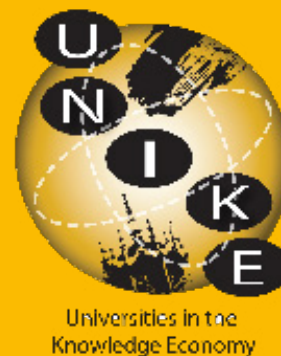


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EUROPEAN GOVERNANCE AND DOCTORAL EDUCATION: THE 'KNOWLEDGE WORKER' IN THE EU

edited by Corina Balaban and Susan Wright

CONTENTS

The UNIKE project	2
Introduction	3
The Europe of Knowledge and doctoral education	4
The flexible 'knowledge worker': figures of the PhD fellow in the EU	7
Referencens	9

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THE UNIKE PROJECT

The UNIKE project (an initial Training Network funded by EU FP7 – Marie Curie Actions) trains a networked group of critical researchers who are examining the changing roles of universities in the global knowledge economies of Europe and the Asia-Pacific Rim. The UNIKE project aims to generate potential research leaders who are equipped to develop doctoral education in their own institutions and internationally.

Many governments have embraced international agendas for university reform (put forward by the European Union, Organisation for Economic Cooperation and Development, World Economic Forum, UNESCO and the World Bank) on the understanding that the future lies in the development of an ideas-driven competitive global knowledge economy. By arguing that the two ways to compete successfully in this economy are through transfer of research findings into innovative products and through a higher education system that can attract international trade and produce a highly skilled population, universities are placed at the centre of strategies to prosper in this new economic regime. The European approach to competing in the global knowledge economy is to create a European Research Area (ERA), a European Higher Education Area (EHEA), and a Europe of Knowledge. Other kinds of strategies have formed in other world regions. These strategies have to be understood within a geographic shift in emerging centres of power from Europe to the Asia Pacific, and particularly East Asia.

The UNIKE project aims to generate new perspectives on the transformation of an institution central to policy projections of the future.

The project explores these issues through regular workshops, which are designed to cover different aspects of the debate. Each UNIKE workshop has a part dedicated to Aspects of Doctoral Education, covering the following topics:

- History of policy debates about doctoral education
- Secondments: Working for/researching in other organisations
- Academic freedom
- Governance narratives and the figure of the doctoral student
- Mobility and doctoral training
- Partners' own practices of doctoral education

From each of these events, a UNIKE Note on Doctoral Education will be generated. The current Note outlines the presentations and discussions that took place at the second UNIKE workshop, held at the University of Bristol on 24-26 February 2014. The main theme of the workshop was ranking and governance and included lectures, panel discussions and meetings with students to discuss their research proposals.

The main intended audience for this Note is composed of UNIKE fellows, full and associated partners and their networks, and other institutions and individuals who are interested in the subject.

INTRODUCTION

These Notes address changes in doctoral education associated with the idea of producing 'knowledge workers'. The first part, by António Magalhães and Amelia Veiga, investigates European policy drivers and governance instruments aiming to reconfigure doctoral education. These have been developed to implement the Bologna Process and the policies of international organisations such as the World Bank and the OECD. The second section, by Corina Balaban, considers how European policy developments have contributed to the emergence of new ideas about the PhD fellow, revolving around the notion of flexible 'knowledge worker'.

THE EUROPE OF KNOWLEDGE AND DOCTORAL EDUCATION

by António Magalhães, CIPES and University of Porto and Amelia Veiga, CIPES

At the root of the Bologna Process there is a major policy driver promoting the interaction between education and innovation; this is discursively associated in the EU policy rhetoric with the idea of the 'knowledge society'. In 1997, the European Commission put forward the notion of a Europe of Knowledge. Its Agenda for 2000 was "to make 'knowledge-based policies' (innovation, research, education, training) one of the four fundamental pillars of the EU's internal policies [and] to raise the level of knowledge and skills of all Europe's citizens in order to promote employment" (European Commission, 1997). In 2003, knowledge policy concerned the need to develop effective and closer cooperation between universities and industry 'gearing it more effectively towards innovation, new business start-ups and, more generally, the transfer and dissemination of knowledge' (European Commission, 2003). The European Commission made clear its commitment to promote (higher) education, research and innovation in the creation of a 'Europe of Knowledge' targeted by the Lisbon agenda (European Commission, 1997). In 2005, ministers stated that 'As higher education is situated at the crossroads of research, education and innovation, it is also the key to Europe's competitiveness' (Bergen communiqué, 2005). The Lisbon agenda assumed that 'modernisation [was] needed in order to face the challenges of globalisation and to develop the skills and capacity of the European workforce to be innovative' (European Commission 2007: 1); it further pointed out three areas of 'possible reform' in higher education: curriculum, governance and funding. This was expected to have major consequences for a variety of doctoral programmes; the third cycle was framed to promote 'the status, career prospects and funding for early stage researchers' as 'essential preconditions for meeting Europe's objectives of strengthening research capacity and improving the quality and competitiveness of European higher education' (London communiqué, 2009).

