



## **CEI UAM+CSIC**

# **Aggregations Document**

*Leading social, cultural and economic development in Northern Madrid*

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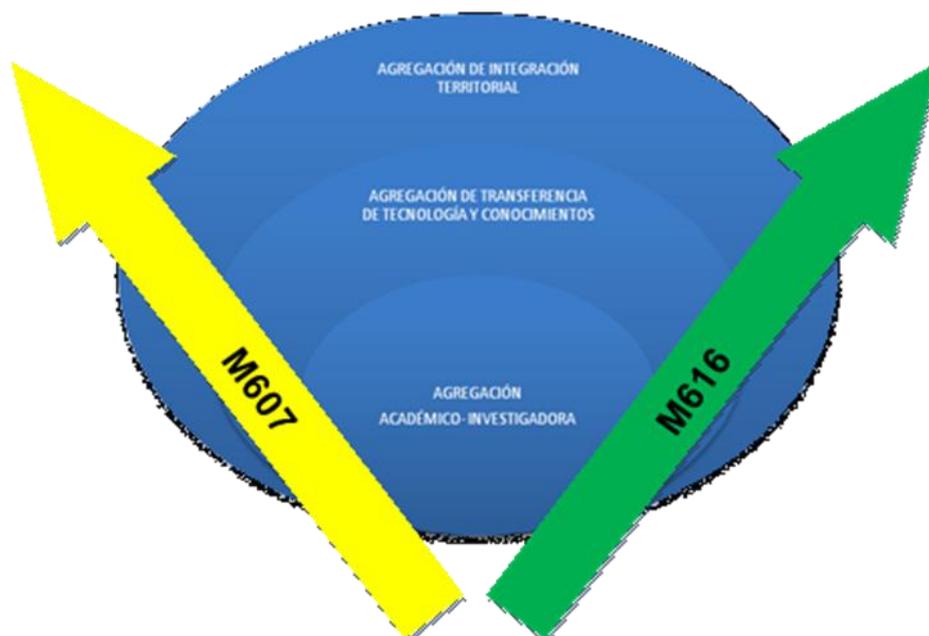
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## 1. INTRODUCTION

The CEI UAM+CSIC project has a first aggregation level that already exists between the principal stakeholders of the Campus: UAM and the CSIC. This first aggregation level has a marked scientific character and a growing academic component, which is especially present in the mixed UAM-CSIC institutes, and also extends to the relations between both institutes such as the National Biotechnology Centre or Institute of Materials Sciences of Madrid and UAM centres, and its Science and Medicine faculties. In turn, the UAM and CSIC maintain a series of important initial aggregations in transfer, at two levels. The first of these has a relatively independent character between both actors and has to do with the relations of its Research Results Transfer Offices (which are among the most active in Spain) and individual companies. The second level revolves around the Scientific Park of Madrid, which is considered of great importance by the Spanish population, in which both institutes converge and which is a relevant agent in the CEI UAM+CSIC project.

This first level of aggregation can be extended and reinforced, but in particular, it signifies a starting point for an important qualitative leap in the strategic aggregation of all the Campus agents that will lead them to constitute a territorial Campus of international repute in 2015, one that is committed to leading the social, cultural and economic development in Northern Madrid.

This reinforcement and expansion will be implemented on three levels with an increasing scope; an academic-scientific aggregation, an aggregation based on the transfer of knowledge and technology and an aggregation based on territorial integration.



## 2. ACADEMIC – RESEARCH-BASED AGGREGATION

As already mentioned above, this aggregation currently exists at an appreciable level and is a good starting point. However, although the Spanish regulatory framework for universities and public research does not make this type of aggregation impossible and offers certain options for expansion, it does not clearly define mechanisms to facilitate the start-up of policies that can be homologated with those of other international centres of excellence for recruiting talent, educational evaluation and the rendering of accounts. The institutional logic arising from management models (taking decisions, allocating budgets, etc.) may also make it difficult to consolidate and enlarge natural aggregations from the scientific or educational standpoint, despite the interest and will of all those involved in the project. As a result, multidisciplinary work or stability and sufficient support for emerging projects of interest in terms of science-research may not succeed due to a lack of collaborative structures or definition of professional careers that will guarantee the recruitment of the best researchers.

