

Nordic Higher Education Systems in a Comparative Perspective - recent reforms and impacts

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Nordic Higher Education Systems in a Comparative Perspective - recent reforms and impacts

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1. Introduction

Higher education in the Nordic countries is in a state of transition. The changes are taking place as part of broader national reforms of the public sector but also as an effect of increased European and international influence. National attempts to modernize higher education reflect a growing European pressure on countries to undertake substantial reforms. Key driver in this process is the Bologna Process¹, together with the Lisbon Strategy² and attempts to address macro-economic challenges stemming from globalisation and demographic changes, which put new demands on higher education and research systems.

The transformation of higher education in the Nordic countries shows many similarities, partly because of their commitment to European objectives, partly as a result of close cooperation between the countries in the framework of the Nordic Council. The Nordic countries joined the Bologna Process from the beginning in 1999 and have been committed to the Lisbon Strategy. Norway is not a European Union (EU) member state but a European Economic Area Agreement country, implying that it closely follows the European agenda and implements similar reforms as the EU member states.

In efforts to modernize the higher education systems, governments committed to the European agenda but also driven by the ideology of New Public Management have implemented - in some cases even far-reaching reforms. The reforms are largely following the same pattern as in other European countries: changes in governance of institutions, increasing autonomy and strengthening of the management, growing involvement of external stakeholders, diversifying funding resources, increasing competitive funding, and introduction of new accountability and evaluation procedures.

Higher education in the Nordic countries is perceived as an instrument to achieve national

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objectives and is therefore subject to intense policy making. Economic growth and competitiveness, effectiveness and accountability are the buzzwords. New funding mechanisms have been introduced and there is a tendency to shift from centralised to decentralised systems, from direct government control to increased institutional autonomy.

Nordic higher education is mainly publicly funded and seen as a means for the state to address socio-economic challenges, globalization and the emerging knowledge-based society. These concepts are seen as a driving force for higher education policy and have in fact had a major impact as such. Despite similarities in history, cultural and political conditions, and common features, the Nordic higher education and research systems are not homogeneous, however.

In the following, the impacts of the restructuring having taken place are analysed. Here again the emphasis is placed on governance, organisation and funding of higher education. The article consists of four parts. Firstly, having as a point of departure the latest reforms and impacts on higher education systems, a discussion in a comparative perspective is offered. Secondly, an outline of changes in policy, governance, management and funding of higher education is presented. The third section elaborates the Nordic systems in the European framework. Finally, concluding remarks are offered in section 4.

2. Higher education policy in the Nordic countries - recent developments

2. 1. Changes in governance and management

Governance involves both the institutional and the system level structures and procedures of higher education institutions. Institutional governance refers to arrangements within the institutions such as decision making processes, lines of authority, financing, staffing etc. System governance refers to arrangements on the macro-level such as funding, laws and university acts, evaluations etc. The coordination of the institutional level and system level arrangements constitutes the governance of higher education (De Boer et al. 2009). The coordination has both formal and informal elements: "governance refers to the formal and informal exercise of authority under laws, policies and rules that articulate the rights and responsibilities of various actors, including the rules by which they interact"³.

Governance, defined as the structure and processes through which coordination in higher education is made, is one of the key characteristics of contemporary systems and thus in particular affected by changes in the complex environment surrounding higher education. In these processes, there are different components interacting; the policy makers, the leadership responsible for the

management, the faculty carrying out teaching and research, and the administration responsible for implementing policy and managerial decisions. As the core funding at the universities provided by the state is decreasing, while market pressures are increasing, the need for governance and management of institutions to ensure an effective and sustainable financial basis becomes of vital importance. New governance and management challenges are a result of both internal and external pressures. Internal pressure, following a rapid growth in the volume of higher education activity and research amount, is greater than ever. External pressure consists of decreasing state funding and a highly competitive environment with demands for rapid response to a broad range of stakeholders.

In many countries a development towards a greater autonomy of institutions in terms of governance and management has been observed, driven by reduced core funding, increasing market pressures and the new, broader role of institutions in the knowledge society. While in the past institutional relationships were directed toward the central government, it is obvious that nowadays multiple stakeholders articulate their interests and demands, which result in a complex decision-making and management process (De Boer 2000, OECD 2007). There is thus a change in the role of the state from “government to governance” and a delegation of responsibilities to other stakeholders due to financial constraints, ideological shift towards “more market” in higher education, implementation of New Public Management and influences from globalisation, internationalisation and Europeanisation that challenge the national boundaries of higher education. These are key drivers behind more effective governance and less government.

