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## **The Europe of Knowledge 2020**

**"A Vision for University Based Research and Innovation", Liège 25 – 28 April 2004**, Parallel session number 4: "A new paradigm for relations between higher education and research"

A contribution to the discussion by Professor Dr. Jürgen Mittelstrass (University of Konstanz) – President of the Academia Europaea



## **Profile-building and New University Structures**

### *Preliminary Remarks*

The Academia Europaea has been active in discussing aspects of Higher Education, including on such relevant matters as excellence (in higher education), virtual universities, future needs for research networking, and electronic publishing and its impact. These and other issues have been addressed through publications and symposia and can be accessed from the website of the Academy ([www.acadeuro.org](http://www.acadeuro.org)).

As part of the consultation process that has led to this meeting, the Council of the Academia published a statement on "The Role of Universities in the Europe of Knowledge" in May 2003. The main issues raised in that paper are directly relevant to this session and meeting and we would invite consideration of these. My own

(personal) contribution to this discussion starts with several remarks and perhaps bold observations.

The (concept and practice of the) university is changing, due, in part, to changes in social attitudes and the institutional environment and, also, as a result of changes to the practice of research. There is an increasing conflict between institutional autonomy and political pressure. As a result the (traditional) university is threatened with the loss of its essential nature (defined here as an autonomous organization of research and teaching, joint with a concept of *Bildung*).

I shall now address, very briefly, these developments as well as the new university structures.

1. *'Bildung', that is, education that goes beyond the needs of the day is more than ever necessary in a society that sees itself as essentially open (in terms of opportunity and access).*

The pressure for change is increasing. The drive towards specialisation stands in peculiar contrast to the pressure for a "technological" integration of knowledge. The modern world is ruled not by an understanding which mirrors the world in all its complexity, but by the specialist. We face a paradox: The richer our stores of information and knowledge, the poorer our personal ability to grasp their totality. But this ability is just that which the notion of education (in the sense of "*Bildung*") once stood for.

2. *When knowledge, information and personal orientation draw apart, and when the market becomes the measure of all things, then education becomes a concrete utopia. It becomes the future of a knowledge society that no longer disposes of an integral concept of knowledge.*

Education is the expression of a culture in which the rational nature of Man is realised. This culture is not something external to the modern world, something quaint, which has to be lovingly preserved. Culture is rather the world itself, which has been

transformed into the world of the human being. Man recognises himself not only in those things to which he lends objectivity, as in the sciences, but also in those that partake in his subjectivity.

Education is an ability and a form of life, and not merely a matter of knowing one's way around the stacks of knowledge. Wilhelm von Humboldt is still correct. An educated person is someone, who tries "to grasp as much of the world as is possible, and who tries to bind it to him as tightly as possible".<sup>1</sup>

### *3. Education in the knowledge society requires a strong educational system.*

When we speak of (higher) education and research (as scientific methodology) in the same breath, we are generally talking about a particular kind of knowledge formation. We mean the theories, the methods and criteria of rationality to which theories and methods are subjected. If such criteria are abrogated, science education loses its claim to objectivity and truth. In addition to methodology there is also science as a social organisation. That finds its form generally as an *institution*, for instance the university. But science is also, in an important way, a moral attitude – one that reflects the guiding orientation of the scientific subject.

But we have lost touch with the idea that science (higher education and research) can adjudicate in moral or ethical matters. Is this partly because of a false dichotomy between science as an end in itself and science as a pure motor of production? Is it the case that our universities no longer cultivate a form of life with which students and teachers can identify? Among the reasons for this we might count:<sup>2</sup> (1) *Universality* in the sense of "general responsibility" for subjects that extend beyond one's own discipline has now given way to growing specialisation. (2) Increasing emphasis on *vocational training* degrades not only elements of universality, but with them elements of education. (3) The acceleration of institutional changes in the university system leads to an excessively organised life, which replaces reflection with the ability to conform.

