Academic Entrepreneurialism and Changing Governance in Universities. Evidence from Empirical Studies

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1 Introduction

In this paper, I focus on a phenomenon widely discussed in European higher education research and policy communities, emergent in various geographical locations across the continent: academic entrepreneurialism – especially with regard to university governance and management. Entrepreneurial universities seem to be increasingly important points of reference for international and European-level policy discussions about the future of higher education and I combine theoretical insights about "academic entrepreneurialism" with recent empirical evidence coming from 27 universities located in seven European countries.

However, the very term "entrepreneurial" (popularized in higher education research first by Clark (1998) is not of critical importance; in recent research literature on university management and governance, "entrepreneurial" universities can also be termed "successful universities" and "self-reliant universities" (Michael Shattock), "enterprise universities" (Simon Marginson and Mark Considine), "enterprising universities" (Gareth Williams), "innovative universities" (Burton Clark), "adaptive universities" (Barbara Sporn) or "responsive universities" (William G. Tierney; see Shattock 2003, 2006, 2009a, b; Marginson and Considine 2000; Williams 2004b; Sporn 1999; Tierney 1998). The authors from various perspectives refer to parallel change processes taking place in Europe and beyond, especially in the USA and Australia.

So the term itself does not matter much – although it seems to capture ever growing public and academic attention, at both national and European levels. What actually matters is rather the novel ways of functioning of selected educational institutions – which increasingly differ from the functioning of their neighboring

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traditional educational institutions in the same national systems. Different authors approach new phenomena in university organization through different theoretical conceptualizations. For instance, Barbara Sporn discusses the change process through the lenses of five factors enhancing adaptation at specialized European universities, leading in five directions: externally focused mission, differentiated structure, collegial management, institutional autonomy, and diversified funding (Sporn 2001: 27). Michael Shattock, in turn, discusses six key notions highlighting the characteristics that "successful" universities have to demonstrate: these are competitiveness, opportunism, income generation and cost reduction, relevance, excellence, and reputation (Shattock 2000: 96–103). Burton Clark in his pioneering study analyzed five ("entrepreneurial", "innovative", "enterprising") European universities transforming themselves over the period of 10–15 years, within a common conceptual framework.

In brief, for Clark in his *Creating Entrepreneurial Universities* (1998) and *Sustaining Change in Universities* (2004), the entrepreneurial universities studied show five elements which make them different from others and which form what he terms an "irreducible minimum": a strengthened steering core, an expanded developmental periphery, a diversified funding base, the stimulated academic heartland, and an integrated entrepreneurial culture (Clark 1998: 5). Clark's criteria are organizational characteristics rather than definitions, though. The five elements, or generalized pathways of university transformations, "rise up from the realities of particular institutions to highlight features shared across a set of universities, but at the same time they still allow for local variation. […] Significant change in universities has definite organizational footing" (Clark 1998: 128).

The last element of the entrepreneurial university within Clark's analytical framework is the "entrepreneurial culture". "Enterprising universities […] develop a work culture that embraces change" (Clark 1998: 7). Organizational culture, seen as the realm of ideas, beliefs, and asserted values, is the symbolic side of the material components featured in the first four elements. It may start as a (relatively simple) institutional idea which is later elaborated into a set of beliefs, and finally becomes the culture of the institution. However, not all cultures fit all institutions. For instance, as numerous studies show (e.g., Kwiek 2008a, 2009a about Central Europe), it is hard to develop research-based entrepreneurialism in non-research intensive universities, for many reasons, including those related to academic infrastructure and those related directly to academic culture. As Shattock (2009b: 41) notes,

> *In research-intensive universities, research is driven by organizational culture and by internal competition and is facilitated by external reputation. Research-intensive universities have a research infrastructure that speeds up research outcomes and attracts large numbers of doctoral students and research manpower that can be deployed to create research teams. … These advantages are not so likely to be available at non-research-intensive universities, thereby making it more difficult for individual academics to get research off the ground and to sustain it.*

Entrepreneurial culture is a crucial component for entrepreneurial transformations. Also in research on entrepreneurship in a broad sense – not only in the sense of "academic entrepreneurialism" – the role of the "enterprise culture" or the "posi-

tive entrepreneurial climate" is crucial, alongside two other important factors – favorable regulatory conditions and well-designed government programs. As the OECD (1998: 12–13) argues:

> *Entrepreneurship is the result of three dimensions working together: conducive framework conditions, well-designed government programmes and supportive cultural attitudes.* […] *Supportive cultural attitudes also complement framework conditions. For instance, other things being equal, an environment in which entrepreneurship is esteemed, and in which stigma does not attach to business failure resulting from reasonable risk-taking, will almost certainly be conducive to entrepreneurship.*

High levels of entrepreneurial activity are often ascribed to "cultural attributes": a view often held by analysts of entrepreneurship is that "culture plays a critical role in determining the level of entrepreneurship. It is also a common view among practitioners and analysts dealing with entrepreneurship that cultural factors are important" (OECD 1998: 50). What happens when institutional culture is not favorable to academic entrepreneurialism, or legal frameworks are too restrictive, or university traditions do not encourage entrepreneurialism? Mora and Vieira (2009: 98–99) highlight two responses on the part of universities which they term entrepreneurialism "through satellites" and entrepreneurialism "through individuals". The former refers to universities which do not change their core but create institutional satellites around it; the latter refers to entrepreneurialism at the level of individual academics and small research units they create.

The league of entrepreneurial universities in Europe seems still relatively small. In recent years, though, the term has been widely popularized in research and policy literature in higher education, with a bulk of books and papers referring often to Burton Clark (in the tradition of higher education research) and Henry Etzkowitz (in the tradition of innovation and science policy studies, see Etzkowitz 2001 and Etzkowitz et al. 2008). The papers on "entrepreneurial universities" and "academic entrepreneurship" (or "academic entrepreneurialism") are currently being published in top academic higher education journals (*Higher Education* or *Higher Education Quarterly*) and top science policy, public policy, and technology transfer journals (*Science and Public Policy* or *Research Policy*).

Entrepreneurial universities, functionally similar although variously termed in different research traditions and different national contexts, currently seem a useful reference point in discussions about reforming higher education systems; and especially in discussions about a possible shift in financing higher education in Europe towards more financial self-reliance and in EU-level and OECD-level discussions about how to secure sustainable development of public universities in increasingly competitive financial environment with powerful intersectoral competition for public funding between higher education and other state-funded public services (see Kwiek 2013). The two leading discourse-producing and data-collecting institutions in higher education – the European Commission and the OECD – had recently a joint initiative of *HEInnovate*: they produced a Web-based tool to measure the degree of entrepreneurialism of academic units and universities along seven major dimensions, from "leadership and governance" to "organizational capacity, people

and incentives" to "entrepreneurship development in teaching and learning", with workshops how to use the tool available all over Europe, (see www.heinnovate.eu).

