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International Competitiveness in Higher Education— A European Perspective

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CHECK AGAINST DELIVERY

Let me start by thanking you for the invitation to speak to you today. As the European Commissioner responsible (amongst other things) for education, it is crucial for me to exchange with those involved in universities, to get a feel for what is important to them and how they see the future. This is all the more important since the political interest in universities and higher education is clearly growing, and there is an increasing sense within Europe that our universities are being held back from delivering to society the various benefits that they could provide. So I am very interested to hear your views on all this.

Let me also say at the very start that the situation in which British universities find themselves is quite different from that of most of their continental cousins. This is largely because you have been in a more or less continuous process of reform since 1992 – and I am sure you are aware of that in ways I cannot even begin to imagine. But it is also because, historically, the ancient universities in this country had more independence from the State than was the case in many continental countries. The model of autonomy was thus already to hand in this country. When it is seen to have brought success, it is easier to build on it and to expect that the performance of universities generally will follow the same successful path.

I propose today to outline for you a European perspective on universities:

- Why we believe that they are so important;
- Where European universities generally are not matching up to their potential;
- and what should be done about it.

In doing this I shall not be arguing that powers need to be transferred to the European level, or that the Commission should be able to regulate the university world – far from it. But the Commission not only has an interest in Europe as a whole; it also has an interest in both the European economy and European society. I therefore have a perspective which is different from that of national authorities and, I hope, adds something to their reflections. That is the perspective I wish to present today.

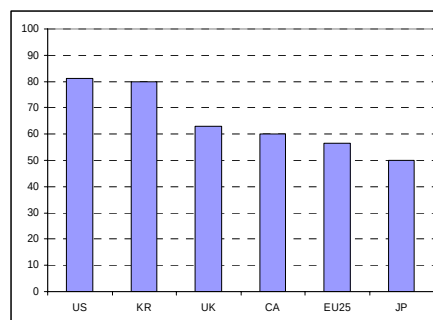
Why are universities so important?

We can't answer that question without looking at what is happening to Europe as a whole, particularly in the areas of education, research and innovation. That is a big part of the competitiveness dimension of our societies and economies – or, if you like, the “knowledge dimension”.

First, our economies are changing. They are no longer manufacturing economies, they have become or are becoming transformation and service economies. We have to hope they are also becoming innovation economies. Let's see what the figures tell us.

First, let's look at the numbers of young people in higher education. That's a good proxy for the level of qualification of young people in the labour market.

Participation in tertiary education – 2003
(All enrolments in ISCED 5-6, independent of age,
as a percentage of 20-24 year olds in population)



Source: Eurostat, UOE data collection

As you see, We are not doing so well. Most of our main competitors are putting more young people through higher education than we are. Nor is this new – they have been doing so for some time.

It is difficult to measure success in knowledge creation, but citation indicators and peer review tell us something. According to the THES review of universities, only one European university was in the top 10 for citations last year – and that was the Federal Technical university in Zurich. Two, Oxford and Cambridge, were in the top 10 on peer review.

Academic ranking of world Universities 2005
(Source: The Times Higher Education Supplement)

TOP 10 UNIVERSITIES BY CITATIONS			
CITATIONS RANK	OVERALL RANK	NAME	
1	4	California Insti	
2	20	University of C	
3	10	ETH Zurich	
4	1	Harvard Unive	
5	2	Massachusetts	
6	24	University of C	
7	15	University of Ti	
8	7	Stanford Univ	
9	2	University of G	
10	9	Princeton Unk	

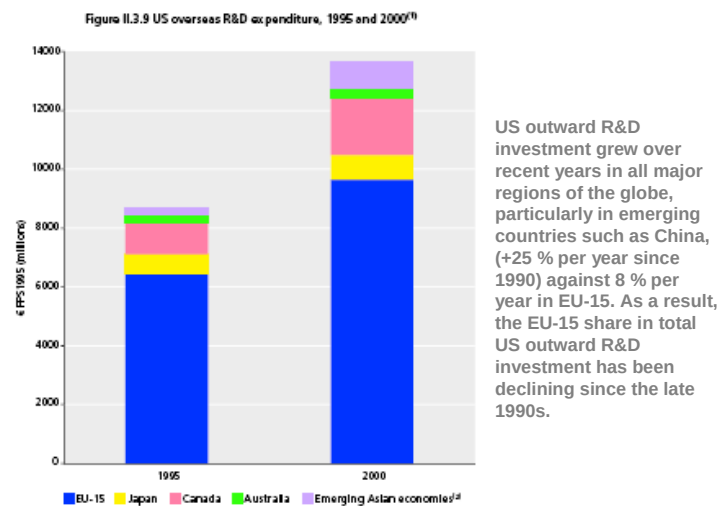
TOP 10 UNIVERSITIES BY PEER REVIEW			
PEER RANK	OVERALL RANK	NAME	COUNTRY

Even varying the criteria, few EU universities are in the top ten

If we look at investment in research within the EU, it doesn't come out any better. The US invests far more in research than European countries or the EU as

