

## TIME FOR UNIVERSITY REFORM – WITH MARKET PRINCIPLES, PANEL URGES

**The European Commission is planning new policies to ‘modernise’ universities. The Science|Business Innovation Board calls on the EU to push for universities that are more flexible, responsive and autonomous actors in the knowledge marketplace**

*Statement of the Science|Business Innovation Board*

Universities do many great things – but a primary mission is providing the intellectual labour and capital that Europe needs to grow. Accomplishing that mission will require radical reform, starting with the very model of what a university system should aspire to do.

Universities, we believe, are not just another public service like healthcare or defence. They are, instead, part of a marketplace of ideas, talent and opportunities. This marketplace needs government intervention so that it serves society’s needs. But it also needs freedom – for its participants to govern themselves, to respond to market demands, to stimulate innovation, and to achieve excellence in a variety of ways. This is our vision of a ‘modern’ university: free, but accountable.

Alas, universities in much of the European Union are not performing the way they, or most of their stakeholders, would like. For those who see a university education as a right for all, years of tightening public budgets have in many institutions forced larger classes, curtailed curricula or restricted enrolment. For those who see universities as a form of vocational training, the mismatch between supply and demand of specific skills has worsened over the years. For instance, the number of ICT practitioners employed in the core EU-15 nearly doubled from 1995 to 2008, while the number of new computer science graduates from universities actually declined slightly.<sup>1</sup> For those who see universities as high-end research labs, the average European performance has been underwhelming: One (controversial) international ranking lists only 27 EU universities among the world’s top 100.<sup>2</sup> And for those who see universities as industrial labs or company incubators – well, regardless of one’s views on that philosophy, as a practical matter it simply does not work that way in much of Europe. A commercial, value-for-money equation in Europe does not balance.

These are broad statements – and the situation differs greatly from one EU member-state to another, from one discipline to another, and even from one university department to another. There is no doubt, as attested by the number of Nobel Prizes received by Europeans, that great research can still come from Europe. The best European universities are world-class and can serve as role-models for others. And there have been many laudable reforms: the Bologna protocols to allow comparability of degrees, the ‘Excellence’ initiative to reward the best in German universities, the Marie Curie and Erasmus programmes to fund student mobility, and new powers of autonomy granted French universities, are just a few. But these are islands in a storm. The true challenge comes, not from within Europe, but from abroad: The rising scientific and technological powers of China, India and a few other emerging economies, as well as the continued dominance of US research and higher education. In the face of these challenges, most EU member-states have shied away from the truly difficult political issues: Who pays? Who decides? Who can be a student, or teacher? We applaud the Commission’s effort to raise some of these hard questions now, through its planned communication on university modernisation.



This note is a position of the Science|Business Innovation Board AISBL. The Board is a Belgian-based, non-profit think tank on innovation policy, managed by the Science|Business media service, on behalf of its academic and industrial members. These members include BP, ESADE Business School, Imperial College London, INSEAD and Microsoft. General Electric, which participated in a Zurich Board meeting at which this topic was first raised with representatives of the Commission’s Directorate-General for Education and Culture, also contributed. Further information is at [www.sciencebusiness.net/innovationboard](http://www.sciencebusiness.net/innovationboard).

This note draws on the direct experience of the Board’s members – on both sides of the ‘market’: the universities supplying talent and ideas, and the companies demanding them. It is our hope that this breadth of perspective will prove useful.

The recommendations:

### **1. Universities need autonomy to operate effectively in the education marketplace**

There is no one-size-fits-all model for university governance. That would be impossible, and undesirable, in a continent as diverse as Europe. But whatever the local variables, there remains one fundamental principle: The best people to decide a university’s strategy are those directly responsible for its success - its board and its faculty heads. In an educational marketplace, each actor must have a certain freedom of action to react quickly to demand, problems and opportunities. The best European universities already operate this way; more should do so.

Among other things, this means that university boards should be diverse, open and have real governance powers – including over budget. Too often, university boards in Europe have an uneasy tendency towards cronyism: academic insiders or friends of power. A university board should reflect all its stakeholders, with limited terms and clearly delineated authorities. They should be free to set the university’s strategy, manage its budget (without reference to a ministry), and set employment and admission policies. Most importantly, however, with freedom comes responsibility: University boards must be held accountable. They must - in consultation with stakeholders in government, industry, the local community, staff and students - specify a set of performance metrics by which they will be judged. And if they are failing, it must be easy to replace them. Whatever the mechanism in local law or custom, it should be possible for a sizeable plurality of dissatisfied stakeholders to sack the board expeditiously.