These trends, noticed in many European countries, are characteristics of higher education in the Nordic countries as well, though in varied degree. Below, the most recent reforms within governance and management are highlighted by country.

Denmark

In the new millennium, higher education and research policy in Denmark has developed into a top-down process. The objective has been to strengthen Denmark’s competitiveness worldwide. In comparison to European but also other Nordic countries, Denmark has implemented one of the most far-reaching reforms, surpassing that of Finland, which was one of the main inspiration sources for Danish higher education policy.

In 1999, the Danish Ministry of Science, Technology, and Innovation introduced development contracts⁴ as the institutional guidance of relations with the universities. University development contracts became the planning tools for the institutions, and the management and control tools for

the ministry in question. The first-generation university development contracts (2000 - 2004) focused on quality assurance, internationalization, IT-based learning and innovation. The second-generation contracts focused on the strengthening of links with society, national and international cooperation, quality assurance and benchmarking with universities abroad (Ministry of Science, Technology, and Innovation, Denmark 2000).

In 2003, the Danish Parliament approved a new university act that changed the legislation and funding conditions for universities⁵. The aim was to strengthen management and smoothen decision making and implementation of strategic targets by establishing self-governing institutions. Universities gained hence a greater degree of self-governance and institutional autonomy. Board members became appointed (instead of elected) with a majority representing external interests. Another important change was the appointment (rather than election, as previously) of institutional leaders (rectors, deans of faculties, and heads of departments) and the abolition of collegial bodies, which dramatically weakened the power of the faculty. Moreover, the act extended the role of universities, incorporating exchange of knowledge and competencies with society, including the private sector. As stated in the university act, strategic selection of research and education activities was another innovative element⁶.

In 2004, a reorganisation of the research councils was carried out with the aim to restructuring the councils into bodies corresponding to the inter-, multi-, and transdisciplinary nature of research⁷.

The new reforms must be seen in relation to an attempt to formulate an overall strategy for Denmark in the global economy. In 2006, the Government launched a globalisation strategy (chaired by the prime minister) in order to prepare Denmark for the future⁸. The strategy introduced extensive reforms of education and research and substantial changes in the framework conditions for growth and innovation in all areas of society. A large part of the proposals aimed at improving the quality of higher education and research through competition, improved governance and strengthening of the competitive edge of institutions. Benchmarking of institutions and evaluations of research have been introduced⁹. The strategy focuses on the efficiency of public spending on education and research, in particular by allocating more public funds in competition.

According to the strategy, new education programmes should increase enrolment within engineering, science, ICT and health. Institutions engaged in providing medium-cycle higher education were merged in few multi-disciplinary university colleges. At the same time, new profession-oriented and practice-oriented education programmes were developed. Finally, a key

target was set to make Denmark more attractive for highly qualified foreign students and researchers. The main characteristics of the most recent Danish higher education and research policy have thus been coordination, concentration and integration.

These processes were followed in 2008/9 by a comprehensive merging reform of higher education institutions and governmental institutions.

Evaluations of the implementation and impacts of the 2003 university act and 2008/9 mergers are currently carried out, based on a decision of the Danish Parliament and undertaken by an independent panel of international experts appointed by the Minister of Science, Technology and Innovation. The evaluation will provide information on whether the university act has led to better governance of universities, assess the degree of research freedom, the extend of free academic debate as well as employee and student influence, and consider the fulfilling of the purposes of the mergers.

Finland

Finland is the country in the Nordic region that has made the biggest leap the last decade, in socio-economic and technological terms. Finland has made large investments in research and development (the share of R&D is 3.5% of GDP, the second highest in Europe after Sweden) as a response to the economic crisis in the 1990s.

Key issues in Finnish higher education policy are quality, efficiency, equity and internationalization, which are seen as instruments to respond to challenges stemming from globalisation. Higher education is thus perceived as a means to enhance Finnish competitiveness. The Finnish government, in a memo from 2007¹⁰, presented a new policy for higher education with the overall ambition to develop the best innovation system in the world. In this effort and according to the memo, universities are seen as the most important element in public innovation systems. Current priorities comprise raising of the level of education and upgrading of the competencies among the work force, improving the efficiency of the education system, preventing exclusion among young people, and developing adult learning opportunities.