4. *Universities have to be the architects of their own development in the sense of a practiced inner autonomy.*

Every institution must think in terms of a planned development, and this applies to universities particularly. The modern keywords are profile building and new university structures.

In the developments of universities it will be essential to practice autonomy not just towards the (traditional) external (*political* autonomy), but also internally, as *structural autonomy*. For a long time universities took autonomy merely to consist in the former and have demanded it from the state. Now it is important to achieve structural autonomy, and to bring to bear the responsibility that comes along with autonomy.

The building of areas of specialisation and of a university profile is important. Old structures of institutes and faculties have to be examined for their contemporary validity. Modern research is moving beyond individual subjects. A system of science has to follow these developments - and create the adequate institutional background for this - and not vice versa.

5. *The future of research and learning is problem-driven transdisciplinarity.*

It is often overlooked that most of the most urgent problems that research and a good education are supposed to help us solve do not do us the favour of defining themselves in terms of fields and disciplines. Examples are the environment, energy and health. This asymmetry between the development of problems and the development of disciplines is growing. Therefore, the return to larger disciplinary and interdisciplinary units is the more promising alternative.

Interdisciplinarity, however, should not be thought of only as a *repair measure* that becomes necessary when problems outgrow the limits of a discipline. Properly understood, it serves to recover an ability to view things scientifically that helps to recognise problems before they become critical.

Where interdisciplinarity is synonymous with the expansion of our capacity to deal with existing problems and to anticipate future ones, it is not enough to regard interdisciplinarity as a structural "fix" for scientific organisation. Interdisciplinarity has to derive from an ability to think "laterally", to question what no one has questioned, to learn what is not known within one's own discipline.

*6. University research and teaching will only flourish under global conditions in those places where universality, transdisciplinarity, identity in plurality, and quality are assured.*

I would argue that to achieve excellence and a balance between education and research there has to be a commitment to reinstating the Humboldtian ideal of the unity of research and teaching. Institutions must answer the following questions: How much universality must there be, for there to be a university? How much disciplinarity, for transdisciplinarity to have a chance? How much plurality, for a university identity? How much quality, if excellence is to emerge?

*1. How much universality must there be, for there to be a university?* Great achievement requires specialised knowledge and close contact to other areas. For instance, Robert Boyle was a physicist and chemist, Max Weber a sociologist and historian. Disciplinary boundaries do not determine actual achievements here. On the contrary, they must be overcome, if great achievements are to result. And thus universality, in its institutional forms of fields and disciplines, cannot be arbitrarily restricted.

Put another way, research and teaching thrive only in departmental or disciplinary greenhouses. Access to the (university's) external environments must remain open. This means that the university must hold to its claim to universality. And it can do this with a hope of success only if it accords this universality an institutional expression.

*2. How much disciplinarity must there be, for transdisciplinarity to have a chance?* Disciplines remain a prerequisite for interdisciplinarity and transdisciplinarity as forms of work and of cognition. At the same time, however, this means that the university presupposes a multi-disciplinary character (or multiversity).

3. *How much plurality must there be, for there to be a university identity?* Disciplinary plurality does not only guarantee inter- and transdisciplinarity, it also bestows upon the university a sense of self. If this plurality is not present, the sense of being a university, rather than a school, will not develop. The university will become an institution of teaching rather than research.

4. *How much quality must there be, for excellence to emerge?* Universities are institutions of higher learning in the sense that university teaching develops out of university research. Unless this is the case, university teaching and learning are no longer distinguished from non-academic teaching and learning. This also means that the quality of the university teacher is measured above all by his achievements in research.

Although mediocre conditions do not necessarily exclude a high level of achievement, or occasional feats of excellence, this will remain the exception. Mediocre conditions are rather a programme for academic mediocrity, true to the old university saying that second-rate people hire third-rate ones.

So, there must be a lot of academic quality in one place if academic excellence is to develop. Academic quality is meant here in the sense just defined with regard to universality, transdisciplinarity and the formation of a university identity.

