

Future of European University

Report on the discussion during a
special workshop at European
Research Society Fall Meeting,
Warsaw, 8 Sept. 2005

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<http://www.e-mrs.org/meetings/fall2005/RTD.html>

Origin of the event

The workshop was proposed by Prof. Marcel Van de Voorde¹, Prof.. Krzysztof Kurzydłowski² , Prof. Witold Łojkowski²

The workshop has taken place as a satellite event of the European Materials Research Society Fall Meeting, Warsaw, 8th Sept. 2005

The event was chaired by Prof. Tadeusz Kulik, deputy Rector of the Warsaw University of Technology

The audience were Deans of Faculties, Rectors of important Polish Universities and other people interested in this field of science politics.

Summary of the Workshop

- ◆ This was a first workshop of this kind organised by the EMRS society.
- ◆ The ideas and questions formulated in the present text represent my personal impressions from this workshop.
- ◆ The most important conclusion for me is that:
„It is really time to start think in terms of strategy on Global, European, National or Regional level, depending on the ambitions of the University“. This concerns not only Universities but also various research centers and Institutes.

Motivation of the event

The workshop was organised to

- ◆ Stimulate changes in Central Europe and Poland leading to increase of competitiveness of Universities
- ◆ Stimulate the Academic societies in Central Europe to actively take part in discussions taking place in Europe concerning competitiveness of European science and Universities

The workshop programme

- ◆ In first part of the workshop Prof. Marcel Van de Voorde explained the importance of the discussed problems and presented four selected important topics for discussions
- ◆ The second speaker was Dr Paul W. Gilgen who explained his views on difficulties on technology transfer between Universities and Industry
- ◆ The two presentations were followed by a vivid discussion
- ◆ The results of the discussion were recorded by Witold Lojkowski, who also prepared the present report.

Outline

- ◆ Introduction: the need for changes
- ◆ Issue of autonomy and control over universities
- ◆ Issue of structure of Universities
- ◆ Issue of interdisciplinarity
- ◆ Issue of interaction with industry and balance between basic and applied research
- ◆ 7th Framework Program and Universities
- ◆ Conclusions

Introduction: the need for changes

- ◆ Europe is losing its leading position in the world in economical growth, social dynamics, production of knowledge. This process takes place gradually, what is dangerous, because the public opinion is not mobilised to take adequate measures to stop this.
- ◆ One of the indicators of the above decay of European role in the world is that only few European Universities are classified between the top world Universities. This is contrary to the past situation.
- ◆ Taking back by European Universities again a leading role in the World would be an important factor for revitalising Europe
- ◆ Discussions about measures to bring European Universities back to the leading role in the world is therefore also a discussion about the future of Europe
- ◆ The topic is broad, and therefore during the workshop only four major issues were discussed

Autonomy and control over universities

- ◆ Autonomy evolved over centuries as a major attribute of Universities. Is now autonomy a barrier for changes?
- ◆ There are strong opinions in Europe that there should be more accountability of Universities against the society, since Universities must become more efficient.
- ◆ On the other hand, autonomy of Universities evolved to protect them from short sighted political pressures and ensure their creativeness.
- ◆ Two options exist: more control and pressure to enforce changes in Universities, or self regulation and autonomy, since Universities will be anyway exposed to steadily increasing pressure not only from European but also overseas Universities in India, China etc.
- ◆ Public authorities will have therefore to develop tools to judge Universities performance and needed public support.
- ◆ This performance judgment will lead to classification of Universities as Regional, National, European or World class.

Structure of Universities: proposed changes...

- ◆ The present structure of many universities is quite rigid in many aspects. One of them is the position of Professors and the employment guarantees.
- ◆ There are strong voices in favour of changing this system. According to that way of thinking professors performance should be periodically assessed and their contracts should be for limited time.
- ◆ In this way Universities will undergo similar changes as are requested in other fields of society and Universities competitiveness increased.
- ◆ But..

And some doubts....

- ◆ In most Universities the Professor position is awarded after a heavy competition and this ensures that only very few best and motivated individuals reach this position. They do not need strong formal control.
- ◆ Short term contracts will attract people of above qualifications only if paid as well as high level managers in industry, which is not the case.
- ◆ Work on short term will not foster breakthrough in basic research, where the typical time scale from idea to success is 10 years or more.
- ◆ Schools around well great authorities might be difficult to establish if the Professor changes every 5 years.

Issue of interdisciplinarity

- ◆ New fields of research and applications emerge that require interdisciplinary research teams.
- ◆ Many Universities insufficiently prepare students to work in interdisciplinary teams.
- ◆ The barriers for students to change from one faculty to another or from one university to another and learn a new field are too high
- ◆ The students are not trained to communicate interdisciplinary, nor to think interdisciplinary.