As Zgaga (2014) previously explained in this series of Notes, doctoral education first became a European priority at the Ministerial Meeting of the Bologna Process in Berlin (Berlin communiqué, 2003). In this communiqué, doctoral studies featured at the intersection of the European Higher Education Area (EHEA) and the European Research Area (ERA). Doctoral studies were framed in line with the priorities of the Lisbon Declaration and the narrative of the 'knowledge society'. Doctoral degrees were to be more closely linked with careers in Research and

Development, and joint doctorates were to be implemented more easily once obstacles to the mutual recognition of degrees across countries were removed. These adaptations responded to the curricular reforms triggered by the European Commission's recommendations (European Commission, 2007). This European discourse has since influenced university dynamics, and the concept and design of doctoral education. Guidance has been issued on the recruitment of researchers, as well as their employment and working conditions. This new approach to doctoral training, research and careers was designed to include 'wider employment-related skills, the structuring of training, the quality of supervision and the funding of doctoral programmes and candidates' (Jamieson and Naidoo, 2006: 3).

The European University Association (EUA) also considered that doctoral programmes were 'a crucial source of a new generation of researchers and serve[d] as the main bridge between the European Higher Education and Research Areas' (Reichert and Tauch, 2005: 7). While agreeing that doctoral programmes had become an important part of EU strategies and the Bologna Process, the EUA also recognised that 'the reforms of doctoral education [were] proceeding at varied paces' (Reichert and Tauch, 2005). The Lisbon agenda objectives, the EC research policies and the Bologna Process had impacts on the development of the doctorate (called the third cycle after the bachelor's and master's 'cycles'), either by inducing clear adaptive changes to the structure of the doctorate (e.g. Portugal) or by accelerating the reform processes (e.g. France, Germany). In fact, 'the organisation of doctoral programmes displays a large diversity not only across different countries in Europe, but also across universities within the same country and across faculties within the same university' (Reichert and Tauch, 2005: 12). Not only do countries have diverse legal frameworks and regulations, but individual universities also have a great deal of autonomy in managing their own doctoral programmes. This diversity of doctorates, however, is used in many cases, at least at discursive level, as an opportunity to develop European convergence efforts. Common and clear guidelines and regulations with regard to access, supervision and evaluation are expected to enhance the transparency and comparability of degrees, and thus create a more compatible and homogenous European space for doctoral education.

EU policy drivers and doctoral education

Since the Ministerial meeting in Bergen, the Bologna Process has been expected to enhance the relationship between higher education and research which, in turn, underpins 'higher education for the economic and cultural development of our societies and for social cohesion' (Bergen communiqué, 2005). The particular relationship being established between research and innovation is key to shaping the discourses that frame innovation as the main political driver for economic growth (European Commission, 2010). The importance assigned to innovation by the EU is evident in the 2020 strategy: 'EU public policies should focus on creating an environment that promotes innovation [...]. By improving conditions and access to finance for research and innovation in Europe, we can ensure that innovative ideas can be turned into products and services that create growth and jobs' (Bucharest communiqué, 2012). EU ministers of education recognised the need to improve 'cooperation between employers, students and higher education institutions, especially in the development of study programmes that help increase the innovation, entrepreneurial and research potential of graduates' (Bucharest communiqué, 2012).

The hegemony of 'innovation' in the EU discourse and its particular articulation alongside research and education configure the landscape of doctoral education. While consolidating the role of the European Commission as a supranational governing body, the European governance system, also contributes to the 'coordination of coordination' (Dale, 2007) by legitimising national discourses and decisions on higher education issues.

