European University Institute

Max Weber Programme

Towards an Open and Competitive European Area for Research Careers

Some basic findings from the Max Weber Programme Academic Careers Observatory

Report 2008

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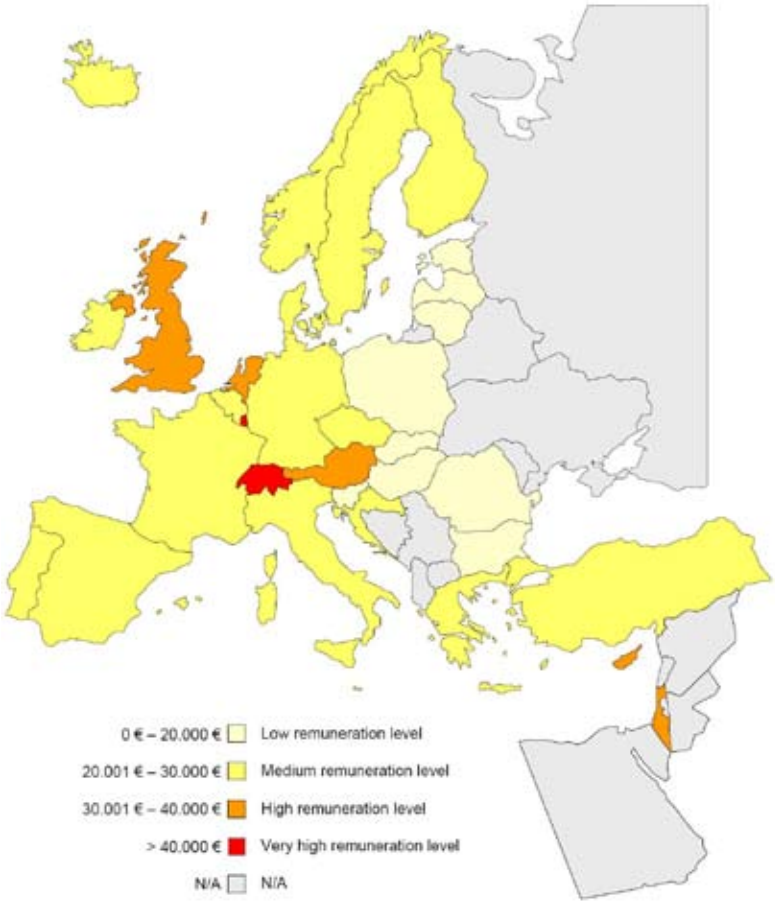
Table of Contents

Faculty net yearly remuneration averages
(adjusted to cost of living)



Source: European Commission (2007b), p. 63

Academic Careers Observatory
Max Weber Programme

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Foreword

There is ample consensus that the European Higher Education and Research Area should be open and competitive, that students, researchers and professors should be able to move freely in the pursue of their careers, that Europe should be attractive to creative minds around the world and stop the 'brain drain' of the 20th Century. Although there are many positive signs, political declarations reflecting such consensus – say, about the Bologna or the Lisbon processes - hardly reflect the actual experience of researchers and academics who try to pursue an international career in Europe, rewarded on the basis of merit.

The Max Weber Programme is the largest post-doctoral programme in the Social Sciences and Humanities in Europe and, in the context of the European University Institute, provides a unique forum to reflect on the problems of young academics starting a career in Economics, Law, History and Political and Social Sciences. However, beyond the exchange of personal experiences, as social scientists it is also our duty to gather and provide information. At the start of the Max Weber Programme in 2006/07, the Academic Practice Observatory (MWP-ACO) was created with the aim of filling an informational gap and providing a service to researchers and scholars, addressing questions such as: what is the actual state of the market for international academic careers in Europe? How and where can one effectively pursue such a career? But one cannot properly answer these questions without making reference to the changing world outside Europe. It is for this reason that, now in its second year, the MWP-ACO is a unique source of information on academic careers around the world. A source that it is continuously expanding, thanks to the feedback of Max Weber Fellows and many users, and in particular to the dedication of a very small team of collaborators (Arnout Mertens and Lotte Holm in the first year, and Michele Grigolo and Matthieu Lietaert this second year, who are the effective authors of this report).

Navigating through the MPW-ACO web page, one can immediately detect differences within the social sciences and humanities, just as there are differences between countries. But there are also patterns across these and other fields, as there are patterns across national systems. This first report briefly summarizes some of these patterns and highlights basic findings regarding international comparisons. In a few words, the picture that emerges is one of change, but while European citizens and visitors can take advantage of 'open skies' and a more competitive airline industry, researchers and scholars are still far from being able to take advantage of an effectively Open and Competitive European Area for Research Careers.

Ramon Marimon
Director of the Max Weber Programme
PS: Please visit, and contribute to, http://www.eui.eu/MaxWeberProgramme/AcademicCareers/

Executive Summary

This report by the Academic Careers Observatory (ACO) of the EUI Max Weber Programme presents some core elements with regard to academic careers in Europe. The ACO is an on-line resource for PhD candidates, post-doc fellows and scholars who wish to explore and debate academic careers in the humanities and social sciences. It provides not only information on academic careers by country, discipline and themes, but also links to job platforms and a list of funding possibilities from post-doc to professorial level.

"A key challenge for Europe is to train, retain and attract more competent researchers. Moreover, the seamless mobility of researchers across institutions, sectors and countries is even more important than for other professions."

European Commission, Green Paper on the European Research Area, 2007

While most of the literature today focuses on the mobility of students, we argue that fostering the mobility of researchers and teachers is also a key issue. This would not only have a direct impact on the shift from a EU researchers brain-drain to an EU brain-gain process, but also on the quality level of academic institutions, and therefore on attracting students and staff. In that sense the ACO report fits into the several recent initiatives launched by the European University Association conferences on Governance, the Teacher in Education Policy in Europe conference 2008 in Ljubljana, and the forthcoming joint OECD-EUROSTAT-UNESCO conference on Careers and Mobility of Doctorate Holders.

This report provides an overview of different national academic systems and academic career patterns in Europe, touching at the same time on some crucial issues relating to these systems and career patterns such as salaries, women's representation and postdocs in the social sciences and the humanities. The report's focus is on those elements of different systems that have been found, or are supposed, to either facilitate or hinder academic mobility both within national systems and across Europe. Aiming to enhance researcher and teacher mobility within Europe, European countries started the so-called Bologna Process, which is meant to create a more homogeneous and unified EU academic system, career structure and job market. However, as this report emphasises, the European Research and Higher Education Area is still far from being an Open, Integrated and Competititve Area for Research Careers.

