



MODELLING THE TECHNICAL RESEARCH UNIVERSITY OF TOMORROW

European **l**aboratory for modelling the technical research **U**niversity of tomorrow

Laura Fulci

CODAU meeting

Pavia, 14/11/2012



- Only project funded in the call:

FP7-SCIENCE-IN-SOCIETY-2010-UNIV

Topic: SIS-2010-1.4-2 *The role of Universities in the process towards a knowledge-based society*

- A Support Action (CSA) of 600.000€ of funding
- 24 months duration:
 - from: 1st January 2011
 - to: 31st December 2012



Politecnico di Polito
Research Management



COORDINATOR:
Universidad Politécnica de UPM
Management & Dissemination



Valorisation



Oxford University
Outreach



Entrepreneurship



Demonstrate the advantages of collaboration in **International focused networks** of technical or research intensive universities

- Share and exchange good Practices
- Pilot joint actions taking benefit of the International nature of the network

- ⇒ Identify/exchange best practices
- ⇒ Pilot innovative experiments in:
 - ⇒ Research Management
 - ⇒ Rights protection and commercialisation
 - ⇒ Entrepreneurship
 - ⇒ Outreach
- ⇒ Extract conclusions to contribute to the enhancement of research management in European Technical Research Universities

Aim: Identification of current practices, reporting on Best Practices in the three areas

- Research Strategies
- Research Support Services
- Human Resources management

Polito WP leader

to collaborate/integrate with industry:

- Institutional Initiative for Biomedical Technology (UPM)
- Cittadella Politecnica and Collaboration with General Motors (Polito)
- Formal collaboration between University of Oxford and Oxford Radcliffe Hospitals NHS Trust
- Research "oriented " towards the industry (ParisTech)
- Industrial Research Chair Programmes

to find new funding opportunities:

- European Projects Office (UPM)
- EU Fund Raising Division (Polito)
- Research Facilitators Network (Oxford)

for multidisciplinary approach:

- Institutional Initiative for Biomedical Technology (UPM)
- CoTeSys (TUM)
- Frequent, informal interactions within and across departments as demonstrated by collegiate system (Oxford)

for valorisation of human resources:

- UPM Programmes for senior researchers (Isaac Peral) and PhD students (Homologadas)
- Institute for Advanced Study (TUM)
- John Fell Fund (Oxford)

to promote the research excellence:

- Research Quality Assessment Plan (UPM)
- Scientific productivity assessment process (Polito)
- Continuous Review and Improvement Program (Oxford)

on IT infrastructures:

- Information Technology System of Vice-Rectorate for Research (UPM)
- On-line timesheet tools (Polito)
- PORTO open repository (Polito)
- Research Support website (Oxford)

Preferred themes

- **How to reinforce excellence and strategies for filling research capacity gaps** → *Institutional initiative for Biomedical Technology (CTB) at UPM and Cotesys at TUM.*
- **New innovative models of relations between University – Industry** → *Cittadella Politecnica (Polito)*
 - **Sharing of IT systems and similar tools to improve research support and increase visibility** → *Information Technology System of Vice-Rectorate for Research at UPM and on-line Timesheet Polito at POLITO*
- **Exchanging knowledge among European research support offices** → *European Projects Offices at UPM, TUM, Paristech and Polito and the Research Facilitators at Oxford*
- **Human resources and post-doc training programs** -> *UPM “Becas UPM Homologadas (Programme for PhD Students)”*

Phase 2: BPs selected for transfer

WP 2 THEME	Best practice selected	Originating institution	Pilot site	date	Staff involved	Specific objectives
Research Strategies	Cittadella Politecnica and Collaboration with General Motors	POLITO	UPM	11 April 2012	-Prof. Jose Maria López - Deputy Director of INSIA-UPM (Automobile Institute) -Ana Belén Bermejo- Programmes Coordinator at European Office	Support the definition and building of a Cluster on "Sustainable Mobility" in the Campus of Excellence MONCLOA
			TUM	11 April 2012	-Dr. Evelyn Ehrenberger, Vice-President for Entrepreneurship and Intellectual Property	To compare and strengthen the coordination of new and existing Clusters of Excellence and Industry Partner Cooperations at TUM. - Mission towards the creation of a wealthy, high-quality academic environment where to bring together education, research, enterprises in the same premises allowing mutual interaction among students, researchers, entrepreneurs
	CoTeSys	TUM	POLITO	13 April 2012	-Shiva Loccisano (TT office) -Ilaria Robaldo (EU Affairs office)	Explore ways to reinforce the developing of strong multidisciplinary research groups in connection with industry
			ParisTech	5 July 2012	Prof. Claude LAURGEAU, Founder of the Robotics Centre, MINES ParisTech Prof. Arnaud de la FORTELLE, Director Robotics Centre, MINES ParisTech Prof. David FILLIAT, ENSTA ParisTech Dr. Sébastien Fernandez, ParisTech, Doctoral training & research international partnerships	Explore ways to reinforce strong relationships with industry; Developing cooperation in the field of robotics
	TUM Institute for Applied Science (TUM IAS)	TUM	POLITO	13 April 2012	-Shiva Loccisano (TT office) -Ilaria Robaldo (EU Affairs office)	To explore ways to reinforce the developing of strong multidisciplinary research groups
	Institutional Initiative for Biomedical Technology	UPM	POLITO	6 March 2012	-Gabriella Balestra (Dpt. of control and Computer Engineering) -Maria Onorato (EU Affairs Office)	Reinforce Polito position in a new field which is considered strategic