Since 2005, the European Commission's actions in the field of research have intensified (Keeling, 2006). The European Commission doubled the funds for research (7th Framework Programme), thus reaffirming its leading role in the field. This framework reinforced discourses about the shift from basic to applied research, emphasising the shift from Mode 1 to Mode 2 knowledge production (Gibbons et al. 1997). Furthermore, by focusing on transferability, innovation has increasingly blurred the distinction between research and its applicability. The underlying assumption is that research brings about 'add[ed] value to markets, governments and society' (European Commission, 2010). The emphasis shifts from research per se to research and innovation as mediated by knowledge transfer; under the framework of the Bologna Process, 'study programmes must reflect changing research priorities and emerging disciplines, and research should underpin teaching and learning' (Bucharest communiqué, 2012).

Innovation as a policy driver for doctoral education

The articulation of research with innovation is based on the presupposition that 'Europe has world-class researchers, entrepreneurs and companies' and that 'Europe's research and innovation performance needs to be boosted to master the

many challenges ahead and keep its place in a fast changing world' (European Commission, 2010). From the perspective of the European Commission, the four things that enable innovation are: human resources, open and excellent research systems, finance and support. Human resources development is linked to the 'importance of research and research training and the promotion of interdisciplinarity in maintaining and improving the quality of higher education and in enhancing the competitiveness of European higher education more generally' (Berlin communiqué, 2003). By developing a European Qualifications Framework for doctoral education/training and setting up a number of quality standards for doctoral degrees, with impact on curricular reforms, the EU has emphasised the kind of quality that can be measured..

The emphasis on innovation conveys a mandate for education systems to develop a particular mix of skills (European Commission 2010 and OECD Innovation Policy Platform). The report by the Expert Group on New Skills for New Jobs prepared for the European Commission in 2010 emphasises that education and training 'must be underpinned by transversal competences, especially digital and entrepreneurial competences, in order to both encourage initiative rather than simple reproduction of received knowledge and to better adapt to learners' and employers' needs' (European Commission 2010: 7). The Innovation Policy Platform (IPP), developed by the OECD and the World Bank, underlines the need 'to rebalance the emphasis between content knowledge and other skills such as creativity, communication, teamwork [...].' According to these organisations, the acquisition of innovation skills is based on (i) disciplines that are expected to equip students with skills that matter for innovation: technical skills, thinking skills, creativity, behavioural and social skills; (ii) pedagogies that must be active and based on problem-based learning, cooperative learning, meta-cognitive learning. They must sometimes be enhanced by information and communication technology and by interdisciplinary approaches focusing on design thinking to foster skills for innovation; (iii) new assessment instruments focusing on competences rather than knowledge; and (iv) international mobility of students, faculty, programmes and institutions, which is introduced as a means to foster skills for innovation in a globalised economy.

Governance reforms as policy drivers for doctoral education

Public administration and management modernisation reforms impinging on higher education governance reforms started in the mid-1980s. When looking at doctoral education one can see that they had different timelines, developments and outcomes. In some countries, doctoral education reforms began before the Bologna process (e.g. Norway) and even outside its sphere of influence (e.g. the UK). The governance reforms of the Bologna Process and the Europe of Knowledge acted as catalysts for reforms in doctoral education and accelerated the

change. The European instruments for political coordination that have been introduced at national levels have also led to the establishment of external quality assurance mechanisms and associated funding. Universities, in turn, have strategically used this governance re-scaling to pursue their own objectives and take advantage of the room for manoeuvre provided by this double (and in countries with strong political and administrative regions, triple) political framework.

