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3. REFORM OF DOCTORAL TRAINING IN EUROPE

A Silent Revolution?

3.1 INTRODUCTION

Only a few years ago, the general form of doctoral education in the different European countries was strongly criticised (Kivinen, Ahola & Kaipainen, 1999, Sadlak 2004). Critics claimed that doctoral education would lack efficiency, as it would not produce a sufficient number of PhD holders who would be well prepared for the labour market. The lack of transparency in admission, selection and quality assessment was also criticised (Kehm, 2007, p. 315).

Enders & de Weert (2004, p. 129ff) point to several issues that challenge the forms and conditions of doctoral education. The changing job markets for PhD holders, the changes in knowledge production, the internationalisation of higher education and the 'blurring boundaries' between different forms and areas of research generated stronger interest in, but also critique of doctoral education.

Until the late 1990s, critique and several reforms across Europe were mostly at the national level. We find a dramatic change at the beginning of the new millennium. Following the 2003 Berlin Communiqué by the Bologna Follow-Up Group and the Salzburg Principles on doctoral education by the European University Association (EUA), attempts to reform doctoral education clearly moved from the national to the European level. The 2003 Berlin Communiqué can be seen as a starting point for this shift in the discussion. It stated that doctoral studies should be regarded as a third cycle in the Bologna Process.¹ The Salzburg principles on doctoral education in 2005 formulated general guidelines for doctoral education which included the general nature of doctoral education, the institutional responsibilities for doctoral education, duration of doctoral studies, the status of doctoral students as early researchers or aspects of supervision and funding (EUA, 2007, p. 21ff).

Including doctoral studies as the third cycle of study also followed the idea of harmonisation of study conditions across Europe. Compared to the reforms of the first and second study cycle, the reform of the third cycle does not aim at a high degree of compatibility of doctoral education and harmonisation of doctoral degrees. The Salzburg Principles recommend retaining the diversity of doctoral education across Europe.

To date, one can still find many different forms of doctoral education and degrees across Europe (Kehm, 2007). But, one can also find convergence in some aspects: graduate and research schools have become a standard in European doctoral education and universities invest in additional courses for doctoral students.

Jørgenson (2010, p. 84) describes these recent changes as a silent revolution. According to the EUA-Report Trends 2010, the major change in doctoral education across Europe was that it has become an institutional effort of the university itself. The former individualised approach where training took place in a personal relationship between a single supervisor (professor) and his or her doctoral student has been replaced by a structural approach where it is embedded at the institutional level of the higher education institution. Kehm (2007) classifies this change as a second shift where responsibility has moved from the individual level of the master-apprenticeship-model to the institutional level of the university.¹ In 2010, 49% of the universities in the study had doctoral schools, 16% had graduate schools (offering trainings at Master and PhD-level), and 72% were offering additional training in key qualifications (Sursock & Smidt 2010, p. 43–44). In 2007, these figures were significantly smaller: only 49% of the universities were offering taught courses and 29% had doctoral schools (Crosier, Purser & Smidt, 2007, p. 28).

Besides the large number of European countries adopting more structured forms of doctoral education, most amazing about this change is the speed of the reforms. Before the implementation of the Salzburg Principles, the reform of doctoral education was stuck in most European countries. Changes often happened as muddling through or were only partially affecting doctoral education. Now, to implement a doctoral or research school is at the agenda of almost every European university. Given these strong changes, the question arises of which factors have driven this silent revolution and how to understand this rapid diffusion of a certain policy instrument across Europe. We will try to answer this question by analysing the short history of the third cycle in the Bologna Process. We will apply policy diffusion approaches that emphasise the special role of international organisations in distributing policy innovations.

3.2 THEORY

Nagel, Martens & Windzio (2010, p. 5) claim that, since 1990, education policy has become more internationalised: parallel problem pressure such as demographic changes and demands of the labour market have shifted educational policy from the national to the international level of policy making. Leuze, Martens & Rusconi (2007, p. 3) introduce the ‘growing activity of international organizations’ and the ‘increasing marketization in the field of education’ as further factors which have led to a stronger internationalisation of education policies.

