# The academic career: traditional schemes and new challenges

Alberto Stanchi Researcher – Regional Observatory on Higher Education and Student Support in Piedmont (Italy)

# Introduction

Traditionally, universities in Europe are public institutions financed by governments with little differentiation between individual institutions. Academics enjoy special rights derived from the freedom of research and teaching. The traditional meaning of tenure in academia lies in autonomous work conditions coupled with poor opportunities for employers to monitor productivity, resulting in a high degree of job security.

In the last decades, the university sector in many European countries have faced several fundamental changes. The expansion of higher education significantly increased the complexity of the system. Several countries could no longer finance their higher education institutions at the same level as before. Hence public governance of higher education has been under general review. First doubts regarding the approach based on the central steering appeared, as well as the need for institutional flexibility. Since 1980s policies to transfer a managerial mode of institutional organisation from the private sector to universities have become relevant. Their objective was to replace State bureaucracy by a more hierarchic and competitive approach (Kehm, Lanzendorf 2006). Several reforms have strengthened the role of each university, bringing to an end to the paradoxical dualism in which the ministry is responsible for the formal aspects of personnel management (making contracts, paying wages) without being able to supervise the quality of academic work; and the university is an autonomous, self-governed organisation which is responsible for guidance and monitoring of academic work without being able to effectively use incentives or negative sanctions (Pechar 2004).

The pace of reforms differs markedly across countries. Depending on the depth of reforms and particular national structures, it can be observed that traditional modes of university governance coexist with elements of a new governance model. Current national patterns of academic employment relations still reflect some macro-contextual factors, such as national culture, history and political institutions. Experts acknowledge that, even if these national patterns are both variable and diverse, some clusters exist (Farnham 2009). It is still possible to outline at least two macro-approaches in the governance of the higher education systems. In the first model, adopted by countries such as France, Italy and Spain, the State still plays a central role; it establishes both the general operation of the system and defines (through higher education legislation) recruitment rules, teaching duties and salaries. Institutions are in principle homogeneous and all of them formally teach and do research. On the contrary, some countries have adopted a managerial approach in which institutions are largely autonomous, they decide the recruitment criteria and work allocation between teaching and research. National collective agreements (between institutions and trade unions) fix the overall level of salaries but each institution decides, within these frameworks, what each academic will receive. The government only has a steering role, sets the general aims, uses funding to stimulate good performance and assesses the system as well as each institution. As a result, institutions are profoundly different from one another. In the UK, the State finances the whole system without any detailed legislation and institutions are largely autonomous in defining their own mission and governance structure; old and prestigious universities compared with new teaching-oriented universities can be considered a traditional crossroads describing the UK higher education system. The Netherlands, Sweden and Austria, even if in different historical periods and with different approach and practical solutions, have changed their traditional schemes towards a greater institutional autonomy and a managerial approach: this had clear effects on human resource management. National regulations were abandoned in favour of collective agreements and individual bargaining.

In spite of the existence of clusters, new general trends and challenges can be noticed. There are some drivers that may be considered as elements of strong attack on the core features of the traditional

academic profession. The traditional meaning of tenure is changing. With the advent of the massification of higher education some status advantages of academics have been eroded leading to a gradual proletarianisation of their profession. The transition from elite to mass higher education has occurred in a time of substantial decline in government funding and changes in allocation methods. Funding has not kept up with the rising number of students and universities have reacted to these changes in the balance of permanent, fixed-term and part-time appointments. Despite extensive preparation, there are increasing difficulties for young academics to achieve a permanent position. The risk of moving from one contract to another is sometimes high (Huisman, de Weert and Bartelse 2002).

The balance between traditional approaches and new challenges and the way they combine with each other are an interesting perspective through which we can look at the changing face of the academic career.

#### **Doctoral education**

In Europe and in the US doctoral training is considered the basic step towards an academic career. In some cases, it is considered necessary by regulation to take part in an open competition, in other cases it only gives the candidate additional points, in others, it is necessary to go through tenure track positions.