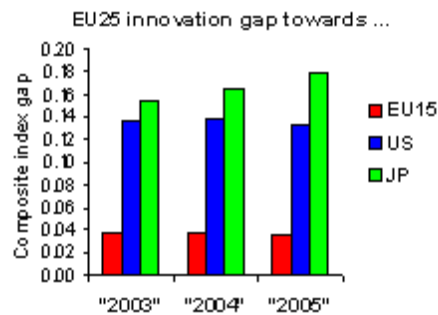
a whole; you have only to think of the National Institutes of Health with their \$28 billion budget, or the National Science Foundation with another \$7 billion. Only in the United States can the government give a single research contract worth over \$3 billion and, yes, you are right, it was the US Department of Defence which gave it.

Moreover, when we look at where research investment in the world is going, we see that other countries, in particular low-cost countries, are doing much better than us.



The biggest source of private R & D investment is US business, and their R & D investment in Europe is growing at a small proportion of the speed it is growing in China and India.

Finally, to complete this somewhat doom-laden picture, we aren't doing as well on innovation as we could be either. I won't go into details here, but I want to show you the latest version of the "innovation scoreboard" that the Commission has compiled, based on 26 different sets of indicators. This seeks to show how innovative the economy in the EU is in comparison with the US and Japan.



It would take more than 50 years for the EU25 to catch up to the US level of innovation performance (EU25 0.0)
(source: innovation scoreboard 2005)

Against this background, it is obvious that we need to invest more in our universities. If Europe is to continue as a successful society and economy, we need universities which can face the multiple challenges of wide social access, good regional links and development capacities, the ability to commercialise the fruits of research, and straightforward academic excellence. These are not all the same thing – and it may be asking too much from any one university to be good at all of them. But they are all important.

How do European universities generally match up?

An outsider looking at most of Europe's universities today – and as I said earlier, I would generally except UK universities from this part of my remarks – would be surprised by a number of things.

- First, by the degree of regulation that many universities have to contend with. Micro-management is the appropriate term for it – for example, the arrangement under which any decision taken by a University rector or administration has to be counter-signed by the Ministry before it is effective. Imagine the time wasted and the impossibility of management under such circumstances.

- Secondly, by the degree to which universities (and the authorities that regulate them) seem to think that they should all be the same. The model they want to follow is the general, research-intensive university. In short, they are all looking to be, let us say, Oxford. Now being Oxford is certainly important – but we also need recognition that other dimensions of university work – access or regional development, for example – are crucial for the future of society. And I don't see much of that recognition today.
- Thirdly, when you look at many of our universities, you can see why the expression “ivory tower” came about. They are not always well connected to the outside world. Not all would accept, for example, the notion that they are preparing people for the labour market – and hence that employability is one important indicator of success.
- And finally, let me be clear - and here you may think that I should include the UK – most universities in Europe are seriously under-funded. This is both on research and on education. The US manages to spend in all about twice as much as the 25 EU Member States manage on average. And over time, that adds up. The higher education spend looks like this.

	Direct Public Spending, % GDP, 2002	Private spending, % GDP, 2002	Total (direct p), % of GDP, 2002
USA	1.17	1.42	2.59
Japan	0.45	0.64	1.09
EUR 25	0.95	0.20	1.15
BE	1.16	0.19	1.34
CZ	0.82	0.12	0.94
DK	1.87	0.04	1.91
DE	0.98	0.09	1.07
EE	0.92	0.00	0.92
GR	1.21	0.01	1.22
ES	0.93	0.29	1.22
FR	0.94	0.16	1.10
IE	1.05	0.17	1.22
IT	0.74	0.20	0.94
CY	0.68	0.95	1.63

	Direct Public Spending, % GDP, 2002	Private spending, % GDP, 2002	Total (direct p), % of GDP, 2002
LV	0.72	0.57	1.29
LT	1.25	0.00	1.25
LU	0.00	0.00	0.00
HU	0.97	0.26	1.24
MT	0.70	0.05	0.74
NL	0.99	0.28	1.27
AT	1.02	0.09	1.11
PL	1.05	0.46	1.51
PT	0.93	0.09	1.02
SI	0.99	0.30	1.29
SK	0.72	0.13	0.85
FI	1.69	0.07	1.76
SE	1.53	0.17	1.71
UK	0.79	0.31	1.10

Total
spending in
the higher
education
sector
(source: Eurostat)

The enlarged EU devotes a much lower share of its wealth to the financing of the higher education sector (both research and education activities) than the US. In 2002, the EU spent 1.15 % of its GDP on the higher education sector compared to 2.59 % in the US. The most striking difference between the two regions concerns private expenditure. In relative terms, private expenditure on higher education is seven times higher in the US than the EU.