Four models of academic systems in Europe

Based on the literature and the information that we have collected through the ACO, we have grouped European countries into four models of academic systems defined mainly on the basis of the recruitment procedures in these systems and the degree to which they are open or closed to external and non-national researchers and teachers.

First, the *Anglo-Saxon model* inspired by the UK system which is the one offering the highest degree of competition and openness to external researchers. Second, the *Continental European model*, where the recruitment procedures are dominated by a combination of execive regulations and informal rules which makes it less accessible to external competitors. There is evidence that some states - like Spain, Germany and France - are trying to move from the latter model to the former. Third, the *Scandinavian model* of countries like Sweden, Norway and Denmark which combines some elements of the two previous models. Finally, we have the *Central-Eastern European model*, which characterizes countries that are moving out of a Soviet-type of academic structure to embrace principles of flexibility and market liberalisation. Most relevant to note in these latter countries is the boom of private higher education.

Data show that differences between countries belonging to these four models – especially those in the Anglo-Saxon and European Continental models - translate into these countries' capacity to attract foreign scholars but also their universities' overall performance.

Data show that differences between countries belonging to these four models - especially those in the Anglo-Saxon and European Continental models - translate into these countries' capacity to attract foreign scholars but also their universities' overall performance. On the one hand, the liberalised UK system has by far the highest rate of non-national academic staff and, according to the Academic Ranking of World's Universities made by the Shanghai Jiao Tong University, the UK is fourth at world level and first in the EU. On the other hand, in the same charter the first Italian university ranks 136th at world level and 49th at European level.

Salaries

Salaries are key factors that put universities in a competitive position to attract (the best) foreign scholars. Overall, the gross EU average salary of 40,126 euro is lagging significantly behind the 62,793 euro in the USA. Few countries only can compete: Austria (60,530 euro), The Netherlands (56,721 euro), Switzerland (59,902 euro) and Luxembourg (56,268 euro). In the UK salaries are relatively low at entry positions and tend to increase at the highest professorship positions.

Gender

Despite the progress made in the last decade, there still exists a gender gap in the academic world concerning the representation of women. Furthermore, the link between the type of academic model and the access of women to teaching and research jobs is not very clear. Broadly speaking, one can see increasing rates of the presence of women in EU universities, especially in the area of the social sciences and the humanities. However, the gender proportion of academic staff is still unbalanced in most countries and the number of female academics decreases considerably moving up the career ladder. Whether a university system belongs to one or another of the four models does not predict a higher rate of women's participation. For example, in Portugal - which in many aspects is a "closed system" - there is a higher number of women working in academia compared to the UK. In fact, the highly competitive UK system can hinder the career advancement of women due to the apparent trade-off between a woman's investment in a time consuming career and that on maternity and gender-biased family life duties.

The post-doctoral career step

Following the career pattern that characterises natural sciences, the post-doctoral level is increasingly becoming a crucial career step in the social sciences and the humanities in most EU countries. Postdoctoral programmes have mushroomed across Europe, including at the international level. At the same time, some of these programmes – in particular the Max Weber Programme - have begun to focus on different aspects of academic practice other than researching and publishing, such as teaching and other skills that are increasingly required by the present flexible and multifaceted academic market and career pattern.

Introduction

On the assumption that the mission of a university is not only to produce and share knowledge with its society, but also to form, maintain and attract researchers (European Commission 2007a), it is important to look at the broad differences that characterise the academic structure and career opportunities in the European Union. This report aims to explore some of the issues related to academic mobility which we find to be compelling in the construction of an open, integrated and competitive European Research Area (Marimon & de Graça Carvalho 2008).

Our focus is on the social sciences and the humanities, the disciplines that the ACO has been monitoring over the last couple of years. In the first part, we would like to present the different national academic structures by grouping them within four broad models. As far as possible, we will also compare the "academic performance" of countries belonging to these systems. In the second part, we elaborate on some issues that are crucial for fostering the cross-country mobility of scholars such as salaries, the presence of women in academia and the importance of postdocs.

"Today, most researchers in Europe still find their opportunities curtailed by institutional and national boundaries, poor working conditions and narrow career prospects. In practice, academic positions still remain largely reserved for national or even internal staff. Transparent competition for recruitment is the exception rather than the rule."

European Commission, Green Report on European Research Area, 2007, p.10

Part I
Four models of academic systems in Europe

The first part of this report introduces the academic structures of different European countries. Based on the literature and our own findings, we grouped the academic systems of European countries into four major models: the majoritarian Continental model, the Anglo-Saxon model, the Scandinavian model and what we define the Central and Eastern European model of post-communist countries.

This section is supposed to give a general introduction to the question of cross-country and international academic mobility by considering issues such as the procedures used by universities to recruit their staff and the relative degree to which different national academic structures are open or closed to different to non-nationals.

The European Continental model

This model still dominates in the European Union. To different degrees, countries like Italy (see box below), Germany, Spain and France can be identified as belonging to this model. One of the main characteristics of these academic systems is that they tend to be inner-oriented.

First, although the recruitment procedure of these systems is regulated by many formal rules, in practice informal agreements dominate the procedure and there is no guarantee that the best candidate will get the job. Second, these systems are generally closed to non-national researchers and competitors. Job offers are rarely – if ever – posted in English, virtually eliminating any possibilities to attract foreign candidates. Furthermore, promotion along the career ladder is often regulated by seniority rules and only limitedly tied to the positive evaluation of research and publications. Finally, in many cases funding to university departments does not depend on their academic productivity: this also deprives the system of an important incentive to improve its performance.

These reforms have given incentives to universities to open. New positions have been created to facilitate access to the system and to an academic career. New national post-doc programmes have been established for junior and senior researchers. These same programmes are also advertised and open to non-nationals.

Therefore, one could say that academic systems belonging to the Continental model are open to international and dynamic competition only in a limited way, and that in general they are not designed to foster a meritocratic system where individuals are assessed on their performance. Moreover, there are very few rewards for the younger generation of academic staff. This has had therefore a direct consequence not only on the incentives to increase the quantity and the quality of the researchers' output, but in the long term on the international visibility of the host institutions.