Education policy has been used to promote regional, social, and innovation and technology policies. The overall lines of Finnish education and science policy are in line with the Lisbon Strategy and the Development Plan for Education and Research 2003-2008 explicitly states that "Finland must be an active player in the European higher education and research area, and the opportunities available in the EU for developing the quality of higher education must be used to the

full”¹¹.

Finnish higher education policy emphasizes the increased need to further develop the higher education administration, especially evaluation and performance management in support of objective setting and the monitoring of objective achievement. The evaluation of universities and polytechnics is undertaken by a Higher Education Evaluation Council, attached to the Ministry of Education while the Academy of Finland is responsible for research evaluation.

Finland was the first Nordic country to introduce management by results in mid 1990s, in a binary higher education system comprised by universities and polytechnics. At the moment, the Finnish Universities Act is under revision and a new Act will be implemented in 2010. The aim is to extend the autonomy of universities by making them independent legal entities, as public corporations or as foundations under private law. At the same time, the universities’ management and decision making system will be reformed. The composition of the university boards will change in line with the strategic management responsibility. The composition of the boards will include the representation of the university community (professors, other personnel and students). In addition to these, half of the members will be persons external to the university community but appointed by the university collegiate. The board will appoint the Rector of the university.

Norway

The Norwegian Government in 2001 submitted a report to the Parliament on a reform of the quality of higher education¹². The report emphasized the fostering and further developing of the institutions in order to build the knowledge-based society. Universities and colleges were perceived as spearheading this process. They were expected to be in the forefront internationally as regards quality and participation in higher education.

According to the report, new challenges and expectations on the potential of educational institutions called for a critical approach to the content and structure of courses, and of competence policy. A range of structural measures was considered aimed at enhancing the ability and providing incentives to restructure studies, and more effectively transfer knowledge from universities and colleges to society. The report also emphasized the need for increased international institutional cooperation and student mobility.

In 2003 a reform was carried out that impacted on the direction of higher education in Norway. The Quality Reform¹³, inspired by the Bologna Process encompassed the following elements: Changes in governance structure at the institutional level, granting institutions more autonomy

concerning organisation and management issues; Increased institutional autonomy in deciding courses and study programmes; A new funding formula for the institutions based on accomplishment of results and institutional output in teaching and research; A new degree structure according to the Bologna Process, a new grading system and quality assurance system; New forms of student guidance, evaluation and assessment. The reform also involved the establishment of a quality assurance agency (NOKUT) and a centre for internationalisation (SIU). Finally, the reform for the first time put the issue of internationalisation to the forefront of the Norwegian higher education policy agenda (Gornitzka & Stensaker 2004).

The Quality Reform granted higher education institutions greater autonomy in managing and organising their activities. Another innovation was the proposal to continue to elect the Rectors among the faculty but increase the number of external members of the university boards and at the same time strengthen academic management at the levels of basic units and departments by appointing the heads of the institutes.

The reform was evaluated in 2006¹⁴. Some of the key dimensions and trends revealed through the evaluation are summarised below:

- Operational efficiency is on the rise as a result of an increase in the professional and strategic management of higher education institutions.
- Management is increasingly appointed and collegial bodies are replaced by appointed leaders as institutions decide themselves how to select their leaders
- Competition between higher education institutions has increased
- Development and implementation of internal systems of quality assurance have not revealed any substantial qualitative improvements at the institutional level
- No substantial changes have been noticed as regards internationalisation aspects
- The number of new study programmes and courses has increased substantially and universities have had a considerable growth in the number of applicants
- There seems to be positive developments regarding student performance as focus is on studies. However, giving priority to teaching and supervising students may result in less time devoted to research activities.

Recent years, Norwegian policy has focused more and more on globalization and the contribution of higher education and research to innovation and competitiveness.

Sweden

Higher education policy focuses on decentralisation of decision making, equity, serving the local

community, institutional efficiency and assessments of performance. In 2006, a Globalisation Council was established (chaired by the Minister for Higher Education and Research) with the aim to boost Sweden's competitiveness and attractiveness in the globalised world. Sweden allocates a relatively high proportion of its resources to research and development (the proportion of GDP spending on R&D is 3.8 percent, the highest in Europe).