This same principle, of freedom with responsibility, applies to department heads and faculty. It should be possible to replace a bad manager in a university department quickly, sending him or her back to the research or teaching they were good at from the start, before any real harm is done to the department or institution. And while a tenure system can support academic freedom, it should still allow accountability: each faculty member should regularly be assessed against a broad set of performance measures – and rewarded or penalised, in pay and position, accordingly. At issue is the ability of the board to execute its chosen strategy; a country's normal practices for employment and compensation should not end at the university gates.

Lastly, we recognise that the debate over university funding will vary from country to country. There is a universal principle, however: The mix of funding should be as broad as possible – whether from central government, local authorities, industry, investors or students. Money talks. Diversifying its source is the one fool-proof way to ensure that universities listen to all stakeholders.

## 2. Universities should be responsive to demand in the marketplace

To prosper, Europe needs a wide range of skills and discoveries – and the flexibility to adapt those to changing competition and challenges. That means that each university should use its autonomy to adjust to the specific set of demands it sees – whether from its industrial partners, its local community, or its students. The result, across the continent, should be an even richer diversity of institution than we have today. There is room, in the modern education marketplace, for the technical university, the vocational school, or the liberal arts institution; for the university megalopolis of 40,000 students and the academic village of 400. Each of these has a value – including a value to industry. A small vocational school, closely aligned with the employment needs of local companies, is just as valuable as a world-class research university with multinational contracts. But again, with freedom comes responsibility: There should be nothing sacred about any particular educational institution. If it is failing at its chosen model, it should be allowed – indeed, encouraged – to restructure or close. And again, failure or success should be judged by a set of transparent, objective metrics set by its stakeholders.

Responsiveness to demand, increasingly, also means meeting societal and industrial needs for cross-disciplinary research and education. Depth and specialisation remain important – and a university must produce experts and expertise. But climate change, an ageing population, food and water supply, peace and security – all these so-called Grand Challenges need experts to come together on cross-disciplinary solutions. The big universities and technical institutions should be structured to permit that kind of knowledge exchange. Inter-disciplinary institutes, multi-skilled project teams or simply mobility from one discipline or institution to another, can all help.

## 3. Universities should be open, active participants in their innovation markets

The most successful universities are not islands; they are agora, marketplaces that bring together researchers, students, teachers, investors, employers, local community leaders and multinational funders. Much of that comes naturally to universities, as an adjunct to academic freedom. And it is encouraging that, in the past decade, there has been a notable rise in the number and quality of spin-out companies from many European universities; these are vital vectors for university technology to get out into

the wider world. But relations with industry remain a work in progress at many universities in Europe – an important problem given its potential role in economic growth. Hence, we recommend:

- Cross-fertilisation with industry. Existing programmes should be expanded, and new ones created, for students and post-docs to have internships and temporary positions with industry, and for industrial officials to work temporarily at universities. Within the universities, the aim should be to build understanding and knowledge not just about specific research fields, but also about their practical applications and economic utility. A model for this already can be found in Europe's best technical universities.
- Collaborative relations with industry. A university's best ambassadors to industry are its academic experts. The tech transfer professionals should support them, not supplant them, in the industry relationship. The emphasis should be on long-term strategic relations, not quick-hit licences or contracts. We advise against European universities pursuing anything like a local version of the US Bayh-Dole Act, with the adversarial relations it has often engendered in that country.

## 4. Universities should strive for excellence

Whatever its chosen strategy and model, a university should strive for excellence – and government funding should preferentially support the excellent.

Thus, for those universities whose goals include great research, government funding should support those who are truly great at it. Thus, programmes like the European Research Council, with its peer-reviewed grants and single-minded focus on excellence, should be expanded. Research grants should not be a back-door mechanism for developing Europe's lagging regions; there are other funding instruments available for regional development.

Likewise, those universities that are good at industry engagement should be further supported to become greater still. A noteworthy model is the UK government's £150 million Higher Education Innovation Funding scheme which, if adopted on a European level at a starting scale of about €1 billion, could stimulate many new industry/university initiatives.

And those universities that are excellent at teaching should also be rewarded. For instance, in engineering programmes, some universities think they are doing well and setting appropriately high standards if they are running a high drop-out rate; instead, it could just mean they aren't teaching well. Good teaching is a precious skill.

For most of the modern age, it was European institutions that led – even defined – what it meant to be a 'modern university.' Now, a focus on market principles of autonomy, responsiveness, innovation and excellence can restore Europe's leadership.

*1Monitoring e-Skills Demand and Supply in Europe. European Commission, DG Enterprise and Industry. December 2009.*

*2Academic Ranking of World Universities, 2010. www.arwu.org*