

van der Ploeg, Rick

Article

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CESifo Forum

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: van der Ploeg, Rick (2012) : Making the Grade: How Do European Higher-Education Systems Score Internationally?, CESifo Forum, ISSN 2190-717X, ifo Institut - Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 13, Iss. 3, pp. 21-28

This Version is available at:

<https://hdl.handle.net/10419/166489>

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Panel 2

MAKING THE GRADE: HOW DO EUROPEAN HIGHER-EDUCATION SYSTEMS SCORE INTERNATIONALLY?

RICK VAN DER PLOEG

Professor of Economics, University of Oxford¹

Europe has been talking of the knowledge economy for years. Everyone has to study, be excellent and innovate. But in many parts of continental Europe universities and schools of higher education have become giant factories. In too many cases the focus has been on increasing the number of graduates, instead of quality and differentiation. And nowadays, there is perhaps even a focus on too much quality research at the expense of quality education. The government also frequently finances studies that are socially desirable, meaning that higher education is becoming entangled in bureaucracy and regulations.

Europe's universities can do so much better

Europe is facing a crisis in higher education. Although accessibility is a big achievement, there is also a danger of a culture of mediocrity and a lack of motivation in students and staff. French universities have no admissions selection procedure, overcrowded lecture rooms and dilapidated buildings and teaching materials. The '*grand écoles*' are very selective and offer excellent education for future top managers, but limit entrance to tiny elites from a good background. The picture is equally bleak in Italy where universities suffer from a ministerial/regulatory straightjacket and nepotism reigns. Italy's

top researchers with Harvard degrees are sometimes defeated by insiders without a scientific reputation. German universities are plagued by bureaucracy, absurd hierarchal relations and gigantic student numbers. Moreover, the archetypal German professor is all-powerful. This is detrimental to creativity and scientific research. Nokia in Finland finances top pure scientific research, and conducts its own applied research. Anglo-Saxon universities dominate the top of international rankings, while Chinese universities enjoy a growing presence. Continental Europe has no presence in the top 50.



Europe's top universities strive to attract top talent and carry out top scientific research. Meanwhile, many other European universities are in dire straits. Their libraries have too few new books, there are hardly any modern computers, heating is often too expensive, lectures are regularly cancelled, and research budgets are under pressure.

School reform: an essential prerequisite for university reform

It should be the highest priority to get the brightest and most motivated students from underprivileged backgrounds onto the best university courses. The experiments in Britain with academies, as vigorously promoted by Lord Adonis and, for example, the new initiative by University College London to take charge and help set-up a top, publicly-funded school for such children with their best professors teaching in such a school (the so-called UCL Academy) deserve unequivocal support and may serve as an example for the rest of Europe. Lord Adonis has worked hard to transform standards and opportunities in England's schools.² The non-partisan nature of this quest is reflected in the fact that the reinvention of the comprehensive school was a central Labour project in the Blair administration, but is now being continued enthusiastically by the Conservative government under Prime Minister Cameron.

¹ More details can be found in my two papers with Jacobs, B.: "Getting European Universities into Shape", *European Political Science* 5, 2006, 288-302 and "Guide to Reform of Higher Education: A European Perspective", *Economic Policy* 47, 2006, 535-592.

² See Adonis, A. (2012), *Education, Education, Education: Reforming England's Schools*, London: Biteback.

Comprehensives, many of which were failing or underperforming, are being replaced by a radically new form of independent state school characterised by strong leadership and an ethos of aspiration, success and social mobility: the academy. For state schools to become world class, bold reforms are essential, which include higher salaries, better training and selection to restore the teaching profession's reputation. Only with such reforms at the school level will there be a chance to make universities not reserves for the elites, but magnets for the most able pupils in society, irrespective of their background.