Over recent decades, some changes have been introduced that aim to establish a more flexible and competitive academic structure. The Spanish system of higher education is a relevant example of that. Spain is going through some important though not yet well-defined transformations due to both recent legal reforms, European incentives and the remarkable growth of the higher education system.

These reforms have given incentives to universities to open. New positions have been created to facilitate access to the system and to an academic career. New national post-doc programmes have been established for junior and senior researchers. These same programmes are also advertised and open to non-nationals. A few research centres (such as the Departments of Economics of the Pompeu Fabra University in Barcelona, University Carlos III in Madrid and the University of Alicante) are becoming more open to international researchers.

However, there also remain some problems relating to the implementation and functioning of these innovations. First, universities have not recruited many researchers in the new Ayudante Doctor position because, although it is temporary, it is also found to be too expensive. Second, more internationalized centres are experiencing some problems relating to the coexistence of the closed and open models. In fact, with the still strong regulations on salaries and in a local non-competitive environment it is very difficult for open institutions to stabilize research groups.

Case: the academic pattern in Italy

- Entry level for an academic career is the position of Researcher (ricercatore), based on a written and oral competition, in most cases in Italian only.
- System is not meritocratic. Candidates with the prior support of the majority of the jury usually win the competition. Little focus on what you can do, but on who you know.
- Little access for non-Italian citizens: weak social network; language barrier; little or no contract for short period visiting fellows.
- Women account for about 15% of full professorships: no incentives to foster gender equity.
- Impact in terms of ranking: the first Italian University (Milan) is only 136th at world level, and 49th at European level, according to the Institute of Higher Education, Shanghai Jiao Tong University in 2007
- Salaries in academia are considered much lower than other sectors in Italy, leading to a sectoral brain drain inside the country.
- Towards reform: a recent report, presented at the Chamber of Deputies in Rome in early Jannuary 2008 urged giving Italian universities full autonomy to hire the people they want and in the way they want, with a system of incentives for hiring competent people and fostering high scientific output (Grill, F. 2008).
- One of the main paradoxes of the Italian system is that although universities benefit from a high degree of autonomy, they do however lack adequate funding, and control of their budget, in order to develop efficient reforms.

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The Anglo-Saxon model

This model includes countries like the UK (see box below), Ireland and The Netherlands and functions according to rules and dynamics quite opposite to the Continental model.

Universities in these countries offer relatively open and transparent recruitment procedures and are quite open to non-national scholars. These systems do view foreign scholars, at all levels from the doctorate to the visiting professor, as key elements in encouraging a dynamic culture within their national higher education institutions.
The result is not only a high level of foreign scholars working in these countries for short or long periods of time, but also an internationally recognized scientific output. A very important factor of their academic magnetism is not so much the salary level but above all the high rate of salary increases over a career; it provides a significant working incentive for academic staff.

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The main areas of job and career satisfaction reported by academic researchers in these systems are academic flexibility, freedom from teaching tasks and the quality of administration. This does not mean that scholars in these countries are free from every type of administrative tasks but they do enjoy the greater time available to focus on their research. This is visible in the output in terms of quality and quantity, which has of course a direct impact on the ranking and visibility of universities at world level and their capacity to compete with US universities.

Most of this did not happen by magic however. The shift towards competitive systems at the global level is the fruit of important restructuring policies in higher education over the last two decades.

Case: the academic pattern in the United Kingdom

- Two main career paths: lecturing and research.
- About 25% of the academic staff is non-UK citizen. The LSE reached 46% in 2007.
- Growing pressure to produce top quality research output. A greater emphasis on quality control and accountability, e.g. RAE, TAE, QAA.
- New funding arrangements, including the introduction of student fees for undergraduates.
- Benefits in term of ranking: the first UK University (Cambridge) is 4th at world level (12 other universities in the top 100), and the four first top universities at European level are all based in the UK according to the Institute of Higher Education, Shanghai Jiao Tong University in 2007.
- Relatively high pay in comparison with the 'real' salaries of academics in other countries, the UK is among the few countries that can compete with the USA. Above all, high opportunities to increase salaries during career development.
- The proportion of women in UK academia is increasing steadily and was 40% in 2006 as a total of lecturers. Yet figures are lower at senior lecturer level (30%) and professorship level (20%).

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The Scandinavian model

The Scandinavian model of countries like Denmark (see box below), Sweden and Norway presents characteristics of both the Anglo-Saxon and the Continental European models.

On the one hand, the academic structures of these countries tend to be open and competitive systems with a focus on merit. In fact, new positions are advertised internationally and on university web sites: Denmark advertises widely on different websites, while Sweden centralises advertising in single university portals. Moreover, the Scandinavian academic context offers advantages related to productive research environments as well as a complete and efficient welfare system (although taxes are high at senior positions).

Universities often recruit people they already know and open positions often go to people already working at the university. Concerning non-nationals, universities rarely recruit people who do not have personal contacts with their faculty and are not already in the country.

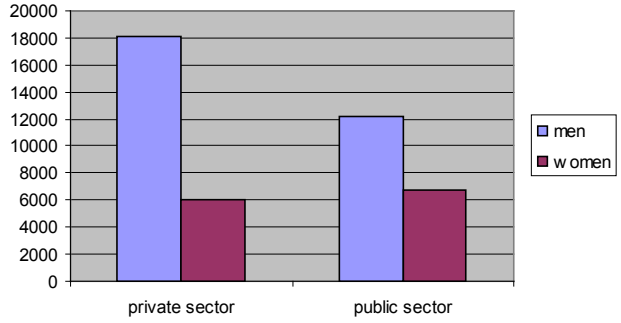
A relevant element of these systems is that the amount of research and teaching at university is relatively balanced at the moment: separate career tracks as in the UK may emerge in the coming years as it is now in Sweden. It is also common in these countries for many researchers and professors to go back and forth from the public to the private sectors and to foreign universities.

On the other hand, in practice these systems tend still to be dominated by informal rules and agreements: universities often recruit people they already know and open positions often go to people already working at the university. Concerning non-nationals, universities rarely recruit people who do not have personal contacts with their faculty and are not already in the country. Access to the system may still be limited by language barriers, especially in the area of legal studies. Many positions – including tenured contracts – are mainly temporary positions.