The academic-research aggregation of the CEI UAM+CSIC aims to overcome these obstacles through setting up its own common framework to offer its promoters mechanisms for defining, deciding on and executing policies for setting up actions that would otherwise be non-viable.

### AGENTS:

- The Departments belonging to the eight UAM Centres, Science, Medicine, Polytechnic, Economics and Business, Psychology, Law, Humanities and Professorship, together with the UAM Research Institutes.
- The Research Centres of the CSIC itself: Centro Nacional de Biotecnología (CNB), Instituto de Ciencia de Materiales de Madrid (ICMM), Instituto de Catálisis y Petroleoquímica (ICP), Instituto de Cerámica y Vidrio (ICV).
- Mixed UAM-CSIC Centres: Centro de Biología Molecular Severo Ochoa (CBMSO), Instituto de Investigaciones Biomédicas Alberto Sols (IIBM), Instituto de Física Teórica (IFT), Instituto de Ciencias Matemáticas (ICMAT), Centro de Investigación en Alimentos (CIAL).
- The Institutos Madrileños de Estudios Avanzados (Institutes of Advanced Studies of Madrid) (IMDEAs): Nanoscience, Food Science and Social Sciences.
- Other important research centres such as the National Cancer Research Centre (CNIO), and National Cardiovascular Research Centre (CNIC).
- University Hospitals: La Paz, Puerta de Hierro, La Princesa, Niño Jesús, Santa Cristina and Fundación Jiménez Díaz.

- The Institute of Knowledge Engineering, an R+D+i centre located on the Campus that is sponsored by the UAM, Banco de Santander, IBM España and the electric company Unión FENOSA.

To the above we should add some lines of research to be shared with the Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT) and some important scientific facilities such as the Centro de Microanálisis de Materiales or the Alto Campo Servicio de Imagen y Espectroscopía por Resonancia Magnética or the Instalación Científica y Técnica Singular (ICTS) en Microscopia Electrónica that will be located on the Campus (groups from the Campus also take part in other ICTS being implanted, such as the Instalación Científica y Técnica Singular (ICTS) en Imagen Biomédica (CNIB) and the Centro Nacional de Tecnologías para la Fusión).

All the above constitutes a critical research mass of enormous quality and added value that is difficult to match.

#### SPECIFIC OBJECTIVES:

- Increase in synergies between the critical research masses present on the Campus, by adding new research structures or transferring other existing ones and creating interdisciplinary institutes.
- Start-up of new shared services providing support to research.
- Viability analysis and promotion of the creation of Madrid Biomedical Research Park.
- Start-up of a proprietary programme for incorporating scientists of international repute.
- Support to international postgraduates of repute through scholarships and specific contracts, specialised support staff and incentives for dedication to the supervision of master and doctoral dissertations.
- Creation and financing of a limited series of high-quality Symposia with international visibility.
- Development of new infrastructures for education and research.
- Evolution towards a Didactic Campus as an example of how to adapt interior and exterior space to the European Higher Education Space.

### **3. TRANSFER AGGREGATION**

Although Madrid has a considerable level of knowledge and technology transfer structures in general, particularly in Northern Madrid, focused on the Campus, it is clear that this is still far

from being an efficient organisation of resources and effort. A clear way to improve this is through an agile, effective transfer aggregation that firstly provokes contributions by researchers and technologists and secondly, explicitly motivates a fast response to the needs posed in the immediate surroundings, and also in areas further away.