Inter, Multi, Trans-disciplinarity

- ◆ Also transdisciplinary thinking is strongly requested so that the interaction of disciplines between each other is enhanced and societal effects of research better assessed
- ◆ Scholars need to be aware of the broader social, historical, ecological and political impact of their activities and of the societal context of their activities
- ◆ The issue of reforms in the University are one very good example of a task that requires inter, Multi, Trans disciplinary approach

Interactions of disciplines fosters efficiency

- ◆ Inertia: exposing faculty staff to assessment by experts from other fields or interaction with other structures requires from them stronger efforts and better explaining their results. But this is what we want for increased performance.
- ◆ Stimulation: Interaction between faculties or larger structures will foster creativity and permits to better use the gathered knowledge
- ◆ Efficiency: Inter/Multi and Trans disciplinarily may foster higher efficiency of University teaching and research.

However, Inter/Multi/Trans disciplinarity brings also dangers

- ◆ There is a danger of superficial teaching of various fields instead of deep knowledge of the given field.
- ◆ Do interdisciplinary teams need
 - members with specialised knowledge that are able to communicate and work in multidisciplinary teams, or
 - members with superficial knowledge of various fields able to learn what is needed?
 - The success of interdisciplinary teaching will depend on successful answer to this dilemma.
 - Inter/Multi/Trans can be a field for people that want to hide incompetence.
- ◆ During the meeting the opinion prevailed for well trained experts able to work well in multidisciplinary teams, but leaving also the option for changing of fields. The later option might appear to be attractive for students.

Inter, Multi, Trans disciplinarity

- ◆ Interdisciplinarity: methods of one discipline applied in another one
- ◆ Multidisciplinarity: methods of several disciplines are applied to solve one problem
- ◆ Transdisciplinarity: more difficult to define. Many claim "revolutionary" or "new approach", "understanding word" etc. In fact nothing new, transdisciplinarity is as old as Universities. Perhaps a good definition is that of broad Multidisciplinarity unifying humanistic, social sciences and natural sciences to better understand phenomena in the real world

Interaction with Industry

- ◆ The barrier for technology transfer to industry is high, with obvious negative consequences for Europe competitiveness.
- ◆ The reasons for that may be quite deep, and be connected with the whole structure of the European society, which has lost its dynamism, except for the new member states.
- ◆ Nevertheless, obviously specific interactions of Universities and industry need to be discussed

Interactions with industry, continued

- ◆ The role of Universities as a "think tank" providing the society with new ideas stemming from basic research need to be protected.
- ◆ Interaction with industry is also a measure to protect University autonomy, by diversification of funding.
- ◆ Universities when seeking interaction with industry, differentiate between large corporations and small enterprises. The later ones need education, since they are not aware of the results of research. This way of thinking may greatly enhance the efficiency of research and technology transfer.

Business incubators and technology transfer centers

- ◆ It is strongly requested that such structures should have public funding, in the frame of public-private partnership. This is very true, but..
- ◆ At the same time it is frequently requested to withdraw the state from many fields of economy. It is controversial to request more state in business incubators, but less in other sectors of economy.
- ◆ Technology transfer centres are not a remedy in themselves, much depends on what is their structure and what is the mentality of people. Few countries are successful in that respect.

The 7th FRP and Universities

- ◆ The European tool to help universities in the global competition is the 7th FRP.
- ◆ Universities as such will be partners for the European Commission, not only research groups
- ◆ In 7th FRP, and in particular within the Marie Curie programme various forms of support for Universities for their development will be foreseen, including benchmarking tools, exchange of experience, training, exchange programs etc.

Need to have an European strategy

- ◆ Universities need to be aware of the changes that European unification brings
- ◆ Be aware of the competition of Universities on Global and European Arena, not only national or regional
- ◆ Be informed on forthcoming changes and directives
- ◆ Have tools to influence the European policy
- ◆ Have a strategy that takes the fact of operation in unified Europe into account and even more: of the increasing competition of Universities overseas
- ◆ Be attractive for students and scholars and competitive in search for funding taking into account broader than now geographical context

Conclusions 1

- ◆ There is consensus as far as need for changes and increase competitiveness of European Universities reached a consensus.
- ◆ The advantages of the changes comparing to established system need to be carefully weighted, and still discussion is needed how to reconcile the different points of view and achieve the requested competitiveness.
- ◆ Much work is needed to clarify the meaning behind the general statements for needed recipes and to establish real facts in place of general statements

Conclusions 2

- ◆ It is necessary to better understand the decision making procedures in Europe and how to give the needed input at a stage when such input may still influence the events
- ◆ It is necessary to find efficient methods for transfer of information between various centres influencing public opinion and convince for the needed changes
- ◆ This is a Transdisciplinary field, and a transdisciplinary approach is a prerequisite for success in changes

Conclusions3

- ◆ Further workshops of this type should be organised. But the main players – the Universities, must take the initiative in that respect
- ◆ It is really time to start think in terms of strategy on Global, European, National or Regional level, depending on the ambitions of the University
- ◆ Interdisicplinary, authonomy regulations, work regulations, interaction with industry, interaction at EU level: all these are specific tools that can help to reach above goals