The entrepreneurial university is often viewed as a response to changing environments: regional, national, and global ones. And, specifically, it has often been identified as the solution to perceived problems, with the perceived crisis of European higher education in the forefront. The idea of the entrepreneurial university can also be seen as the result of an emergence of more globalized higher education sector (see Kwiek 2009b) where a more uniform idea of what the university should do and how it should be organized is ever more present (see, for instance, Pinheiro and Stensaker (2014: 501) who argue, following new institutionalism in organizational studies and analyzing the Danish case of Aarhus University, that the old organization archetype of the research university may be being gradually replaced by a new organizational archetype of the entrepreneurial university, the entrepreneurial university representing "a considerable departure from the traditional ways in which university structures and activities are organized"). In a European context of the recent economic crisis, an idea of self-reliant universities seeking non-state income (Williams 1992, 2009; Shattock 2004) or that of non-traditional stakeholders as new financing sources (Mainardes et al. 2014) is especially appealing, apart from the changed management and governance structures towards more corporate ones. If a widely disseminated global idea of financing public services more from private sources and less from public ones becomes more grounded, following the two decades of its proliferation as part of the New Public Management ideology, so becomes the idea of a stronger market orientation of public universities in Europe.

The wind of change in university funding might not only be towards more cost-sharing (as in all public services) in teaching (Johnstone 2006; Johnstone and Marcucci 2010) and more business funding in research and development (Williams 2009) – but also towards new funding from new university stakeholders such as employers, local communities, former students or business associations (Mainardes et al. 2014). Even though no decreases in the levels of public funding for universities in most European OECD member countries have been reported so far (see OECD 2014), the image of public universities turning more towards the market (and less towards the public purse) seems quite appealing to European policymakers. The idea of entrepreneurial universities, and especially its component of achieving strong financial self-reliance and seeking non-state income, seems again to be "an idea for its time", after its first appreciation in Clark's early formulations by the European Commission already in the early 2000s (see how attractive it was for the European Commission in Shattock 2010).

On top of that, knowledge production in European universities is undergoing a significant reconfiguration (Whitley 2010; Geuna and Martin 2003). The combination of ever-increasing costs of academic research and the decreasing willingness and/or ability of European governments to finance academic research from the public purse (Aghion et al. 2008) leads to the growing emphasis in policy thinking on seeking new revenue sources (Mazza et al. 2008; Alexander and Ehrenberg 2003). The inter-sectoral national competition for tax-based public funding has been on the rise in the last two decades (Powell and Hendricks 2009; Salter and Martin 2001;

Kwiek 2006). At the same time, both the ability and the willingness of national governments to fund growing costs of academic research may be reduced in the future, for reasons as diverse as a shrinking tax base (Tanzi 2011), escalating costs of maintaining the traditional European welfare state model and the challenges of global economic integration and the passage to knowledge-based capitalism (Florida and Cohen 1999), as well as the overall social climate in which the promises of science may be thought not to be met (Martin and Etzkowitz 2000; Guston 2000; Ziman 1994).

In the context of possibly growing financial austerity and the inter-sectoral competition for public funding, the global model of the entrepreneurial university may potentially open new opportunities (as well as new risks). It entails stronger links between universities and the world of business or stronger "university-enterprise partnerships" (see Mora et al. 2012). They may take a variety of forms but they are able to influence the core institutional culture of academic institutions (Maassen and Olsen 2007). Universities do evolve, following transformations in their environments, do redefine their norms and values, and in the last two or three decades, depending on a national context, they have been following new, highly economic arguments for receiving increased public funding for research. The link between universities and "the promise of economic growth" has become ever closer (Geiger and Sá 2008: 186–210). The emergence of the entrepreneurial university entails a gradual redefinition of academic cultures, norms and values towards accepting ever closer relationships between universities and their economic surroundings (Braunerhjelm 2007).

Higher education institutions are increasingly functioning in the "entrepreneurial society" (Audretsch 2007), and universities, firms and governments "each take the role of the other" in triple helix interactions (Etzkowitz 2008: 1; see Fayolle and Redford 2014); as Etzkowitz (2002) argued, some universities (such as the MIT) are becoming generators of spin-off enterprises and some academics are becoming entrepreneurs. At the same time, the adaptation of universities to changing environments occurs at the lower than institutional level, as the challenge is decentralized: "each department within the university will face different types and combinations of stakeholders with different levels of uncertainty and complexity" (Gibb and Haskins 2014: 46). In entrepreneurial universities, the traditional missions of teaching and research are intertwined with the third mission (Pinheiro and Stensaker 2014) and being entrepreneurial institutions depends on individuals and innovative ways of doing things. However, while the ongoing changes in university organization in Europe can be interpreted (following Pinheiro and Stensaker 2014: 501) as part and parcel of the global passage from the archetype of the research university to that of the entrepreneurial university – with such changes as a move from loose-coupling to tight coupling in terms of work integration, from a collegial and democratic to an executive governance model, from dependence on public support and funding to dependence on third stream funding, from multiple, conflicting goals to coherent institutional profiles and unitary organizational identities, from teaching and research to teaching, research and the third mission and, finally, from Mode-1 knowledge production to Mode-2 knowledge production – national filters on global

scripts and global models are still at work (Gornitzka and Maassen 2011). Different countries have different "imperatives, cultures, traditions, frameworks and public policy influences which will influence their view of the entrepreneurial higher education institution" (HEInnovate 2014: 10).

In this context, I analyze academic entrepreneurialism as emerging from recent European comparative (theoretical and empirical) studies in this area. In Sect. 2, academic entrepreneurialism is linked to risk management at European universities and legal and institutional conditions that favor its formation are studied. Increased risk is associated with an increase in uncertainty currently experienced by the vast majority of European higher education systems. In Sect. 3, I study a clash of traditional academic values with managerial values in the functioning of academic institutions, and I address the issue of academic entrepreneurialism in the context of traditional academic collegiality, various ways of minimization of tensions in the management of educational institutions in Sect. 4. And in Sect. 5, I discuss complex relationships between academic entrepreneurialism and centralization and decentralization in universities. In Sect. 6, I study the location of academic entrepreneurialism in different parts of educational institutions. Finally, conclusions are given.