The CEI UAM+CSIC aims to constitute a transfer aggregation that is both general in scope on the many research departments and groups of UAM already active in this field, and with respect to the main academic-scientific aggregations foreseen therein: Nanoscience-Nanomaterials, Biology, Biomedicine and Food Science, Theoretical Physics and Mathematics and Humanities and Social and Juridical Sciences. The aim is to favour a system of relations, procedures and infrastructures that will facilitate communication and collaboration between the generation of new knowledge and technology and the social and productive tissue that receives and uses it

#### AGENTS:

- Region of Madrid.
- Scientific Park of Madrid.
- OTRIs: those of the UAM and CSIC.
- Business associations: ACENOMA, AICA, ASEYACOVI, FEMAN.
- Local authorities: Madrid, Alcobendas, Colmenar Viejo, Miraflores de la Sierra, San Sebastián de los Reyes, Tres Cantos.
- Companies: Accenture, IBM, Indra, Lilly, Novartis, Roche, Schering Plough, Bioibérica, Cellerix, Gilead, Asisa, Biomet 3i, Sygenta Agro, Infoglobal.
- Other organisations: Fundación Abbot, Fundación Astrazeneca, Fundación Lair, Fundación ONCE, Fundación Mapfre, ADIC-IIC, Fundación Jiménez Díaz.

The starting point here, too, is excellent: a first rate Scientific Park that now has more than 100 spinoffs, Research Results Transfer Offices that are at the forefront of Spanish offices in winning research contracts, number of patents and sponsorship chairs, and one of the most advanced socio-economic and business environments in Spain.

#### SPECIFIC OBJECTIVES:

- The creation of tools and support units that will promote, protect and market the technology and knowledge generated on the Campus and foster a philosophy of enterprise.

- A considerable increase in spaces dedicated to incubating new technological companies in strategic R+D fields (Nanosciences and Biosciences).
- Coordination with municipal and regional policies for development and economic promotion.
- Creation of a mechanism for exchanging good management practices and the protection, evaluation and marketing of research results.
- Construction of spaces that will allow for the development of collaborative scientific and technological projects between the organisations involved.
- Increase in high added value services for the business development of new EBTs.
- Creation of mechanisms for providing support and cooperation to Small Businesses in fields related to R+D+i.
- Coordinated detection of demands and needs in employment sectors and satisfaction through the transfer of high-qualified professionals.
- Adaptation in the offer of ongoing training to the needs of businesses in Northern Madrid.

#### 4. TERRITORIAL INTEGRATION AGGREGATION

All the above must be located on a Campus that overcomes an initial situation of isolation to become a central element of an area with enormous development, wellbeing and quality of life in which excellence in terms of education and research is combined with leadership in social commitment, solidarity and sustainability.

As a consequence of the other two aggregations, the Campus must gradually be integrated along with its territory into a social sphere (through residential programmes, university extension activities or promoting Lifelong Learning), and also into a relational sphere, particularly through links arising from a growing shared activity in research and transfer, and also into a symbolic sphere in which the identity of the CEI UAM+CSIC offers itself to the environment as the symbol of a place that is open and receptive. In consequence an aggregation must take place in a fourth institutional sphere, through an agreement between all the organisations and institutions involved that will make it possible to create, develop and consolidate activities that contribute to increasing and reinforcing synergies between the UAM+CSIC Campus and its Territory.

In synthesis, the idea is to ensure that the roads M 607 and M 608, which form the current boundaries of the Campus, are converted from being former barriers to new openings, taking

advantage of their new strategic position, integrating the Campus into a privileged economic, social and environmental space.

