

CAMPUS MONTEGANCEDO:

The ICE oriented towards international technological Innovation

I2_Tech

Project sponsored by:
Ministerio de Educación

ECONOMIC REPORT

International Campus of Excellence Program
2010 call
Presentation to the international committee

Madrid, 16th September 2010



CEI-CAMPUS MONTEGANCEDO
Universidad Politécnica de Madrid



Acronyms

ANECA: National Quality and Accreditation Evaluation Agency
AAPP: Public Administration
APTE: Spanish Scientific and Technological Parks Association
CA: Autonomous Community
CAIT: Support Centre for Technological Innovation
CBGP: Biotechnology and Plant Genome Centre
CCAA: Autonomous Communities (Regional Government)
CDTI: Industrial and Technological Development Centre
CEDINT: Integral Domotic Centre
CEI: International Campus of Excellence
CEVISMA: Supercomputing and Visualization Centre of Madrid
CIET: Innovation Technical Education and Research Centre
CITA: Aerospace Technology Research Centre
CRUE: Rectors conference of Spanish Universities
CSIC: Informatics and Information Security Research Centre
CTB: Biomedicine Technology Centre
DEFE: Spanish Delegation of the European Foundation for Information Society and electronic Government
EEES: European High Education Area
EEL: European Space Research
EOI: Industrial Organisation School
f3I: Future of Internet
FP: Vocational Training
GATE: Tele-education Group
GIE: innovative Education Teams
R&D: Research and Development
R&D&i: Research, Development and Innovation
ICE: Sciences Education Institutes
ICEX: Spanish Institute of International Trade
ICT: Information and Communication Technology
IDR: Ignacio de la Riva University Research Institute
EIT: European Institute of Technology
IMDEA Software: Madrid Institute of Advanced Software Studies
ISFOC: Concentrated Photovoltaic Systems Institute
ISOM: Optoelectronics and Micro technology Systems Institute
KIC: Knowledge and Innovation Communities
LC: Science and Technology Law
LES: Sustainable Economy Act
MEC: Ministry of Education
MICINN: Ministry of Science and Innovation
O.M: Ministerial Order
OEPM: Spanish Patent and Trademark Office (SPTO)
OTRI: Research Results Transfer Office
OTT: Technology Transfer Office
PAS: Services and Administration Personnel
PBL: Project Base Learning
PDI: Research and teaching personnel
PIF: Research Personnel on Training
RD: Royal Decree
HR: Human Resources
SIGC: Internal Quality Services
ULAB: European Laboratory for modelling the Technical Research University of Tomorrow
UPM: Technical University of Madrid
USOC-E: Spanish Users Support and Operations Centre



ECONOMIC REPORT, FINANCING AND BUDGET

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A. Budget and Economic Valuation

Montegancedo Campus was awarded by the CEI (International Campus of Excellence) 2009 MEC (Ministry of Education) call the "Promising project" certification, after achieving the status of "excellence in ICT and technology transfer" during the first stage of the call, sponsored by MICINN (Ministry of Science and Innovation)

The 2009 proposal submitted by the UPM for Montegancedo Campus was awarded a total of € 8.2M incentives, distributed in €4M for the R&D program, € 0.2M for the conversion plan and finally €4M linked to the granting of the status of Promising Campus. On this second year, during the June 2010 call, an initial grant of € 0.390 M was gained, mainly for project activities aimed at the construction of a new residence for professors and doctoral students and tools to promote EHEA and improve teaching.

In this CEI 2010 call, the UPM seeks the seal of excellence and CEI certification by expanding the R&D efforts and knowledge transfer through the Innocampus program loans (€ 4.06 M requested) and strengthen the overall campus with petitions to CEI Program 2010. The UPM wants to develop its strategic plan and build upon the existing internationally recognized excellence on campus, requiring some support and assistance in specific aspects.

These new initiatives focus on actions closely related to the Campus Strategic Plan for Excellence. In general, there is the intention to reuse and optimize the current infrastructure, focusing mainly the incentives on the acquisition of new scientific and technological equipment for the R&D centres.

The progressive development of Montegancedo Campus must be realistic. The UPM is aware that you cannot address all the proposed actions and not everything can be done simultaneously. In order to initiate this journey, we have to obtain economic resources such as the one's of this call CEI 2010 and other funding sources including UPM's budgets linked to the Montegancedo Campus.

In this context, it is noteworthy the location of the Campus at one of the four sites of UPM's Science and Technology Park. This enables privileged access to finance loans based on Chapter 8 of the State Budget in the relevant calls for the General State Aid to Science Parks. In this regard, it has been submitted a proposal in the 2010 call for additional complementary actions to those provided herein.

Campus Montegancedo in the process of reclassification has applied for grants in each of the different options that have been presented in this call.

In anticipation of the outcome of the call, there is a formal commitment by the Region of Madrid to collaborate and co-finance Campus activities related to the Agreement with the Autonomous Regions.

Finally, these amounts are added up to the existing UPM's budgets and public and private aid currently obtained, or to be requested during the next years.

REQUESTED AND GRANTED AID CEI 2010 en €M								
Source	2009	2010	2011	2012	2013	2.014	2015	Totales
2nd Phase (Pending concession)	0	0,25	5,1	0,7	0,0	0,0	0,0	6,1
CEI 2010			1,3	0,7				2,0
Innocampus 2010	0,00	0,245	3,815					4,06
1 st phase	0	0,39	0	0	0	0	0	0,4
Strengthening		0,4						0,37
Collaboration		0,02						0,02

Table 1: Requested and granted aids

A.a Budget estimate 2010-2015

Investment budgets considered under this call will mainly be used in

- Complete the construction and equipment of the CAIT (Support Centre for Technological Innovation)
- Develop the basic infrastructure for the PV concentrator
- Create the Research centre of sustainable architecture
- Improve the Campus environment with signals, efficient illuminations

The total investment amounts to € 2.0 million.