Case: the academic pattern in Denmark

- In theory, the tasks for academic positions are divided with 50% teaching, 40% research, 10% administrative tasks.
- With regard to accessibility for non-nationals, and even if the official national language is Danish, this is not a barrier in academia as everyone in academia speaks, reads and writes English. Many courses are given in English both at undergraduate and graduate level.
- Maternity leave with full pay is six months for women and 3 months for men. In addition, women can take up to six months maternity leave with 80% of their normal pay.
- A Ph.D. candidate already gets a gross monthly salary of 3,152 euro a month, a Post-Doc 4,560 euro, a lecturer 5,499 and a professor 6,974 euro a month (Danish Centre for Research Analysis, 2007)
- The international mobility is relatively high at Ph.D. and Post-Doc level (temporary positions). In 2004, 26% holding one of these positions where foreign citizens, compared to only 6% in permanent positions at Lecturer and Professor level.

Researchers in Denmark, 2005



Source: The Danish R&D Statistics, CFA

Barriers for career advancement in Denmark

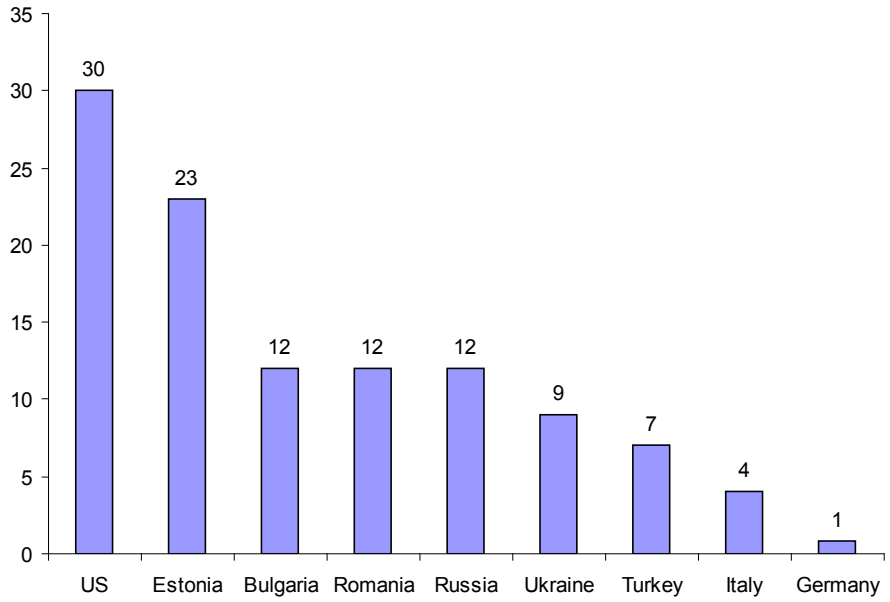
- In practice, career mobility is low and especially for permanent positions it seems difficult for outsiders to gain access to the Danish academic world.
- The most difficult step is to move from the Adjunkt/Post-Doc level to Lecturer, which offers long term stability.
- At the Post-Doctoral level, little time for individual research, and therefore publication records.
- Many researchers believe that to obtain permanent positions contacts are still very important.
- Due to high taxes, the salary for academics is considered relatively low compared to international standards and to the private job market.

The transitional Central-Eastern European model

The special condition of Central and Eastern European (CEE) requires that the academic structures of these countries are grouped into a special, fourth model. The many political, legal, administrative and economic transformations – prompted also by the EU - that have taken place in these countries since the fall of their Socialist regimes have also included their academic structures. In particular, CEE countries have tried to make their systems more dynamic and competitive in order to break down the significant brain-drain of their academic population to Western countries (UNESCO-CEPES 2004).

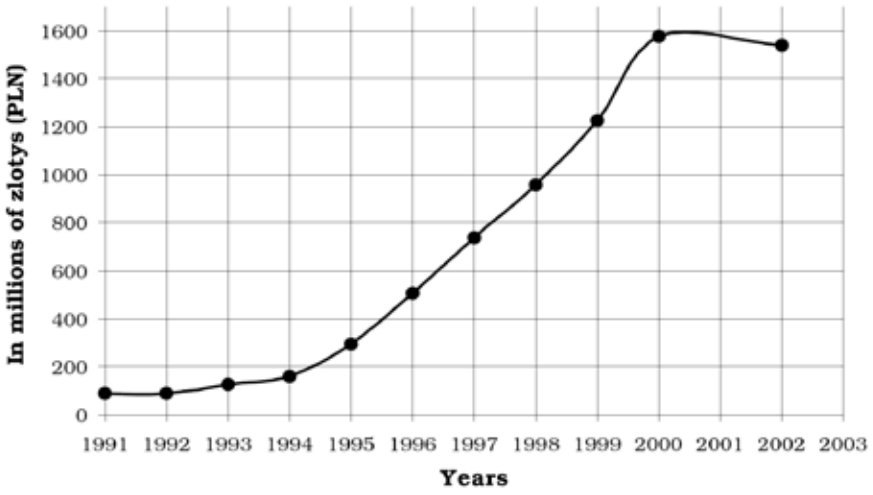
The main reforms that took place included: changing the curricula to meet the highest academic standards; changing the university structure to better adapt it to the new system; starting broad co-operation with the leading European universities, particularly through the TEMPUS programme; reducing the numbers of both administrative and teaching staff; changing the attitude towards demanding good quality and good practice. One of the major particularities of these systems in transition is the rise of private higher education institutions, which is a trend much less developed in western Europe.

Percentage of faculty in private higher education



Source: adapted from Wells, P.J., et al. (eds), UNESCO-CEPES, 2007, p.609

Capital investments on Polish public higher education institutions 1991-2002



Source: Pawlowsky, UNESCO, 2004, p. 70

Case: the academic pattern in Poland

- Before the reforms, low incentives to work in academia resulted in a brain drain of skilled academics to distant regional labour markets.
- Since 1990, liberal higher education law started a massive restructuring of the higher educational system to make it more competitive in a market economy.
- Crucial role played by a growing number of private higher education institutions to provide services to the booming demand made by students (Pawlowsky, 2004). Before 1990, there were only state higher education institutions (with the exception of the Catholic University of Lublin).
- The proportion of women in academia is relatively high, except for professorship tenure.
- Main problem remains so far the low salary levels which act as a barrier to attracting foreign candidates (21,000 Euro / year for professorship).
- Another problem is that jobs are still very much won by "spotted" candidates who have the support of "somebody".