Phase 2: BPs selected for transfer

			ParisTech	5 July 2012	<p>Prof. Claude LAURGEAU, Founder of the Robotics Centre, MINES ParisTech</p> <p>Prof. Arnaud de la FORTELLE, Director Robotics Centre, MINES ParisTech</p> <p>Prof. David FILLIAT, ENSTA ParisTech</p> <p>Dr. Sébastien Fernandez, ParisTech, Doctoral training & research international partnerships</p>	<p>Explore ways to reinforce strong relationships with industry;</p> <p>Developing cooperation in the field of robotics</p>
	TUM Institute for Applied Science (TUM IAS)	TUM	POLITO	13 April 2012	<p>-Shiva Loccisano (TT office)</p> <p>-Ilaria Robaldo (EU Affairs office)</p>	To explore ways to reinforce the developing of strong multidisciplinary research groups
	Institutional Initiative for Biomedical Technology	UPM	POLITO	6 March 2012	<p>-Gabriella Balestra (Dpt. of control and Computer Engineering)</p> <p>-Maria Onorato (EU Affairs Office)</p>	Reinforce Polito position in a new field which is considered strategic
Research support services	EU Affairs Office	POLITO	UPM	8th May 2012	<p>-Javier López, European (Project Office, Director)</p> <p>-Beatriz Cubeiro, (International Grant Officer)</p>	<p>Explore way for strenghtening links among eu offices and researchers</p> <p>Identification of items that can be transferred from the visits to optimize the services of the Office</p>

Phase 2: BPs selected for transfer

	Research Facilitators	Oxford	UPM	22-23 May 2012	-Javier López (Director European Project Office) -Roberto Martínez (Deputy Director European Project Office)	Identify methodologies and processes which could be transfer to UPM so as to increase the quantity and quality of UPM participation to European R&D programmes, mainly to improve pre-award services.
			Polito		-Laura Fulci (Head EU Affairs office) -Maria Onorato (EU Affairs Office)	Support the development of an internal network of academic to support in the participation in funding research programmes
			ParisTech		-Jean-Pierre Broyart, International Office -Sebastien Fernandez, Doctoral training & Research International partnerships	Learning about the role and responsibilities of facilitators in an university: how they interact with research teams, how , how they help them to acquire research grants,
	European Projects Office	UPM	Polito	29 March 2012	-Laura Fulci (Head EU Affairs Office) Ilaria Robaldo (EU Affairs Office)	Consolidate network with other EU affairs office

Phase 2: BPs selected for transfer

	Research Facilitators	Oxford	UPM	22-23 May 2012	-Javier López (Director European Project Office) -Roberto Martínez (Deputy Director European Project Office)	Identify methodologies and processes which could be transfer to UPM so as to increase the quantity and quality of UPM participation to European R&D programmes, mainly to improve pre-award services.
			Polito		-Laura Fulci (Head EU Affairs office) -Maria Onorato (EU Affairs Office)	Support the development of an internal network of academic to support in the participation in funding research programmes
			ParisTech		-Jean-Pierre Broyart, International Office -Sebastien Fernandez, Doctoral training & Research International partnerships	Learning about the role and responsibilities of facilitators in an university: how they interact with research teams, how , how they help them to acquire research grants,
	European Projects Office	UPM	Polito	29 March 2012	-Laura Fulci (Head EU Affairs Office) Ilaria Robaldo (EU Affairs Office)	Consolidate network with other EU affairs office

- ☀ The following issues have proven to be of added value and can be proposed as **guidelines for the enhancement of best practices' exchange**:
- The ideas' transfer could be effective only if it is part of a **general strategy**
 - The **knowledge of the context** is essential: a good practice can't be analysed and understood if disconnected by what is around it → the regulation of the country and of the procedures of the university where the best practice is originated
 - A careful **choice of best practices of real interest**, either **to enhance** own similar practices **or to change** and introduce more efficient new practices.
 - The identification and **selection of the "right people"** to participate to the visit, to involve the university staff of both institutions who directly work at the practice.

