



Thematic Actions

Coordinating Universities for the Proposal: UCM and UPM

Title of Action	The Joint UPM-UCM Centre for Environmental Research on the Moncloa Campus (CIMAM)		
Participating partners	UPM, UCM	Other participants	CIEMAT IGN, IGME, AEMET, Ministry of the Environment and Civil Protection, Community of Madrid, Madrid City Council, companies from the environmental sector.
Personnel involved (indicate institution)	UPM (various research groups from the Technical Engineering College of Agronomists, Technical Engineering College of Forestry, Technical Engineering College of Telecommunications, Technical College of Architecture, Technical Engineering College of Aeronautics, University College of Aeronautics, University College of Forestry, University College of Agriculture, University College of Architecture. There will be agreements on the use of facilities with existing institutes and centres at the UPM located in the University City: CIEGRAM, ISOM, IES, TRANSYT). UCM (Physics, Chemistry, Geology, Mathematics)		
Start date	2010	End date	Undefined
Cluster	Global Change and New Energies	Other clusters	
Areas of action	Research / Knowledge Transfer		
Location	The centre will occupy part of the new building to be built in the University City. Since the building will not be available until 2012, participating organisations will devote space in existing facilities.		
Infrastructures involved	Equipment available at participating institutions and new EBM infrastructures		
Keywords	Environmental technologies, pollution and decontamination; Environmental impact; Remote sensing; Monitoring networks.		
Objectives:			
<p>The proposing entities wish to create a new multidisciplinary research centre in the area of environmental technologies taking, for this purpose, the necessary steps in their respective governing bodies. This new centre will foster scientific and technological activities in the University City. Both the UPM and the UCM believe that this area is of growing importance for public and private institutions alike.</p>			
Description of the action:			
<p>Themes related to the environment encompass a broad range of scientific and technological domains that aim to give us a better understanding of the environment and to protect against and mitigate the adverse effects of nature or human activity on our planet. Researchers from different backgrounds are required in order to tackle these themes properly. Therefore, UPM and UCM wish to promote a new multidisciplinary centre for research into environmental technology. The Centre is to be structured in five major areas/departments:</p> <ol style="list-style-type: none"> 1. Environmental pollution and decontamination (controlling urban and rural pollution, management and treatment of agricultural and urban waters and waste, air pollution, noise pollution and soil pollution, etc.). 2. Modelling, prevention and control of risks and natural and geological hazards (use of satellite data, distributed sensor networks, climate models, etc.). 3. CO² fixation and storage. 4. Remote sensing (with emphasis on the development, use and deployment of sensor networks and data processing of environmental monitoring of critical variables, use of GEOSS, GMES services). 5. Development of technologies for the development of micro and nano-sensors for environmental and energy efficiency improvements. This area will build on activities taking place in the 'environmental cluster' and the 'materials cluster' in the University City these not being included in the Centre. 			



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<p>These major research lines will likewise take advantage of existing developments and activities in the field of renewable energies – photovoltaic solar energy, thermal solar energy, biomass, wind power, tidal energy – in order to reduce the emission of pollutants. Finally, the Centre aims to promote the development of studies and models for the use of these technologies in the transport sector (with the participation of TRANSYT) and in environmental risk management (involving CEIGRAM).</p>	
<p>Planned key results:</p> <p>Over a period of 4 years, the UPM-UCM Joint Centre for Environmental Research on the Moncloa Campus (CIMAM) is expected to house 150 researchers, of which 20% will come from non-Spanish organisations.</p> <p>Coordination between research groups, supported through the Community of Madrid (BOCM dated 19 February, Order 679/209 and BOCM dated 29 July, Order 3770/2009) is not only promoting the combined work of these groups but also of the lines of research among UCM, UPM and CIEMAT, which will facilitate their inclusion in the CIMAM. Certain consortia or metagroups that have been pre-selected for the CM 2009 call may also be included (e.g. AGRISOST, UPM-CIEMAT-INIA, CARESOIL, etc.).</p>	
<p>Rationale for the action:</p> <p>Although the Centre will not be available until the end of 2012, scientific work should start as soon as possible following the official approval of the Centre. For this purpose, the proposing entities agree to cede space in existing facilities in order to host the research groups involved in CIMAM.</p> <p>The aim is to attain the highest possible degree of cooperation with CIEMAT activities in environmental issues. It is not, therefore, a question of the UCM and UPM initiating activities, thus duplicating those already performed by CIEMAT, but instead to complement the work when an area has not been covered, or to promote a greater synergy between the institutions when the work is being conducted by different research groups.</p>	
<p>International aspects:</p> <p>Environmental technologies are a strong priority in all developed countries. The EU has considered them to be a priority under the Seventh Research Framework Programme of the EU (FP7) and this is also the case with the demonstration activities related to CIP programme and the recently adopted SET Plan. Accordingly, the participation of the two entities in these EC programmes is enhanced with the creation of the CIMAM.</p>	
<p>Planned impact:</p> <ul style="list-style-type: none">• Improvement of the scientific competitiveness of existing research groups.• Environmental services offered to regional governments and companies.• Increased synergies between research groups.• Creation of stable relationships with companies in this sector.• Joint use of equipment and facilities.• Increased participation in national and international programmes.	