The figures on research are comparable.

Of course, the picture is not all gloomy. There are many excellent institutions on the continent of Europe, and many more have excellent departments within them. My point, however, is that *attitudes and regulations prevent them from being as good as they could be, or doing as much as they could do for society.*

What are the reforms we need?

Let me divide this part of my comment into three sections. First, I want to look at governance; then at curricular reform; and finally at the issue of fragmentation.

1. Governance

Even in countries where universities are technically independent and accountable, it isn't always like that in reality. Universities are almost totally publicly funded; so Ministries keep a detailed control over what they do and legal independence is in some countries no more than a fig-leaf.

This is the first thing that has to change if universities are to be enabled to do more. I do not believe that we shall ever get the best from our universities if Ministries keep control and spend their time trying to guess better than academics what is the right area to invest in. There's no evidence that they do it better – and considerable evidence that they do it worse.

That means that the funding regime has to change as well – it implies perhaps a system of block funding, rather than detailed amounts for specific things. It's worth reflecting on the fact that in some countries it is impossible to know how much a university costs – the research money is identifiable, but the staff salaries come from another budget, building maintenance from a third, equipment purchase from a fourth and maintenance from a fifth, student support

from a sixth, pension contributions are part of a massive block payment by the Finance Ministry for all civil servants – and so on.

That sort of arrangement – and I admit that it's an extreme case – makes the best use of resources quite impossible.

But the funding regime can only change if universities can persuade society – and governments – that they are good value for money. They need to be pro-active in marketing their value; and they need objective support in that. Hence the Europe-wide movement on Quality Assurance. We now have a Europe-wide agreement on standards and guidelines for Quality Assurance, which emerged from a working party chaired by the representative of the English Quality Assurance Agency and was accepted by Ministers responsible for higher education in Bergen last year.

Similarly, universities need professional management - and they need to recognise that professional management is essential and should be properly rewarded (Perhaps I am preaching to the converted here?). The British system has invested in leadership and management processes and training. I am sure this has contributed to quality, and I hope it will be possible for others to learn from your experience.

2. Curricular Reform

The words “Bologna process” seem to bring two reactions in the UK. One is indifference – ‘we already have the BA/MA/PhD structure - Bologna lets the others catch up.’ The other reaction is one of caution – ‘will we have to change our degrees?’

I can't answer the second. But I want to draw your attention to the Bologna process because it shows that you can change things, given the will.

Over the 8 years since the Bologna declaration was signed, more than 40 European countries have converted to the BA/MA/PhD structure. They have moved from a variety of long degrees, often very dear to their own academic worlds, to a global standard for university qualifications. This has not been easy – and indeed in some countries it is still controversial (in the student demonstrations in Paris last weekend you could see a few placards saying “Down with Bologna!”). But they have moved. They have revisited their curricula – you can’t just stop a 5-year curriculum after three years and leave the remaining two for the Masters. They have taken on board Quality Assurance systems.

A by-product of this – and an important one – is that European higher education systems are becoming more comprehensible, and therefore more attractive world wide. That matters, since the flow of foreign students into universities is a major development factor. Think of what it means to the US that one third of their engineering PhD students are Chinese. Think of the situation of many British universities if the numbers of overseas students fell off. Think that in many European countries now you can take a degree in English even though the language outside the lecture room may be Swedish, Dutch or Italian. What does that mean for Europe? And for you?

So, curricular reform is under way. It is one of the most important elements in university life. If your curricula are modern and up-to-date, you are well placed in what is increasingly an international higher education market.

Fragmentation

Finally, let me say something about fragmentation. This is inherent to a Europe made up largely of small countries. They naturally all want their own universities, they want their own research funding systems, their own controls and their own cultures. Indeed, their cultures are important, and universities are

often a key player in keeping them vibrant and connected. I don't want to give the impression today that I see universities as a purely economic instrument

But one outcome of this is that the European university system is broken up into small bits. And with increasing regionalisation in some of our big countries – Germany and Spain, for example – the tendency is to fragment more, to erect more barriers, not less. This sits oddly with what all academics regard as the global nature of knowledge.