Potential merits of the Bologna reforms

Following the Anglo-Saxon system, the Bologna reforms have introduced a two-tier system of bachelors and masters in Europe. This has the following potential merits. Firstly, it reduces the risk of choosing the wrong course of study and encourages students to take more demanding studies. A first degree in physics, for example, that lasts three years rather than five or six is a less daunting prospect for students. Only those who are passionate about the subject and excel at it will then continue to take a specialized masters degree in physics. Secondly, the reforms stimulate students to combine different studies. Much of technological and economic progress in contemporary society occurs in the twilight zone between different disciplines. Graduates with a professional interest can also switch to a professional masters course at a college of professional higher education, while more academically-minded vocational bachelors may switch to university. Thirdly, the system stimulates variety. Many European countries offer higher average academic quality than the United States, but have fewer centres of excellence, less diversity, less flexibility and less choice between intensive and extensive forms of education. Fourthly, the system encourages students to finish their studies more quickly, as they will then be matched better with universities because the risks of opting for the wrong course of study diminishes, variety increases and students have the option to return. The Anglo-Saxon system of higher education features almost no dropouts, because students know exactly when to study and when they can work or have fun. Fifthly, the system boosts competition between shorter degree programmes. If students are unhappy with a particular degree programme, they can switch to another programme without suffering the penalty of many lost years of study. Finally, it makes the European system compatible with sys-

tems of higher education found in Britain, the United States, Canada, Australia, New Zealand, India, Pakistan and much of Asia and Latin America. Enhanced transparency encourages European universities to compete on a global scale.

My judgement, however, is that many of the Bologna reforms have not been realized. Too many universities have merely split their old degree programmes into a three or four year bachelor and one or two year master programmes. There is still a long way to go towards achieving greater diversity in degree programmes in all respects and towards promoting competition. Let us hope that these goals will be realized much more fully in the near future. One danger is that too many universities seem to want to stifle competition, which can be seen from the numerous mergers and standardization of many degrees. So there is still a long way to go.

University reform must strive for differentiation and competition

It is astonishing that the best European students leave for top US universities if they get the chance, even if they have to run up debts to do so. In the United States they get top research and top education from the best professors in the world, even if they have to pay large sums of money for it. The US higher education system has a lot more differentiation and competition than Europe. This stimulates quality of education and research. Yet, given the potential for Europe to have the best schools, there is every reason for the universities of Europe to strive to become the best in the world.

For this to happen, European universities must be freed from ministerial straightjackets. The government should fund studies such as musicology, anthropology and pure mathematics where the market does not offer an immediate return. Other fields of study must get a chance to compete with tuition fees that are justified by the quality of the education being offered. If the price is too expensive, Ministries of Education must not hinder competitors who offer a more attractive education for a better price.

It is crucial that institutions select the best students for their Bachelor and Master programmes, are able to set the salaries and contracts of their staff themselves, and are allowed to differentiate tuition fees per programme. Only then will real competition arise

between the best rival universities within and outside Europe. Potential students will depart sooner to another domestic or foreign top programme if it is better. The Bachelor/Master system will contribute to this, as students can then switch to a better programme after three years. Only the best and most motivated students should flow into a Master programme.

Need for a tough and credible tenure-track system

It is astonishing how many universities in Europe still prefer to appoint new academic staff members who fit in well and have earned their way as the assistants and suitcase carriers of an incumbent professor; a practice that remains common in many universities of France, Germany, Italy and other parts of Europe. Young scholars working, who are supposed to be working on independent research towards their PhD, are obliged to act as teaching assistants and are overloaded with courses, examination and vigilance duties. They often also have to act as a research or management assistant to their professor in the hope of getting his or her job eventually. To cap it all, they often work on research topics that are a derivative of the topic of their professor, rather than a topic of their own choosing. In the Anglo-Saxon world, and thankfully in some innovative research universities in continental Europe as well (e.g. Stockholm, Bocconi in Milan, UPF in Barcelona, Tilburg and Mannheim), assistant professors are recruited on the international job market on the basis of who offers the best research and teaching potential. Interestingly, it turns out that the best and internationally renowned researchers become the top university executives in the United States, whilst in continental Europe these positions are frequently occupied by academics with little international or research experience.³

Moreover, five-year tenure-track positions are offered so that only those who have proved themselves in terms of innovative research results and papers in the top international peer-reviewed journals of their profession and in terms of teaching excellence get a longer term position. It is often said that European labour laws do not allow for such tenure-contract systems, but there may be ways around it. First and foremost, there are implicit agreements between top

departments and ambitious young scholars to enforce the five or six-year tenure-track system. This means that if a young scholar does not deliver the academic output that is expected and his/her labour contract is not renewed after five or six years, the scholar's pride is such that s/he will leave and try for a job elsewhere. In the few places that operate this system (and where roughly half of the assistant professors have to leave after six years), this has never been a problem. If it does prove problematic, two-stream university appointments could be introduced: one featuring a lot of research time and the other featuring lots of teaching, with both tracks being valued and professionally facilitated. This is the concept that has been adopted by the economics departments of UCL and the universities constituting the Tinbergen Institute in the Netherlands.