This growing internationalisation is accompanied by two further changes: firstly, new arenas of governance and new actors determining education policies have emerged. Secondly, new theories/theoretical approaches have been applied in the analysis of education policy. In particular, approaches such as policy diffusion and the convergence theory, approaches that consider the impact of international organisations and world-polity approaches became popular in analysing these changes (Leuze, Martens & Rusconi, 2007; Nagel, Martens & Windzio, 2010).

The recent reform of doctoral education in Europe is an outstanding example of the ongoing internationalisation of higher education policy. To analyse the process underlying the silent revolution in European doctoral education, we will use

approaches of policy diffusion, in particular those that draw on international organisations as the most important drivers of policy innovation.

Tews (2002) as well as Knill (2005) show that diffusion approaches are interested in the processes that lead to the diffusion of policy innovations at a global or European level. They ask to what extent similar policies have been introduced in different countries. “Diffusion is generally defined as the socially mediated spread of policies across and within political systems, including communication and influence processes which operate both on and within populations of adopters.” (Knill 2005, p. 3) As a result of these studies, the diffusion process is mostly described as an adoption pattern which shows at what point in time certain policies have been introduced at the national level and what factors have caused their adoption. Busch & Jörgens (2005, p. 6) also refer to diffusion as the voluntary adoption of policy innovations which have been spread by information flows between national systems. The adoption patterns include the pace of adoption within the political systems under observation and the factors that lead to the adoption of policy innovations. Knill (2005, p. 4) also points out that diffusion studies are mostly interested in the ‘spatial, structural and socioeconomic reasons for particular adoption patterns’ in a population of countries. The individual reasons for a country adopting a certain policy are not analysed.

Besides these more structural reasons for policy adoption diffusion, approaches are also interested in the communication that has led to the spread of policy innovations (cf. Tews, 2002, p. 8ff). Different studies on the structure of communication have shown that certain characteristic of the communication network in the population of observed political systems can lead to different policy outcomes. Further, policy diffusion approaches point to the strong role of actors such as governmental, non-governmental or international organisations in the diffusion of policy innovations (Tews, 2002, p. 18ff). For educational policies, the role of OECD (Nagel, Martens & Windzio, 2010, Martens & Jakobi, 2010; Marcussen, 2001) and the Bologna Process (Balzer & Rusconi, 2007) have been analysed.

From this broad body of literature, two concepts seem to be most suitable to follow the recent reform of doctoral education in Europe: first, the concept of organisational fields as used by Jakobi to explain the diffusion of the idea of lifelong learning worldwide (Jakobi, 2007, 2009). Secondly, the approach by Leuze et al. (2008) that conceptualises different governance instruments that international organisations apply to force nation states to adopt policy innovations.

3.2.1 Organisational Fields

The concept of organisational fields was introduced by DiMaggio & Powell (1983) in organisational sociology. In their approach, the concept is used to describe the social structure in which organisations are embedded and that determines their actions, in particular the further rationalisation of organisations. In their approach, the organisational field is a key concept to explain the growing homogeneity of organisations (DiMaggio & Powell, 1983, p. 148). Organisational fields are used as an empirical concept rather than a theoretical construct. Whether organisations become

more alike because they are acting in an organisational field can only be answered empirically. DiMaggio and Powell introduce four criteria to assess if an organisational field has been institutionalised (DiMaggio & Powell, 1983, p. 148):

- an increase in the extent of interaction among organizations in the field;
- the emergence of sharply defined interorganizational structures of domination and patterns of coalition;
- an increase of the information load with which organizations in the field must contend;
- the development of a mutual awareness among participants in a set of organizations that they are involved in a common enterprise.