ECONOMIC REPORT CEI 2015	2011	2012	2013	2014	2015	TOTAL
	K€	K€	K€	K€	K€	
a) Teaching Improvements & EHEA adaptation and impl	300 €	- €	- €	- €	- €	300 €
Personnel	- €	- €	- €	- €	- €	- €
Development and construction of buildings	- €	- €	- €	- €	- €	- €
Equipment	300 €	- €	- €	- €	- €	300 €
Execution and other costs	- €	- €	- €	- €	- €	- €
b) Scientific Improvements and knowledge and technol	800 €	700 €	- €	- €	- €	1.500 €
Personnel	100 €	100 €	- €	- €	- €	200 €
Development and construction of buildings	200 €	- €	- €	- €	- €	200 €
Equipment	200 €	600 €	- €	- €	- €	800 €
Execution and other costs	300 €	- €	- €	- €	- €	300 €
c) Campus transformation into an integrated social model; interaction between the campus and its	200 €	- €	- €	- €	- €	200 €
Personnel	- €	- €	- €	- €	- €	- €
Development and construction of buildings	50 €	- €	- €	- €	- €	50 €
Equipment	100 €	- €	- €	- €	- €	100 €
Execution and other costs	50 €	- €	- €	- €	- €	50 €
TOTAL	1.300 €	700 €	- €	- €	- €	2.000 €

Table 2: CEI 2010 Request Split

On the next table 3 we indicate the main investments required in the conversion plan. The overall amount comes to €92,2M

Table 3. Forecasted Actions 2010-2015 CEI Montegancedo

BUDGET ESTIMATE CEI MONTEGANCEDO. OPEN CALL: SUBPROGRAMME I+D+I & CONVERSION PLAN					
INVESTMENT	OBJECTIVE	DESCRIPTION	Strengthen IEC 2010	CEI 2010 2nd Phase	TOTAL INVESTMENT
HR Training and Hiring	Provide adequate human resources to the different Campus research and teaching centres	Hiring programme aimed at the improvement of existing and new research centres	0,19		21,9
Knowledge Transfer and Commercialization Staff hiring	Boost and promote scientific transfer and valuation. Find commercial opportunities	International and specialized hiring programme	0,35		1,9
Urban Expert Hiring	Process the special urban plan. Manage the overall Plan	Personnel with credible urban development and project management experience			0,1
Montegancedo International Graduate and Doctoral School International Graduate School (GST & GSM)	This unique set of buildings need to accommodate 4 differentiated but interlinked entities	Montegancedo, investment in environments and means for their implementation. Master launch	0,2		3,6
Adapting to the EHEA environments	Extend the current centre with an annex building aimed at the co-location of technology based companies and technology demonstrators. Possible "co-location centre" for the EIT KIC	This includes only funds from additional call added to this cost item	0,91		3
Doctorate Student and Researcher Residence	Hall of residency, accommodation and eating facilities	120 spaces, administrative concession. Modular Construction	0,66		6
IMDEA Software	SW Research Centre	Unique building designed by Carlos Lamela Arquitectos. 7500 m ² . Building starts December 2009			15,5
Biomedical Technology Center (CTB)	Research centre focused on biomedical technology	Building is being constructed in November 2009 being Fernandez Alba the architect. Building has a surface of 7.000 m ² .			14
Scientific Equipment and New Demonstrators	Equipment for existing centers (CBGP, Space TECH, BIO TECH, and creation of technological 3D HDTV demonstrators, Center for GMES applications / PV Galileo demonstrator)		0,32		6,9
Solar Houses installation	Installation of solar houses from Decathlon Contest				1
Creation and Development of the CAIT (Center for Technological Innovation Support)	Multidisciplinary Center valuation-oriented, knowledge transfer and exploitation of R & D results	Includes innovation support, technological demonstrators as living labs, simulation technology, the	1,05		6
Technological demonstrators	Equipment and implementation of technological simulators and living Lab projects	Projects with huge potential for attracting aggregations	1,3		2
Sports facilities	Sport facilities extension. New equipment and refurbishing from current facilities.	Gym and Sports hall Bicycle Path			1
Perimeter, building and people security	Campus is a physically limited space, requiring various security and control measures	Video surveillance and gate access			0,5
Broadband and Wireless Communications	intensive use of ICT's. Embracement of new ways of working. Technology demonstrators.	Wireless WMax in the Campus Dark fibre with Red IRIS			1,5
Energy efficiency improvements	Campus as a Technology demonstrator	Public lighting through solar Photovoltaic energy. Intelligent window glazing. Photovoltaic demo areas			1,5
Environmental Improvements	Set of measures oriented towards the environmental sustainability	Waste Management Recycling Point Water resusage Automated irrigation system			2
URBAN DEVELOPMENT/ ACCESSIBILITY INVESTMENTS	Urbanism related measures. Include actions and measures to ensure Campus accessibility to disabled.	Spatial Campus adaptation. User centric. Includes accessibility compliance and urbanism	0,1		1
Transport Improvements	Improve public transport access and ecological alternatives	Communications with Pozuelo de Alarcón Electric vehicles Bicycle hiring Accessibility to the commuter train services			0,5
Community services improvements	Develop activities linked to the surroundings and society	Bank office IT Museum Foreign student support infrastructure	0,1		0,5
TOTAL			5,18		90,4