Nevertheless, although the great majority of young academics hold a PhD, there is widespread dissatisfaction with the traditional forms of doctoral education. With the considerable increase in the number of doctoral degrees holders, not all of whom will be able to follow a career in academia. In several countries the number of permanent positions has not increased to such an extent to guarantee all doctoral degree holders such a position. There is a growing awareness that doctoral education should meet not only the needs of academia (EUA 2005).

In general, we can notice some emerging models: from basic, curiosity driven research to resultoriented research, from individual to team research, from discipline-oriented to interdisciplinary, from public funded to multiple funding resources, from purely academic to also professional.

As a response to these challenges, a number of countries (e.g. the US, the UK and the Netherlands) have started to introduce a "professional doctorate", often related to projects carried out within an enterprise, jointly supervised with the home university (Kehm 2009). The course work emphasises more generic skills, interdisciplinary approaches and problem-solving capabilities. In France, research-based industrial training conventions give a number of doctoral students the possibility to do applied research. There is increasing pressure to abolish the traditional master-apprentice model in favour of doctoral schools (e.g. in Sweden, Germany, the UK).

The new development of professional doctorates is intended to redress this problem by paying more attention to the issue of the employability of doctoral students outside academia. This should be a topic of discussion especially in countries, such as Italy and Spain, in which industry and commerce do not seem (or not yet) to be interested in hiring such a highly qualified workforce. The numbers require an intervention: in Italy, there are 10,000 new doctoral degree holders each year, while there are 1,500-3,000 researchers recruited in permanent positions.

### Time-limited positions are predominant in apprenticeship and selection stages

Despite these changes, the majority of doctoral degrees continue to be considered suitable for a career in universities. But doctoral degree holders rarely get a permanent position immediately after the discussion of their thesis. Most of them get time-limited positions as assistants, researchers or junior staff. The "overproduction" of doctoral degrees has basically led to various types of postdoctoral positions until proper employment is found. It is clear that this prolongs the time until the beginning of a proper career. This phase is considered a bottleneck in many systems

In Italy, 44% of new tenured researchers are in their mid-thirties or older. In Germany, 77% of all academic staff is employed with fixed-term contracts; most of them are older than their colleagues in other European countries, due to the necessity to obtain the Habilitation (a sort of second PhD). The

introduction of Junior professorship was aimed to shorten the length of first stages of academic career, giving scholars greater autonomy from chair-holders. In Austria, until recently, requirements for gaining full professorship include Habilitation. On the average, it happens at about age 40; but the completion of the Habilitation by no means guarantees promotion to professorship. According to Mora (2004), in Spain it is not rare to find quite old *Aydantes* with impressive curriculums but with few possibilities of accessing a permanent position, mainly due to the financial situation.

Thematic chart 1: time-limited positions and related contractual arrangements in selected countries