Jakobi defines the organisational field as a social structure in which nation states (or the respective national organisations and actors) are embedded. This structure (pre-) defines and regulates the actions of the social units involved. She argues that the policies of nation states or other organisations participating in this organisational field will become more homogeneous or isomorphic as they are exposed to ‘ideas of the wider environment that concern their identity, either by explicit or implicit rules’ (Jakobi, 2009, p. 2). The organisational field can be understood as a form of a quasi organisation that ‘embeds actors in a common enterprise that also provides a goal to achieve’ (Jakobi, 2007, p. 42). The common enterprise can be made up of different elements. Most important for the internationalisation of education policies is to put forward general ideas and concepts from which concrete policy innovations can be derived.

Jakobi shows in her analysis of the global diffusion of lifelong learning that the OECD played a pivotal role in the institutionalisation of an organisational field when the idea of lifelong learning was promoted (Jakobi, 2007, p. 45ff). Since the 1990s, the number of interactions among member states dealing with lifelong learning has increased, with several OECD meetings on that issue. The cooperation of OECD with other international actors such as the European Union or the World Bank led to a further spread of the concept and the institutionalisation of different interaction and coalition patterns. As social research also focused on lifelong learning, more information was made available. These developments contributed to the institutionalisation of an organisational field where the promotion of lifelong learning became a common enterprise for a number of states. As a result, lifelong learning and exchange on best practices about implementing it are on the policy agenda of most nation states.

Applying the concept of the organisational field can help to better understand the dynamics that underlie the promotion and diffusion of policies. Yet the concept does not provide insight into the social mechanisms that could have forced the policy change at the national level. Also, the role of international organisations in promoting the change is not clear.

3.2.2 Governance Instruments of International Organizations

The approach of Leuze et al. (2008) starts from a different angle. They are interested in how international organisations have contributed to policy diffusion and policy change at the national level.

While Jakobi is mostly interested in how ideas spread globally and how these organisational fields make it possible that ideas about education and educational policies became broadly accepted, the approach of Leuze et al. (2008) goes one step further. Their research covers the change in national educational policies under the influence of international organisations. A change of national educational policies is defined here as the result of the interplay of different governance instruments of the international organisation and the transformation capacities of the single nation state. These five instruments cover the following aspects (Table 1):

Table 1. Governance instruments of international organizations

<i>Governance instruments</i>	<i>Dominant function</i>
Discursive dissemination	Establishing ideas
Standard setting	Prescribing behaviour
Financial means	Transfer payment
Coordinative activities	Execute surveillance
Technical assistance	Support structures

Source: based on Leuze et al., 2008, p. 10.

- *Discursive dissemination* does not only refer to the dissemination and generation of ideas by an international organisation. It also refers to the capacity of that international organisation to put these ideas on the policy agenda, i.e. the ‘capacity of international organization to initiate and influence debates on policy issues’ (Leuze et al., 2008, p. 8).
- *Standard setting* can be characterised as the most powerful governance instrument of international organisations. It refers to the capacity of an international organisation to set rules for nation states. Either as hard or soft laws, these rules can force nation states to change their policy agenda. In the field of education, the formulation of evaluation standards and objectives for education policies can have a strong impact on change.
- *Financial means* can work in different ways; they can support the implementation of favourite policies in countries that lack sufficient financial means. For other countries, money allocated by international organisations may function as an additional incentive to implement a new policy.
- International organisations functioning as coordinators in a reform process can also use this to exert surveillance over its member states. Leuze et al. (2008, p. 9) define the *coordinative function* of an international organisation as its ‘capacity to organize and logistically influence procedures in order to observe and promote policy initiatives and decisions’ (Ibid., p. 9).
- Finally, *technical assistance* refers to the activities of international organisations to help or support a state in ‘moving towards an internationally outlined policy aim’ (Jakobi, 2009, p. 6).