Sweden was one of the first countries to introduce a unified national higher education system already in the 1970s by integrating all post-secondary education to a single system. With the expansion of the number of institutions in the 1990s, the diversity among the institutions increased dramatically, despite the fact that they were managed within a uniform framework. There is still an ongoing conflict between uniformity and diversity in some aspects of recent higher education policy (cf. Kim 2007, Kalpazidou Schmidt 2006, Fägerlind et al 2004).

In 1993, a reform of higher education was carried out with the aim to grant institutions greater autonomy in decision making over courses and admission of students. In accordance with the 1993 act, the responsibility for planning and decisions on content of educational study programmes was transferred to the institutions, while the responsibility for degrees including their scope and goals remained with the Government and the Parliament.

Recently, a new higher education structure came into effect as an adaptation to the Bologna Process with the aim, among others, to increase student mobility (one of four enrolled in Sweden is an international student), introduce three level programmes and a new credit system. Inspired by European and international developments, the Swedish National Agency for Higher Education in 2007 implemented a new quality assurance system. The most important change involves a shift of focus that places greater responsibility for quality assurance on the higher education institutions.

Further changes on higher education are expected. A Resource for Quality Inquiry Committee (2007) reported its conclusions in December 2008 and the Government is preparing a bill to be presented very soon. The report proposes changes on the state control of universities and a re-structuring of higher education institutions. The overall aim of these proposals is to increase the autonomy of institutions.

Each institution of higher education in Sweden is run by a governing board, which is composed by the chair, the vice-chancellor and a maximum of thirteen other members, three members representing the teachers and three representing the students. The university board has a majority of seven external members, appointed by the minister, who also appoints the chairman and the

vice-chancellor.

Part conclusions

From one perspective, it looks like the Nordic systems are converging. There are differences though as regards the autonomy of institutions in terms of governance, organization and management. In Norway, the Quality Reform has been implemented with the goal of improving quality, increasing institutional autonomy, and developing a more result-oriented higher education system. In Sweden, the focus has been on increased decentralization and institutional autonomy, continued quality improvement, interdisciplinarity, and cooperation with other societal actors. In Finland, where the higher education system is competitive and focused on outcome and innovation, a “management by results” principle was early adopted. Denmark has implemented the most radical reforms of the region in terms of governance and management of institutions as well as strategic selection of activities both in education and research. The impact of recent reforms has been increased institutional autonomy with a transfer of power from the faculty to other stakeholders and concentration of power at the top. With the introduction of strategic selection of research and education activities, the faculty lost control over the research agenda. At the same time as institutional autonomy was increased, academic autonomy was decreased as the decision making was concentrated in the hands of the appointed board members and the appointed leaders of institutions at all levels.

2. 2. Changes of higher education funding

Funding for research and higher education has undergone sweeping changes in some European countries. First of all, public research funding is increasingly allocated through competitive schemes. Secondly, funding is to a greater extent being allocated on the basis of performance-based indicators rather than on historical criteria. The main objective of implementing performance based funding is to improve quality, efficiency and accountability. This goal is high on the higher education agenda of the Nordic countries as well.

These changes are attempts of national governments to use financial incentives to more systematically control higher education institutions and improve efficiency and quality by creating direct links between the level of funding and the level of performance (Jongbloed & Vossensteyn 2001; Geuna & Martin 2003). A number of other trends have also been noticed with regards to financing, such as a shift from incremental to formula-based funding, from detailed grants to block grants and from direct (government) to indirect (agencies) financing. Other important issues are the increasing use of competitive funding, contract management, the introduction of budgeting systems, and regular reporting and evaluation (OECD 2007).

In the Nordic countries, there are similarities but also differences between the systems as regards allocation of public funds to higher education. In the following the funding systems are presented and discussed by country.

Denmark

Higher education is mainly publicly funded and divided into funding of education and funding of research. Denmark allocates funding on the basis of negotiations and output-based formulas. The public budgets education activities are exclusively based on output measures e.g. based on the number of credits obtained by students each year. This mechanism is known as the “taximeter” model. Research is funded through basic and external funds. Basic funding, based mainly on historical reasons and some competitive parameters, is distributed to universities as a lump sum. External funding is provided by the private sector and other sources.