Country	Time-limited	Employment status	
	positions*		
Austria	Universitätsassistent	The present situation in Austria is rather complex due to several policy changes within a few years. The most used position is <i>Universitätsassistent</i> ; that usually requires a Master's but not a Doctor's degree. Universities have now wide discretion: while the traditional path was represented by <i>Habilitation</i> (a period during which a person can obtain a teaching qualification by the university Rectorate and was employed with temporary contracts of 4 to 6 years at maximum), now <i>Habilitation</i> is no longer a legal requirement; however, in most disciplines departments define it as requirement for professorship.	
France	Attaché Temporaire d'Enseignement et de Recherche	1 or 2 years. ATERs are recruited from doctoral degree students or PhD holders. They not only have to do research but also teach (laboratory work and discussion groups). Musselin (2004) states that consistent teaching duties keep them from proper research.	
Germany	Wissenschaftliche und künstlerische Mitarbeiter	Maximum period of 12 years (this limit aims to avoid an excessive length of temporary contacts). <i>Mitarbeiter</i> are recruited from doctoral degree students or PhD holders. The traditional path implies that they work for chair holders during the period necessary to get <i>Habilitation</i> . They have to teach (in particular, at undergraduate level) and do research. An alternative path is represented by Junior professorship, introduced in 2002 (see thematic chart 2).	
Italy	Assegnista di ricerca	4 years, renewable once (shorter periods are possible). A doctoral degree is not compulsory but most of the <i>assegnisti</i> have a PhD. No formal teaching duties. An increasing number of <i>assegni</i> are paid by firms or regional governments, even if the majority are still paid by the State.	
Netherlands	Research trainees (Assistant-in-Opleiding: AiO); Postdoctoral Researcher	Research trainees (AiO) work at their doctoral thesis and are paid with scholarships; Postdoc: a temporary position of 2 years duration (with possibilities for prolongation) after the doctoral degree; Other academic: these staff are mostly connected to specific research institutes, either on a temporary basis (depending on external funding) or on a permanent basis.	
Spain	Ayudante, Profesor ayudante doctor, Profesor contratado doctor	Ayudantes are recruited from doctoral degree students or PhD holders. They have to do research and some teaching. 4 year contracts. The law of 2001 created other positions, which can be either permanent or time-limited: Profesor ayudante doctor and profesor contratado doctor. To be eligible to get such positions, candidates have to receive positive assessment of ANECA. They have to do both teaching and research.	
Sweden	Postdoctoral fellow	4 years. Most of them do research and some teaching activities. Many get stuck in a series of temporary research or teaching positions.	
UK	Postdoctoral fellow	Usually 1 year. Getting one or more postdoctoral fellowships is considered necessary for future academic career steps.	
US	Instructor, postdoctoral fellow	Instructors are either completing their PhD or have recently obtained the degree and are beginning their teaching careers. They usually spend about 9 to 12 hours a week teaching. A postdoctoral position is usually related to research projects established by departments or individual professors in the universities. Letters of recommendation play a central role.	

<sup>\*</sup> This chart includes the most common positions only.

# The achievement of a permanent position

Until recently, academic careers everywhere were based on two stages: a first period characterised by apprenticeship, selection and time-limited positions and a second beginning with access to a permanent position. Enders and Musselin (2008) identify three different career models. The first is the "tenure" model, typical of the US. It is based on a severe selection of young PhDs, among whom some are offered tenure-track positions. In the US, young academics generally experience two three-year contracts before they pass to the tenure procedure. According to Chait (2002), on average

70% receive tenure, with the exception of highly reputed institutions. Some institutions in the UK and in the Netherlands start offering tenure-track positions to young academics.

The second is the "survivor" model. It is typical of countries where the chair-system is strong. It was characteristic of Germany and Austria. After their PhD, candidates have to go through a long period of various trials during which they obtain *Habilitation*, the second title necessary to take part in the usual recruitment process. Germany, without abandoning the "survivor" model, introduced *Juniorprofessoren* in 2001. They are for some aspects comparable to US tenure track positions: they are time-limited (3 years), renewable once, and provide the opportunity to apply for a permanent position after 6 years without passing *Habilitation*. Most of all, *Juniorprofessoren* do not work as assistants for the permanent positions (as *Mitarbeiter* do): they are autonomous, with a research budget. However, there is not a tenure process: *Juniorprofessoren* must go through the usual German recruitment procedure. In Austria Habilitation is no longer a legal requirement, but in most disciplines departments define it as requirement for professorship, more so in humanities than in the sciences. As the career is not tenure track, there is no guarantee of automatically becoming a professor.

The third model is called "protective pyramid". It is still frequent in many public systems (Italy, France, and Spain). In these cases, access to permanent positions occurs quite early. Different categories of permanent positions are organised hierarchically. Access takes place through open competition. In France and in Spain, candidates must obtain a national qualification, then they can apply for a permanent position in a university. In Italy, at the moment, universities can hire their own academic staff through open competition without a national qualification. The government is now trying to modify this scheme, by introducing the national qualification, in order to avoid localism and nepotism.

But the pattern based on a two stage dynamic no longer appears to be the only one available for the academic profession, as traditional permanent positions tend to diminish in percentages and as career tracks that do not lead to tenure are developing (Enders and de Weert 2009). In the US and in Europe, the balance between tenured staff and fixed-term appointments has shifted dramatically towards the latter. German *Juniorprofessoren* are employed with time-limited contracts of 3 years, which are renewable only once, which are not tenure-track positions. Austrian universities, as employers of all academic staff, have wide discretion (within the legal framework of the new collective agreement) to use fixed-term or permanent contracts. Recent Italian proposals reserve temporary contracts for the first step of the academic career. Spanish *Profesor ayudante doctor* and *Profesor contratado doctor* are on a permanent basis but without tenure. The UK higher education system abandoned tenure in the 1980s.