While these governance instruments can be considered as the main drivers for policy change, a full analysis of policy diffusion should also integrate different

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aspects of the process in which the policy change occurs. Jakobi (2009a) describes policy change as a process where policy ideas are spread at the global level and trickle down as policy instruments to the domestic/national level. The success of ideas depends on whether it was possible to open a window of opportunity to boot a norm cascade (Finnemore & Sikkink, 1998) in which ideas and policy instruments are applied at the national level. To open this window of opportunity and to initiate some kind of tipping point, it is crucial that international organisations are able to link national problems, politics and policies. In other words, international organisations will probably more successful in implementing policies when they are able to establish an understandable link between general policy ideas and the problem and needs of countries at the domestic level.

We will use these concepts to better understand the rapid change in doctoral education in Europe. We will give a short history of the third cycle in the Bologna Process before analysing the policy diffusion that accompanies it.

3.3 A SHORT HISTORY OF THE THIRD CYCLE IN THE BOLOGNA PROCESS

The history of the third cycle in the Bologna Process can be understood as the history of two parallel but interwoven processes. On the one hand, we find that, after the 2003 Berlin Communiqué, the third cycle became an important part of the Bologna Process. Declarations announced doctoral education as an important area of concern, putting forward the need to reform it as a third cycle of the study in order to foster the competitiveness of the European Higher Education and Research Area. On the other hand we find concrete reform processes in doctoral education following the 2005 EUA Salzburg Principles.

The doctoral level was included as a third cycle of the Bologna Process in 2003. In their Berlin Communiqué, the Ministers announced that the Bologna Process should be extended to doctoral studies. The Communiqué also made clear that this cycle should differ significantly from the first and second study cycle. Doctoral studies were recognised as a central means of connecting the European Research Area (ERA) and the European Higher Education Area (EHEA), since its central focus is on research training and conducting original research. The Communiqué does not give detailed recommendations on doctoral education. It states its general nature and its importance in promoting the European knowledge society:

Conscious of the need to promote closer links between the EHEA and the ERA in a Europe of Knowledge, and of the importance of research as an integral part of higher education across Europe, Ministers consider it necessary to go beyond the present focus on two main cycles of higher education to include the doctoral level as the third cycle in the Bologna Process. They emphasize the importance of research and research training and the interdisciplinarity in maintaining and improving the quality of higher education and in enhancing the competitiveness of European higher education more generally. (Berlin Communiqué, 2003, p. 7)

The decision to include the third cycle in the Bologna Process took up the recommendations of the EUA 'Graz Convention' issued in spring 2003. As regards

degree structures and the employability of graduates, the Graz Convention emphasised the need to strengthen research as an integral part of higher education. One of its central recommendations was therefore to ‘recognize the doctoral level as the third tier/cycle in the Bologna Process’ (EUA Graz Convention 2003, p. 6).

This collaboration between the Ministerial Conference and the EUA was intensified after the 2003 Berlin Meeting when EUA was given the mandate to explore further the ‘key issues facing doctoral training’ (EUA, 2005, p. 6) and formulate basic recommendation for successful doctoral programmes in Europe. In order to obtain further insight into these issues, the EUA conducted a research project on doctoral programmes in Europe in 2004 and 2005 which addressed two goals: ‘to identify essential conditions for successful doctoral programmes in Europe; and to promote and encourage cooperation in the development of doctoral programmes at the European level’ (EUA, 2005, p. 6).

Data and experiences about doctoral programs gathered from 48 European universities participating in the project resulted in the Salzburg Ten Basic Principles on Doctoral Education. Results were then summarised in a report on good practices in doctoral education in Europe (EUA, 2005).

The Salzburg Principles were elaborated during an EUA seminar on doctoral education at the beginning of 2005. It was initiated by the Austrian and German Ministries of Education and the EUA. During the seminar, results of the EUA project were discussed and the ten Salzburg Principles were worked out. They¹ cover different aspects of doctoral education (EUA, 2005, p. 32):

- The core component of doctoral education is defined as research that should contribute to the ‘advancement of knowledge through original research’.
- Higher education institutions take over the responsibility for doctoral education.
- Across Europe doctoral education should remain diverse: different types of degrees should be preserved, but should come up to some quality standards.
- The status of doctoral candidates was redefined as ‘early stage researchers’, i.e. as professionals contributing to ‘the creation of new knowledge’.
- Supervision and assessment should be organized transparently, contracts should be introduced to steer the relationship between doctoral candidates, supervisors and institutions.
- Doctoral programs should achieve a critical mass of students, but also should be adjusted to the specific needs of the single context.
- The length of doctoral studies should be around three to four years.
- Doctoral programs should allow students to be mobile internationally, interdisciplinary or between sectors.
- Finally, doctoral programs should provide ‘appropriate and sustainable funding.’