2 Academic Entrepreneurialism and Risk Management

2.1 Academic Entrepreneurialism and Revenue Generation

Let me empirically focus on particular academic institutions from seven European countries: on the changes observed there and the trends these changes may be implicating. The theoretical context for further analysis is "academic entrepreneurialism" as defined by Michael Shattock (2009b: 4):

> *Entrepreneurialism in a university setting is not simply about generating resources – although it is an important element – it is also about generating activities, which may have to be funded in innovative ways either in response to anticipated and / or particular market needs or driven by the energy and imagination of individualism, which cumulatively establish a distinctive institutional profile. Entrepreneurialism is a reflection both of institutional adaptiveness to a changing environment and of the capacity of universities to produce innovation through research and new ideas.*

Academic entrepreneurialism thus concerns the generation of activities that define and establish a clear institutional profile (although these activities may "need to be financed in an innovative way", and that profile can be born in response to the "identifiable and specific market needs", Shattock and Temple 2006, 1–2). Entrepreneurship was defined in the *OECD's Fostering Entrepreneurship*: *The OECD Jobs Strategy* in a very similar way: through the concepts of innovation, adaptability and risk (OECD 1998: 11). "Entrepreneurs are agents of change and growth in a market economy and they can act to accelerate the generation, dissemination and application of innovative ideas. … Entrepreneurs not only seek out and identify potentially profitable economic opportunities but are also willing to take

risks to see if their hunches are right". In many respects, this description can be almost directly applied to "entrepreneurial universities" analyzed in this chapter. It is worthwhile to confront emerging theories of academic entrepreneurialism with economic and sociological research on entrepreneurship treated as a field of research (see, for example, such volumes as Lundström and Stevenson, *Entrepreneurship Policy*: *Theory and Practice*, 2005, *Handbook of Entrepreneurship Research*, Alvarez, Agarwal and Sorenson 2005, Lowe and Marriott's *Enterprise*: *Entrepreneurship and Innovation. Concepts*, *Contexts and Commercialization*, 2006, and numerous works over the years by David Audretsch and Zoltan Acs, for instance their *Handbook of Entrepreneurship Research. An Interdisciplinary Survey and Introduction*, 2010. See also a line of research developed by Scott Shane within his "general theory of entrepreneurship", Shane 2004, 2005).

The enterprising university, as Gareth Williams (2003) argues, is a useful generic name describing a multitude of changes occurring in the mission, management and funding that a number of European universities have been undergoing for 20 years. Williams argues for the following relationships between entrepreneurialism (including: academic entrepreneurialism), innovation, risk and financial dimension of functioning of the academic institution:

> *Entrepreneurialism is fundamentally about innovation and risk taking in the anticipation of subsequent benefits. Neither the innovations and risks nor the expected benefits need necessarily be financial, but it is rare for them to have no economic dimension. Finance is a key indicator and an important driver of entrepreneurial activity.* (Williams 2009: 9)

When can academic entrepreneurialism emerge in educational institutions, what favors its emergence, formation, and institutionalization, and what, in turn, makes it institutionally hard to institutionalize? Empirical research on European universities indicates that, in general, where funding is provided at an adequate level, academic entrepreneurialism occurs rarely. Two parallel factors are conducive to academic entrepreneurialism: financial shortfalls and financial opportunities that institutions and individuals can benefit from on a competitive basis; slight underfunding of universities but not large underfunding from basic public sources.[1]

2.2 *Collegial, Bureaucratic, and Entrepreneurial Management Styles in Higher Education*

In general terms, Williams distinguishes between three basic university management structures and styles: collegial, bureaucratic and entrepreneurial (Williams 2004a: 84–92, accompanied by collegial, bureaucratic, and market forms of resource

[1] As Williams (2009: 9) summarized his conclusions from EUEREK-studied institutions in seven countries: "any organization with an assured income at a level that is adequate in relations to its needs and aspirations has little motivation to undertake risky innovations. … Financial stringency and financial opportunities have been the main drivers of entrepreneurial activity in the case study institutions".

allocation in universities, Williams 1992: 135-1–40). Collegial management means that the academic staff or their representatives take all important decisions through a process of consensual decision making – until a broad agreement about the way forward is reached. The processes of consultation are inevitably time-consuming, and decision-making process is slow. In hard times of financial austerity, though, it is almost impossible to reach agreement about where cuts should be made (Kwiek 2012). Bureaucratic management, in turn, means a form of organization in which everyone in a management hierarchy has freedom to act within prescribed limits – decisions are taken quickly but a small number of individuals at the apex make final decisions and there is a 'we/they'-feeling of alienation in an institution. Finally, entrepreneurial forms of management are most likely to be found when the institution needs to generate income or to enhance its reputation in a variety of different ways – in order to prosper or to survive. As a UK EUEREK ("European Universities for Entrepreneurship – Their Role in the Europe of Knowledge") national report highlights,

> *Financial stringency, competition, and market responses require quick decisions and flexible implementation of them. Traditional consensual and collegial management structures were no longer considered to be effective. In a competitive environment, management needs to be geared towards performance: universities have had to streamline their decision-making processes, be more alert to income earning possibilities and be prepared to take some risks. … The diversification of funding sources led to strengthening of financial management. Transparent models of internal resource allocation were introduced that made it clear which departments were generating financial surpluses for the university and which deficits.* (*EUEREK national reports: the UK*)

Universities or departments which are able to keep any income they earn are most likely to behave entrepreneurially. According to Williams, "the key to entrepreneurial management styles is an understanding and management of risk. Managers who take risks and are successful are rewarded. Failure and passivity are penalized" (Williams 2004a: 86–87). The UK system is substantially more entrepreneurial than any other system studied in Europe.

The role of strong core administrators – accompanied by strong strategic committees – is emphasized in many EUEREK (and other) case studies of European universities. Managing structures and decision-making processes at a small private university (University of Buckingham in the UK) are substantially different from those at bigger institutions (such as University of Warwick and University of Nottingham in the UK or Twente University in the Netherlands). For example, each of the three schools at Buckingham is treated as three business divisions, and each division is responsible for maximizing its financial return (derived largely from teaching through fees). The decision process at Buckingham is simplified: as its Director of Finance stresses:

> *Buckingham has three academic Schools, and we look at them as three business divisions. Each is responsible for making the maximum financial return and growing their business. The decision-making process at the University is quick and comprises five people: the VC* [*vice-chancellor*], *his deputy and the three Deans. We meet every week for two to three*

hours, so we do make good progress and good academic decisions in that sense. We get on very well. (*EUEREK case studies*: *University of Buckingham, the UK*)[2]

2.3 The Crucial Role of Risk-Taking

Academic entrepreneurialism involves risk-taking (Shattock 2003; Williams 2009). In most EUEREK case studies, institutions have to deal with high levels of risk on a daily basis; in private institutions, the major risk studied is a financial one, related to student numbers (and student fees). But as Shattock explains, in universities "risks may be academic or reputational as well as financial" (Shattock 2004: 19). The Polish case study of a medium-sized, vocationally-oriented private institution (WSHIG – Academy of Hotel Management in Poznan) explains:

WSHIG has been operating under a constant risk in recent years. The major risk has been financial – will the income from student fees cover the expenditures, especially debt installments to the banks. WSHIG has been investing heavily in its infrastructure. (*EUEREK case studies*: *WSHIG, Poland, 15–16*)

At Buckingham, another private institution from the 27 European institutions studied, what is meant by risk is exactly the financial risk:

The most important risk to the University is financial. With a small research portfolio, academic risk is restricted to the student take up of degree programmes. In that sense the University is operating on a knife edge of risk. (*EUEREK case studies*: *University of Buckingham, the UK, 10*)

Competition leads to financial uncertainties experienced not only by private institutions, as in the above cases. The volatility of research and student markets influences public institutions as well. As an academic from London School of Hygiene and Tropical Medicine (LSHTM) in London puts it,

The School is very much influenced by external factors (e.g. more than half of our income comes from research grants and contracts which are short-term) and short-term fluctuations in policies. They transform your fortunes and suddenly make an area of research attractive. As the school is very research-active, it is also very dependent on research funding. … If suddenly students don't turn up, the School's financial stability is threatened. We are very dependent on student fee income and on attracting overseas full-fee paying students, and sometimes a student influx from a certain corner of the world will dry up and you don't know quite why. (*EUEREK case studies*: *LSHTM, the UK, 18*)

There are also other forms of risks involved in the case of the EUEREK institutions: the competition in the areas of studies between public and private institutions (most often, tax-based public institutions suddenly opening the same study programs or modifying the existing ones – and running them without charging student fees); changing state regulations, and academic prestige (or reputation). The role of risk management in entrepreneurial universities is crucial: what is stressed is the

[2] References to the case studies in this paper will have the following format: EUEREK case studies: the name of the institution, the country, page number

monitoring of performance at individual academic levels by heads of departments (and at the same time by members of strategic management teams); risk management focuses also on outside grants. Structured risk management, with respect to both finances and reputation, is often used (see EUEREK case studies: LSHTM, the UK, 23).

3 Academic and Managerial Values

In the UK, changes in funding in several universities seem to point the direction of steps not only already taken by British institutions but also those (at least considered) to be taken in major Continental higher education systems. As Shattock noted, "the UK public universities were already operating in a marketized system and generating substantial non-core income in 1994, while they have mostly grown their non-core income considerably, the growth has done no more to keep pace with the growth of core income. All the other countries, starting later, have begun to move rapidly in the direction the UK followed before 1994" (Shattock 2009b: 5–6). The changes in funding and governance and management go often hand in hand, and the UK is a good example. Nottingham's management structure is similar to that of Warwick's: a strong management board is accompanied by strategic committees. Committees deal with specific issues, day to day management operations are done by the management board; the role of the university council is reduced but consultations are performed through committees. There is a balance between bottom-up initiatives – and top-down strategic guidance. The role of strategic committees at Nottingham University is explained below:

> *In 1995 a new streamlined committee and management structure was introduced. Day to day management issues at the University are the responsibility of the Management Board, which meets weekly. This group also initiates strategy. It currently comprises the Vice-Chancellor, the six Pro-Vice Chancellors, the Chief Financial Officer and the Registrar.* […] *The Management Board is a sub-committee of the Strategy and Planning Committee, a committee of the University Council, which is legally responsible for all the strategic decisions of the University.* (*EUEREK case studies*: *University of Nottingham, the UK, 3*)

In general terms, (Clark's) "strengthened steering core" means the operationalized reconciliation of "new managerial values" and "older academic values". If these values are not reconciled, institutions feel tensions which require top management's (sometimes considerable) attention. The idea (operationalized e.g. at Manchester University) that heads of schools and deans are members of a senior management team at the central level brings academic units and their representatives closer to the central management. The tensions can be smaller as it is the job of deans and heads of schools to keep explaining actions taken at the senior administrative level (in Polish public universities, deans of faculties – but not heads of departments, lower-level academic units – form often a body of all deans at a central level, cooperating closely on a weekly basis with the rectorate, university's main

management body). As in an example below (from Nottingham), it is not easy to reconcile academic and managerial values:

> *However, managing university staff is a notoriously difficult exercise, especially when at least some aspects of marketing and entrepreneurial activities seem to conflict with deeply held academic values. Effective power in a university is intrinsically and inevitably deeply embedded in academic staff of the institution, because only they have the expertise to make it work. The pro-vice-chancellors at Nottingham devote a considerable amount of time in proselytizing within the institution.* (*EUEREK case studies*: *The University of Nottingham, the UK, 8–9*)

4 Academic Entrepreneurialism and Collegiality

4.1 Tensions: The Center and Base Academic Units

The case studies of entrepreneurial universities in Europe show three methods to minimize tensions between the center and base academic units (the third being used by both the first and the second one as well). The first method is to pursue a flat management structure, eliminating intermediate units (faculties), to minimize barriers between the center and the base units (departments): examples come from the University of Warwick, the University of Joensuu (Finland) or the vast majority of Polish private institutions (the case study of WSHIG in Poznan provides a good example: there is the rector and his small team of collaborators, strategic management team – and departments, without the intermediary level of faculties). There are no deans there; departments and research centers have direct contact with the center which consists of the vice-chancellor's office and a number of central interlocked (through some overlapping participation) committees – a perfect example of a successful flat management structure in Europe is Warwick. The second method to minimize tensions is through keeping three-level arrangements, increasing authority and responsibility of existing multiple levels (the center – faculties – departments) – examples comes from Twente University in Enschede (the Netherlands) and the Chalmers University of Technology (Sweden). There is s traditional basic structure in place there: a small central office headed by the rector, president or vice-chancellor; faculties headed by deans; and departments chaired by their heads. The difference from traditional collegial structures is the stronger personal authority in line positions and, at the same time, greater collegial authority in academic committees. This is thus the combination of stronger individual authority of rectors, deans and heads, combined with stronger collegial authority of committees and higher levels of professionalization of the university central administration. New bodies comprising the two increased authorities are "university management groups" or "university management teams". There are dangers that too much power given to the departments may lead to the gradual disintegration of the university as a whole (the university as increasingly merely an aggregate of entrepreneurial units and entrepreneurial individual academics). And the third method to minimize

tensions is the increasing professionalization of administration all along the line, and particularly at the center, as shown in entrepreneurial universities in Europe which have flat structures as well as those which keep the traditional three-level arrangements.