These three general models do not exhaust all the cases: in Nordic countries (e.g. Sweden) institutions define the rules of recruitment themselves, usually based on *peer review*, bargain the terms of employment and work in less standardised and more individualised ways. Recent (and ongoing) reforms in Austria and the Dutch case provide other examples of human resource management based on autonomy and discretion of institutions.

Thematic chart 2: access to permanent positions and ongoing reforms

Country	% of permanent	Access to permanent positions and ongoing reforms
	positions respect to the total*	
Austria	No available data; Professor (Universitätsprofessoren); Staff Scientist	For newly recruited staff, the 2002 Universities Act, distinguishes only between <i>Universitätsprofessoren</i> and academic staff for research and teaching. The latter group would roughly correspond to the middle-level academic staff from the doctoral level. Newly hired professors no longer have the status of civil servants; they are recruited on private contracts. Universities have wide discretion within the legal framework of the collective agreements using temporary or permanent employment relationships.
France	76% (Professeurs; Maître de conferences, Enseignants de type second degré)	To obtain a position as <i>Maître de conferences</i> candidates must get the national <i>qualification</i> , mainly based on <i>curriculum</i> . It is assessed by CNU, a national academic body. <i>Qualification</i> remains valid for 4 years and is necessary to take part in local competitions. They are organized twice a year by the Ministry to fill the vacancies. Internal recruitment is based on activity of selection committees. Recruitment as <i>maître de conferences</i> is still influenced by informal agreements. The

		reform of institutional governance in 2007 changed the composition of internal
Germany	23% (Professor W3; Professor W2)	recruitment committees: half of the members have to be external.  Traditional path: <i>Habilitation</i> holders may apply for a permanent position but not in the same institution. The chair-system implies that there are a huge number of time-limited positions, literally working for the professors with no autonomy. An alternative path (introduced in 2001): a university can employ <i>Juniorprofessoren</i> (also called <i>Professor</i> W1) with time-limited contracts of 3 years, renewable only once. After 6 years <i>Juniorprofessoren</i> can apply for a permanent position in the same institution. The aim of the reform was to shorten the long and uncertain selection process and to give autonomy to scholars.
Italy	58% (Professore ordinario; Professore Associato; Ricercatore)	At the moment, universities are autonomous in recruitment but they have to respect a certain ratio between public funding and wage expenditure. Selection criteria and composition of selection committees follow national rules. Access to permanent position takes place through open competition. Experts underline lack of mobility and nepotism. The government wants to introduce a national qualification as a title necessary to go through the usual recruitment procedure. At the same time, the government states that the entry position will not be permanent but time-limited (3+3 years), with no say about the autonomy of new time-limited <i>ricercatori</i> .
Netherlands	56% (Professor; Main lecturer; Lecturer)	The university decides on budget availability for new staff posts as well as for promotions. This authority can be devolved to the Faculty Dean. No national regulations; the decentralisation of terms and conditions of employment included a transition from the status of public employees (civil servants) towards a 'private contract relationship' (public employees).
Spain	55% (Catedrático; Profesor Titular)	National <i>qualification</i> is necessary to go through local recruitment procedure. The selection criteria follow national rules. The creation of permanent positions, such as <i>Profesor ayudante doctor</i> and <i>Profesor contratado doctor</i> (but without being civil servants), was aimed to give more job security. The diffusion of these positions is still low due to their costs. The government wants to foster mobility inhibiting universities to give first permanent positions to their former doctoral students.
Sweden	76% (Professor; Lektor; Adjunkt)	Adjunkt and Forskarassistent can be considered as a way to access permanent positions; they can be time-limited in the first stage of career, and it is considered as a probation period. A PhD is not required for an appointment as Adjunkt, while Forskarassistent usually hold a PhD. Recruitment takes place on criteria established by each university. Usually, they use external referees. In 1999, Sweden approved a unique career path. A scholar may start as Adjunkt or Forskarassistent. Despite this unique path, it is difficult for Adjunkt to advance because they have been hired in posts that are mainly teaching positions. A competence promotion was also introduced: once appointed to a permanent position, one is eligible to apply for promotion on the basis of individual research competence or teaching skills irrespective of vacant positions.
UK	62% (Professor; Reader; Senior Lecturer; Lecturer)	Recruitment as a <i>Lecturer</i> takes place on criteria established by each university. Due to the autonomy that characterises the system, universities can use external referees, research performance or the number of consultancies, according to their aims. <i>Junior lecturers</i> are usually employed with a probation period of 3 years, after which they are offered a permanent position, not tenured. This means that one can lose their position if the department shuts down or funding runs out. RAE results (performance in research) are important criteria for recruitment especially for prestigious research universities. A career as a researcher (only) usually means being employed on a temporary basis.
US	49% (Full professor; associate professor; assistant professor)	Assistant professorships are advertised and applied for in open competition. It is generally untenured, although most institutions use tenure-track. The candidate can obtain tenure after a probationary period of around 6-7 years. Tenure is given after assessment of teaching and research. In many of the less prestigious universities there are a growing number of non-tenure-track positions of 4-5 year contracts.