The Bergen Communiqué issued at the Minister’s Conference in 2005 took up these recommendations and restated that doctoral education was central in linking the European Higher Education and the European Research Area. It describes the central characteristics of doctoral education:

The core component of doctoral education is the advancement of knowledge through original research. Considering the need for structured doctoral programmes and the need for transparent supervision and assessment, we note

that the normal workload of the third cycle in most countries would correspond to 3–4 years fulltime. We urge universities to ensure that their doctoral programmes promote interdisciplinary training and the development of transferable skills, thus meeting the needs of the wider employment market. We need to achieve an overall increase in the numbers of doctoral candidates taking up research careers within the EHEA. We consider the participants in third cycle programmes both as students and as early stage researchers. (Bergen Communiqué 2005, p. 4)

The Bergen Communiqué 2005 also specified the role of EUA in the reform process, as it officially mandated EUA (and further partners) to work on a report on the development of basic principles for doctoral programmes (Bergen Communiqué, 2005, p. 4).

For the period from 2005 to 2007, EUA initiated other projects and workshops to research doctoral education more deeply (EUA, 2007, p. 23). Several workshops were organized around different thematic clusters to share good practices in doctoral education with a wider academic audience (de Rosa, 2008, p. 7f). A survey of representatives of the Bologna Follow-Up Group was also undertaken to analyse the possibilities of funding doctoral studies (Westphal, 2008, p. 108).

These activities fed into a second report on doctoral education in Europe which also took stock of recent developments. The core of the analysis focused on the changing role of universities in doctoral education (EUA, 2007, pp. 9–13). The report also fed into the London Communiqué 2007 that welcomed the recent reforms and restated their importance in linking the EHEA and the ERA. More interestingly, the London Communiqué 2007 defined different responsibilities for steering the reform of doctoral education. Higher education institutions were invited ‘to reinforce their efforts to embed doctoral programmes in institutional strategies and policies, and to develop appropriate career paths and opportunities for doctoral candidates and early stage researchers.’ (London Communiqué, 2007, p. 5) Here, universities were clearly defined as the main actors in the reform process. Furthermore, the mandate of EUA was prolonged and its role was redefined as being a supporter for certain activity areas in the further reform process: ‘We invite EUA to continue to support the sharing of experience among HEIs on the range of innovative doctoral programmes that are emerging across Europe as well as on other crucial issues such as transparent access arrangements, supervision and assessment procedures, the development of transferable skills and ways of enhancing employability.’ (London Communiqué, 2007, p. 5)

EUA took up this mandate and built new organisational structures. The EUA Council for Doctoral Education (EUA-CDE) was funded in 2008. It is an integral part of EUA and higher education institutions can become members.¹ Its core objectives are related to the mandate that EUA received in 2007 (<http://www.eua.be/cde/about-euacde.aspx>):

- To enhance the quality of doctoral education in European universities by fostering debate and promoting the exchange and dissemination of good practice;
- To encourage and support the development of institutional policies and strategies as well as the introduction of effective leadership and management practices;

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- To improve the availability of data and information on doctoral education in European universities;
- To identify and monitor emerging trends in doctoral education inside and outside Europe;
- To act as a representative voice of European universities in the dialogue with other stakeholders on the issues of doctoral education;
- To contribute to strengthening the international dimension of doctoral programmes and research training through improved cooperation among its members and in particular by establishing dialogue with partner organisations in other world regions;
- To build and develop a strong link between education and research policies and strategies within Europe;
- To promote the doctorate and doctorate holders as careers upon which to build a knowledge-based society.