* The difference between total investment and the open call will be financed through other sources

A.b Income and returns

TOTAL INCOME AND 2009-2015 RETURNS							
	2010	2011	2012	2013	2014	2015	Total
MARKETING/ COMMERCIALIZATION	0,3 €	0,7 €	1,0 €	1,5 €	2,0 €	2,5 €	8,0 €
Patent royalties	0,1 €	0,3 €	0,6 €	0,9 €	1,2 €	1,5 €	4,6 €
Income generated via technology exploitatio	0,2 €	0,4 €	0,4 €	0,6 €	0,8 €	1,0 €	3,4 €
TEACHING INCOME	1,1 €	1,3 €	1,5 €	2,7 €	2,7 €	3,7 €	13,0 €
Official titles	0,1 €	0,3 €	0,5 €	0,7 €	0,7 €	0,7 €	3,0 €
Own titles	1,0 €	1,0 €	1,0 €	2,0 €	2,0 €	3,0 €	10,0 €
RESEARCH INCOME	0,5 €	0,7 €	0,9 €	0,9 €	1,4 €	1,4 €	5,8 €
External research centre services	0,4 €	0,6 €	0,8 €	0,8 €	1,2 €	1,2 €	5,0 €
Publications and events	0,1 €	0,1 €	0,1 €	0,1 €	0,2 €	0,2 €	0,8 €
General Services	0,1 €	0,2 €	0,3 €	0,4 €	0,4 €	0,5 €	1,9 €
Merchandising		0,1 €	0,1 €	0,1 €	0,1 €	0,1 €	0,5 €
Various campus services and revenue stream	0,1 €	0,1 €	0,2 €	0,3 €	0,3 €	0,4 €	1,4 €
TOTAL	2,0 €	2,9 €	3,7 €	5,5 €	6,5 €	8,1 €	28,7 €

Table 4. Total Income and Returns

During the 2010-2015 period we estimate an overall income of €28,7M. Main drivers are teaching income, and commercialization of research, equipment rental, etc.

A.c Proposed summary of the financing

Table 5 summarized the budget between 2010-2015 for the various actions in the Campus, considering the different available resources.

Table 5. Annual investment and source of financing budget

EARNINGS AND BUDGET EVOLUTION CAMPUS MONTEGANCEDO 2009_2015 €M										
SOURCE	USES	2009	2010	2011	2012	2013	2014	2015	Totales	
Open Call financing (1) (includes approved grant of €4,2M & 4M rloan)	2nd Phase	2,4	2,6	1,5	1,5				8,0	
	Subprogram MICINN	2,4	1,6						4,0	
	Conversion Plan (Region Madrid)	-	1	1,5	1,5				4,0	
TOTAL CEI 2010 Funds (includes first phase and Innocampus) (€0,390M+€1,06M+€2,0M)	1st Phase	0,2							0,2	
	Conversion Plan	0,2							0,2	
	2ª Phase (pending concession)	0	0,2	5,1	0,7	0,0	0,0	0,0	6,1	
	CEI 2010			1,3	0,7				2,0	
	Innocampus 2010	0,00	0,25	3,815					4,06	
Ministry of Housing (2)	1ª Phase	0	0,39	0	0	0	0	0	0,4	
	Consolidation		0,4						0,37	
	Strengthening		0,02						0,02	
UPM Investment (3)	Ministry of Housing	0	0,15	0,41	0	0	0	0	0,6	
	Loan returns		0,2	0,4					0,6	
Agreements with the Region of Madrid CM (4)	Investment in Campus UPM		1	1	1	1,5	2	1,5	7,5	
	Medical imaging/ Supercomputer IMDEA SW	0,1	1	2	2	2	3	3	13,0	
National Programmes (5)	Science & Technology Parks	2,9	12,6	5,1	0	0		0	20,6	
	New Centres*								0,0	
	IMDEA*	0,9	5,6	5,1					11,6	
	CTB	2	7						9,0	
	OTRI		0,3	0,3	0,3	0,3	0,3	0,3	1,8	
International programmes (6)	Eurociencia		0,4	0,4	0,1	0,1	0,1	0,1	1,2	
	Magerit		0,3	0,3	0,3	0,3	0,3	0,3	1,8	
ICTS Agreements and international projects	CO-FUND		0,5	0,5	0,5				1,5	
	Supercomputer (Magerit)		1	1	2				4,0	
Private Sources (7)	Medical Imaging (Blue Brain)		1	1	1				3,0	
	Venture Capital		0,4	0,4	0,4	0,4	0,4	0,4	2,4	
	Strategic Alliances HR training and hiring		1,2	1,2	1,2	1,2	1,2	1,2	7,2	
Totales		5,6	27,1	24,1	13,0	6,8	7,8	7,8	92,2	
	2009-2012 €M	96,6								
	2009-2012 €M	96,6								

*Includes MICINN FEDER

1) Estimate whereas the amounts are accepted
2) Estimated contributions from the Ministry of Housing Useful 1750m2 @ 315 / m2
3) Chapter for investments that can be assigned to the UPM campus Montegancedo
4) Estimated investment in the Region contribution in UPM's investments, financing part of ICTS in medical imaging and IMDEA supercomputación SW
5) Support to the scientific and technological park (in the IMDEA MICINN include funding ERDF OTRI (1.8 M), Euroscience (1.2 M), Magerit (1.8 M)
6) Estimate of COFUND
7) Risk Capital incubator and training processes to third parties and financing of training funds

Despite the relative importance of the cumulative investment, this is a conservative forecast based on the concession of this proposal and the history of previous grants to the UPM

It has not been taken into account the amounts of R & D & I activities performed in the campus based on pre-competitive calls by the public administrations or Article 83 funding or any specific agreements for current activities in the buildings of the campus. Exclusively has been considered partial concessions of EUROCIENCIA, OTRI or COFUND in the extent to which they are used for horizontal actions on Campus. Within the provided funding is important to note that it has been only included what we call Strategic Alliances, excluding some project specific funding.