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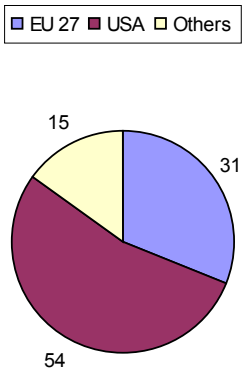
Comparing the systems

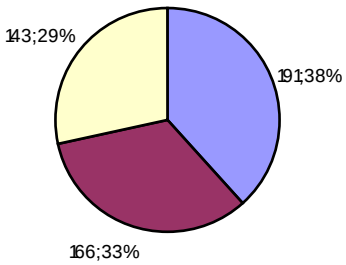
The four models that we have just presented offer different conditions and perspectives from the viewpoint of researcher mobility. Some countries are undoubtedly more attractive than others. The high presence of foreign academics in the UK is testimony to the capacity of that country – and eventually its model – to attract scholars from all over the world. Even after some reforms neither the centralized French system nor the decentralized German structure can compete with the Anglo-Saxon academic world.

This emerges quite clearly by looking at the high positions of UK universities in major university ranking systems, like the Shanghai one, both at the EU and world levels. Although there are many shortcomings in the Shanghai Jiao Tong University ranking, it provides a first approximation. It also shows that European universities perform better when the top 500 are being considered.

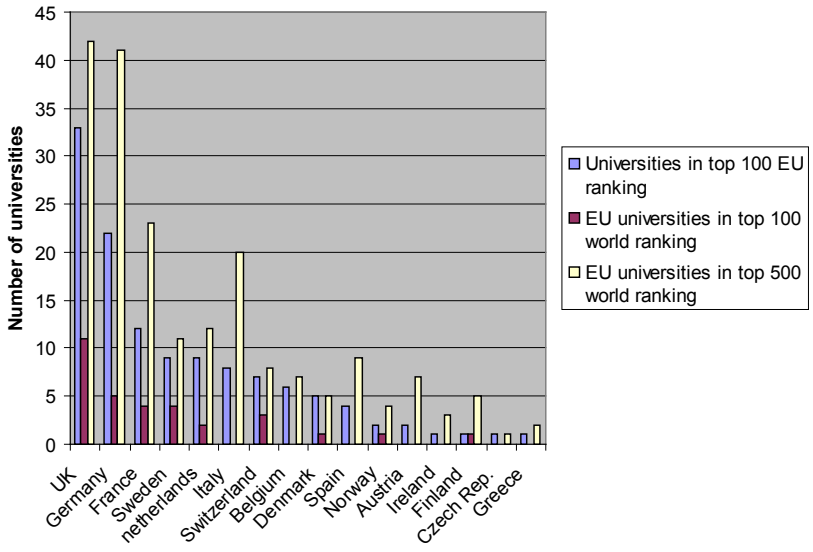
Number of US and EU universities in top 100 world ranking



Number of US and EU universities in top 500 world ranking



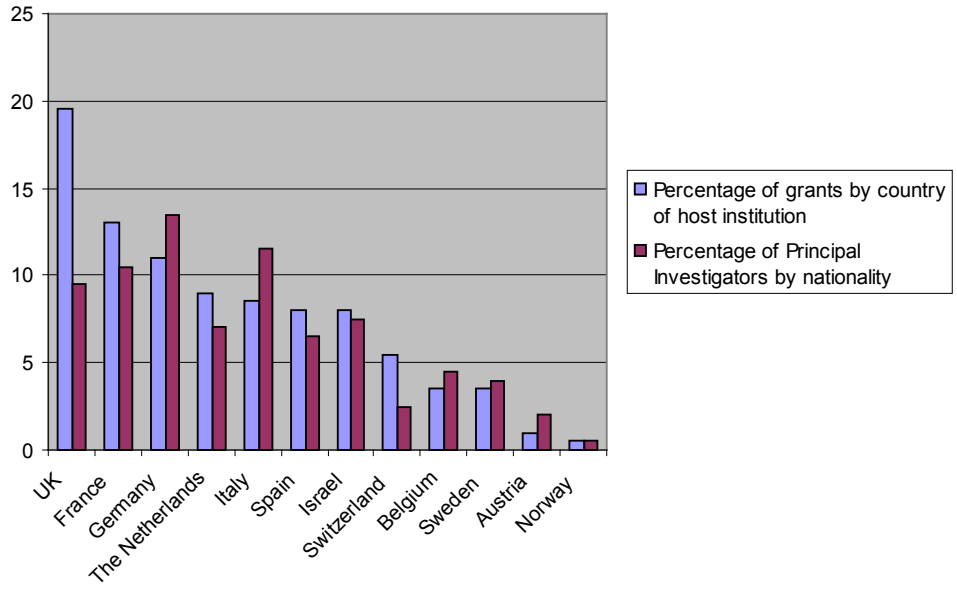
Number of EU universities in academic rankings based on performance



Source: adapted from the 2007 Academic Ranking of World Universities published by the Institute of Higher Education, Shanghai Jiao Tong University

Recent data published by the European Research Council on the nationality of "starting grant" holders and host institutions confirms that the Anglo-Saxon model is attractive to international researchers: countries like the UK, the Netherlands or Switzerland tend to attract researchers whereas countries like Germany or Italy, that account for many of the grant holders, face difficulties in getting researchers to work in the national institutions.

Comparison of the ERC Grant Holders Nationality against the Country of Host Institution



Source: European Research Council, 14 December 2007, MEMO/07/586

The problem is not necessarily marked differences in salary or job security; in fact, academics in the UK do not get much higher salaries (in real terms), nor are their positions tenured. The success of the Anglo-Saxon system instead depends on a mix of factors including a healthy competition between universities, decent career prospects in exchange for hard work, high levels of mobility and openness to non-nationals, all of which creates a more vibrant academic community.

The success of the Anglo-Saxon system instead depends on a mix of factors including a healthy competition between universities, decent career prospects in exchange for hard work, high levels of mobility and openness to non-nationals, all of which creates a more vibrant academic community.