Following the London Communiqué of 2007, the EUA conducted several projects on doctoral education. These were research projects and projects that facilitated the exchange on best practices in doctoral education between the member countries. Research projects mostly focused on doctoral education and employment markets for PhD-holders outside academia. In summer 2008, the Council for Doctoral Education took up its work and has organised a number of seminars, workshops and conference on topics such as quality assurance, careers of researchers and structural doctoral programmes.

At the CDE's 2009 annual meeting, members agreed on a 2010 EUA-CDE agenda that was announced as the 'Salzburg II initiative'. Its goal was to validate, affirm and enrich the 2005 Salzburg Principles on doctoral education by consulting with the members of the CDE (EUA-CDE, 2010, p. 3). The results of these consultations were discussed at the 2010 CDE annual meeting and were only recently published as the Salzburg II recommendations (EUA-CDE, 2010). The recommendations deal with three different topics:

- The specific nature of doctoral studies,
- Factors and practices determining the success of doctoral programs (like recruitment, admission and status of doctoral students or the organization of supervision), and finally
- Main obstacles and problems that still go along with doctoral education.

The Salzburg II recommendations build on the experiences of higher education institutions in the last five years. The document also makes clear that doctoral education is regarded as an area that is under the full responsibility of universities and not left to policy making at the national level.

3.4 ANALYSING THE PROCESS

Looking briefly at the short history of the third cycle in the Bologna Process one can assume that a new field of international governance in higher education policy has emerged. According to DiMaggio and Powell's terminology, a number of European universities are now participating in a common enterprise. Officially, their common

goal is to reform doctoral education in order to strengthen the research capacities of the European knowledge society for global competition (Pechar, 2007). This goal could be considered rhetorical for some of the countries involved and this paper is not interested in how single countries are realising core components of the reform. From a research perspective, it is more interesting to analyse why the inclusion of the third cycle in the Bologna Process has triggered the emergence of a supranational field of governance in which international organisations and higher education institutions are the main actors in policy definition and diffusion.

Applying the two theoretical concepts described above, the organisational field and the governance instruments of international organisations give deeper insight into why the reforms could spread at high speed across Europe.

Including the third cycle in the Bologna Process did not lead to a standardisation of doctoral education in Europe. The diversity of doctoral education and degrees has been maintained. But we also find a strong convergence in European universities in the following aspects:

- The reform process has led to greater institutional responsibility for doctoral education. The former continental model in which doctoral education was mainly the responsibility of professors has been replaced by a model where the university takes over responsibility for doctoral training.
- This change is linked to several other reforms. Taking over institutional responsibility forced universities to institutionalise organizational structures that can embed doctoral students in the broader framework of the university. Most universities have now created research or graduate schools that disentangle doctoral training from the more narrow master apprenticeship model.
- Offering taught courses in key and transferable qualifications is another instrument that has been implemented by most universities. Hence, the employability of doctoral degree holders has become part of the universities' interest in the efficiency of their training.

Even though the reform did not lead to a standardised or homogenised doctoral degree, we find some convergence among European universities, as responsibility for doctoral education has shifted from the individual to the institutional level. With this shift, universities have become the main actors in doctoral education that take care of research training. Looking at the reform process in more detail, we can state that the concept of the organisational field proves to be an adequate tool to understand this convergence.