Based upon the source of finance we have the following distribution:

SOURCE OF FINANCE DISTRIBUTION MONTEGANCEDO CAMPUS								
	2009	2010	2011	2012	2013	2014	2015	TOTAL
CEI 2009 Conversion Plan preparation	0,2	0,0	0,0	0,0	0,0	0,0	0,0	0,2
CEI 2009 Subprogram R&D	2,4	1,6	0,0	0,0	0,0	0,0	0,0	4,0
CEI 2009 Conversion Plan	0,0	1,0	1,5	1,5	0,0	0,0	0,0	4,0
CEI 2010 Phase 1	0,0	0,4	0,0	0,0	0,0	0,0	0,0	0,4
CEI 2010 Ministry of Housing	0,0	0,2	0,4	0,0	0,0	0,0	0,0	0,6
CEI Innocampus 2010	0,0	0,2	3,8	0,0	0,0	0,0	0,0	4,1
CEI 2010 Phase 2	0,0	1,3	0,7	0,0	0,0	0,0	0,0	2,0
Addittional Financing Region of Madrid	0,1	4,0	4,8	3,0	2,0	3,0	3,0	19,9
Addittional Financing Other Sources	2,9	18,4	12,9	8,5	4,8	4,8	4,8	57,1
TOTAL	5,6	27,1	24,1	13,0	6,8	7,8	7,8	92,2

Table 6. *Source of financing distribution*

On the next pages we present the split of the various actions, specifically requested for this call, amounting to a total of €2,0M. This will be used using the template provided.

A.d Action summary CEI 2010, 2nd Phase

Table 7. Financing 2010.2015, CEI second Phase Split by area of improvement and type of expense

ECONOMIC REPORT CEI 2015	2011	2012	2013	2014	2015	TOTAL
	KE	KE	KE	KE	KE	KE
a) Teaching Improvements & EHEA adaptation and impl	300 €	- €	- €	- €	- €	300 €
Personnel	- €	- €	- €	- €	- €	- €
Development and construction of buildings	- €	- €	- €	- €	- €	- €
Equipment	300 €	- €	- €	- €	- €	300 €
Execution and other costs	- €	- €	- €	- €	- €	- €
b) Scientific Improvements and knowledge and technol	800 €	700 €	- €	- €	- €	1.500 €
Personnel	100 €	100 €	- €	- €	- €	200 €
Development and construction of buildings	200 €	- €	- €	- €	- €	200 €
Equipment	200 €	800 €	- €	- €	- €	800 €
Execution and other costs	300 €	- €	- €	- €	- €	300 €
c) Campus transformation into an integrated social model; interaction between the campus and its	200 €	- €	- €	- €	- €	200 €
Personnel	- €	- €	- €	- €	- €	- €
Development and construction of buildings	50 €	- €	- €	- €	- €	50 €
Equipment	100 €	- €	- €	- €	- €	100 €
Execution and other costs	50 €	- €	- €	- €	- €	50 €
TOTAL	1.300 €	700 €	- €	- €	- €	2.000 €
CAIT CREATION AND EQUIPMENT						
	KE	KE	KE	KE	KE	KE
a) Teaching Improvements & EHEA adaptation and impl	300 €	- €	- €	- €	- €	300 €
Personnel						- €
Development and construction of buildings						- €
Equipment	300 €					300 €
Execution and other costs						- €
b) Scientific Improvements and knowledge and technol	100 €	400 €	- €	- €	- €	500 €
Personnel	100 €	100 €				200 €
Development and construction of buildings						- €
Equipment		300 €				300 €
Execution and other costs						- €
c) Campus transformation into an integrated social model; interaction between the campus and its	- €	- €	- €	- €	- €	- €
Personnel						- €
Development and construction of buildings						- €
Equipment						- €
Execution and other costs						- €
TOTAL	400 €	400 €	- €	- €	- €	800 €
INSTALL PV DEMONSTRATOR						
	KE	KE	KE	KE	KE	KE
a) Teaching Improvements & EHEA adaptation and impl	- €	- €	- €	- €	- €	- €
Personnel						- €
Development and construction of buildings						- €
Equipment						- €
Execution and other costs						- €
b) Scientific Improvements and knowledge and technol	200 €	300 €	- €	- €	- €	500 €
Personnel						- €
Development and construction of buildings						- €
Equipment	200 €	300 €				500 €
Execution and other costs						- €
c) Campus transformation into an integrated social model; interaction between the campus and its	- €	- €	- €	- €	- €	- €
Personnel						- €
Development and construction of buildings						- €
Equipment						- €
Execution and other costs						- €
TOTAL	200 €	300 €	- €	- €	- €	500 €
RESEARCH CENTRE OF SUSTAINABLE ARCHITECTURE						
	KE	KE	KE	KE	KE	KE
a) Teaching Improvements & EHEA adaptation and impl	- €	- €	- €	- €	- €	- €
Personnel						- €
Development and construction of buildings						- €
Equipment						- €
Execution and other costs						- €
b) Scientific Improvements and knowledge and technol	500 €	- €	- €	- €	- €	500 €
Personnel						- €
Development and construction of buildings	200 €					200 €
Equipment						- €
Execution and other costs	300 €					300 €
c) Campus transformation into an integrated social model; interaction between the campus and its	- €	- €	- €	- €	- €	- €
Personnel						- €
Development and construction of buildings						- €
Equipment						- €
Execution and other costs						- €
TOTAL	500 €	- €	- €	- €	- €	500 €
RESEARCH CENTRE OF SUSTAINABLE ARCHITECTURE: SOLAR HOME DEMONSTRATOR						
	KE	KE	KE	KE	KE	KE
a) Teaching Improvements & EHEA adaptation and impl	- €	- €	- €	- €	- €	- €
Personnel						- €
Development and construction of buildings						- €
Equipment						- €
Execution and other costs						- €
b) Scientific Improvements and knowledge and technol	- €	- €	- €	- €	- €	- €
Personnel						- €
Development and construction of buildings						- €
Equipment						- €
Execution and other costs						- €
c) Campus transformation into an integrated social model; interaction between the campus and its	200 €	- €	- €	- €	- €	200 €
Personnel						- €
Development and construction of buildings	50 €					75 €
Equipment	100 €					75 €
Execution and other costs	50 €					50 €
TOTAL	200 €	- €	- €	- €	- €	200 €