The discourse about the 'Europe of Knowledge' got woven into national reforms which then further shaped doctoral education. For instance, in France, the Bologna Process has favoured the institutionalisation of research in universities. Prior to this, the bulk of research training and innovation in France had been done in smaller organisations like the CNRS, INRA, or INSERM – not in universities. Since the contractual policy initiated in 1983, universities have shown an increasing interest in promoting and establishing research structures inside universities. Doctoral schools contributed to the institutionalisation of research in universities and, since 2006, the Pacte Pour la Recherche has strengthened this trend. Furthermore, doctoral schools are now acknowledged as the locus of 'vocational experience in research' (Musselin & Paradeise, 2009: 43). As universities became more specialised, they also became more differentiated according to disciplines (Musselin & Paradeise 2009: 42). In Norway, knowledge policies have been most noticeable in the area of national research policy. The 'new' doctoral degrees (i.e. the structured doctoral programmes) have been evolving within the framework of the higher education reforms prior to the Quality Reform and the Bologna Process. The new organisation of doctoral programmes and the structuring of doctoral education in general could be seen as part of wider national efforts to make doctoral programmes more efficient and predictable (Bleiklie, 2009). Institutions now assume greater responsibility for the outcomes generated by graduate programmes, as 'the number of doctorates earned each year has become an important performance indicator, rewarded financially since 1990' (Bleiklie 2009:149). In turn, in the United Kingdom, doctoral education reforms developed without being directly involved in the European process (Kehm 2009). Since the 1990s a utilitarian view of research policy has been emerging, by promoting close connections between science/universities and industry. The political promotion of 'big science' was also crucial; this was done by promoting inter-institutional cooperation to create critical mass across clusters of universities and across particular subjects.

THE FLEXIBLE 'KNOWLEDGE WORKER': FIGURES OF THE PHD FELLOW IN THE EU

by Corina Balaban

The image usually prompted by the figure of the PhD fellow is that of a scholar immersed in intellectual pursuits, aspiring to build an academic career. This image is, however, very rapidly changing – at least, as Magalhães and Veiga have shown (above), in the policy discourse of documents issued by the European Commission (EC). There is a whole new array of figures emerging at a discursive level that challenge the figure of the so-called 'ivory tower' scholar and propose different ways of being an early stage researcher. In very broad terms, the dominant figure of the PhD fellow that is being conjured up is one that pushes the boundaries of what doctoral education is about. Traditionally, doctoral education has been about acquiring and developing specialised knowledge in a particular field, exploring new ways of thinking, and more generally being immersed in a world of ideas. More recently, however, it has been claimed that this figure of the researcher is no longer 'enough'. The new policy discourse around doctoral education proposes that PhD fellows should be 'more' than 'just' researchers; that they should also be equipped with a wider range of competencies that would enable them to be more flexible on the labour market.

The rationale behind this 'rethinking' of doctoral education (Nerad 2011; Borkowski 2006) is the significant increase in the number of doctorate degree holders throughout the last decade, which has made it impossible for them all to secure scarce academic jobs. The increase in the number of doctorates in the EU has been prompted by a desire to build a strong European 'knowledge economy', where highly skilled individuals – or 'knowledge workers', as they are also frequently called – would occupy positions in a variety of sectors and thus help create a more competitive economy. Accordingly, the main policy objective throughout the last few years has been to equip fellows with the kinds of skills 'demanded by the knowledge-based economy' (EC 2011), or, as one of the key stakeholders in higher education has put it – to 'tailor education to the evolving needs of the job market' (EUA 2014).

This re-thinking of doctoral education was envisioned as a shift from 'Mode 1' knowledge production (described as the 'apprenticeship' model) to 'Mode 2' knowledge production (Gibbons et al., 1994) – a more interdisciplinary, inter-sectoral way of doing research. 'Mode 2' envisions the participation of multiple actors in the knowledge creation process, and it is focused on producing innovation for society and the economy. It also endorses

the developments of skills like entrepreneurship, teamwork, leadership, management, interdisciplinary competencies, and others. In line with a 'Mode 2' approach, researchers would be able to adjust to a fast changing labour market, see the economic aspects of their research, collaborate with stakeholders and be able to disseminate complex research to a lay audience. In addition, doctoral fellows would still be expected to produce ground breaking research and complete their PhD within the normative time frame of three years.

There are several issues with these transformations that I have identified and discussed at length in my PhD thesis (Balaban, 2017). The first is of a more philosophical nature and concerns the purpose of a doctorate. In many ways, it could be argued that the main distinctive feature of the doctorate has been precisely the immersion that it provided – the chance to inhabit a world of ideas and engage in intellectual exploration; this used to be accessible only to a selected few: those with an exceptional mind and a predisposition for scholarly pursuits. However, following the massification of doctoral education in recent years, this core feature of the PhD has been neglected, with researchers increasingly being pressured to juggle breadth and depth.