- ☀ ***Increase international dimension*** : University should compete over the world for attracting the interest of the private sector and for qualified human resources.
 - *To reach this aim is strategic to **consolidate working contacts among university similar offices** (i.e. EU offices) so as to set up a systematic method to proceed and interact*
- ☀ ***Go towards smart specialization*** : this concept implies to **focus their activities** in some scientific areas and **addressing multidisciplinary challenges** bringing together expertise spread out on different areas of the university.
- ☀ ***Wider the range of interaction with industry***: University should investigate various type of **cooperation with industry** not only at local level but internationally. This can be done starting from the usual framework agreements, to **new approaches** based, for instance, on the co-habitation in the same campus of universities and companies.

Aim: Identification and exchange of current practices among the partners on methodologies for commercial and economic valorisation of results

Main outcomes:

- Elaborate an international patent catalogue grouping all Ulab Universitys' technology offer for specific sectors
 - Jointly present this catalogue to regional industrial fairs (benefit from the partner's infrastructure and contacts in the region)



23-24 May 2012, UPM
Energy and Environment International Trade Fair

WE'RE SUPPORTING
VENTUREFEST
OXFORD 2012
SAID BUSINESS SCHOOL
TUESDAY 19TH JUNE



19 June 2012, Oxford
THE business creation networking event
of the year. Typically more than 1,000
people attend.

Several success
stories reported



23-25 October 2012, TUM
Europe's top event for material-driven and supplier-oriented
product innovations. lightweight design to pave the way for a
new era in e-mobility, aerospace, new energy, automotive
and consumer goods.



21-23 November 2012
Venice - Italy



21-23 November 2012, Venice
International showcase for
nanotechnologies

Aim:

- to create and consolidate a network of universities and incubators, throughout Europe, facilitating exchanges and collaborations between them
- to experiment the use of the network with several start-up interested in internationalise their operations

Main outcomes:

- Offices of all ULAB incubator are **opening their services to other ULAB partners.**
- Promotion of alliances and partnerships for further **establishment of synergies between the start-ups**

ENGAGING STUDENTS IN REAL ENTREPRENEURIAL SETTINGS:

- TUM – Manage & More scholarship, the entrepreneurial qualification programme at TUM
- Paris – A Telecom Paris module
- Polito – The Politecnico of Torino “Entrepreneurship and Business Planning” program

ORGANIZING BUSINESS PLAN COMPETITIONS:

- UPM – UPM Business Plan Competition, actuaupm
- TUM – enable2start
- TUM – Münchener Business Plan Wettbewerb (MBPW)
- Oxford – The Saïd Business School’s VentureFund competition
- Polito – The Start Cup Piemonte Valle D’Aosta

BUILDING BRIDGES BETWEEN RESEARCH LABS AND INNOVATIVE STARTUPS:

- TUM – Start-up Evening
- Oxford -- Engagement in knowledge exchange and technology transfer
- Paris – Challenge+ or HEC Start up

ENTREPRENEURSHIP AS A FULL-FLEDGED RESEARCH FIELD

- TUM – School of Management Entrepreneurship research
- Paris – HEC Paris entrepreneurship research field

FINANCING START-UPS:

- TUM – UnternehmerTUM Fund
- Paris – 3T Telecom Technology Transfer Fund
- Paris – A new fund at HEC Paris
- Polito – I3P financing services

ENHANCING TEAM BUILDING:

- UPM – Team Building in the UPM Entrepreneurship Program
- TUM – Entrepreneurs’Night
- TUM – Teamproject within the Executive MBA in Innovation & Business Creation
- Paris – Startup in Vitro @ HEC School of management, ParisTech
- Polito – Entrepreneurial/managerial Team - ET

Aim: Identification and exchange of current practices on outreach activities of universities

Main outcome European contest to award the 3 best Outreach projects

The winners were:

Active Science – Young people engaged in science

(encouraging deliberative democracy by engaging young people in current scientific and technological issues - Agora Scienza, Centro Interuniversitario, Italy)

Centre of the Cell (the first science education centre in the world to be located within biomedical research laboratories - Queen Mary, University of London, UK)

Sons de Barcelona (Sounds of Barcelona) (working with environmental sounds to foster interest in music technologies through creative workshops - Universitat Pompeu Fabra, Barcelona, Spain)

<http://www.ulab-fp7.eu/>