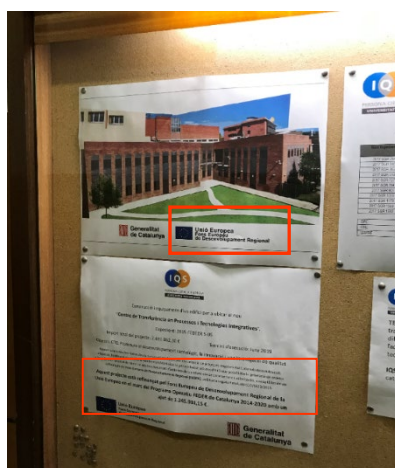
**This operation is presented as Good Practice because it meets the following criteria:**

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

The operation has been conveniently disseminated with internal actions within the IQS community and with external communication actions.

➤ **Internal dissemination actions**

Poster exhibited in the main corridor of the Institut Químic de Sarrià (IQS) building



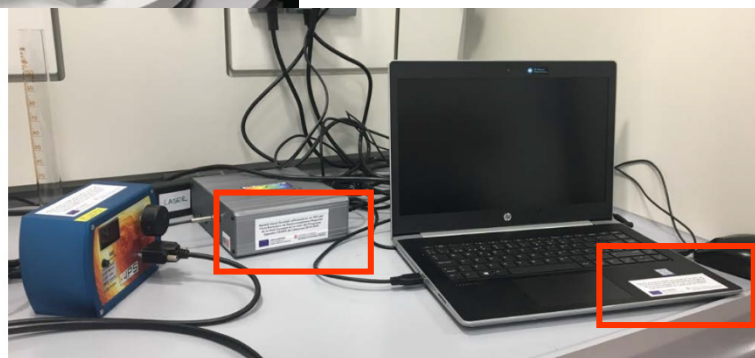
Labelling of scientific equipment installed



**Aquest equip ha estat cofinançat en un 50% pel Fons Europeu de Desenvolupament Regional de la Unió Europea en el marc del Programa Operatiu FEDER de Catalunya 2014-2020**

 **UNIÓ EUROPEA**  
Fons Europeu de Desenvolupament Regional

 **Generalitat de Catalunya**  
Departament d'Empresa i Coneixement  
Secretaria d'Universitats i Recerca





➤ **External dissemination actions**

Large poster on the facade of the building during the execution of the operation



Permanent plaque final in the new facilities



Presence of the operation on the website of the Institut Químic de Sarrià (IQS)

2015 FEDER/S-05. Centre de Transferència en Processos i Tecnologies Integratives



PERÍODE: 2016-2018

IP: Dra. Núria Vallmitjana Palau

Projecte de construcció i equipament d'un edifici per a ubicar el nou "Centre de Transferència en Processos i Tecnologies Integratives" (Expedient: 2015 FEDER S-05).

Import total del projecte: 2.491.862 €.

Objectiu OT1: Promoure el desenvolupament tecnològic, la innovació i una recerca de qualitat.

Aquesta concessió s'emmarca dins la convocatòria d'ajuts per a la selecció de projectes singulars institucionals de construcció, adquisició, habilitació i/o ampliació substancial d'edificacions per a infraestructures de R+D que possibilitin la generació de recerca d'excel·lència, l'atracció de talent i el desenvolupament d'activitats de transferència de coneixement i valorització, susceptibles de ser cofinançades pel Fons Europeu de Desenvolupament Regional (FEDER), publicada segons Resolució ECO/1823/2015.

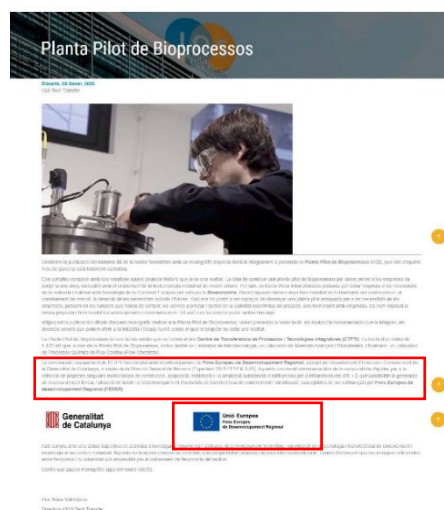
Aquest projecte està cofinançat pel Fons Europeu de Desenvolupament Regional en el marc del Programa Operatiu FEDER de Catalunya 2014-2020 amb un ajut de 1.245.931 €.

El CTPTI constituirà una infraestructura de recerca avançada i de transferència de tecnologia a la indústria per integrar tecnologies productives que conduixin a la generació de productes i materials d'alt valor afegit que inclouen "bioprocessos", "processos químics en continu", "materials avançats" i "nanotecnologia".

Les activitats que es duran a terme en el centre tenen la finalitat de desenvolupar projectes de recerca d'excel·lència, especialment destinada a la seva valorització o transferència a la indústria per tal de potenciar el desenvolupament tecnològic i la innovació del teixit industrial català en els sectors que mostren un major potencial de creixement, a través de la introducció de nous productes de valor afegit i processos tecnològicament avançats en el mercat internacional.