B. Timeline

We present the various actions. Firstly we provide a summary of the ones corresponding to this call, then an overview of all them and finally in more detailed manner each of the types of improvements

A) ACTIONS CEI 2010 PHASE 2. REQUESTED FUNDING

	STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING						II Sem 2010	I Sem 2011	II Sem 2011	I Sem 2012	II Sem 2012	I Sem 2013	II Sem 2013	I Sem 2014	II Sem 2014
	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others									
TEACHING IMPROVEMENT															
Strengthen training through the creation of the International PhD School	In progress	x	x	x											
Project based learning support (CDF)	In progress		x	x											
SCIENTIFIC IMPROVEMENT															
Create living labs	In progress	x	x	x	x										
a) Living Lab Bank of the future: Banco de Santander	In progress		x	x											
b) Living Lab Office 21 (Future of the World of Work): Fraunhofer Gesellschaft & BICG	In progress	x	x	x											
Creation of Research Centre of Sustainability in Architecture.	Pending	x		x											
Create Technological Development Centre providing support to institutional and technological activities of international cooperation and development	Pending	x		x											
Construction of the IT Security and Information Centre (CCTC)	Pending	x		x											
CAMPUS TRANSFORMATION FOR THE DEVELOPMENT OF AN INTEGRAL SOCIAL MODEL															
Sustainable Design (eco_urbanism), restricted traffic networks, energy harvesting, water purification and waste management.	In progress	x		x		x									
Improve communication services and wireless broadband	In progress	x	x	x											
Establish conferences and diffusion events	In progress	x		x											
Adopt new ways of working: flexibility, efficiency and staff motivation.	Pending	x		x											
Create virtual and physical spaces of transformation and knowledge exchange (Agora)	Pending	x		x											
Improve Sports facilities	Pending	x	x	x											
IMPROVEMENTS FOR THE ADAPTATION AND IMPLEMENTATION OF THE EUROPEAN HIGHER EDUCATION AREA															
Creation of interactive classrooms and collaborative work	In progress	x	x	x											
Set network services to improve teaching	In progress	x	x	x											
Promote company, university and research integration, in graduate programs.	In progress	x		x											
Specific attention to non-Spanish students.	Pending	x		x											
KNOWLEDGE AND TECHNOLOGY TRANSFER AS A RESULT OF THE ACADEMIC RESEARCH TO THE BUSINESS SECTOR															
ULAB agreement	In progress		x	x											
CAIT: equipment resources	Pending			x											
INTERACTION BETWEEN THE CAMPUS AND ITS ENVIRONMENT															
Develop a collaborative framework with national universities (UCM, Rey Juan Carlos I, etc)	In progress	x		x		x									
Strengthen Campus relation with secondary schools and vocational training. (Agreement with FP Padre Piquer centre)	In progress	x	x	x											
Enhance campus interaction with society by campus opening and promoting joint activities with public and students	Pending	x	x	x											