Too much bureaucracy and too little financial freedom

European universities suffer from excessive bureaucracy and a lack of autonomy. Their problems are exacerbated by the fact that almost all of their key decision parameters are fixed: subsidies per student are fixed, tuition fees cannot be varied or only by a small amount, the number of places for each course is often fixed by the Ministry of Education, and applicants cannot be refused once they have passed their national exams. Universities therefore find it tough to respond to changes in demand and engage in competition. A lot of time and energy goes into securing government subsidies for education and research, rather than into academic entrepreneurship.

Governments increasingly rely on lump-sum 'block grants' with both output and input criteria. Most countries fund on the basis of inputs such as the number of enrolled students (e.g. Belgium or France). Funding in Denmark has always stressed output, since universities receive funding based on the number of grade points that students receive (the 'taxi-meter model'). The Netherlands and Sweden take intermediate positions. About half of funding in the Netherlands depends on the number of diplomas. A similar share of resources depends on the number of grade points in Sweden. Germany and Britain differ as funds are allocated on historical grounds independently of the number of students or output criteria, but funding is based on negotiations and enrolment forecasts. However, the UK government places a growing emphasis on output and performance in teaching and research.

³ See Goodall, A. (2009), *Socrates in the Boardroom: Why Universities Should Be Led by Top Scholars*, Princeton, NJ: Princeton University Press.

How to set subsidies and tuition fees?

Education is a system where students are both consumers and co-producers of education. The cost function of a degree programme increases with total student demand, but decreases with total human capital produced by the programme. If students are more able, more human capital is produced. Positive peer group and reputation effects then occur, the quality of education improves and courses are consequently easier and cheaper to teach. Selecting and attracting the smartest students generates a positive feedback loop as it raises the quality and reputation of the institute; and thus increases further demand from smart students. Having high-quality students improves academic excellence and makes it possible to attract much better employees/professors and funding from sponsors and the state.

Without peer group or reputation effects, degree profit maximizing universities set prices to a mark-up on marginal cost. The mark-up is particularly high for courses with low price elasticity of demand such as pure mathematics or musicology. These courses may have high marginal cost anyway, so they will be expensive in the absence of cross subsidies or special government support. If peer group and reputation effects matter, tuition fees are higher for the less able or less motivated students and lower for the smart students. Hence, universities should award scholarships or give discounts to bright students. If universities operate under perfect competition, the optimal tuition fees correctly internalise all peer group and reputation effects.

The government may support merit studies that are of interest to society as a whole and will not be provided by the market, while generating public benefits. The government may also support studies that contribute to citizenship, democratic participation and the transmission of (cultural) knowledge and values or that induce positive R&D externalities and growth. The government may want to reduce the popularity of studies that lead to excessive status or rent seeking and signalling. The government may give greater weight to individuals from a disadvantaged background with relatively poor parents. The optimal education subsidies internalise the merit study externalities of education on total (i.e. private and public) welfare.

Uniform tuition fees are rarely optimal if social returns differ between disciplines and students.

Subsidies should be targeted towards fields of study that have the largest social returns. Furthermore, subsidies should be targeted towards the students that appear to generate the most social value. Subsidies of studies with a relatively large private return compared to their social return violate optimal rules for education subsidies. Subsidies should be directed towards studies with a large social value, not a large private value. The mere fact that, for some disciplines, the marginal benefits are mainly non-monetary is not a reason for government subsidies, as that would lead to over-investment in those disciplines. Students will take account of immaterial benefits themselves.

Case for higher tuition fees and social student loans

Europe (with the exception of Britain) is resisting the introduction or increase of tuition fees, although its universities are pressing for it. However, without higher fees and with an Australian system of loans where graduates only pay back each year a percentage of their income and only if they earn a minimum amount, it will not be feasible to close the funding gap with the United States. The Australian system has taught us that higher fees in combination with a social (also known as an income-contingent) system of student loans can create essential funding for universities without reducing school pupils' universal access to universities. Furthermore, it is of some interest to note that Australian universities do surprisingly well in international rankings of top universities. With higher fees universities can finally really invest in quality and diversity: top training for top scientists and top training for practical studies, but also expensive education for those who really want to invest in their academic capital, and cheaper education for those who are satisfied with a little less personal teaching. Naturally, some students will leave, but the most motivated will stay and that is a blessing for those students and teachers who want to do their utmost best. Currently, too many universities in countries such as France, Germany and Italy are starved of the funds they need to become first-rate global universities, not only in terms of research, but also in terms of teaching undergraduates and post-graduates.