DiMaggio & Powell (1983, p. 148) claim that one must assess empirically whether organisations have institutionalised an organisational field. We can observe that, with the inclusion of the third cycle in the Bologna Process, the interaction among universities and other actors in this field of higher education policy has increased. The most important factor that has contributed to this is that EUA, with its project on doctoral programmes in Europe, has started an open working dialogue among universities (EUA 2005, p. 31). The workshops and seminars on different aspects of doctoral education also helped to increase the number of interactions between European universities. We also find evidence of the emergence of sharply defined interorganisational structures of domination and coalition. Again, EUA had a strong

impact in this respect. We first come across a strong support for the leading role of EUA in the reform project, as it was given the mandate to organise the process by the Minister's Meeting. Secondly, the internal differentiation of special organisational structures, the EUA-CDE, contributed to the crystallisation of interorganisational structures with members taking over a steering role in the process. Also, the different projects on doctoral education run by EUA were based on networks among universities and other stakeholders in higher education policy who cooperated on different topics. Unfortunately, available material does not indicate to what extent patterns of domination and coalition have emerged, but it becomes clear that a steering unit has been integrated into the process with the implementation of the CDE.

What becomes very obvious from the process is that the ongoing analyses of doctoral education, the workshops and seminars on the topic and the declarations and principles led to an enormous increase in information on doctoral education. The growing research interest in the different aspects of doctoral education has also contributed to this. The definition and exchange on best practices in workshops and seminars can be seen as a further information input.

This constant exchange among European universities in networks, workshops and seminars and the building of formal organisational structures made it possible for universities to develop a mutual awareness that the reform of doctoral education can be regarded as a common enterprise. Some scholars argue that it has led to growing competition among universities (Kehm, 2007), but we find that strong cooperation among universities as regards the definition of good practices has emerged. They value the mutual benefit of exchange on good practices. Their common interest in finding the most adequate instrument for doctoral education defines their mutual awareness of being involved in a common enterprise.

These findings support the idea that the inclusion of the third cycle in the Bologna Process has institutionalised an organizational field. It also becomes clear that EUA, as an international organisation, has played an important role in establishing this field and the dramatic speed of the reforms.

Assessing the process in an organisational field tells only part of the story. We can also see from the short history of the third cycle in the Bologna Process that EUA acquired its strong role by using certain governance instruments to steer and shape the process. Drawing on the categories of governance instruments provided by Leuze et al. (2008), we find that, except for financial means, all other governance instruments have been applied by EUA.

- Discursive dissemination: for the reform of doctoral education EUA chose a very special way to popularise ideas on doctoral education. Instead of generating ideas and issuing them top-down via domestic legislations, EUA chose a bottom-up approach. Using the method of open dialogue, it drew on the ideas and experiences of universities and experts in doctoral education. Jørgenson (2010) classifies this approach as a grass root movement that has mainly succeeded because of the contributions of the actors involved. We also observe that ideas about the reform of doctoral education were not clearly defined when EUA issued the Graz Convention. The notion that doctoral education should be included in the Bologna Process as a third cycle released the reform process.

- Once this first step was taken, EUA used the instrument of standard setting. Elaborated in a bottom-up process, ten principles of doctoral education were formulated and prominently issued at the Salzburg Conference. The integration of these Salzburg Principles in the Bergen Communiqué 2005 strongly supported that certain ideas on doctoral education were taken as a good practice to guide the reform. They also function as evaluation standards, as they were used to take stock of the changes that had taken place in the universities. Furthermore, the Ten Salzburg Principles fed in a manual on how to develop the doctorate in institutional settings. The EUA Handbook issued general guidelines on how reforms of doctoral education should be implemented (Chambaz, Biaudet & Collonge, n.d.).
- EUA also functions as a central coordinator for the reform process. It does not exert surveillance; as it does not promote and supervise decisions at university level. As it has received the mandate from the Ministers' Meeting in 2007 to further steer and accompany the reform process, it can be regarded as the main coordinating institution. Before 2007, EUA was mainly preparing the decision of the Ministers' Meeting by contributing input on the recent reforms in doctoral education.
- Finally, EUA used technical assistance to an extensive degree. The EUA Handbook can be understood as a central instrument to assist in the implementation of new aspects of doctoral education. These texts and the reports on best practices can be seen as strong instruments to define the content of graduate and research schools, as well as transferable skills. These publications helped to develop a common understanding of the new terminology around doctoral education.