This is where scale comes in. If you look at the US, you can calculate that they have a “world-class, general, research-intensive” university for every 6 million people or thereabouts. A country like the UK with a big GDP, can achieve a certain number – I won't expose myself by suggesting how many – along the same lines. My own country, Slovakia, with a population of some 5½ million and still a much lower GDP per head, has to struggle. We don't have the financial resources, even if we do believe that our intellectual resources are second to none. But what happens to them? They have to go abroad. In that sense, Slovakia is typical of many European countries. Unable to provide the quality of research and academic infrastructure that our academics need and deserve, we see them emigrate. And not enough of them return.

This problem is compounded of course, by the fact that European higher education systems generally attract next to nothing in terms of private financing: the funding gap with the USA I mentioned consists almost entirely of private financing, since levels of public investment are about the same.

What can we do at European level? Well, there are a few answers. We can start by pressing the Member States – as we do – to introduce the sorts of reform I have been talking about. To free their universities from unnecessary burdens and encourage them to play to their strengths.

We can also contribute financially. This is where the European Research Council comes in. It's our way of putting money – a lot for us, though not a lot by US standards – in the hands of excellent teams of scientists, through a neutral peer-review process with only one objective: quality. I believe this will make a big difference to the European research scene; and I hope that the excellence-driven process will be emulated in some of our Member States as well.

But given the levels of resource we have available, this will not be enough by itself. We have to find other ways of using our money more effectively – or of building up our intellectual capacity so that we can remain present in the innovation stakes in 10, 20 or 50 years' time.

This is where the Commission's proposal for a **European Institute of Technology** comes in. Let me briefly explain how we think it would work, and then try and fit it into the picture I have just outlined.

Early in my speech today I gave a brief sketch of our position on competitiveness. On a scale of 1 to 10, it's not good. The Commission believes that if we are to improve it, we need a way of bringing together universities, research centres and business around the "knowledge triangle" – education, research and innovation. One way of promoting this would be to set up an EIT.

The EIT should be an operator – it should do its own teaching, its own research – and in due course, it will develop a portfolio of innovation. It should **not** be a new institution built in a green field to compete with existing ones. Instead, it should be a network organisation, taking in teams from universities, research centres or businesses – not the whole institution, but the team working on a particular subject. The subject areas would be identified by a Governing Board made up of academics and business people, and they would try to select the best areas for long-term investment – ten or fifteen years ahead – in which they and industry could invest the best human resources available.

They would aim to build up hubs of intellectual capital – not in the classic disciplines, but in strategic inter-disciplinary fields: perhaps green energy or bio-informatics, for example. In due course, there would no doubt be industrially useable outcomes; but the time-scale should be long enough for these to be reached without the need continuously to review participation, to look for new sponsorship, to spend precious time and energy on renewing the finance.

Now, why should a proposal like this be controversial – or even interesting?

First, because of the concern that its resources might be drawn from other research-related funds. But the Commission has made it clear that this would not be the case, so I discount that issue. We don't want to undermine the European Research Council, any more than researchers themselves do.

Secondly, because the format is new. Building business into the management and operation of education and research is something many find hard to envisage. But that's part of why it's so important. We need a new model – we need something which can demonstrate to countries where university models still hark back to the days of von Humboldt, that today there are additional ways of doing things.

And thirdly, I believe, because of a certain degree of fear. Fear, for example, that it might drain excellence from existing institutions without giving anything back. Fear, perhaps, that, since it would be governed on the basis of excellence, it would not, by definition, be “inclusive”. There are also fears that it would end up being subject to political interference and that excellence would go out of the window.

All these reactions to the Commission's proposal for an EIT are out there. They all have to be dealt with, and over the next few months, the Commission will try to deal with them. I am not saying that we have all the right answers or that we

have a magic formula: but I am saying that change is needed and that we believe there should be a flagship to promote it. We will issue the next formal communication on the EIT in June, for the next meeting of Prime Ministers. It will show the concrete steps we intend to take and how we might deal with some of the particular challenges thrown up by the model we have proposed.

Clearly, the EIT is not the whole answer to Europe's competitiveness problem. But it is part of the answer. In their own way, the reactions to it are a microcosm of the problems that universities face.

In the UK you had a major reform 15 years ago, and you have faced up, with great success, to various other reforms over the subsequent years. I hope that my successor will be able to say as much of European universities generally in ten or fifteen years time.

Thank you very much.