The most talented and subsidized students of their age group will earn more than their less clever contemporaries. This is why those who benefit most in terms of higher incomes from a university education are the students themselves. It is therefore not clear

why other less talented members of the population working hard in a more menial job effectively have to subsidize the most talented members of a generation, especially as those are the very individuals who are going to earn most in present value terms over the course of their life. Government subsidies should concentrate on giving the brightest pupils from underprivileged backgrounds a fair chance in primary and secondary education, especially at times when public funds have never been so scarce. Since university students have good prospects of earning more over their lifecycle than high school graduates, their problem is that they are faced with a liquidity constraint, not poverty. This is why a conditional system of social student loans is useful. It is also important to make the loans more conditional on good exam performance at university as is the case in Denmark, Sweden and the Netherlands, for instance.

Talented, motivated children from disadvantaged families will benefit extra from selection, and especially when offered social loans that only have to be repaid at a rate related to the income they earn later on in life. These talented students should not have to share lecture rooms with spoilt, lazy and uninterested well-to-do students.

Limits to market forces in university reform

Students, state and sponsors lack the information necessary to judge the quality of higher education. Higher education is a one-off purchase that is often made by parents on behalf of their children. Most students go to their local university and make little attempt to choose the best university in their field of interest. Yet the nature of academic interchange, like love, changes in a fundamental way if a price is attached to it. The intrinsic motivation of students and staff and trust are vital and diminish if too many monetary incentives are introduced. This is why higher education is probably best operated as a non-profit enterprise. Objectives are typically not profits, but how well students perform compared to their peers. Rankings and peer reviews, and the competition that result from them, are thus what drives universities. Peer effects are also crucial for students as they form values, academic interests and aspirations in their interchange with other students. Universities also need funding from students, alumni, estates and sponsors. However, non-profit enterprises tend to exhibit bureaucratic slack; as shown by big offices for central administration,

‘prestige projects’, etc. They also tend to underestimate the costs of capital services such as buildings and campuses.

This is why reforms need to strike a balance: universities should compete much more, but not so much in terms of money and profits, but of competition to achieve academic excellence in its broadest sense among peers. This means they should be released from the shackles that prevent them from implementing reforms, but should not become institutions entirely driven by short-term profits, as universities are ultimately a long haul venture.

Need for *Bildung*

What universities need is a return to the values instilled and encouraged by the great Wilhelm von Humboldt, who as Minister of Education was the architect of the Prussian education system with its *Technische Hochschulen* and *Gymnasien*. Von Humboldt’s name is associated with the fundamental idea of *Bildung*, which stands for the German ideal of self-cultivation. The ideal is that philosophy and education are linked in such a way that they lead to both personal and cultural maturation. This is supposed to lead to a harmonious relationship and interaction between an individual’s mind and heart; and to the development of unique individuals and their identities within a broader society. University and school education is thus meant to have the grand objective of nothing less than a personal transformation, which challenges the beliefs of the pupil or student. This is not meant to be easy, since the student will have to abandon preconceived ideas and reinvent him or herself. A prerequisite for such an education system is to allow for a diversity of individuals, each one with the freedom to develop their talents and abilities in the widest possible sense. *Bildung* is thus not only about developing and challenging intellectual skills of each student, but also about shaping and realizing each student as a full human being. It should be well understood that this process of *Bildung* starts at school, continues at university, and then expand throughout life. It is not just about training certain skills for the job market, but about training and developing people’s scientific, cultural and spiritual self with a strong emphasis on interpersonal skills and being able to engage with and criticize what is going on in society. *Bildung*, and indeed university education, is about emancipation of the individual in the broadest sense.