Moreover the fact that English is the lingua franca of academia forces the continental European countries even more onto the defensive.
So far, only the Scandinavian countries, the Netherlands and some more or less isolated initiatives in other countries (e.g. some Turkish universities are fairly open) have offered similar incentives for competition and attracted the best researchers and academics.

A fundamental point is that different systems do offer different underlying contracts. In most of the cases, when you find a job as a scholar you become a civil servant, with a much more secure tenure. Places are however limited for the junior generation of scholars, and above all the career is not based on published outcome. The Anglo-Saxon model is in that sense relevant to point out because the contract might not give scholars the security of a civil service job, but the dynamism of the system itself enables academic staff to increase their job opportunities in relation to performance.

Part II

Besides these four models, the ACO has also been paying attention to three other crucial aspects relating to academic careers in the European Union. The first of these is salaries as it is one of the main factors that researchers consider when deciding where to apply for a job. The second relates to gender issues and the under-representation of women in the highest academic positions cross-country. Finally, it is important to stress the role of the growing post-doctoral stage and its role in the academic career of junior academics.

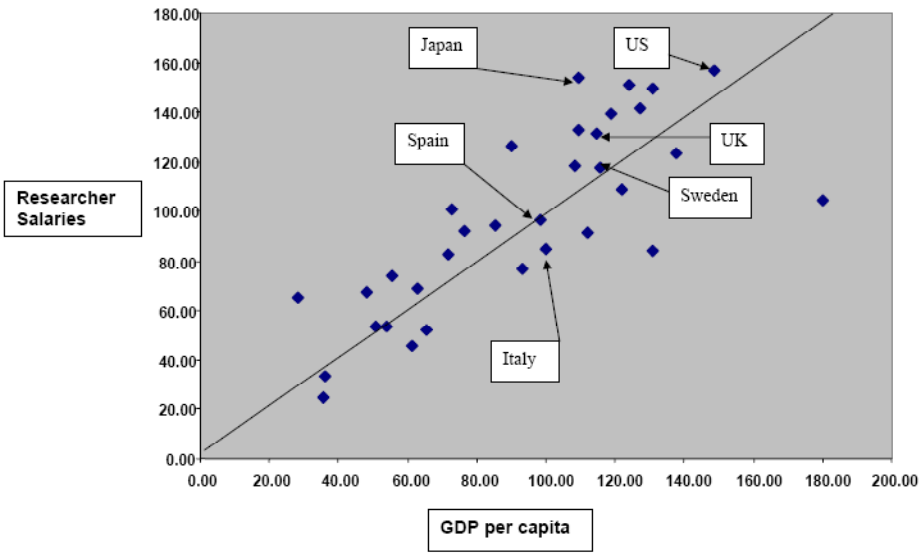
Salaries

"Europe is losing many of its home-grown doctors. In a recent article, the American weekly TIME estimates that 400.000 scientific researchers of European origin now work and live in the United States via the brain drain I referred to earlier. Only 13% of these intend to return."

Odile Quintin, opening speech at the Max Weber Programme, 4th October 2006

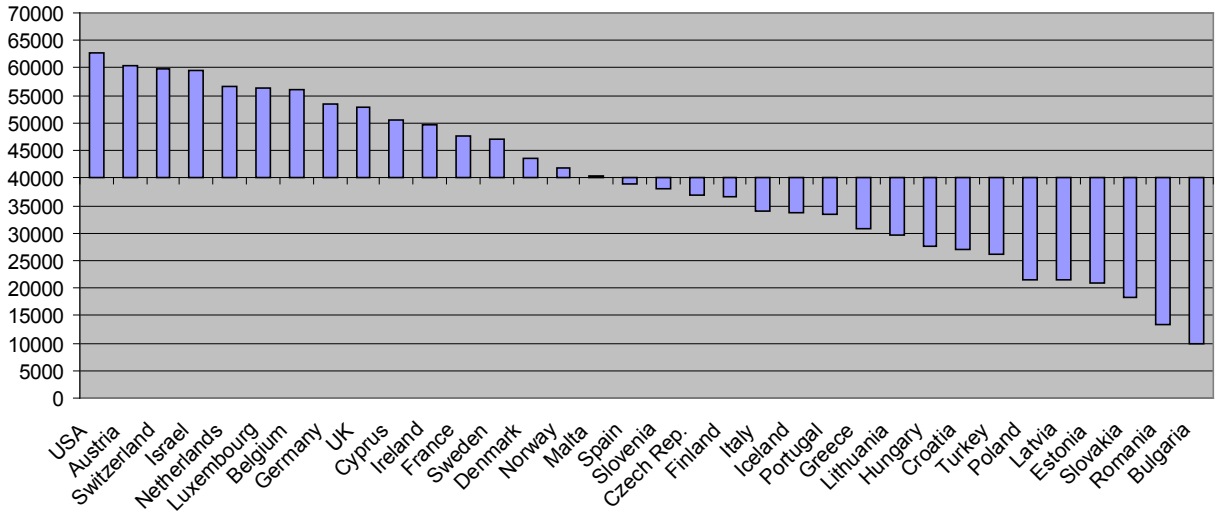
Salaries remain one of the main factors influencing where scholars apply for a position. It is relevant to note that there is still a significant difference among member-states of the European Union: all countries provide academic staff with different social benefits, social security, child care, family allowance, etc. It should also be noted that in each country there are varied options for topping-up the salary with bonuses and other means of income. A relevant example is the case of Spain where, at first sight, the salaries seem very low in comparison to some other EU member-states, but where the actual salary can be much higher depending on the productivity and outside activities of the individual.

Research salaries vs. GDP per capita in 2006 (PPP, EU25=100)



Source: Marimon, R., Competition, Innovation and Growth." BEPA Policy Advisers Conference, Brussels, 4 December 2007

Average Faculty Annual Salaries Adjusted to Cost of living in Euro . Based on EU average (40,126 euro)



Source: adapted from European Commission, April 2007b, p. 45

The average remuneration for researchers per country can be divided into four different categories: low, medium, high and very high remuneration levels. According to the Human Resource Directorate of the European Commission, Eastern Europe and the Mediterranean countries (except France) are dominant in the low and medium remuneration levels. In comparison, high and very high remuneration levels correspond to Nordic countries (plus France and Switzerland).