Table 2 summarises the governance instruments used by EUA to push forward the reform of doctoral education in Europe. Summarising these findings, it becomes clear that by institutionalising an organisational field and using certain governance instruments, the reform of doctoral education has emerged as a reality in its own right. It was socially constructed by the universities participating in the process and successfully steered by EUA. The constant exchange on reforms, solutions and the implementation of a new terminology allowing discussions about doctoral education at an international level were factors that contributed to the wide diffusion of several elements of the reform. One could assume that this provided new solutions to universities and/or countries that were stuck before.

Looking at the reform process as a whole, we can state that EUA was able to open a window of opportunity and link problems, politics and policies. European countries that were stuck in their own national reform processes before (Kivinen, Ahola & Kaipainen, 1999) were provided with workable instruments, manuals and workshops to reform doctoral education. One central element for the success of the EUA initiative was its open working dialogue that gave higher education institutions and countries opportunities to learn about good practices without too much investment. Furthermore, the special treatment of doctoral education as a third cycle in the Bologna Process gave the reforms a special forum. A cooperation network and a common language on doctoral education were developed within this forum. These developments made doctoral education more tangible for the actors involved.

3.5 CONCLUSION: A NEW ARENA OF EDUCATIONAL GOVERNANCE?

Besides the dramatic speed of the reform of doctoral education, what is most interesting about it is that the reform happened in a new form or arena of governance. To understand the underlying process, it is irrelevant whether it can be understood as internationalisation, globalisation or Europeanisation. What is more important is the fact that responsibility for the reform was moved from the nation states and their governments to international organisations and higher education institutions. The process can be understood on the one hand as a consequence of foregoing reforms and as an ongoing Europeanisation of universities on the other. It can be understood as a consequence of the comprehensive reforms of higher education, as these gave universities the opportunity to gain a stronger degree of actorhood (Krücken & Meier, 2006). Universities now can autonomously decide their internationalisation strategies and actively compete with other universities (see also Kehm, 2007, Kupfer, 2008). Furthermore, most of the recent national reforms of higher education delegated responsibilities for several issues to higher education institutions (Kupfer, 2008).

Governments or Ministries of Education only played a minor role in the definition of certain concepts of the reform. It was mostly driven by the universities themselves and international organisations were structuring the reform process to a large extent.

Table 2. Governance Instruments of EUA

<i>Governance instruments</i>	<i>Dominant function</i>	<i>Concrete measures</i>
Discursive dissemination	Establishing ideas	Bottom-Up Approach Open dialogue with universities, democratic participation, grass root movement of universities Fine tuning and definition of ideas in the process
Standard setting	Prescribing behaviour	Berlin Communiqué Bergen Communiqué Salzburg Principles on Doctoral Education EUA Handbook – Developing the Doctorate
Coordinative activities	Execute surveillance	Stocktaking/reports on Doctoral Education/Doctoral Programmes in Europe Preparing decisions on doctoral education for Ministers' Meetings in the Bologna Process
Technical assistance	Support structures	Workshops and practitioners seminars on doctoral education Institutionalizing a special terminology on doctoral education. Manuals on implementing new forms of doctoral training in universities

Compared to other recent reforms in higher education and research, the steering of this reform has clearly moved from the state level to the level of the higher education institutions.

While Enders (2004) suggests that autonomous universities would produce a variety of internationalisation strategies across Europe, one could assume that the current reform of doctoral education leads to some standardisation across Europe. Kehm (2007) and Kupfer (2008) describe that the recent reforms that came along with the Bologna Process made it possible for higher education institutions to benchmark their performances and to compete. This did not lead to a higher variety but to a stronger standardisation of practices in doctoral training. To date, it is not clear whether this standardisation of practices of training will lead to a standardisation of doctoral degrees. But we can already see that EUA's mandate has facilitated the whole process, but has also led to a strong standardisation of practices in doctoral training. Whether this standardisation will also lead to a standardisation of doctoral degrees across Europe remains to be seen.

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