Aquesta és la nostra manera de contribuir en la competitivitat de l'economia catalana i la seva internacionalització.

Presence in social networks (Publication of the news in the [IQS twitter profile](#)) and Presence in newsletter (Publication of news and videos in the IQS Tech Transfer newsletter)



## 2. Incorporation of innovative elements

The centre will be organized into three complementary operating units, specialized in different advanced technologies: a bioprocess pilot plant, a continuous chemical processes unit and a laboratory for advanced materials and nanotechnologies. In these three operating units, the project includes the following four areas of action: biotechnology, advanced manufacturing, advanced materials and nanotechnology.

The main objective of the centre is to combine these relevant technologies on the same workspace and integrate them on key projects for the future development of emerging sectors.

Likewise, various equipment and instruments currently located in different laboratories of the Institute will be in the new centre, expanding its technological capacity.

## 3. Adequacy of the results obtained from the operation to the established objectives

The main objective of the operation is the construction and equipping of a new building to locate the new Centre for the Transfer of Processes and Integrative Technologies (CTPTI) in Barcelona. Specifically, the mission of this new centre is to develop research projects of excellence, especially aimed at their valorisation or transfer to industry to promote technological development and innovation in the Catalan industry in sectors that show the greatest growth potential, through the introduction of new value-added products and technologically advanced processes in the international market.

The fact of receiving European funds represents a boost for the contribution of the Institut Químic de Sarrià (IQS) in the competitiveness of the Catalan economy based on industrial development and innovation, as well as its internationalization. Therefore, any initiative is designed in the last

resort to offer, from the university, a return to society, promoting the improvement of health, social well-being and the conservation of the environment through innovation.

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

Given that the industrial sector in Catalonia is largely made up of SMEs, the centre will promote processes to increase the competitiveness and sustainability of the chemical industry in order to obtain new products, reduce time and costs of energy, water and materials in processes, increase precision, quality and safety parameters, and reduce environmental impact.

The new Centre for the Transfer of Processes and Integrative Technologies (CTPTI) will promote the development and placing on the market of products based on nanotechnology. The centre will focus on the specific industrial fabric of our country, bringing nanotechnological applications and advanced materials to SMEs, which have limited resources to carry out research and development programs.

The integration of a bioprocess pilot plant will help accelerate the development stages of the biotechnology industry.

#### **5. Degree of coverage of the target population**

The main beneficiaries will be the university community, the business community and the Catalan population in general.

The university community will have more space and equipment to carry out advanced research and technology transfer projects. The number of projects will be expanded and their level of quality and international collaboration will be increased both with other universities and research centres as well as with the industrial sector.

As regards the business fabric, the chemical and pharmaceutical industry will benefit from this project, as well as companies in sectors such as food, metallurgy, and energy.

In the chemical and pharmaceutical industry, the development of advanced materials and nanotechnology allows the obtaining of new products, such as catalysts or nanoparticles, which are used on many occasions to encapsulate active molecules of interest. Nanotechnology has many applications in the food sector, such as in packaging, in food preservation and processing, in metal coatings, etc. The automotive sector can also benefit from this project by working closely with industry to develop new materials and technologies to improve energy efficiency.

Finally, the population perceives and benefits from technological advances that revert to improving their quality of life, both in individual health and in the environmental environment in which they live.

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

As an integral member of the Ramon Llull University, the Institut Químic de Sarrià (IQS) embraces its explicit commitment in favour of equal opportunities. The Gender Equality Commission ensures that equal opportunities between men and women are a reality.

Similarly, one of the current strategic projects of IQS is Environmental Sustainability.

IQS, as a university centre in the field of science and with a high activity of R & D & I services and technology transfer, is very aware of the need to care for the environment and, therefore, applies the appropriate criteria especially in the minimization of waste generated from its activity and the mechanisms for its management and removal.

### **7. Synergies with other policies or instruments of public intervention**

The combination of the own knowledge of the professors and researchers of the Institut Químic de Sarrià (IQS), together with the availability of the new spaces and instruments, will attract other funds fulfilling the purposes of the centre, that is research of excellence and technology transfer.

At IQS we work on practically all types of programs, from large consortium European projects with a clear focus on the application of their objectives in the market, as well as on fundamental research projects with national funds.

To manage these activities, IQS has an office for research and technology transfer that, since 1985, has provided the staff and experience to facilitate administrative management, monitoring of activities and contact with companies, administrations and other entities.

Likewise, the construction of the Centre for the Transfer of Integrative Processes and Technologies will contribute greatly to the achievement of the objectives set both at the national (RIS3CAT regional specialization program and Industrial Strategy Plans for Catalonia) level and at the European (Horizon 2020) level. This reflects the need to achieve a good transfer of knowledge and technology between research centres and industry.



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# BUENAS PRÁCTICAS

## Actuaciones Cofinanciadas

**Fondo Europeo de Desarrollo Regional**