The "attractiveness" of European salaries for researchers is still much inferior compared to the level of the USA. The average wage after tax in Europe for a researcher is about 40.126 euro whereas it is about 62,793 euro in the USA, meaning an increase of 37%. Only Austria (60,530 euro), the Netherlands (56,721 euro), Switzerland (59,902 euro) and Luxembourg (56,268 euro) can compete after the salary is calculated considering the cost of living in each country. Even the UK (52,776 euro) is much above the EU average, but still far behind the USA.

The comparison on salaries and performance between Italy and the USA is here relevant as it shows two ways of considering the salary level of researchers. Salaries in Italy depend on the years of activity rather than on the performance level of the scholar. At Professorship level, in 80% of the cases, salaries are higher in Italy than in the USA (Gagliarducci, Ichino, Peri, e Perotti 2005). Yet the incentives to perform better in Italy are little, whereas in the USA researchers know that an increase in quality publication will lead to a better salary. If one looks at the EU-27 with regard to the increase of remuneration during the researcher's career, there are still important differences among countries. In the UK, this increase represents an increment of about 235 % whereas it is 90% in Denmark. Finally, it is also relevant to stress that salary figures are higher for men than for women in most countries.

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Gender and academia

The proportion of women in academia has risen over the last decades. But the proportion is still not balanced, as there are persisting differences in occupation and salaries. Most importantly, the number of female academics decreases considerably with the academic career ladder.

The share of female professors in the countries of the European Union amounts to only 26 percent of the total academic staff. It is particularly low in Germany (9 percent), Ireland (12 percent), Belgium (14 percent) and the Netherlands (15 percent), while the highest shares were recorded in two Scandinavian countries – Finland (36 percent) and Sweden (33 percent) (Gruenberg, UNESCO, 2001).

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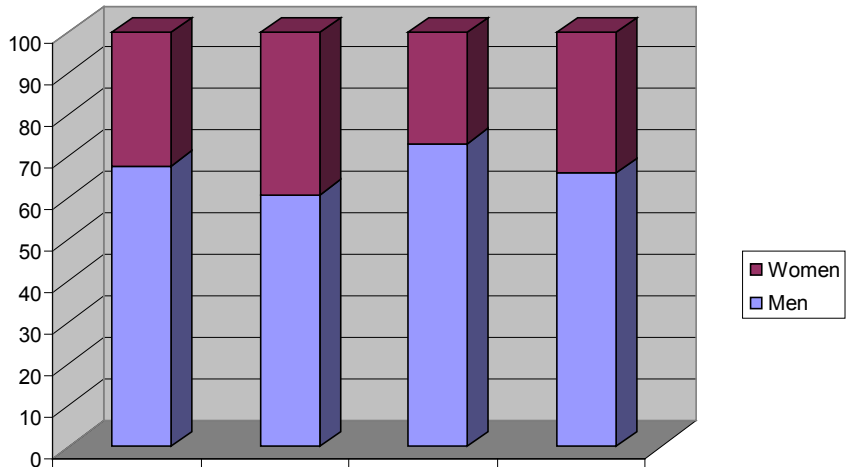
In most cases, however, it is important to point out the gap between junior and senior positions. In the UK, there are 40% of women as lecturers but this drops to 20% for professors (Times Higher Education, April 2008). The same trend can also be seen in Poland where the proportion of women as assistant and associate professor accounts for about 50% of the staff (UNESCO 2004), but it then drops to 22% at full professor level. This tendency seems to be true in most other countries where universities rarely offer a context of gender equity. Women often have to choose to invest either in their family life or in their professional life. To combine both is extremely difficult (UNESCO 2003).

Gender breakdown of doctorate holders



	Germany	portugal	switzerland	USA
Women	32,2	39,2	26,8	34
Men	67,8	60,8	73,2	66

Source: Laudeline Auriol, OECD Secretariat, 2007

Moreover, it should be mentioned that there is usually a difference to be noted between the disciplines. The proportion of women in humanities is generally higher than within the natural sciences. But still men outnumber women in most faculties.
Finally, we also observed that salaries remain an area of still higher differences where gaps range from 10% (Denmark) to 47% (Estonia), with the exception of Malta where women receive a higher salary. On average, the difference is about 25%-30% across the European Union.

Towards gender equity in economics departments

According to the American Economic Association's Committee on the Status of Women in the Economic Profession (CSWEP), there is still a lack of openness and visibility of women in academia in this area. For instance, the 36th Committee's report in 2007 found a positive trend in women doing their Ph.D. in economics, it also showed "leaks in the pipeline," meaning that many women do not reach the final stage of the academic career (up to full professorship). Leaks have been explained considering a mix of procedural and cultural issues.

Percentage of female faculty by rank

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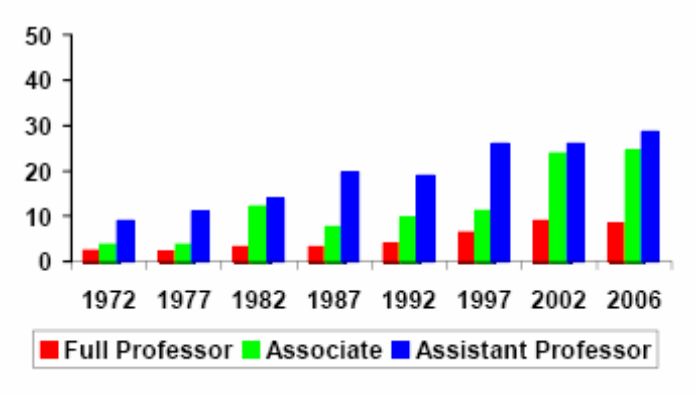