The professionalization of administration is crucial especially for the financial aspects of functioning of the university. Multiple non-academic tasks are increasingly being performed by well-paid experts and specialists, rather than amateurs recruited from among former or current academics in higher education (which leads to the development of the "diversifying workforce" and "changing academic and professional identities", Gordon and Whitchurch 2010; Whitchurch 2010): these units include especially finances, student affairs, alumni and fundraising affairs. More and more previously unknown administrative posts are being created: in the Polish case, units for EU structural funds, units for EU research programs, units for technology transfer, and university foundations to promote the university brand etc., are either increasing their size or are newly created (as the EUEEK Poznan University case study shows).

4.2 Academic Autonomy and Academic Collegiality

Most case studies available, both from Europe and the USA, indicate that academic autonomy and academic collegiality in managing entrepreneurial universities is not lost in most successful cases (Shattock 2009b; Clark 1998, 2004). There are many cases of excessive centralization and examples of getting rid of (sometimes remnants of) academic collegiality. The best examples of this trend come from Australia and New Zealand (for instance, the Monash panoramic case study by Simon Marginson 2000; *The Enterprise University* case studies reported by Marginson and Considine 2000; and case studies reported by Janice Newson and Jan Currie in *Globalization and the University*, Newson and Currie 1998). Certainly, the movement in general, in the overwhelming majority of public and private sector institutions, not merely entrepreneurial ones, is away from powerful senates and general academic assemblies and towards strengthened rector's/vice-chancellor's offices at the central level. In a single word: from academic oligarchy models (and state-centered governance models) to more managerial governance models (on the changing attractiveness of the academic profession in Europe, see Kwiek 2009c, and on the complexity of the academic enterprise in Europe, see Kwiek 2012).

Governance structures at Twente University, an example of an entrepreneurial *and* decentralized university, are 'flat': "Within this new organisational structure, a decision-making process was introduced in which the deans and the scientific directors form the university management team, together with the Executive Board. While the Executive Board is ultimately responsible, the UMT [university management team] sets out the strategic direction of the university. The result of all the changes is a 'flat' organization, which can respond directly and collectively to

developments in the social-cultural, political or economic environment of the university" (Arnold et al. 2006: 38–39).

In small private institutions, both governance and management structures and procedures can be simplified to the extreme. These simplified structures are often reported in new private institutions in European post-communist countries which had often appeared out of nowhere, with no international investments or public subsidies involved, and which in their first years of operation had been constantly in danger of a financial collapse (WSHIG in Poznan being a perfect example). The institutional culture of financial survival, as reported in Spain, Russia, Moldova, and Poland, has been very strong in these private institutions. The consequences of this dominant institutional culture for management styles and managerial practices are significant: decisions are often taken by up to five people, there is almost no spirit of academic collegiality and all major (and sometimes most minor) decisions are actually taken by rectors/owners/founders of these institutions (often the same persons). These simplified management structures seem to work only in relatively small institutions, with no major research ambitions and those which are relatively non-competitive work places for the staff. There are virtually no research funds available to these institutions (either from private and public sources), and consequently most academic decisions are relatively non-controversial and teaching-related. As in a Polish case of WSHIG:

> *All key decisions concerning WSHIG are taken by the rector. There is no Senate as the Academy is too small – but key academic decisions are confirmed by WSHIG's Scientific Board, meeting 3–4 times a year*. […] *The management team is small and very effective*; *it comprises rector and the three vice-rectors*. […] *In a small-size academic institution like WSHIG it is still possible for its rector to make all major decisions*; *and to make many minor decisions as well.* (*EUEREK case studies*: *WSHIG*, *Poland*, *15*)

The administration of entrepreneurial institutions studied managed to fuse new managerial values with traditional academic values; in no successful cases reported, the attempts to eradicate the traditional academic values and to replace them with managerial ones succeeded (a different story are "corporate universities", private for-profit institutions, active largely in very selected areas of studies and research, including computing, accounting, business law etc., see Breneman et al. 2006; Kinser and Levy 2006). Somehow surprisingly, this sector has been neglected in major case studies of entrepreneurial universities available on a European scale.

What do the agents of change/agents of transformation do – those leaders located in the strengthened managerial core of entrepreneurial universities? They (Clark 1998: 137–138) seek other patrons in funding, work to diversify income and enlarge the pool of discretionary money available to an institution; seek out new infrastructure units (academic and administrative alike) that reach across old university boundaries, and reach the outside world of firms and companies. They are necessary for the task of cross-subsidizing various fields and different degree levels, taxing richer programs and aiding those less fortunate (through top-slicing the profits). So they seek to subsidize new activities and try to enhance old valuable programs. The steering core is responsible for keeping the right balance between rich and poor departments.

5 Academic Entrepreneurialism, Centralization, and Decentralization

5.1 Top-Slicing Procedures

It is important to highlight the role of non-monetary dimensions of entrepreneurialism, such as the prestige (or reputation) of an institution.[3] An entrepreneurial university, as Williams (2004a: 86–87) argues, will "reward departments and individual members of staff according to their success in bringing resources or reputation into the institution. Activities that are unable to make a net surplus, in either income or institutional reputation, are discontinued". Again in general terms, as the case studies of entrepreneurial universities show (also the Russian case studies discussed in Shattock's edited volume on entrepreneurialism of Russian universities, Shattock 2004), there is always some degree of collegiality and some degree of bureaucracy – but the shift in managerial styles reported in Europe in the last 20 years is away both from collegiality and from bureaucracy, and towards entrepreneurial styles of management (Paradeise et al. 2009). In practice, the shift means e.g. that the vice-chancellor has acquired increased managerial powers; that he is now supported by a small but very powerful strategic management group that determines the strategic directions and ensures links between the vice-chancellor's office and the university staff. Universities introduce clear resource allocation models, supervised by these teams, which allocate the income of the university among the university units and determine what percentage of the commercial income shall be treated as indirect costs and what are the "top-slicing" procedures. Usually, a formula basis is used – but its exact components are constantly under review (and under inter-faculty discussion).

Financial formulas based on top-slicing revenues from the richest university units always raise institutional controversies – and these units almost always feel mistreated in some way. However, the problem of the level of institutional overheads is a key problem for the integration of an institution as a whole: the lowest overheads are reported in most disintegrated institutions (for example in Europe, it is the case in most post-Yugoslav systems in which the major thrust of internationally-supported reform programs is to achieve a higher degree of institutional integration). In disintegrated institutions, the authority of rectors, that is, of the central management level, is minimal because, among other things, departments are almost completely financially independent from the university as a whole, and the financial means that the rector has at his disposal are minimal.