Table 8. Actions timeline CEI 2010 Phase 2

B) ACTIONS STRATEGIC PLAN CEI MONTEGANCEDO

STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING							I-Sem 2010	I-Sem 2011	I-Sem 2011	I-Sem 2012	I-Sem 2012	I-Sem 2013	I-Sem 2013	I-Sem 2014	I-Sem 2014	I-Sem 2015
TEACHING IMPROVEMENT	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	I-Sem 2010	I-Sem 2011	I-Sem 2011	I-Sem 2012	I-Sem 2012	I-Sem 2013	I-Sem 2013	I-Sem 2014	I-Sem 2014	I-Sem 2015
Increase Masters in English related to CEI research centres.	Completed	X														
Master in Software Engineering (ERASMUS MUNDO) and advanced computing, Computer Engineering, Software and Systems and Artificial Intelligence.	Completed	X														
Masters in biomedical engineering along with a doctorate and Biotechnology and Genetic Resources.	Completed	X				X										
Computer Engineering Degree, Computer Science and mathematics (EEES adapted)	Completed	X														
Strengthen training through the creation of the International PhD School	In progress	X	X	X												
Implement the UPM educational model.	In progress	X														
Project based learning support (CDF)	In progress	X	X	X												
Biomedical Engineering Degree	Pending	X														
Biotechnology Engineering Degree	Pending	X														
Graduate School Construction	Pending	X														
Create the Centre for Research and Technological Teaching Innovation(CIET).	Pending	X														
Enhance Educational Innovation Groups.	Pending	X														
Implement placements and final projects, business master's and doctoral degrees and abroad.	Pending	X				X										
SCIENTIFIC IMPROVEMENT	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	I-Sem 2010	I-Sem 2011	I-Sem 2011	I-Sem 2012	I-Sem 2012	I-Sem 2013	I-Sem 2013	I-Sem 2014	I-Sem 2014	I-Sem 2015
Installing the virtual reality cave CEDINT	Completed	X														
Strengthen USOC E facilities(Space Tech Initiative)	Completed	X														
Aggregations development (Fraunhofer, CSIC, INIA, IMDEA, ISFOC, IEO, ATOS, Santander, NDRA, Telemática, BM, BIGG)	In progress	X														
CTB construction	In progress	X	X	X		X										
Create living labs	In progress	X	X	X	X	X										
a) Living Lab Bank of the future: Banco de Santander	In progress	X	X	X												
b) Living Lab Office 21 (Future of the World of Work): Fraunhofer Gesellschaft & BIGG	In progress	X	X	X												
c) Living Lab Home Automation	In progress	X	X	X												
d) Living Lab Solar Houses	In progress	X	X	X												
e) Living Lab/ Demonstrator 3D HDTV	In progress	X	X	X												
IMDEA SW construction	In progress	X														
Strengthen CTB equipment (BIO Tech Initiative)	In progress	X	X			X										
Strengthen IDR equipment (Space Tech Initiative)	In progress	X	X			X										
Superconducting Initiative (strengthen equipment)	In progress	X	X			X										
Food and Health Initiative (Biotech Initiative, strengthening equipment)	Pending	X	X			X										
Promotion of photovoltaic solar energy activities. Create demonstrators	Pending	X				X										
Creation of Research Centre of Sustainability in Architecture.	Pending	X		X												
Create Technological Development Centre providing support to institutional and technological activities of international cooperation and development	Pending	X	X	X												
Promoting research groups with international programs to attract young and experienced doctors	Pending	X														
Centre of integrated applications (GAMES / Galileo)	Pending	X														
Establish mobile broadband services pilot	Pending	X														
Construction of the IT Security and Information Centre (CCTC)	Pending	X		X												
Centre of Excellence in Ocean Engineering (CCT)	Cancelled	X														
Centre for Complex Systems Research (CX within CESVMA)	Cancelled	X														
		X														
CAMPUS TRANSFORMATION FOR THE DEVELOPMENT OF AN INTEGRAL SOCIAL MODEL	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	I-Sem 2010	I-Sem 2011	I-Sem 2011	I-Sem 2012	I-Sem 2012	I-Sem 2013	I-Sem 2013	I-Sem 2014	I-Sem 2014	I-Sem 2015
Reuse perimeter ring road.	Completed	X														
Improve security, buildings and people perimeter	Completed	X	X													
Sustainable Design (eco, urbanism), restricted traffic networks, energy harvesting, water purification and waste management.	In progress	X		X		X										
Campus urban plan and environmental improvements	In progress	X	X													
Improve communication services and wireless broadband	In progress	X	X	X												
Improve energy efficiency	In progress	X	X													
Establish conferences and diffusion events	In progress	X	X	X												
Students and teachers residence construction	In progress	X	X			X										
Construction and design of unique buildings fully integrated into the natural space with maximum energy efficiency	In progress	X														
Adopt new ways of working: Flexibility, efficiency and staff motivation.	Pending	X		X												
Create virtual and physical spaces of transformation and knowledge exchange (Agora)	Pending	X		X												
Adapt urban design to the site.	Pending	X														
UNE 17 001 Implement and buildings and environments accessibility	Pending	X	X													
Create spaces for university associations and unions	Pending	X														
Create an observatory of gender and equality	Pending	X	X													
Recruitment of urban management specialized staff	Pending	X	X	X												
Improve Sports facilities	Pending	X	X	X												
Improve Transport infrastructure	Pending	X	X													
Improve Watercourse recovery	Cancelled	X														
Create Welcome centre	Cancelled	X														
Computer Museum extension	Cancelled	X														
IMPROVEMENTS FOR THE ADAPTATION AND IMPLEMENTATION OF THE EUROPEAN HIGHER EDUCATION AREA	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	I-Sem 2010	I-Sem 2011	I-Sem 2011	I-Sem 2012	I-Sem 2012	I-Sem 2013	I-Sem 2013	I-Sem 2014	I-Sem 2014	I-Sem 2015
Adapt teaching and methodology improvement to the EEES	Completed	X	X													
Creation of interactive classrooms and collaborative work	In progress	X	X	X												
Set network services to improve teaching	In progress	X	X	X												
Promote company, university and research integration, in graduate programs.	In progress	X	X	X												
MT agreement	In progress	X				X										
Strengthen access to information: Library improvement	Pending	X	X													
Develop a strategy for attracting international students and exchange in predefined periods.	Pending	X														
Specific attention to non-Spanish students.	Pending	X		X												
Promote professional integration of students through a COIE office (Vocational Guidance Centre).	Cancelled	X														
KNOWLEDGE AND TECHNOLOGY TRANSFER AS A RESULT OF THE ACADEMIC RESEARCH TO THE BUSINESS SECTOR	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	I-Sem 2010	I-Sem 2011	I-Sem 2011	I-Sem 2012	I-Sem 2012	I-Sem 2013	I-Sem 2013	I-Sem 2014	I-Sem 2014	I-Sem 2015
Develop the software for creating and supporting UPM companies(funding, advice, ...)	Completed	X														
Hire qualified transfer and approval staff.	Completed	X	X													
CAIT: Project and Licensing	Completed	X														
Promote interaction between R&D&I structures and business to comply with the support role for innovation and performance enhancement.	In progress	X														
Expand the current Business Centre: supporting spin offs and technology demonstrators.	In progress	X														
Create the Support Centre for Technology Innovation (CAIT)	In progress	X	X													
CAIT: Construction	In progress	X														
Create 600 direct and indirect jobs in Campus centres	In progress	X														
ULAB agreement	In progress	X	X	X												
Make innovation a continuous process integrated in teaching and train innovation and entrepreneurship leaders.	Pending	X														
CAIT: equipment resources	Pending	X		X												
Locate technology platforms at the Campus	Pending	X														
Locate Community of Madrid clusters at the Campus	Pending	X														
Locate business associations in close interaction with UPM at the campus	Pending	X														
Support patents generation and maintenance	Pending	X			X											
Locate KICs	Cancelled	X														
INTERACTION BETWEEN THE CAMPUS AND ITS ENVIRONMENT	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	I-Sem 2010	I-Sem 2011	I-Sem 2011	I-Sem 2012	I-Sem 2012	I-Sem 2013	I-Sem 2013	I-Sem 2014	I-Sem 2014	I-Sem 2015
Develop a collaborative framework with national universities (UCM, Rey Juan Carlos, etc)	In progress	X				X										
Strengthen Campus relation with secondary schools and vocational training. (Agreement with FP Padre Piquer centre)	In progress	X	X	X												
Implement agreements and cooperation frameworks with Pozuelo council	Pending	X														
Implement agreements and collaboration frameworks with IMADE	Pending	X														
Develop the collaboration framework with EDI (Escuela Organización Industrial)	Pending	X														
Develop activities and socio-cultural workshops in collaboration with the Student representatives	Pending	X														
Enhance campus interaction with society by campus opening and promoting joint activities with public and students	Pending	X	X	X												