But *Bildung* is nowadays too often seen as a universal right to free university education. Apart from the arguments against this cited above, this is also a far cry from the principle of reciprocity, which says that something should be offered in return for an excellent education. It also distracts attention from the global forces that will be shaping university education throughout the world. There is an increasing globalization of universities, employers and employees. To prepare students and the economies of Europe best for this race for talent it is crucial to offer teaching in much smaller groups, not of groups of hundred to a thousand students, but in tutorials and working groups of two or three students. Only then will teaching be student-driven rather than teacher-driven and will be centred on what students do not know, rather than on what is merely in the textbooks. World renowned professors of MIT, Harvard and elsewhere are putting their lectures on the internet for everyone to listen to. It is thus ludicrous to have lesser academic mortals rehashing this material in auditoria with hundreds of students. It is much better if they concentrate their attention on mentoring and small group teaching.

On their current budgets only a few private universities with very high tuition fees and old universities such as Oxford and Cambridge with large endowments can afford to have a system of *Bildung*. To make such a privileged and desirable system feasible for many more universities in Europe, more funding is badly needed. Given the scarcity of public funds, it can only come from private agents – sponsors, alumni and students.

Summing up

As *The Economist* (The Brains Business, 10 September 2005) has pointed out, academia in Europe is not ready for the challenges ahead. Realizing mass access without sacrificing excellence demands both bold reforms of the school system and working towards a dynamic and competitive university system. The European challenge is to achieve the diversity and quality of the United States without hurting accessibility, which has traditionally been the jewel of the European system. A key problem is that central planning and steering cause a generic lack of variety, monopolistic behaviour, scale increases and grade inflation. The explosive growth in enrolment has led to an erosion of academic standards. Reforms of the European university system should

tackle these issues. European universities also have far fewer resources per student than their US counterparts, so it is crucial to raise tuition fees without harming access.

The expression ‘excellence for all’ is misleading and leaves no room for choices. Europe must distance itself from this principle. Knowledge and creativity, not land, mineral resources or physical capital, are now the engines of economic growth. Universities have to go back to their roots in order to survive in the global battle for talent at universities and in the job market. A golden age for European universities could dawn provided that ambitious and bold reforms are undertaken. Nothing less is necessary than a return to the philosophy of Wilhelm von Humboldt, with an emphasis on small-scale teaching and realization of the full academic potential of each and every university student. It is crucial for European higher education to rise to this daunting challenge in order to stand a chance in the global competition for talent.

PANEL

“Economists have a reputation for pessimists, but educational experts are even more pessimistic”, noted **Anatole Kaletsky**, Editor at Large of *The Times* and chairman of the second panel, opening the discussion on higher education in Europe. There is a consensus that education is in a crisis worldwide, but this perception is particularly acute when it comes to tertiary education in Europe, where a pervading sense of insecurity reigns. In Kaletsky’s point of view, the current debate centres on the following five issues:

- (1) Global competition: Europe is falling behind the United States and Asia, while in Asia there are concerns that the current education system cannot provide creative, innovative individuals.
- (2) What is the purpose of higher education? To educate or to promote research?
- (3) Quality versus quantity: should the focus lie on producing an elite or making education available to the masses?
- (4) Is higher education primarily an intellectual endeavour or should it promote economic growth?

This question highlights the tension that exists between academic and technical education.

(5) Financing: should the burden of paying for higher education be spread across society as a whole, or should it be paid for by the individuals that directly benefit in a fee-based system?

The panel's first speaker, **Jutta Allmendinger**, President of the Social Sciences Research Center (WZB), Berlin, focused on the situation in Germany and highlighted demographic change as an important factor in higher education. She stressed the need to invest more in education in order to downsize the poorly educated members of the workforce and harness their potential more effectively. She identified non-working women and unemployed youths as two key target groups in this respect. In Allmendinger's view, benchmarks for what constitutes a good education are also required, as the frequently cited rankings of universities are often based on research paper output etc., and not teaching. With regard to such rankings, she noted that 45 percent of the German government's funding for higher education goes to non-university institutes such as Max-Planck, Leibniz, Fraunhofer, Helmholtz, etc. These non-university institutions need to be covered by indicators, otherwise they are not included in university rankings for Germany. To boost its international standing, Allmendinger argued that Germany needs more vertical ranking and horizontal integration between university and non-university institutes.