[3] Institutions are able to attract and keep their staff for a variety of reasons, not only mercantile ones (the same arguments hold for technology transfer activities in universities, see a study by Lam (2011) on three types of motivations of academic scientists to engage in research commercialization: "gold", "ribbon", and "puzzle"). As Florida and Cohen (1999: 606) noted along similar lines, "smart people do not necessarily respond to monetary incentives alone; they want to be around other smart people".

Resource allocation models used in entrepreneurial universities studied have strategic implications for the nature of an institution: institutions become more centralized or more decentralized. Through resource allocation, some strategic decisions are followed to the detriment of other strategic decisions (and some priorities in the selection of study and research areas are followed rather than others), as Jarzabkowski (2002: 5) stresses. Hard choices between faculties, departments, centers and study programs have to be made, and they are often being made using allocation models. An example of strategic decisions is the route followed by University of Warwick between 1992 and 1998: "Warwick has consistently pursued goal-oriented actions related to research excellence, income-generation, capital expansion and growth of the Science Faculty" (Jarzabkowski 2002: 12). Of course, it was a strategic decision to develop science at the cost of other departments and academic disciplines (strategically selected). With resource allocation models, there are winners and losers but the selection is made more clear to the academic community.

5.2 Centralized, Decentralized, Overpersonalized

Effective entrepreneurial universities are neither extremely centralized nor decentralized; they are administratively strong at the top, the middle, and the bottom. The decentralized entrepreneurial university is certainly University of Warwick; the centralized one, on the other hand, is Twente University in the Netherlands (both analyzed in Clark's and others' case studies in the last decade and a half). They introduce professionalized clusters of change-oriented administrators at all levels – development officers, technology-transfer experts, finance officials, and sophisticated staff managers – to help raise income and establish better internal cost control. Entrepreneurial universities develop a "new bureaucracy of change" as a key component of their (entrepreneurial) character, far different from old bureaucracies. As Clark explains (2003: 108):

> *Diversifying sources of income requires new tools of implementation in the form of new administrative offices staffed by specialised experts. Every new connection to an income source requires an office, or new part of one, to tend to the focused flow of business. Thus, they multiply.* […] *In transforming universities, the bureaucracy grows. But it is based on a change orientation very different from the old rule-enforcing, state-mandated bureaucracy that gets left behind. The old bureaucracy looked to the prevention of error; the new bureaucracy looks for the stimulation of initiative.*

It is important to avoid the appeal of overpersonalized leadership, though: the European case studies of entrepreneurial universities clearly indicate that strong and devoted leadership is not enough to introduce, or sustain for the future, structural changes. The CEO type of managers, authoritarian personalities at the top, in most cases do not endure. As Clark (2004: 85) phrased it, based on his 14 global case studies, "enterprising universities … are characterized by collegial entrepreneurialism". Also none of the case studies of successful entrepreneurial universities in

Europe reported the crucial role of charismatic leaders in the long run; in the medium run, they were able to start transformations towards entrepreneurialism. Consequently, the case studies available tend to indicate the crucial role of strong "university management teams" (or bodies with similar names and functions) in Europe – which interact with both governing bodies above and academic bodies (departments, schools etc.) below where the daily routine academic work, and daily transformations, occur. University management teams, or senior management teams, report to governance boards or boards of management. The pivotal role of these strong teams was stressed at e.g. the London School of Hygiene and Tropical Medicine (LSHTM) in the UK, Twente University in the Netherlands, and WSHIG in Poland. As new governance structures are described at the LSHTM below:

> *The SMT* [*senior management team*] *is the major strategic driver in the School, though it consults widely. It has a separate research SMT that brings a wider spread of participation from around the School. … Above the SMT there is a Board of Management, a lay body "which stops us from becoming too introverted and instead looks at changes that might be coming up externally". The Board is also required to be accountable to the HEFCE as the governing body of the institution. Below, there is a School Senate, a reformed body from a previous Academic Board of which all professors and readers were ex-officio members.* (*EUEREK case studies*: *LSHTM*, *the UK*, *22*)

Similar transformations in management structures are reported in numerous case studies of most successful institutions – academically, reputational, and financially. Senior management teams are reported to be the decision-making bodies, responsible to governing bodies. The list of senior management team members is getting longer and may include, apart of the vice-chancellor, pro-vice-chancellors, registrar etc. – also research finance officers or research contracts officers. See a reflection on recent changes in governance at LSHTM below:

> *There is no doubt that the operation of the SMT, meeting weekly, lies at the heart of the successful management of the School. It conforms precisely to Clark's "strengthened steering core" mechanism, which he saw as an essential ingredient to his case studies of entrepreneurial universities* (Clark 1998); *it contains academics and administrators, it consults downwards and recommends upwards, it brings together academic, financial and property strategy, and controls resource allocation. A feature of the changes in management described above has been the School's flexibility and pro-activeness in responding to a changing external environment, and at each stage strengthening the management expertise to ensure the School was able to respond effectively to external pressures.* (*EUEREK case studies*: *LSHTM*, *the UK*, *20*)

As reported at Twente University, the decentralization of the university and its entrepreneurialization may be reaching its limits, though. As its former rector (Frans van Vught) highlights, an entrepreneurial university can become too entrepreneurial and too decentralized: the discretionary funding base can become substantive enough to allow the base units to follow their own course of action, without reference to the overall institution. The base units can become self-supporting groups that can act as individual entrepreneurs. Thus the "entrepreneurial university" should not become a "university of entrepreneurs" (Clark 2004: 40).

The opposite direction – centralization – was taken in making the University of Warwick a major model of European academic entrepreneurialism: the core is

strong and centralized, and departments are basic units, there are no deans or faculties in between. It was at Warwick that Michael Shattock formulated an idea of "earned income" and then the long-term university policy was based on it as a response to hard times of budget cuts at the British universities in the Margaret Thatcher era. As Williams (1992: 38) noted while discussing "external income generation", "earned income can be a source of both profit and problem. Successful management of soft money means encouraging the establishment of systems and procedures that help to realize the profit and avoid the problems". An "Earned Income Group" at Warwick became the instrument for entrepreneurialism, working on adding new sources of university revenues (in short: companies should not give us money, we want to earn it; or as Shattock put it, quoted in Clark 1998: 16: "we had to find ways to generate funding from other sources; we did not see why people or companies would simply give us money so we decided to earn it"). The "earned income policy" worked in the following way: the group was "top-slicing" various incomes generated by various units, and it expected a "profit" from other units; professional managers were hired to run various academic units. Accounts were closely studied for current performance against set targets; successful performances and performers were praised. Several accounts e.g. student residences were expected to merely break-even but all the others had to operate under the dictate of earning income, according to the overall "earned income" university policy. The university committees were allocating sums to departments and were controlling faculty positions. Clark describes the committee system in operation at Warwick as follows:

> *Without extensive decentralization to faculty and departmental levels, Warwick has affected collegial steerage by means of these central committees in which senior officers, some lay members of the council, and faculty members share responsibilities. With faculty clearly involved, hard choices can be made in supporting new initiatives and realigning traditional allocations of resources. The core incorporates the academic heartland into the center. In this structure, a university can be entrepreneurial without the CEO (the chief executive officer), the vice-chancellor in this case, necessarily being entrepreneurial.* (Clark 1998: 23)

The innovative "flat management structure" introduced at Warwick has been very successful but it would not be possible to go forward towards more entrepreneurialism without a (somehow complementary) system of powerful centralized committees. Here is another description of the flat management structure, without reference to finances:

> *A strengthened administrative core … arguably is the most important of all the pathways taken to transform Warwick. In the balance between central control and departmental autonomy, this core is relatively centralized. … The institution prides itself on a "flat structure" of center and departments. Departments have remained the building blocks of the university and their chairs have a significant role. The chairs relate directly to the vice-chancellor and such senior administrative offices as the registrar and finance officer. They relate to a set of interrelated central committees, knitted together by overlapping membership, consisting of a small cadre of senior administrators together with a small group of professors elected by colleagues to play central roles. This web of interlocked central committees has become the heart of Warwick's capacity to steer itself.* (Clark 1998: 21)

How to achieve successful management? There are several ways described on the basis of case studies of entrepreneurial institutions. One method is to strengthen the role of vice-chancellors or principals; other ways include the creation of deputy vice-chancellors as full-time, permanent or fixed-term appointments. Additionally, directors of finance and human resources are now usually key members of the senior management team. The key corporate functions of planning, estates, finances, human resources, learning and information, corporate services are likely to be represented alongside with the academic functions of teaching and learning, research and enterprise (see Middlehurst 2004: 272–273).

Managing resource allocation in entrepreneurial universities studied is most often operationalized through committees: small and medium sized (see Sharma 2004: 112–113). An excellent example of financial management with respect to the earned income – a crucial component of the third stream of university income, perhaps most valuable to the university from the standpoint of its entrepreneurial character – is provided by the University of Warwick. The university, administered through the system of central committees, has a strong capacity to "top-slice" the profits and to "cross-subsidize" (for a variety of reasons) less financially successful departments which makes it possible to help those departments which cannot easily raise their money or to support new academic or administrative undertakings. As Shattock (2004: 225) explains the Warwick case: "The earned-income approach at Warwick is muscled by a strong capacity to 'top-slice and cross-subsidize'. This capacity is the backbone of the ability to come to the aid of departments (and specialties within them) that cannot readily raise money on their own and to back completely new ventures". The procedures related to the management of extra-university income require clarity, transparency and rationality – and they must be (re)negotiable. Otherwise it is difficult to keep the tendency of the most enterprising institutions to make full use of their abilities, which would not only be detrimental for them, but also, indirectly, for the whole university.[4]

As Shattock, a registrar at Warwick at the time, explained to European rectors in a 1994 conference, "some departments, e.g., the Business School and Engineering, are more obviously capable of generating external income than say Sociology or the History of Art but because, once the departmental share is separated off, the university's share [the top slice] is simply pooled with government funds and allocated on academic criteria, all departments benefit. It is accepted that it is to the university's advantage that those departments that can generate income should support those departments that are simply unable to do so [the cross-subsidy]'. Departments that regularly have monies taken away in this fashion are, of course, not always happy about it. The center then has to have the power and legitimacy to say 'it is accepted'

[4] Another, more fundamental, issue related to income generation was raised two decades ago (Williams 1992: 46–47): "dilemmas occur when staff are employed specifically for income generation as, for example, employees of academic companies. … If contract work is treated as being equivalent to the more traditional academic work this implies a recognition that the university as it has developed over the past century at least has irrevocably changed". And this is the point made by such different authors as Slaughter and Leslie 1997; Slaughter and Rhoades 2004; Marginson and Considine 2000; Marginson 2000, or, today almost historically, Newson and Buchbinder 1988.

because this is the way we build the university as a whole" (cited in Clark 1998: 24; see also Shattock on the "earned income" policy in Shattock 2004: 225–235).

6 Academic Entrepreneurialism Spread Across Institutions and the Teaching/Research-Focus

A frequent mistake made in attempts to transform universities to become more entrepreneurial is for a management team to proceed on its own, without involving faculty and their departments from the outset, Clark argues (2004). Some departments can and will move faster than others in understanding the benefits of entrepreneurial actions, their own as well as those located elsewhere in the university. Most social science and humanities departments may underestimate the role of new peripheral supporting units, and criticize their running costs (e.g. technology transfer units or contracts and grants offices). Generally, science and technology departments lead the change towards entrepreneurialism, enabled by sources of support directly available to them and prepared by their experience in administrating costly projects, labs, and equipment. Departments positioned to raise income should be encouraged to do so by other departments, and thereby to contribute to the welfare of the entire university as well as their own. It is then a second-order problem to work out who decides what share of the enhanced resources each gets. It is here that the whole complicated issue of "top-slicing" and "cross-subsidizing" appears, and may cause substantial tensions within an organization (Williams 1992). Both Clark's case studies and the EUEREK European case studies of entrepreneurial universities show that there is uneven spread of entrepreneurialism within institutions, with various speed of change, most often depending on external opportunities.

While in Western Europe and the USA, apparently the most enterprising parts of the traditional academia (Clark's "academic heartland") are in the science and technology areas, in most post-communist transition countries, as confirmed by case studies available, the most entrepreneurially-minded units, departments, institutions, as well as academics, are those in "soft" areas: economics, law and business, management, marketing, sociology, political sciences, and psychology. It is, however, academic entrepreneurialism which is specifically understood: it is related to (additional and separately paid) teaching rather than, as in the classic studies of academic entrepreneurialism, to research and third mission university activities (or, as in the U.S., to the "service to the society" mission, see Kwiek 2009a). These are the areas in which the largest part of private sector operates, and in which public sector runs its most enterprising study programs for fee-paying students (all Polish, Russian, and Moldavian EUEREK case studies confirm this tendency). In transition economies, "soft" disciplines, including especially economics and business and social sciences, are much more easily fundable through tuition fees in the nominally free public sector, and consequently are stronger agents of (teaching-related)

entrepreneurial changes in academic institutions than "hard" disciplines. (The picture has been gradually changing with the increase in competitive research funding: the bulk of "new" funding, often disbursed through newly created national research councils, leads to research-based academic entrepreneurialism in "hard" sciences; Poland with two new national grant-making councils is a good example in the region).