C) TEACHING IMPROVEMENT

STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING																
STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	II Sem 2010	I Sem 2011	II Sem 2011	I Sem 2012	II Sem 2012	I Sem 2013	II Sem 2013	I Sem 2014	II Sem 2014	I Sem 2015	II Sem 2015
Completed	X															
Completed	X															
Completed	X				X											
Completed	X															
In progress	X	X	X													
In progress	X															
In progress	X	X	X													
Pending	X															
Pending	X															
Pending	X															
Pending	X															
Pending	X															
Pending	X															
Pending	X															
Pending	X															

D) SCIENTIFIC IMPROVEMENT

STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING																
STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	II Sem 2010	I Sem 2011	II Sem 2011	I Sem 2012	II Sem 2012	I Sem 2013	II Sem 2013	I Sem 2014	II Sem 2014	I Sem 2015	II Sem 2015
SCIENTIFIC IMPROVEMENT																
Installing the virtual reality cave CEDINT	x															
Strengthen USOC E facilities(Space Tech Initiative)	x															
Aggregations development (Fraunhofer, CSIC; INA, IMDEA, ISFOC, IEO, ATOS, Santander, INDRÁ, Telefónica, IBM, BICG)	x															
CTB construction	x															
Create living labs	x	x	x	x												
a) Living Lab Bank of the future: Banco de Santander	x	x	x	x												
b) Living Lab Office 21 (Future of the World of Work): Fraunhofer Gesellschaft & BICG	x	x	x	x												
c) Living Lab Home Automation	x	x	x	x												
d) Living Lab Solar Houses	x	x	x	x												
e) Living Lab/ Demonstrator 3D HDTV	x	x	x	x												
IMDEA SW construction	x															
Strengthen CTB equipment (BIO Tech Initiative)	x															
Strengthen IDR equipment (Space Tech Initiative)	x	x														
Supercomputing Initiative (strengthen equipment)	x	x														
Food and Health Initiative (Biotech Initiative, strengthening equipment)	x	x														
Promotion of photovoltaic solar energy activities. Create demonstrators																
Creation of Research Centre of Sustainability in Architecture.																
Create Technological Development Centre providing support to institutional and technological activities of international cooperation and development	x		x													
Promoting research groups with international programs to attract young and experienced doctors	x															
Centre of integrated applications (GMES / Galileo)	x															
Establish mobile broadband services pilot	x															
Construction of the IT Security and Information Centre (CTIC)	x															
Centre of Excellence in Ocean Engineering (ICTI)	x															
Centre for Complex Systems Research (CIX within CESVIMA)	x															