According to a recent study (Kalpazidou Schmidt et al 2007), the strengths of the funding system are that the basic funding secures a stable budget and enables long-term strategic planning for the institutions. It also allows structural changes and flexibility in relation to changing socio-economic conditions as well as adaptability to new and emerging research areas. The weakness, on the other side, is that the rationale in the allocation of basic grants in relation to quality, production and achievement of university development contractual objectives is not straightforward. In addition, allocation of resources based on historical reasons makes it difficult for more recently established universities to build strong research environments and improve their competitiveness.

The intention of the Danish government is however to allocate basic grants to the universities on the basis of their ability to achieve stated objectives in development contracts signed between the institutions and the Ministry of Science, Technology and Innovation. Denmark is working on a scheme to introduce research funding based on the number and quality of research publications.

According to the earlier described Globalisation Strategy, the basic funding resources for universities should be allocated following an overall assessment of the actual results and objectives relating to the quality of research, teaching and knowledge dissemination. An independent accreditation body will be set up to evaluate higher education programmes according to international standards. Accreditation should be a precondition for public funding. A number of recommendations in the strategy focus on the university system. Those notably include:

- Basic funding of universities will be based on evaluations of the institutions' ability to reach objectives defined in a development contract. The quality of university research will be evaluated by international independent expert panels and a "quality barometer" for research based on internationally acknowledged indicators will be established.
- Universities are requested to develop concrete goals as regards the use of research and development in society.
- More funding will be allotted to strategic research of importance for the development of society.
- 50 percent of public R&D funding will be competitive by 2010 (as opposed to the current 33 percent).
- Public R&D investments will reach 1 percent of GDP by 2010, so as to achieve the 3 percent objective of the Lisbon strategy³ (2 percent is already provided by industry).

The strategy focuses in particular on strengthening research and development in accordance with the Lisbon Strategy. A reform of the public research system in order to improve the quality and efficiency of research spending is intended. The strategy states that to ensure that public funds are allocated to the best researchers and the best research environments greater competition in funding is necessary. A larger share of the funds should be targeted at large, long-term research projects and at strategic research projects. Close relations between companies and universities should contribute to a more rapid dissemination of public sector research results to the business sector.

The Danish Globalisation Strategy for higher education and research, is in line with the recommendation of the European Commission (2006) on the modernisation of the European universities: "Universities should be funded more for what they do than for what they are, by focusing funding on relevant outputs rather than on inputs, and by adapting funding to the diversity of institutional profiles. Universities should take greater responsibility for their own long-term financial sustainability, particularly for research: this implies pro-active diversification of their research funding portfolios through collaboration with enterprises (including in the form of cross-border consortia), foundations and other private sources. Each country should therefore strike the right balance between core, competitive and outcome-based funding (underpinned by robust quality assurance) for higher education and university-based research. Competitive funding should be based on institutional evaluation systems and on diversified performance indicators with clearly defined targets and indicators supported by international benchmarking for both inputs and economic and societal outputs."

A recent study on the effects of higher education funding systems among stakeholders (Kalpazidou Schmidt et al. 2007) reveals the advantages and disadvantages of increased use of competitive funding. Such funding might have *positive effects*: (i) raise quality when grants are long-term and are given to broad areas; (ii) strengthen collaboration with the aim to achieve additional funding; (iii) offer an alternative funding possibility for some research areas (inter-disciplinary research); and (iv) pay attention to relevance and applicability of results.

The *negative effects*, on the other side, are that competition grants (i) often are narrow in scope; (ii) do not promote originality, innovation and risk-taking, (iii) universities focus on areas where the funding is available rather than where they have high competence; (iv) increasing proportion of competitive funds limits long-term planning; and (v) not all scientific areas have the possibilities to attract such funds (notably the humanities).

The *risks* are that institutions focus on prioritised research areas, which could involve moving of strategic management of activities from higher education institutions to funding agencies both public and private. Faculty may focus on research outputs and production instead of originality and innovation.

The *opportunities*, on the other side, increased competition involves enhanced productivity, probable improvement of quality, attention to societal relevance of research and wider dissemination of results.