<sup>\*</sup> In most cases the figures represent an average; there are deep differences between universities.

# Setting the salaries and duties of academics: national diversity and new tendencies

Salaries and duties of academics are strongly related to national habits and context. In some countries, compensation is set by the State, which defines a rigid pay scale and institutions have no say

in this context. This is the case of public systems, such as in France, Spain, and Italy. In a growing number of cases some incentives are introduced in order to start a little differentiation among academics. Despite these innovations, in France and Spain, incentives are mainly set by the State or by local authorities.

In other countries, national collective bargaining fixes the overall evolution of salaries but each institution then decides, within this framework, what each academic will receive. Individual bargaining defines compensation in particular, for full professors. This is the case of the UK, the Netherlands, Sweden and, more recently, Austria.

Similar distinctions may be seen regarding teaching duties. In France, Spain, Italy, this is set by the State, and each institution has little if any space for negotiation. Academics should teach and do research, without any formal balance between these two activities. In other countries institutions are autonomous from this point of view. They define duties which can be teaching or research only or a balance of the two.

New trends and challenges are having a decisive impact on the characteristics of these clusters. Rigid schemes are considered obsolete and a trend towards more flexibilisation is present also in traditional public systems. The French government wants to give university boards autonomy in defining academic duties between teaching and research. The new Italian proposals would like to link seniority salary steps to scientific productivity. Germany has shifted its salary scheme from the old one based on seniority to the new one based on scientific productivity.

Thematic chart 3: salaries and duties

Country	Who sets the salaries	Who sets the duties
Austria	Salaries are negotiated as part of the collective agreements. Since the beginning of 2007 there has been general agreement between the umbrella organisation of the universities and the Austrian Civil-Servants Trade Union.	There are no longer national regulations. Collective agreement provisions are required. At the level of Professor there is some margin of negotiation. There are significant differences between disciplines.
France	State. Academics are paid by the State. Incentives are distributed often without a strict assessment. The 2007 reform states that in the following years universities will receive a global budget. They will pay salaries. <i>Grandes Écoles</i> usually offer better conditions.	State. No possibilities to modulate duties. The 2007 reform would give the university board the possibility to modulate teaching and research.
Germany	State. Salaries are paid by regional governments ( <i>Länder</i> ). Recent reform cancelled seniority salary increases and states that they are possible only on the basis of positive assessment of activities. Individual negotiation concerns assistants and research budget.	State. Duties are set by national agreements among regional government representatives. A recent tendency towards institutional differentiation can be registered. Differences between universities and universities of applied sciences (Fachbochschulen).
Italy	State. Universities have a global budget by which they pay wages. No incentives. Salary scales are basically related to years of service (the government would like to link salaries scales to the assessment of activities).	State, but in a very vague way. As a result, some academics have many teaching duties, others below the minimum.
Netherlands	Salaries are based on nationally agreed scales.  Increasingly human research management includes performance aspects. As a result, performance and market forces influence heavily initial scaling as well as pay rises.	Each university has the possibility to modulate teaching and research, taking into account national collective agreements.
Spain	State. Academics are paid by universities. Teaching incentives are distributed often without a strict assessment, while research incentives are more selective and prestigious.	State. There are national teaching duties but some academics have many hours teaching, others have just the minimum.
Sweden	Collective bargaining and individual negotiations.  Differences between universities.	Although academics should teach and do research, each university has the possibility to modulate teaching and research, taking into account national collective agreements.
UK	Collective bargaining and individual negotiations. Differences between salaries offered by prestigious universities and those offered by ex-polytechnics and colleges.	Each university has the possibility to modulate teaching and research, taking into account national collective agreements. Contracts may be based on teaching only or research only. Research "stars" have few teaching duties.