AGENTS:

- Institutions and organisations with infrastructures on the Cantoblanco Campus: UAM, CSIC, PCM, Regional Government of Madrid, Madrid City Council and Canal de Isabel II
- Local authorities: Alcobendas, Colmenar Viejo, Miraflores de la Sierra, San Sebastián de los Reyes, Tres Cantos

SPECIFIC OBJECTIVES:

- To achieve the evolution of Cantoblanco Campus towards a University City that is equipped with all that is necessary for academic and everyday life.
- To promote the shared use of infrastructures and equipment with nearby townships, in order to optimise and maintain investments.
- To foster sustainable communication, by stimulating the use of public transport, connection through bicycle lanes, and designing pedestrian routes
- To reform urban space, by incorporating constructive solutions, technologies and materials that will increase the sustainability values of the Campus
- The integration of neighbouring natural spaces in such a way that they are created in areas that the university population can use from the leisure and cultural standpoint, teaching standpoint and also for research into the ecological environmental aspects that exist in those areas.
- To activate a university project in the social sphere (university expansion activities, Lifelong Learning centres, etc
- To convert the Campus into a host for activities promoted by student groups and members of the university community, and also for citizens that will be organised in the areas and buildings located on the academic premises.

## 5. STRATEGIC AGGREGATIONS MANAGEMENT MECHANISMS

The CEI UAM+CSIC Strategic Plan includes the goals shared by those taking part in the project for the timeline 2015, and a series of activities that will contribute to achieving them. These activities include some that affect mainly the promoters (UAM, CSIC, Scientific Park, etc.), and their implantation is guaranteed, since it has been taken into account in the logic of each of the institutions.

However, there are other activities of a more transversal nature, which are necessary for the aggregation of the different sponsoring organisations and require a greater degree of coordination to overcome the involuntary organisational inertias and obstacles of already-existing structures. Without wanting to detract from the governance of each institution, a specific set of actions can be identified in the CEI UAM+CSIC that are common to different agents and require a vision of the whole and the day-to-day operations that surpasses the regulatory capacity of each of its members taken separately.

Firstly, activities that refer to the current Campus as a whole, understood as the physical space, which include the management of work on urban infrastructures, the creation or management of complementary services for the complex and the care and conservation of those services. On the other hand, the activity aimed at promoting and managing shared programmes for attracting talent, for instance, or for the internationalisation of activities, and others that are included in the Plan in order to convert it into a CEI, that will need shared instruments to ensure the joint management of the Plan in which the different entities constituting the CEI UAM+CSIC aggregation can effectively participate.

The two instruments foreseen in the Plan for promoting transversal activities are:

- The CEI UAM+CSIC Consortium for the coordinated management of the material elements of the aggregation.
- A second unit, with a legal figure that will be studied, entrusted with the definition and execution of the transversal activities foreseen in the Plan that, due to their specific nature, require their own different scope of decision.

The CEI UAM+CSIC Consortium will be formed by the institutions that have general infrastructures on the Campus (such as UAM, CSIC, the Regional Government of Madrid, the City Council of Madrid, Canal de Isabel II, the Scientific Park of Madrid Foundation and the UAM Foundation) to which may be added the local authorities of Alcobendas and Tres Cantos, which are adjacent to the Campus, that is within the municipal boundary of Madrid. This consortium will have the main objective of achieving better coordination as regards management of the common spaces and services on the Campus that are necessary in a university complex that must assume the territorial and urban control of an area where the competences and interests of different public administrations converge. The figure of the Urban Planning Consortiums has been conceived precisely for that purpose and once constituted, they are organisations with their own personality and authority, governed by their own bylaws that must be approved by the competent organisations of each of the members, and which each have their own budget.

With respect to the second organisation, without prejudice to other potential legal figures, this could be based on the model of a Foundation, with the mission of defining, adapting and executing the shared quality and internationalisation strategy of the UAM+CSIC Campus of International Excellence, based on the objectives established by its members in the Strategic Plan, taking a proactive part in searching for new initiatives that will create value for the

institution aggregations. Its natural scope of action would therefore be the definition and management of joint programmes to attract international talent, promote new strategic aggregations into structures of research and transfer, communication and international projection, and other projects of a similar nature and characteristics that could arise during the implementation of the CEI UAM+CSIC Strategic Plan.

