

Ministry of Education Call for Proposals

International Campus of Excellence

**UAB^{CEI}: PROMOTING
KNOWLEDGE, ENCOURAGING
INNOVATION**

UAB^{CEI} PROJECT EXECUTIVE SUMMARY

Document for the International Commission



Universitat Autònoma de Barcelona

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1. STARTING POINT

In the last decades, the role of universities as knowledge centers (communication and generation) has become that of motor for development in their surrounding geography (transference). Today, all universities that want to be global must face an additional challenge of going beyond regional and national boundaries to achieve worldwide recognition through leadership and excellence.

The Universitat Autònoma de Barcelona has the will to be global, and this will stems from its innovative spirit in two directions: excellence in research and quality in teaching. Excellence in research is triggered by the priority lines selection and it is closely linked to attracting talent and generating knowledge, while quality in teaching means new methodologies, it also attracts talent and it leads to a better knowledge communication. Both directions point at UAB's social and international impact, in the way shown in the following figure, which sums up the UAB model of permanent improvement (Fig. 1):

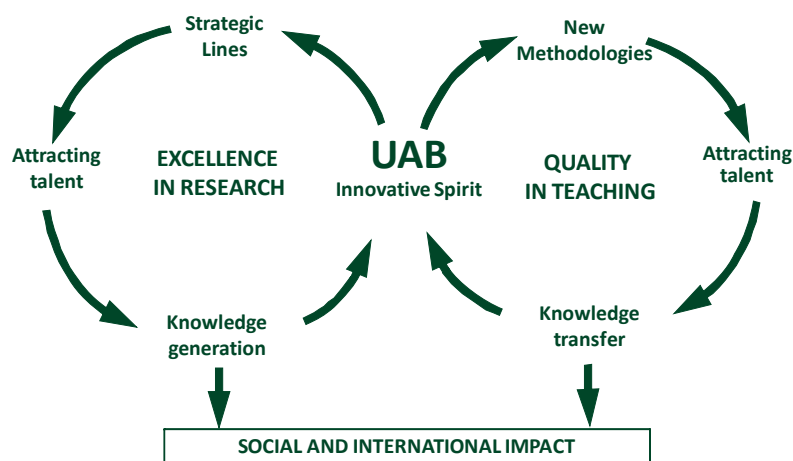


Fig. 1: The UAB model of permanent improvement

On the other hand, one widespread way of assessing a university's global positioning is by its situation in the two best known rankings (Shangai and QS-Times). A good position in them opens the door to attracting talent from all over the world, which in its turn may increase both volume and quality of research and publications and also the projects' impact when it comes to valorization. It all helps improve the university's position in the ranking, thus drawing a **virtuous circle of vital importance** for future success, as shown in figure 2:



Fig. 2: The virtuous circle that leads to university excellence

As of today, UAB holds these positions in the main international rankings (Table 1):

UAB position 2009 <small>(2008)</small>	MUNDO	EUROPA	ESPAÑA
Shangai	303-401 <small>(305-402)</small>	126-170 <small>(124-172)</small>	5-6 <small>(5)</small>
QS-Times	211 <small>(256)</small>	92 <small>(106)</small>	2 <small>(2-3)</small>

Table 1: position of UAB in 2008 and 2009 rankings

The position in the Shangai ranking in maintained while there is a noticeable improvement regarding Europe and the world in the QS-Times 2009 in relation to last year. The link between the innovative edge which UAB has shown along its history and is part of its DNA and the activation of the virtuous circle is therefore clear, especially if we bear in mind the growing competence among universities to move up in the rankings.