US	Collective bargaining and individual negotiations. The wages offered by public universities cannot be as attractive as those offered by private ones.	1 ,
		projects.

#### Conclusion

There is no doubt that the university sector has undergone fundamental changes in the last decades. The basic principles which have long characterized the relationship between universities, governments, academics have become increasingly blurred. There are common realities: increasing financial constraints, processes of differentiation within massified higher education systems, demands for accountability, and market-like approaches. There is a general tendency towards a decline of the autonomy and privileges that academics used to have.

Several European countries modified some basic features of governance of their higher education sector. Nevertheless, the pace of reforms differs profoundly across countries. In France, Italy and Spain reforms introduced institutional greater autonomy and changed funding mechanisms from detailed line-item budget to lump sum budget. Nevertheless they maintain several features of the Napoleonic model; the State still regulates general operations through legislation, institutional management is still based upon academic self-governance; a real competition between institutions has not been developed yet. The academic career is strictly defined by legislation, academics are civil servants and there is little, if any, space for individual bargaining. On the contrary, the UK and the Netherlands can be considered as forerunners in another path. The State no longer regulates the academic career through legislation, institutions are free to define their own human resource policies. In these cases, the decentralisation of terms and conditions of employment included a transition from the status of public employees (civil servants) towards a 'private contract relationship' (De Weert 2004). Sweden and more recently Austria changed their governance structure towards managerialism.

Despite the existence of such specific national approaches, external forces push policy makers towards the necessity of change also in traditional public systems. In 2002 the Austrian Parliament passed a new organisational act which gave universities full legal powers, deciding upon internal organisation and human resource policies, being the employer of all academic staff. The new act probably makes Austria a leader in the 'managerial revolution' on the European continent. Compared with other countries of similar tradition, the change in academic leadership from the 'pre-managerial' age to modern higher education management accommodated in a very short time (Pechar 2004). With the 2007 university act the French government has allowed institutions to define teaching duties and financial incentives in a more flexible way. In 2004 Germany cancelled seniority salary increases and states that they are possible only on the basis of positive assessment of activities.

The process of implementing reforms should oblige policy makers to consider both national traditions and new challenges, together with the wider effects and several consequences in the whole system. In Italy the debate around the human resource management reform oscillates between those who would radically change actual system (getting rid of national open competitions and granting universities full autonomy in hiring and paying staff) and those who would reintroduce national qualification as a necessary prerequisite to take part in universities recruitment procedures (as it happens in France), maintaining salaries fixed at national level. If policy makers allowed universities to hire their own staff, without taking into account any national legislation, they would give them the possibility to define their own recruitment policies, with specific compensation levels and appraisal mechanisms. Differentiation among academics should be allowed, depending on duties and performances. Such a passage could mean allow universities to define themselves their mission and levels of tuition fees, with an evident process of differentiation among them. The distance between this model and the actual one is clearly deep.

We can find interesting examples of reforms and consequences of such reforms across European countries. Austria adopted a governance structure which displays similarities to the American public universities, but did not include the tenure track. According to Pechar (2010), many talented

young academics leave the Austrian system because they are frustrated by the long phases of dependence and difficulties of promotion. He states that if Austrian policy makers want to prevent this brain drain, they should abolish the outdated system of different academic "estates" and instead create a uniform tenure career track system. Italian government would abolish 50% of seniority salary increases, linking the other 50% to positive assessment of activities. But with no say about who have to monitor this productivity. The German Exzellenzinitiative has distributed considerable extra-funding to ten top universities, selected by means of a competitive process. Experts underline the possible consequences in terms of differentiation among universities, not enough considered previously.