7. *A good university is shaped by both competition and cooperation.*

There would be no advances in science without competition or cooperation. But their relation is difficult. Whoever is competing with others does not cooperate with them, and who is cooperating does not compete.

Science solves the apparent dilemma theoretically, on the one hand, by conceiving of the antagonism as a dialectical relationship and practically, on the other hand, by behaving either cooperatively or competitively – as the situation requires. The desirable and necessary competition captures all parts of this system, not just the universities.

There should be competition between scientists, institutes or comparable organisational units, faculties, and universities. A university that is evading such comparisons will soon become mediocre.

The endeavour to expand scientific strengths to genuine profiles of excellence will in turn promote the desire for cooperation (among the best). Such a cooperation should lead to the formation of regional and supra-regional research clusters. Only those universities which manage to solve the problem of competition and cooperation will be succeeding in the future.

### *Concluding Remarks*

I welcome aspects of both the STRATA-ETAN report and that of the High-level Expert Group. I have some doubts about aspects of the "Riding the Wave" scenario, which seem to be both counter-intuitive and counter-productive. The essence of higher education and research is to facilitate the pursuit of learning and knowledge and its effective transmission. Universities and higher education cannot be subject to an economic reductionism and are not simply to be regarded as an economic good, tradable and purely market-driven. At universities, as in business, it is important to strengthen one's strengths and to eradicate weaknesses by redirecting resources. This also has to be the aim of performance contracts between universities and the state in a state system of higher education. Where such a path is taken consistently, the profile-building of universities will necessarily lead to a differentiated system of universities. The idea that a university system will remain rather homogeneous, as, for instance, the German system once was, is an illusion. To make such a system the measure of all things in a utilitarian way would inevitably soon mean common mediocrity. The universities would not just lose their role in a system of education and research conditioned by competition, but also their duty of providing points of orientation, of which - with view on the role of *Bildung* in a knowledge society - I had spoken earlier.

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1) W. v. Humboldt, "Theorie der Bildung des Menschen (Bruchstück)", *Gesammelte Schriften*, vols. I-XVII, Berlin 1903-1936, vol. I, p. 255.

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- 2) See J. Mittelstrass, "Wissenschaft als Kultur", in: J. Mittelstrass, *Der Flug der Eule: Von der Vernunft der Wissenschaft und der Aufgabe der Philosophie*, Frankfurt/Main 1989, pp. 13-42.

See also the Academia publications ([www.acdeuro.org](http://www.acdeuro.org)):

*The Role of the University in the Europe of Knowledge* (May 2003)

*Goals and Purposes of Higher Education in the 21st Century*, ed. Arnold Burgen. Published by Jessica Kingsley, ISBN 1-85302-547-X, 1995.

*Inside Academia: New Challenges for the Academic Profession*, ed. Peter A. M. Maassen and Frans van Vught, Center for Higher Education Policy Studies, Enschede. Published by De Tijdstroom, Utrecht, ISBN 90-352-1800-0, 1996.

*The Impact of Electronic Publishing on the Academic Community*, ed. Ian Butterworth. Published by Portland Press, ISBN 1-85578-122-0, 1998.

*Interdisciplinarity and the Organisation of Knowledge in Europe*, ed. Richard Cunningham. Published by the European Commission, ISBN 92-828-6175-9, 1999.

*Electronic Communication and Research in Europe*, ed. Jack Meadows and Heinz-Dieter Böcker. Published by the European Commission, ISBN 92-828-6874-5, 1999.

*The Virtual University*, ed. Henk van der Molen. Published by Portland Press, ISBN 1-85578-145-X, 2001.

*Clues to Excellence in Higher Education: Rapporteurs Report* (Lanzendorf, U. & Verburgh, A.), 2002.

*Excellence in Higher Education*, ed. Erik de Corte. Published by The Portland Press, London. ISBN 1-85578-152. 2003-10-01.