While the most important dimension of academic entrepreneurialism in Western European universities is innovative research (e.g., leading to the creation of new technologies, patents, spin-offs and spin-outs – most often through an additional, external funding), in Central Europe the public sector entrepreneurialism reminds the private sector entrepreneurialism: it is (usually quite innovative) training programs. The research dimension of academic entrepreneurialism in the region is marginal (and therefore marginal is its financial dimension, traditionally studied in academic entrepreneurialism analyses). The division between research-oriented academic entrepreneurialism in public universities (Western Europe) and teaching-oriented academic entrepreneurialism (new EU member countries) in the private and the public sectors is crucial for understanding the specificity of these two types of education systems. Simplifying, from the perspective of research-intensive universities in Western Europe, Central European research- and innovation-oriented academic entrepreneurialism still almost does not exist, while its academic entrepreneurialism focused on (paid) teaching has no counterpart there. Shattock (2009b) does not limit academic entrepreneurialism to research activities, although links it to innovation, as well as financial and reputational academic risks. He presents a long catalogue of entrepreneurial activities:

> *We should not see entrepreneurialism simply or even necessarily in relation to research, or in the exploitation of research findings. …* [*E*]*ntrepreneurialism involving innovation and academic and financial risk can be found in regional outreach programmes, in economic regeneration activities, and in distance learning ventures, as well as in investment in spin out companies, the investment of overseas campuses and the creation of holding companies to house different sets of income-generating activities. For many universities, entrepreneurialism can be found in various innovative forms of teaching either to new clientele at home or embodied in programmes for internationalization* (*themselves often involving both financial and reputational academic risks*). (Shattock 2009b: 4–5)

7 Conclusions

The case studies of academic entrepreneurialism in European universities confirm the pivotal role of changing governance at most entrepreneurially-oriented universities. They confirm what the European Commission (EC) highlighted in its communications about the role of transformations of management and governance structures in universities, although they do not confirm the need for immediate, profound and radical changes in their functioning. As the EC stressed, "European universities have enormous potential, much of which unfortunately goes untapped because of various rigidities and hindrances. Freeing up the substantial reservoir of

knowledge, talent, and energy requires *immediate*, *in-depth and coordinated change*: from the way in which systems are regulated and managed, to the ways in which universities are governed" (EC 2006: 1, emphasis in original).

The European systems are believed to need profound changes which have already been spotted in the most entrepreneurial (mostly UK) universities: more institutional accountability, funding more closely linked to academic performance (e.g. a balance between core, competitive, and performance-based funding; more competition-based funding in research and more output-related funding in teaching) and a wider use of market (or quasi-market) mechanisms in both teaching and research missions (Temple 2009). These changes require new governance and management systems, often already tested in selected European institutions. The determination of the EC to implement the "modernization agenda" of European universities can be confirmed by emphatic references to other sectors where reforms have been seen, with various degrees of success, as unavoidable: the steel industry and agriculture. The European Union is now believed to face "the imperative to modernize its 'knowledge industry' and in particular its universities" (EC 2005: 10).

Case studies of selected European institutions show that the modernization processes in question (and their emphasis on academic entrepreneurialism widely understood) have already been in progress in numerous institutions in different systems across Europe. Academic entrepreneurialism in Europe turns out to be not only a theoretical slogan, to be discussed in a similar theoretical manner, but the actual academic reality in many countries and in numerous universities. The theoretical (and ideological) "modernization agenda" of European universities consistently promoted by the Commission can be already combined with selected institutional transformations in selected European institutions currently taking place. The Commission' somewhat intuitive, and commonsense-based rather than research-based understanding of the changes taking place in European universities may be quite right about the future changes in the university sector (see Kwiek 2015a on the role of internationalization in European research and Kwiek 2015b, c on the role of top research performers, both from a cross-national comparative perspective of 11 European countries). But its most important insights about future changes (as in EC 2005, 2006) come from broader and more economic intuitions about the future environment of universities rather than from intuitions referring to the university sector itself. The convergence of intuitions about the possible evolution of universities in the future and about the possible evolution of their environments merely indicates, on a different plane, a progressive loss of exceptionality of the university as one of the most important institutions of the modern world. The university, increasingly, both in Europe and globally, is under powerful pressures to turn from being an "institution" to being an "organization" (Krücken and Meier 2006; Brunsson and Sahlin-Andersson 2000). This is a fundamental, qualitative change which may require higher education research to search its further analytical

tools in organizational studies. The combination of the two traditions can be highly fruitful for both areas of social inquiry – but it is a different story.[5]

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[5] The EUEREK case studies included 27 universities from 7 European countries (Spain, the United Kingdom, Finland, Sweden Poland, Moldova, and Russia) and they were prepared within the project "European Universities for Entrepreneurship – Their Role in the Europe of Knowledge" (2004–2007), coordinated by the Institute of Education, University of London (Michael Shattock, Gareth Williams, and Paul Temple). The 27 case study institutions were the following: Helsinki School of Economics, University of Lapland, and University of Tampere in Finland; Balti State University, Academy of Economic Studies of Moldova, Moldova State University and Trade Cooperative University of Moldova in Moldova; Adam Mickiewicz University in Poznan, Academy of Hotel Management and Catering Industry in Poznan, and Poznan University of Economics in Poland; Baikal Institute of Business and International Management of Irkutsk University, Higher School of Economics, Moscow, and Institute of Programming Systems of the Russian Academy of Sciences, University of Pereslavl in Russia; Cardenal Herrera University, Miguel Hernandez University, Technical University of Valencia, University of Alicante, University Jaume I of Castellon, and University of Valencia in Spain; Lund University, Jönköping University, Umea University, and Royal Institute of Technology in Sweden; London School of Hygiene and Tropical Medicine, University of Buckingham, University of Nottingham, and University of Plymouth in the United Kingdom. The authors of case studies were: Jenni Koivula for Finland, Petru Gaugash and Stefan Tiron for Moldova, Marek Kwiek for Poland, Stefan Filonovich for Russia, the Valencia CEGES team led by José-Ginés Mora for Spain, Bruce H. Lambert, Aljona Sandgren, and Gorel Stromquist for Sweden, and Gareth Williams, Michael Shattock, Rosa Becker and Paul Temple for the United Kingdom. I would like to express his gratitude to the whole international EUEREK research team; the responsibility for all limitations and mistakes of this paper rests entirely with him. This paper draws from Chapter 5 of my book *Knowledge Production in European Universities. States, Markets, and Academic Entrepreneurialism* (Frankfurt am Main and New York: Peter Lang, 2013).

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