MANAGING THE UNIVERSITY COMMUNITY

EUA workshop on research management:
Exploring New Types of Interdisciplinary Research Projects
Aachen, 11-12 February 2005

Summary of Case Studies

1st CASE STUDY: Technical University Aachen (RWTH), Germany
Thomas Gries, Chair of the RWTH Interdisciplinary Forums and Institute of Textile Technology

THE GLOBAL KNOWLEDGE RACE: BUILDING EFFECTIVE INTERDISCIPLINARY RESEARCH STRUCTURES FOR A BETTER INTERNATIONAL COMPETITIVE POSITIONING

Solutions for the challenges of global markets are not developed by only one research discipline. Truly successful innovations are usually generated in cooperation with different disciplines. Therefore interdisciplinarity plays an important role in the discussion about new ways of research and teaching. RWTH Aachen University created a pattern to foster interdisciplinary activities: six future oriented societal topics were built into Interdisciplinary Forums. In order to create adequate research solutions for the challenges they pose, the Forums bundle various disciplines under one research topic. The results are transferred to higher education and discussed in public. The lecture will give an example for successful interdisciplinary research structures and the involved challenges at the RWTH Aachen University.

2nd CASE STUDY: Norwegian University of Science & Technology, Trondheim, Norway
Tore Lindmo, Professor of medical technology, Deputy Director of Strategic Area Medical Technology.

CONVERGING TECHNOLOGIES: MANAGING NTNU’s INTERDISCIPLINARY STRATEGIC AREAS SUCCESSFULLY

The main goal of NTNU is to be useful to society, by developing and maintaining the national technological skills needed to build a sustainable society. To realise this goal NTNU has given priority to six strategic areas in which we aim to be among internationally leading universities in: Energy and Petroleum - Resources and Environment, Information and Communication Technology, Marine and Maritime Technology, Materials, Medical Technology, and Globalisation.
The challenge in this context is to utilise the full potential of interdisciplinary research and education to solve or better understand complex societal and technological problems. Executing strategic research management is crucial when it comes to research across the scientific disciplines. Interdisciplinary research takes time, both to develop mutual understanding and respect between disciplines and to overcome structural and organisational barriers. The balancing act is to allow strong discipline-oriented research groups to flourish, but also to inspire and demand interdisciplinary research which is able to address important problems in society and contribute to further development.

3rd CASE STUDY: Charles University, Prague, Czech Republic
Martin Potucek, Head, Centre for Social and Economic Strategies (CESES)

SHAPING THE FUTURE: PROBLEM-ORIENTATED PARTICIPATORY RESEARCH FOR THE CZECH SOCIETY

The Center for Social and Economic Strategies at the Charles University Prague (CESES; http://ceses.cuni.cz) was established in October 2000 to develop theories, methodologies and practices of futures research. Its mission is to identify and analyse key issues, developmental barriers and development opportunities of the Czech state and society. It contributes to identifying priorities and preparing strategically responsible political and legal decisions, while respecting varying values, disciplinary perspectives and methodological approaches. Its approach has been organized through time along the line Understanding (Theories) → Conceptualization (Conceptual Model) → Problem Identification (Priority Issues) → Problem Solution (Strategic Concepts) → Key Societal Innovations (Strategic Moves). We act as the cognitive think-tank in the process of division of labour whereby relevant synergic tasks are performed by the politicians and civil servants who represent the interests of their fellow-citizens; by other experts and the citizens in their own right.

4th CASE STUDY: ETH Zürich, Switzerland
Dr. Leszek Reinhard, Advisor to the Vice-President Research

INNOVATION INITIATIVES: PROMOTING INTERDISCIPLINARY RESEARCH AT ETH ZURICH

The ETH Zurich Innovation Initiatives Program (INIT) is a means to promote new scientific endeavours that in the medium to long term may result in the establishment of new professorships or the creation of new centres of excellence. This Program provides a limited amount of seed money for explorative projects on a competitive basis. This Innovation Initiatives Programme is based on experiences gained from the exploration of areas of future strategic focus.

With the go-ahead of the Executive Board in May 2003 for the INIT programme, ETH Zurich has introduced a way of fostering new areas of scientific interest on a competitive basis. INIT’s function is to provide incentives for innovation; the projects themselves must be devised by the research
groups. Proposals submitted by researchers will be reviewed by the Commission for Innovation Initiatives. The intention is to launch two or more new initiatives each year and fund them for a maximum of three years (around 250 000 CHF per project/per year). After this period, the project can be continued with its own budget or become one of ETH’s established tasks, for example forming the basis for a new professorship.

In this ETH case, the selection process for the three projects of the first round will be explained, and how they are monitored and evaluated during the trial period.

5th CASE STUDY: University of Edinburgh, United Kingdom
Bob Smailes, Director, Edinburgh Research and Innovation (ERI)

THE EDINBURGH – STANFORD LINK: INTERDISCIPLINARY, TRANSATLANTIC RESEARCH DESIGNED TO HAVE ECONOMIC AS WELL AS SCIENTIFIC IMPACT

The Edinburgh-Stanford Link is a collaborative research programme between the Human Communication Research Centre (HCRC) at The University of Edinburgh and the Centre for the Study of Language and Information (CSLI) at Stanford University.

The Link was established in 2002 as a 5-year initiative with a grant of £5.3M from Scottish Enterprise. Its focus is on basic and strategic research, training and technology transfer in speech and language technology. The initiative brings together the complementary expertise of HCRC and CSLI as world leaders in natural language processing and will enable people and computers to communicate through spoken and written language. The presentation will cover an overview of the Link, how projects are selected and managed, some examples of projects and the mechanisms that have been put in place to ensure that commercial outputs are effectively commercialised.