## ANNEXES

### A. PRINCIPAL AGENTS

REGIONAL GOVERNMENT OF MADRID <http://www.madrid.org>

UAM <http://www.uam.es>

CSIC <http://www.csic.es>

SCIENTIFIC PARK OF MADRID <http://www.fpcm.es/>

Other research organisations

INSTITUTOS MADRILEÑOS DE ESTUDIOS AVANZADOS (IMDEAs) IN NANOSCIENCE, FOOD  
<http://www.nanociencia.imdea.org>

<http://www.alimentacion.imdea.org>

<http://www.cienciassociales.imdea.org>

SCIENCE AND SOCIAL SCIENCES

NATIONAL CANCER RESEARCH CENTRES (CNIO) AND CARDIOLOGICAL RESEARCH CENTRES (CNIC)

<http://www.cnio.es>

<http://www.cnic.es/>

CENTRO DE INVESTIGACIONES ENERGÉTICAS, MEDIOAMBIENTALES Y TECNOLÓGICAS (CIEMAT)

<http://www.ciemat.es/>

Local authorities

ALCOBENDAS <http://www.alcobendas.org>

COLMENAR VIEJO <http://www.colmenarviejo.com>

MIRAFLORES DE LA SIERRA <http://www.mirafloresdelasierra.net/>

SAN SEBASTIAN DE LOS REYES <http://www.ssreyes.org>

MADRID <http://www.munimadrid.es>

TRES CANTOS <http://www.trescantos.es>

Business

ACCENTURE. <http://www.accenture.com/Countries/Spain>

ASISA. <http://www.asisa.es>

BANCO SANTANDER. <https://www.bancosantander.es>

BIOIBÉRICA. <http://www.bioiberica.com/>

BIOMET 3i. <http://www.biomet.es>

CELLERIX. <http://es.cellerix.com/>

Fundación JIMÉNEZ DÍAZ. <http://www.fjd.es/fjd/>

GILEAD. <http://www.gilead.com/>

IBM. <http://www.ibm.com/es/es/>

INDRA. <http://www.indra.es>

INFOGLOBAL. <http://www.infoglobal.es>

LILLY. <http://www.lilly.es>

LÍNEA DIRECTA ASEGURADORA. <http://www.lineadirecta.com>

NOVARTIS. <http://www.novartis.es>

ROCHE FARMA. <http://www.roche.es>

SCHERING PLOUGH. <http://www.msd.com/nm/es/>

SENER GRUPO DE INGENIERÍA. <http://www.sener.es/>

SYNGENTA AGRO. <http://www.syngentaagro.es/>

#### Associations

**ACENOMA** Association of Entrepreneurs from Northern Madrid.  
<http://www.acenoma.org/>

**AICA** Association of Entrepreneurs and Traders of Alcobendas.  
<http://www.empresariosdealcobendas.com>

**ASEYACOVI** Association of Entrepreneurs, Traders and Self-Employed Workers of Colmenar Viejo.  
<http://www.aseyacovi.org/>

**FEMAN** Association of Entrepreneurs of Tres Cantos.  
<http://www.feman.org/>

#### Other organisations

**Asociación para el Desarrollo de la Ingeniería del Conocimiento (ADIC )**  
<http://www.uam.es/otroscentros/ingenieriaconoc/default.html>

**Centro de Investigaciones Sociológicas (CIS).** <http://www.cis.es>

**Fundación ABBOTT.** <http://www.fundacionabbott.es/>

**Fundación ASTRAZENECA.** <http://www.astrazeneca.es/fundacionAstrazeneca/>

**Fundación CAJA MADRID.** <http://www.fundacioncajamadrid.es/>

**Fundación FRIDE.** <http://www.fride.org/>

**Fundación LAIR.** <http://www.fundacionlair.org>

**Fundación MAPFRE.** <http://www.mapfre.com/fundacion/es/home-fundacion-mapfre.shtml>

Fundación ONCE. <http://www.fundaciononce.es>

Fundación PRODIS. <http://www.fundacionprodis.org/>

REAL INSTITUTO ELCANO <http://www.realinstitutoelcano.org>