Although UAB can be measured by a lot of different parameters, table 2 shows the most relevant ones regarding students, research and transfer:

STUDENTS	RESEARCH	TRANSFER
23.807 undergraduate	1.616 published articles	33 new patents
1.886 in official masters degrees	31 European projects	441 reseacher agreements
2.575 in doctorate	3.688 Research-Teaching personnel	30 <i>spin-offs</i>

Table 2: Main UAB figures (academic year 2008-2009)

2. MAIN GOAL AND IMPACT

Beyond the simple figure in a list, UAB aspires to be in **the leading group of European universities doing R+D in nanoscience-nanotechnology and biotechnology-biomedicine**, while still keeping open all other priority lines of work the university has consolidated over time. This aim is backed up by a constant **edge on innovation and continual improvement** in teaching and research, which have become an essential part of UAB's DNA along its history. The **UAB^{CEI}** Project is a unique way of underpinning this innovative edge through three leadership aims, each with its own time horizon:

- Becoming a **reference point in teaching and research** thanks to breakthrough measures for universities. **(Medium and short term aim)**
- **Integrating all R&D Centres** in the UAB Campus within one common structure. **(Medium term aim)**
- **Intensification of UAB's international dimension**, due not only to the quality of its teaching, research and transference, but also to its model of attracting and managing talent, together with the use of English as an everyday language. **(Medium and long term aim)**

Achieving these three aims is a necessary step to reach the impact the **UAB^{CEI}** Project seeks in the long term:

- Becoming a **first level European research node in nanoscience-nanotechnology and biotechnology-biomedicine** (high priority strategic lines), leveraging on existing centres and others to come (ICMAB-CSIC, IMB-CNM-CSIC, CIN2, IMPCC, CBATEG, CRAC,

ICCC, etc)¹. The **ALBA Synchrotron** becomes the third vertex to support both strategic lines.

- Becoming the **number one knowledge cluster in the Mediterranean**, by means of strengthening UAB's network and including private companies and social institutions in it.
- Being the **first Spanish university** in the above mentioned rankings and **within the first 50 leading European universities**.

For UAB, **International Campus of Excellence (CEI)** is the **catalyst to meet these mid and long terms goals and reaching the desired impact**.

The **UAB^{CEI} Project** also means counting on the necessary institutional and financial push to seize the opportunity for Barcelona, Catalonia and Spain of being in the international leading group in nanoscience-nanotechnology and biotechnology-biomedicine. Furthermore, it provides an **excellence brand** to be used by the rest of the research and teaching areas in UAB.

3. THE EVOLUTION OF UAB AND HOW UAB^{CEI} FITS IN IT

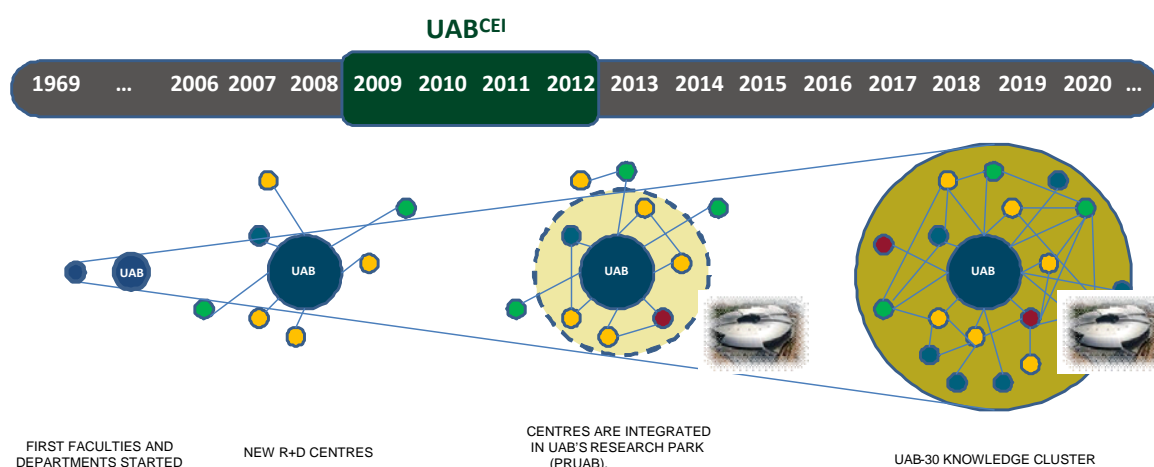


Fig. 3: The evolution of UAB and its environment

¹ ICMAB-CSIC: Institute for the Science of Materials of Barcelona, IMB-CNM-CSIC: National Center for Microelectronics, CIN2: Center of Research on Nanoscience and Nanotechnology, IMPPC: Institute for Predictive and Personalized Medicine for Cancer, CBATEG: Center for Animal Biotechnology and Genic Therapy, CRAC: Center for Agrigenomics, ICC: Catalan Institute of Cardiovascular Sciences