Finland

The Ministry of Education introduced already in 1994 the management-by-results system, according to which a proportion of the funding is based on performance assessments¹⁵. Finland combines three-year plan negotiations with formula funding, based on the number of Master and Doctoral degrees awarded. The higher education system consists of universities and polytechnics. The block grant funding formula for polytechnics includes the number of students enrolled and the number of graduates. The grant for universities includes the number of degrees (including post-graduate programmes).

The aim of Finnish higher education policy is to keep core funding of higher education stable at a high level. The recommendations of a high level advisory board, the Science and Technology Policy Council, are increasingly building the basis for basic funding of higher education, with emphasis on quality and societal impacts. In 2010, a new university act will introduce boards similar to the other Nordic countries.

As in the Danish system, focus in the Finnish system of higher education is on “value for money” and societal impact of activities. Improved quality and accountability are the objectives of the two performance based systems. Expectations are that accountability and quality will improve when linking funding to performance becomes a way of linking performance to policy, which can shift resources from less well-performing areas to areas where they can be used to greater effect (Geuna & Martin 2003). It is clear that the Finnish system was the first, already in the 1990s, to link funding to performance (cf. Kuoppala 2005). Another expectation of the reform of the Finnish system is that performance funding will create a competitive environment in higher education, both in terms of students and research outcome, with the effect to increase efficiency and quality.

Norway

A new funding model for higher education was introduced in 2002 in response to concerns about the cost effectiveness of higher education, and with the aim to increase research production, enhance the autonomy of institutions, stimulate student progression and develop new, attractive study programmes. As earlier described, Norway introduced a performance based funding system as part of the comprehensive reform of higher education, the Quality Reform. The model allocates funds for education based on credits and graduates, funds for research based on ranking of publications and basic funding.

The reform, inspired by the Bologna Process has clearly put pressure on the higher education institutions as to performance (cf. Frølich 2006a). It points out that a formula-based funding system increases the possibilities for rational planning for the institutions¹⁶. With this proposal, formal, explicit links are drawn between the funding system and research and higher education policies, as the funding model is seen as a means of enhancing the quality of research and education. Several other changes have been implemented as part of the reform such as a new degree system and new commitments to quality assurance in line with the Bologna Declaration (Frølich 2006b).

Sweden

Higher education is financed through state grants to the individual institutions based on the number of students and their achievements with varying amounts of remuneration for the various educational areas. However, the system is in a state of transition. The Resource for Quality Inquiry Committee proposed a model for the allocation of funding according to which direct appropriations will be distributed based on the academic community’s criteria of what is good education and research. The aim is to enhance quality of education by including a resource for a research link in the revenue for full-time equivalent students. The quality related funding will be

awarded based on the result of the evaluations of higher education institutions that is being undertaken every fourth year. This implies that over time, students' choices of higher education institution will impact on the distribution of resources between the institutions.

At the same time quality and activity in Swedish university research is proposed to be rewarded by subjecting half of the funding to competition and distributing it on the basis of quality and activity-based criteria. A model that contains evaluations and indicators (so-called metrics) will be introduced.

Part conclusions

In all Nordic countries, there are trends towards funding based on outputs, performance indicators, contracts and agreements, and competition. However, the trend is not characteristic only of the Nordic countries. An OECD (2007) study of funding systems in 10 countries reveals that the tendency is similar in almost all the countries included in the study.

Despite this development, there is limited empirical evidence on which funding model is the most productive and effective. A recent Expert Group Report¹⁷ from the European Commission reveals that many OECD countries have extended their competitive research funding with the aim of improving the effectiveness and efficiency of scientific research through increased focus on performance and competition. Nonetheless, the report concludes that there appears to be no fundamental superiority of any specific type of funding over another.

Furthermore, there is no empirical evidence on what the right mix or balance is between core funding allocated at institutional level - which allows the university to set its own priorities - versus risk-based competitive funding. While it is obvious that there are benefits to be derived from the move towards competitive funding, university research cannot be fully dependent on such funding. Development of institutions strategic activities regarding their profile and objectives can be restricted by an over-reliance on competitive funding. In order for institutions to maintain a degree of flexibility that enables them to make long-term strategic planning and successfully target competitive research funding, it is important that they retain a noteworthy part of core funding from the state (Kalpazidou Schmidt et al. 2007).