Source: Committee on the Status of Women in the Economics Profession

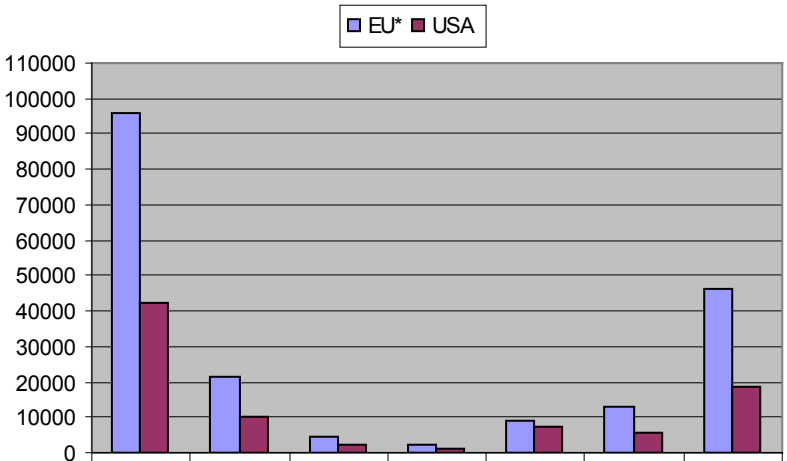
With respect to this, the CSWEP has operated in different directions, functioning as a jump start for careers by organising special sessions in national and regional meetings and supporting mentoring programmes. The Committee also collects and analyses data on women in academic positions and spreads information through a newsletter and annual reports. Some differences should be stressed however between different fields of economics. Concerning labour economics, women's enrolment rate moved from 1% in the early 1980s to the present 15%. However, there are almost no women in the area of economic theory. From the statistics, the gap between full professor and other positions is still high. In the last decade however, the gap between associate and assistant professor has almost disappeared.

Career at an early stage

Statistics show clearly that the EU is investing in the formation of doctoral students and the production of PhDs. According to the National Science Board (2008), there were 8,887 social sciences doctoral degrees earned in the EU* in 2004. That's about 15% more output compared to the 7,467 doctoral degrees in the USA. Moreover, the output has been growing much faster in the EU in the last 20 years. In 1985, there were, for instance, 958 PhDs published in social sciences in Germany.

There were 2560 PhDs in 2005 - an increase of about 170%. In comparison, the USA went from 6334 PhDs in 1985 to 7465 PhDs in 2005 - an increase of 17% . Yet, it is necessary to stress that between 10 to 15% of EU doctorate holders are unemployed, employed in a job under their qualification level or not related to their doctoral degree (Eurostat 2007). In other terms, the job market is not able to take the best out of these highly skilled workers.

PhD earned in USA and EU, 2004*



	All fields	Physics/ Biology	Maths/Computer	agriculture	Social	Engineering	Others
EU*	96148	21449	4712	2055	8887	12929	46116
USA	42155	9962	2024	1046	7467	5776	18431

Source: adapted from National Science Board 2008

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The post-doctoral level is increasingly becoming a proper career step, rather than merely the antechamber of a lectureship. Moreover, one can note that the internationalisation of academic careers is most advanced at the post-doctoral stage and the existence of international grant programmes has significantly increased over the past decade. Increasingly, a 'post-doc' is seen as a way to add value to a CV and become more competitive in the academic job market place.

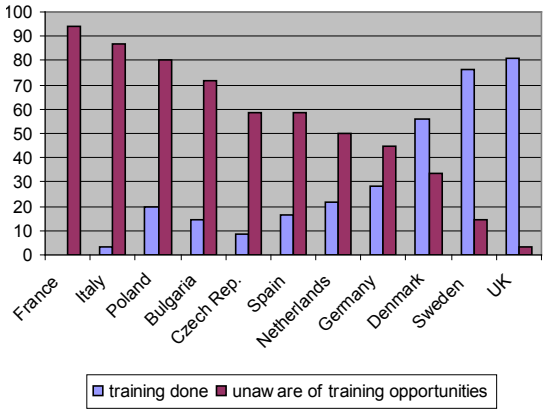
In fact, Ph.D. holders increasingly have to demonstrate their research potential when applying for a job. As junior researchers, their publications are not many, but they can show other important aspects of their qualities and skills: training and success in finding research funding: efficient project management; training or experience in teaching undergraduates or M.A. students; networking and organising conferences or workshops.

Some potential problems which are already emerging need to be underlined. First, although Post-Doctoral fellowships are often research focused and by their nature subject to fixed term contracts, the inherent expectation in many of them, is that they will lead, by their conclusion, to a successful Lectureship application. But theory and practice should not be mixed up if researchers don't want to be disappointed.

* Data about Cyprus, Luxembourg, and Malta are not included.

Second, the rise of the post-doc carries the risk that Ph.D. holders find themselves trapped in temporary Post-Doctoral research or teaching positions for too many years. In several academic systems, the post-doctoral phase has become the bottleneck in an academic career. In countries like Belgium for instance, one can hold a fairly attractive post-doctoral position for up to six years, but this is not a 'tenure track' position since even if one excels there may be no chance of advancing in the career and being appointed to a more stable position afterwards. In the UK, doing a Post-Doc after a Ph.D. has become a common step for many junior researchers, and it allows them to focus on publishing. Publishing, especially in peer-reviewed publications, is highly valued by employing universities, not least because it allows them to rank higher in the RAE statistical analyses of academic publications.

Training on teaching skills for doctorate students in political sciences



Source: adapted from Pleschová, G and Simon, E., 2007

With regard to the career of junior scholars, the European Research Area and the European Higher Education Area (European Commission 2007) are worth taking into consideration. Their foundations already give a taste of what the next generation of researchers will be able - or not - to do. In particular, the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (European Commission 2005) clarify the expectations of policy makers and major stakeholders, even if they still lack concrete implementation due to their voluntary nature (European Commission 2007a). Some countries are also reporting on the Charter's implementation: in this respect, the German Mobility Centre of the Humboldt Foundations released an interesting early 2008 report on the steps undertaken by Germany.

"There are excellent minds and researchers out there who are poor teachers because they never learnt to communicate their knowledge well. The academy is not only in need of new theories and findings but also good teachers that can train the new generations."

Participant to the survey, Training Centre for First-time University Teachers, Pleschova, G. and Simon, E., 2007

Another significant scenario is the emergence of the figure of the post-doc "principal investigator." This would signal profound change in the governance and funding of research since hitherto the Post-Doc has been understood primarily as an assistant position (to a professor's chair or on a research project).

Making the Post-doc a bridge to the job market

Increasingly, post-doc programmes should be designed in a more comprehensive way than they used to be. As stressed by Odile Quintin, Director General for Education and Culture at the European Commission, post-doctoral schools should also offer special training in both teaching and publication skills, instead of merely perfecting the research skills of the young academic. Post-doctoral schools should foster "a concrete link to the professorial labour market". The Max Weber Programme was created with the purpose of taking seriously the career development of junior scholars by offering specialized training in research, teaching and academic advancement before launching them on the job market. The same tendency to organise career oriented training also appears at the PhD level with initiatives such as the UK Graduate Programme.

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