The panel's second speaker, **Bernd Huber**, President of the University of Munich, stated that Europe has already started the reforms cited by van der Ploeg with a view to achieving greater competition and autonomy. In other words, he insisted that Europe is already moving towards the model of the US/UK higher education systems. In international rankings, he claimed that one third of the top 300 universities are from continental Europe. Huber also touched upon the thorny issue of tuition fees. Since the debate started in Europe a decade ago, Britain introduced fees of 1,000 British pounds, which subsequently increased sharply. In Germany nine Länder introduced fees of 1,000 euros, but seven Länder have since abolished them, as the fees proved very unpopular politically. Bavaria and Saxony are now the only remaining German Länder to charge fees. Huber wondered whether the differing developments in Britain and Germany were based on knife-edged decisions.

Peter Dolton, Professor of Economics, University of Sussex, and the panel's third speaker also picked up on the issue of fees and examined the situation in Britain. A large number of reforms were associated with the introduction of income-contingent fees in Britain. In Dolton's view it marked a revolution: 1998 fees ranged from 1,000 to 3,000 British pounds, and subsequently increased to 9,000 in 2012. The principle underlying fees is that the people who benefit from tertiary education should be the ones who pay for it. On a positive note, Dolton argued that fees enable universities to determine how they allocate their funds independently. In his view, this makes universities more responsive to their customer base and to students' requirements. The drawbacks of fees, he acknowledged, are that they reduce demand by 7–8 percent. They may also reduce the number of people from the lower social classes going to universities, he warned, unless the latter introduce targeted bursaries. Dolton wondered whether the rates of return on education will remain as high as their present levels in the future, but suspected that they may fall if more people start to obtain degrees. In all events, he expressed confidence that the introduction of fees in Britain will provide a useful illustration of market dynamics in higher education.

Bernd Brunke, Member of the Global Executive Committee at Roland Berger Strategy Consultants, considered the higher education system from a corporate perspective. He began by urging his fellow panelists to look more positively at developments in Europe, citing the substantial progress made thanks to the Bologna process. He highlighted the danger of over-harmonizing education systems at a European level and stressed that diversity can be a source of potential. In Brunke's view, the European education system also needs to open up and admit more overseas students.

The panel's final speaker, **Margret Wintermantel**, President of the Deutscher Akademischer Austauschdienst – German Academic Exchange Service (DAAD), added that, in view of Germany's egalitarian approach to higher education, it urgently needs to find models of cooperation between universities and non-universities. She also agreed with van der Ploeg that Germany's universities need tuition fees to compensate for funding deficits, but feared that the concept was politically untenable.

Opening the discussion up to questions from the floor, Kaletsky asked why anyone thought there was a prob-

lem with education in Germany in view of its strong economic and export performance? Van der Ploeg responded that Germany does well in the Abitur (A-level equivalent) and offers excellent technical education opportunities, which is what accounts for its strong economic track record, not the performance of its universities.

Commenting on university funding in the United States, **Craig T. Redinger**, Partner in Charge, Fulbright & Jaworski L.L.P in Munich, noted that the United States has an endowment culture. In other words, it is traditional for alumni to contribute private wealth to their former universities. Such donations, he explained, constitute a major source of income for institutions of higher education. Redinger also pointed out that increasing fees in the United States did not reduce demand for education, but noted that the United States currently has around 1 trillion dollars of potentially bad student debt.

His fellow countryman **Jackson Janes**, Executive Director of the American Institute for Contemporary Studies at the John Hopkins University in Washington DC, raised the question of whether the departure of foreign students who came study in Europe was creating a problem in terms of a resources drain. Bernd Brunke replied that increased transparency in terms of the career opportunities linked to higher education and better integration of graduates into firms was definitely needed. Bernd Huber noted that, in the past, German universities offered foreigners education as a kind of development aid and then encouraged such students to return to their home countries. Now, however, German universities are trying to hold onto foreigners and good employment perspectives are encouraging them to stay. As far as post-graduates are concerned, however, Jutta Allmendinger noted that German universities are still losing researchers as only 10 percent of staff are tenured and 90 percent are untenured until the age of 40.

Finally Peter Dolton raised the issue of whether education should be market-driven or whether the state should support courses of study that are less popular and have no direct vocational orientation as a form of public goods. Margaret Wintermantel argued in favour of state support for certain courses of study by stating that higher education was about personality building and not just employability. This was a hot topic in German universities, she concluded.