As shown in figure 3, the UAB^{CEI} Project is **consistent with the permanent evolution** of the University, becoming an intermediate state between the previous one-to-one relationships with R+D+ centres, hospitals, foundations or town councils and the future stage of the UAB-30 Knowledge Cluster, where a common structure is shared by all the agents in the network, with the ALBA Synchrotron fully involved and UAB as a key node. The UAB^{CEI} Project adds speed and consistency to all this evolution.

4. THE UAB^{CEI} PROJECT

All the activities UAB is either carrying out at present, or planning to do so in the near future, fall into three categories: people, institution and society. However, the UAB^{CEI} Project organizes them according to the six areas defined by the Ministry of Education. Figure 4 tries to sum up the whole project, showing some of the key goals for each area (the project has 39 goals in all) and the most representative activities for each of them (out of a total 47 activities):

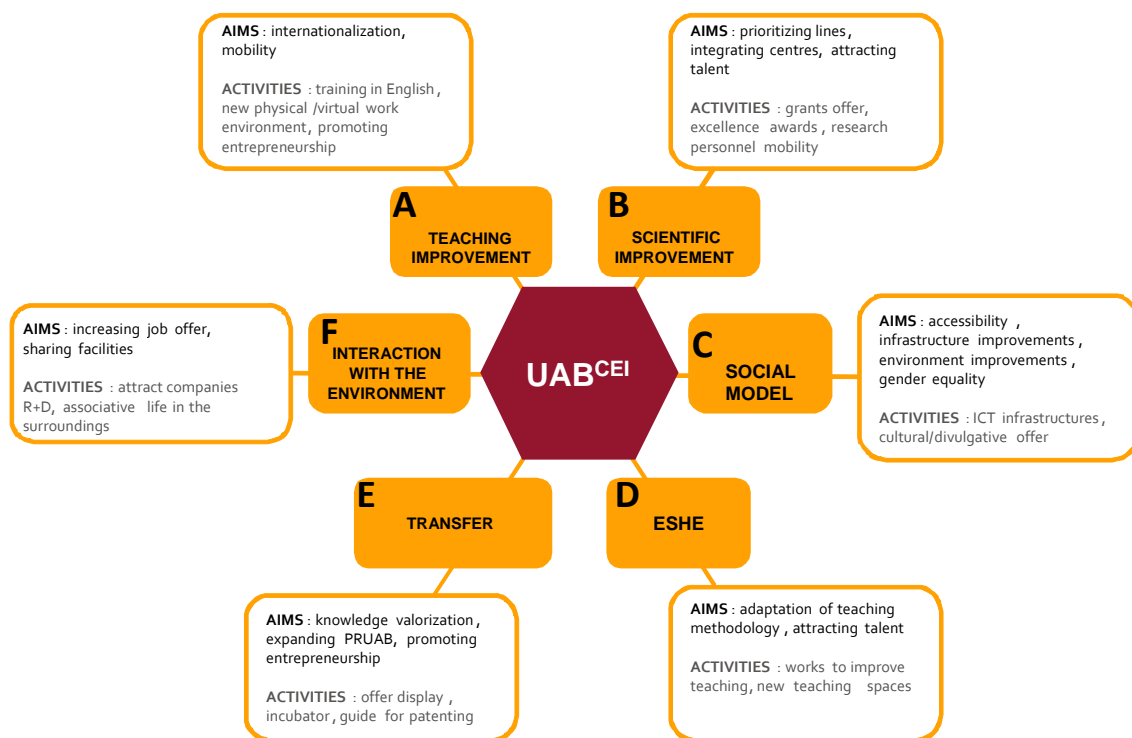


Fig. 4: A global view of the UAB^{CEI} Project with its areas. In each area some goals and activities are shown as an example.