If these cases would teach us something, the lesson would probably be: introducing a reform means having studied the problems which have to be solved, also looking at international case studies, and taking into account wider effects and several consequences in the whole system. But it is also true that the traditional governance scheme should be modified, if traditional public systems would continue to compete in the international scenery.

#### References

- Berning E. (2004) 'Germany: Petrified structures and still little autonomy and flexibility', in J. Enders and E. De Weert (eds), *The international attractiveness of the academic workplace in Europe*, Frankfurt am Main: GEW, pp. 141-162.
- Enders J. and Musselin C. (2008) 'Back to the future? The academic professions in the 21<sup>st</sup> century', in *Higher Education to 2030 (Vol. 1): Demography*, OECD, Paris, pp. 125-150.
- Enders J. and de Weert E. (2009) 'Towards a T-shaped profession: academic work and career in the knowledge society', in J. Enders and E. De Weert (eds), *The changing face of academic life*, Issues in higher education, Palgrave Macmillan, pp 251-272.
- EUA (2005) Doctoral programmes for the European knowledge society, report on the EUA Doctoral programmes project 2004-2005, Brussels: EUA.
- Farnham D. (2009) 'Employment relations in Europe: a comparative and critical review', in J. Enders and E. De Weert (eds), *The changing face of academic life*, Issues in higher education, Palgrave Macmillan, pp 193-217.
- Fritzell A. (2004) 'Many Challenges Ahead for Sweden', in J. Enders and E. De Weert (eds), *The international attractiveness of the academic workplace in Europe*, Frankfurt am Main: GEW, pp. 375-395.
- Gornitzka A., Kogan M., Amaral A. (eds) (2007) 'Reform and change in higher education. Analysing policy implementation', Higher Education Dynamics, Springer, Dordrecht.
- Huisman J., de Weert E. and Bartelse J. (2002) 'Academic Careers from a European Perspective: The Declining Desirability of the Faculty Position', *The Journal of Higher Education*, 73(1): 141-160.
- Kehm B.M., Lanzendorf U. (2006) (eds) 'Reforming University Governance, Changing conditions for research in four European Countries', Incher-Kassel, Lemmens, Bonn.
- Kehm B. (2009) 'Doctoral education: pressure for change and modernisation', in J. Enders and E. De Weert (eds), *The changing face of academic life*, Issues in higher education, Palgrave Macmillan, pp 155-170
- Mora J.G. (2004) 'Academic Staff in Spanish Universities', in J. Enders and E. De Weert (eds), *The international attractiveness of the academic workplace in Europe*, Frankfurt am Main: GEW, pp. 357-374.
- Musselin C. (2004) 'The academic workplace in France: Up to now, it is not as bad... but!', in J. Enders and E. De Weert (eds), *The international attractiveness of the academic workplace in Europe*, Frankfurt am Main: GEW, pp. 123-140.
- Musselin C. (2007) 'The transformation of academic work: facts and analysis', Research & Occasional Paper Series: CSHE.4.07, University of California, Berkeley, http://cshe.berkeley.edu/.
- Paradeise C., Reale E., Bleiklie I., Ferlie E. (eds) (2009) *University governance. Western European comparative perspectives*, Higher Education Dynamics, Springer.

- Pechar H. (2004) 'The changing academic workplace in Austria: From civil servants to private employees', in J. Enders and E. De Weert (eds), *The international attractiveness of the academic workplace in Europe*, Frankfurt am Main: GEW, pp. 23-42.
- Pechar H. (2010) 'Why Austrian Universities Need a Tenure Track', Office of Science & Technology, Washington, http://www.ostina.org.
- Trombetti A.L. e Stanchi A. (2009) L'università italiana e l'Europa. Analisi dei sistemi di istruzione superiore in Italia, Francia, Germania, Regno Unito, Spagna, Svezia, Ungheria, Soveria Mannelli (CZ), Rubbettino Editore.