E) TRANSFORMATION

STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING							II Sem 2010	I Sem 2011	II Sem 2011	I Sem 2012	II Sem 2012	I Sem 2013	II Sem 2013	I Sem 2014	II Sem 2014	I Sem 2015	II Sem 2015	
STATUS	CEI 2009	CEI 2010		INNOCAMPUS	Others													
		Phase I	Phase II															
CAMPUS TRANSFORMATION FOR THE DEVELOPMENT OF AN INTEGRAL SOCIAL MODEL																		
Reuse perimeter ring road.	X																	
Improve security, buildings and people perimeter	X	X																
Sustainable Design (eco_urbanism), restricted traffic networks, energy harvesting, water purification and waste management.	X	X	X		X													
Campus urban plan and environmental improvements	X	X	X															
Improve communication services and wireless broadband	X	X	X															
Improve energy efficiency	X	X	X															
Establish conferences and diffusion events	X	X	X															
Students and teachers residence construction	X	X	X		X													
Construction and design of unique buildings fully integrated into the natural space with maximum energy efficiency	X	X	X															
Adopt new ways of working: flexibility, efficiency and staff motivation.	X	X	X															
Create virtual and physical spaces of transformation and knowledge exchange (Agora)	X	X	X															
Adapt urban design to the site.	X	X	X															
UNE 17001 Implement and buildings and environments accessibility	X	X	X															
Create spaces for university associations and unions	X	X	X															
Create an observatory of gender and equality	X	X	X															
Recruitment of urban management specialized staff	X	X	X															
Improve Sports facilities	X	X	X															
Improve Transport infrastructure	X	X	X															
Improve Watercourse recovery	X	X	X															
Create Welcome centre	X	X	X															
Computer Museum extension	X	X	X															

F) IMPROVEMENT ORIENTED TOWARDS EHEA ADAPTATION

IMPROVEMENTS FOR THE ADAPTATION AND IMPLEMENTATION OF THE EUROPEAN HIGHER EDUCATION AREA	STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING																
	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	II Sem 2010	I Sem 2011	II Sem 2011	I Sem 2012	II Sem 2012	I Sem 2013	II Sem 2013	I Sem 2014	II Sem 2014	I Sem 2015	II Sem 2015
Adapt teaching and methodology improvement to the EHEA	Completed	X	X														
Creation of interactive classrooms and collaborative work	In progress	X	X	X													
Set network services to improve teaching	In progress	X	X	X													
Promote company, university and research integration, in graduate programs.	In progress	X		X													
MIT agreement	In progress					X											
Strengthen access to information: Library Improvement	Pending	X	X														
Develop a strategy for attracting international students and exchange in predefined periods.	Pending	X															
Specific attention to non-Spanish students.	Pending	X		X													
Promote professional integration of students through a COIE office (Vocational Guidance Centre).	Cancelled	X															

G) KNOWLEDGE TRANSFER

		STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING															
	STATUS	CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	II Sem 2010	I Sem 2011	II Sem 2011	I Sem 2012	II Sem 2012	I Sem 2013	II Sem 2013	I Sem 2014	II Sem 2014	I Sem 2015	II Sem 2015
KNOWLEDGE AND TECHNOLOGY TRANSFER AS A RESULT OF THE ACADEMIC RESEARCH TO THE BUSINESS SECTOR																	
Develop the software for creating and supporting UPM companies(funding, advice, ..)	Completed	x															
Hire qualified transfer and approval staff .	Completed	x	x														
CAIT: Project and Licensing	Completed	x															
Promote interaction between R&D&I structures and business to comply with the support role for innovation and performance enhancement.	In progress	x															
Expand the current Business Centre supporting spin offs and technology demonstrators.	In progress	x															
Create the Support Centre for Technology Innovation (CAIT)	In progress	x	x														
CAIT: Construction	In progress	x															
Create 600 direct and indirect jobs in Campus centres	In progress	x															
ULAB agreement	In progress	x	x														
Make innovation a continuous process integrated in teaching and train innovation and entrepreneurship leaders.	Pending	x															
CAIT: equipment resources	Pending			x													
Locate technology platforms at the Campus	Pending	x															
Locate Community of Madrid clusters at the Campus	Pending	x															
Locate business associations in close interaction with UPM at the campus	Pending	x															
Support patents generation and maintenance	Pending																
Locate KICs	Cancelled	x															

H) CAMPUS INTERACTION

		STRATEGIC PLAN CAMPUS OF EXCELLENCE_FUNDING															
		CEI 2009	CEI 2010 Phase I	CEI 2010 Phase II	INNOCAMPUS	Others	II Sem 2010	I Sem 2011	II Sem 2011	I Sem 2012	II Sem 2012	I Sem 2013	II Sem 2013	I Sem 2014	II Sem 2014	I Sem 2015	II Sem 2015
STATUS	INTERACTION BETWEEN THE CAMPUS AND ITS ENVIRONMENT																
In progress	Develop a collaborative framework with national universities (UCM, Rey Juan Carlos I, etc)	x		x		x											
In progress	Strengthen Campus relation with secondary schools and vocational training. (Agreement with FP Padre Piquer centre)	x	x														
Pending	Implement agreements and cooperation frameworks with Pozuelo council	x															
Pending	Implement agreements and collaboration frameworks with IMADE	x															
Pending	Develop the collaboration framework with EOI (Escuela Organización Industrial)	x															
Pending	Develop activities and socio-cultural workshops in collaboration with the Student representatives	x															
Pending	Enhance campus interaction with society by campus opening and promoting joint activities with public and students	x	x														



C. Conclusions

This report is intended to provide a clear overview on the finances and financial implications of the various initiatives undertaken under the CEI call sponsored by MEC. These investments cannot be isolated from a major investment program centered on the Campus of Montegancedo. During 2004-2010 a total of €65M were spent, committing just €16M in 2010 alone.

The here requested funds jointly with the amounts solicited through the INNOCAMPUS 2010 call, constitute a key part in the journey towards becoming a Campus of Excellence.