This leads to a second issue, namely that it is very hard to be both an outstanding researcher and a broadly-trained generalist at the same time. Indeed, policy-makers have not asked researchers to be both – they have merely asked for a transition from 'Mode 1' researcher to 'Mode 2' researcher. However, as my study has shown (Balaban, 2017), replacing 'Mode 1' with 'Mode 2' is not really possible, since 'Mode 1' is the essence of producing research and hence constitutes the distinctive feature of the doctorate. In reality, what has happened is that 'Mode 2' has been added on to 'Mode 1', creating an overload for the PhD fellows, who are struggling to complete their doctorates within the normative time frame. Furthermore, as suggested above, the two approaches might even be incompatible in places, as they rely on very different assumptions about the roles of researchers and the kinds of people that are attracted to the doctorate.

In the policy sphere, the refiguring of what the PhD fellow should be has gradually moved from being a discursive construction to being actively promoted through funding initiatives such as the ITN (now ETN) – the EU's flagship model for doctoral education.

This funding is allocated to project proposals that adhere to the principles designed and supported by the EU. Thus, applications for ETNs not only have to be of high scientific value, but have to include a training programme organised around the acquisition of core skills considered necessary for future knowledge workers; but the extent to which fellows and supervisors accept and embrace the figures designed for them by the policy-makers is a matter for further discussion. In my PhD thesis (Balaban, 2017) I have shown that, far from embracing these figures, many PhD fellows negotiated and contested them, creating their own ideas about their roles as early stage researchers in society. Despite the increased focus on developing (generic) skills for industry, many of the ITN PhD fellows that I interviewed were mainly driven by the ability to engage in unconstrained intellectual exploration and immerse themselves deep in the field. As one fellow explained,

'I think that pursuing knowledge for knowledge's sake should be put back on the pedestal. [...] A more fundamental principle behind it is that... it just tells something about who we are as a species: are we all just running after economic profit or do we actually have some sort of higher goal? And, is that – is understanding the universe we live in... is that worth anything?' (Chris, ITN PhD fellow).

The figure created here by Chris is that of an intellectual living in a world of ideas, preoccupied with furthering knowledge, with understanding 'the universe' and 'who we are as a species'. It is the figure of a fellow dedicated to one's work; the kind of person who could spend hours thinking about a topic, trying to come up with new understandings of it. This profile is arguably not so compatible with the figure of the fellow imagined by the policy-makers, who is expected to be less immersed and more preoccupied with breadth rather than depth.

There have also been other studies on what motivates fellows to pursue a doctorate, with similar findings to mine. For instance, Leonard et al. (2005) found that most fellows who chose to enrol in a doctorate did so out of intrinsic motivations and love for their subject. In their study, fellows associated doctoral education with the following phrases: self-fulfilment, challenge, new ways of thinking, being reflective and analytic, knowing how to write, trust in one's abilities, self-discipline, emotional growth, making a contribution, and rich life experience (Leonard et al., 2005: 141). Leonard et al.'s (2005) findings were further strengthened by Mendoza's (2007: 84) study, who found that 'the most popular reason given by students for going into academia were academic freedom and autonomy [as well as] [...] the ability to do science for the sake of science, to inquire into broader aspects of science [and] to be involved with long-term projects'. All these seem to support the idea that individuals who choose to pursue doctoral studies are usually the kind of people who like to immerse themselves in what they do, out of pure interest and need for intellectual stimulation.

All in all, this piece has argued that, following recent trends and policy developments in doctoral education, novel figures are emerging imagining the PhD fellow as a flexible 'knowledge worker' able to function in a wider range of environments. These new ideas have been born as a result of the massification of doctoral education and the need for some fellows to pursue careers in non-academic sectors. The re-thinking of the doctorate, however, has also redesigned the purpose of doctoral education. Although on paper conceived as a shift from 'Mode 1' to 'Mode 2' of knowledge production, in practice, the doctorate is not likely to survive without 'Mode 1', which is the essence of research. This has led to an overload of the doctorate now aiming to simultaneously create researchers that comply to 'Mode 1' and 'Mode 2'. While this already seems very ambitious, there is also the question of whether this combination is in fact feasible. The kind of person who can do research is also most often the kind of person who is able – and willing – to immerse themselves in a subject and develop new lines of thinking. In contrast, the policy documents imagine very different kinds of people – flexible generalists who can do many different things but perhaps do not have a primary disposition for research. Will breadth comprise depth in the detriment of science and knowledge creation? The piece has suggested that PhD fellows are still contesting some of the figures emerging in policy documents, and imagine new ways of expressing who they are and what they envision for themselves as early stage researchers.

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