5. GEOGRAPHICAL ENVIRONMENT OF THE UAB CAMPUS

The UAB lies in an excellent **central geographical position** regarding the cities and towns whom there are agreements with (Terrassa, Badia del Vallés, Rubí, Ripollet, Badalona, Sabadell, Cerdanyola, Sant Cugat or Barcelona itself), other outstanding projects that have a promising future (the ALBA Synchrotron in Cerdanyola, ESADE Creapolis in Sant Cugat) and hospitals currently linked to the University (Parc Taulí in Sabadell, Germans Trias i Pujol in Badalona, Vall d'Hebron, Santa Creu i Sant Pau and Mar in Barcelona), all of which are shown in the map of figure 5:

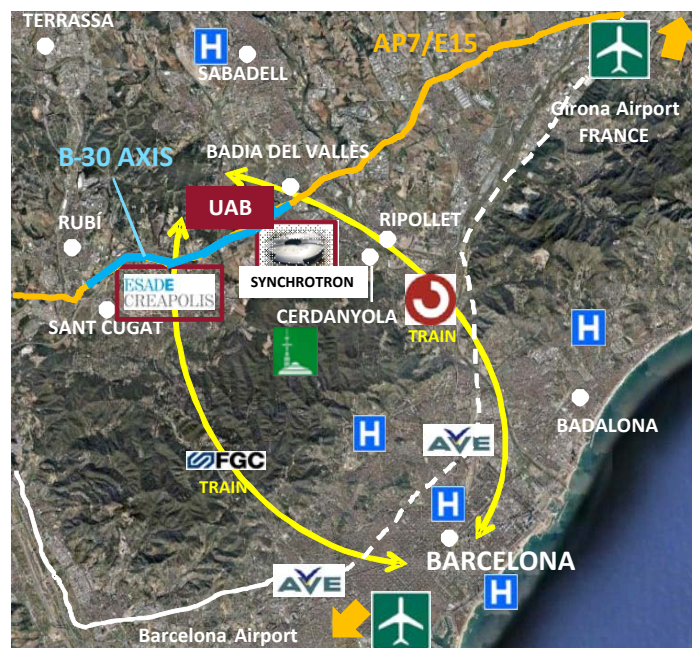


Fig. 5: The geographical area of the UAB

The UAB has its own exit/entrance lane on the B30/AP7/E15 highway, two train stations (one pertaining to Spanish State Railways, the other to the Catalan network) providing direct connection with Barcelona, and is located within 30 minutes of Barcelona International Airport. It is also only 45 minutes from Girona Airport, which specialises in low-cost, budget air travel, and is close to both current and future AVE high-speed train stations. Such an outstanding nexus offers extraordinary ease and immediacy of communication; this is a fundamental aspect in the UAB's internationalisation and is a key element in the efficient working of the network organisation projected by the B-30 Knowledge Cluster.

6. BUDGET

	2009	2010	2011	2012	TOTAL
a) Teaching improvement and Introduction and adaptation to ESHE	9.585.000 €	12.895.000 €	19.365.000 €	19.835.000 €	61.680.000 €
b) Scientific improvement and Transfer of knowledge and technology	7.216.729 €	5.587.523 €	2.109.682 €	2.129.682 €	17.043.616 €
c) Transformation of the campus to create an integrated social model and Interaction between the campus and the surrounding region	4.193.000 €	4.256.000 €	4.476.000 €	4.534.000 €	17.459.000 €
TOTAL	20.994.729 €	22.738.523 €	25.950.682 €	26.498.682 €	96.182.616 €

Table 6. "Budget Summary"

Of the total forecast investment 96,182,616 Euros, the funding requested from the Ministry of Education amounts to 32,500,00 Euros. The breakdown of all investments can be seen in the "Economic Report, Additional Financing and Budget".