2. 3. Towards mergers, consortia and federations

The EU agenda but also the Bologna Process refer explicitly to the need to increase international competitiveness of European higher education, making competitiveness a driving force for the internationalization of higher education in the globalised world (cf. De Wit 2006; Van der Wende

1997). In the Nordic countries as well as in other European countries, a shift in paradigms - from political to economic - has been noticed, which is a shift from cooperation to competition, driven from the national governments (Van der Wende 2001). Governments have found a justification in the appeal from the Bologna Process to make higher education more competitive (Knight 2002). The debate on the globalization of in particular higher education, also in relation to internationalization, is therefore prolific and important in this context (Altbach 2006; Enders and Fulton 2002; Knight 2004; Scott 2000).

Discussing the European response, in particular the Bologna Process, to the challenges of globalization compared to internationalization, Van Vught et al. (2002, p. 117) observe that "in terms of both practice and perceptions, internationalization is closer to the well-established tradition of international cooperation and mobility and to the core academic values of quality and excellence, whereas globalization refers more to competition, pushing the concept of higher education as a tradable commodity and challenging the concept of higher education as a public good." However, according to de Wit (2006), it would be a simplification to perceive the Bologna Process only as a response to globalization. It is more accurate to see the process as a form of internationalization and Europanisation at a new level; a move from disconnected and specific actions to systematic efforts in order to achieve an integrated internationalization of higher education (cf. Teichler 1999).

Nordic governments move towards intensification of implementation of policies in order to improve the international standing of higher education, promote their role in the innovation system and thus boost the competitiveness of the state (Tirronen et al. 2007). Nordic higher education policies aim at consolidating established institutions by making them stronger, using different types of alliances and concentration of resources and capacities in order to enable them to compete in the international and globalised scene. In this process, there are different types of institutional associations used, from weak forms such as creating consortia, to stronger such as federations, affiliations and mergers¹⁸.

The recently merged higher education system in Denmark is a characteristic example of a top-down implemented merger process. The main aim was to strengthen education and research, sharpen the profile, and improve the competitive edge of Danish universities¹⁹. The mergers of the universities and between universities and government research institutes started in spring 2007 and were concluded almost within a year. University boards were asked to present suggestions on potential merging partners. This started a dynamic and hectic merging process, which resulted in a reduction of the number of universities from 12 to 8, incorporating the large majority of

governmental research institutes into the higher education system. Institutions with different tasks, objectives, activities and cultures were merged without any investigation or study. 22 Centres for Further Education were also merged into 8 Regional University Colleges (cf. Langberg et al 2009).

Finland is moving in the same direction, namely towards the establishment of consortia, federations and mergers. The intention is to improve efficiency, effectiveness and “the competitiveness, status, quality and research capacity of Finnish universities by various forms of structural development” (Tirronen et al. 2007). In this effort, the Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design have founded the Aalto University. Moreover, the University of Turku and the Turku School of Economics and Business Administration will create a consortium, aiming at full merger in the future. The University of Kuopio and the University of Joensuu will establish a federation, the University of Eastern Finland.

In Norway, the University of Tromsø is merging with Tromsø College.

More recently, the concept of elite institutions, similar to the newly established European Institute of Innovation and Technology²⁰, has been put on the higher education policy agenda of the Nordic countries.

2. 4. A Nordic model for higher education?

One could ask whether there is a Nordic model for higher education. There is no simple answer to this question as it depends on the point of view (national or international) and the specific topic or area in focus. Seen from an international perspective one can identify however a significant degree of common features, largely due to a close cooperation among the Nordic countries. The basis for this cooperation between Denmark, Finland, Iceland, Norway and Sweden, comprising the Nordic countries²¹, is the Helsinki Agreement signed in 1962. This agreement includes cooperation on cultural, educational and research issues. The Nordic Ministers of education meet in the framework of the Nordic Council of Ministers three times a year to discuss, among other issues, education and research, which is considered a main priority of Nordic cooperation. Also the contribution to EU policy making is being discussed within this forum.

The main characteristic of the Nordic models is that they are welfare states where higher education has been strongly influenced by the national agenda and national competences. Another key feature is participation rates in higher education, which are high in all Nordic countries. A third feature is that higher education is perceived as a public good and as such it is in principle tuition free with some exceptions. Education has traditionally been government controlled and funded by

the state or other public authorities. A fourth feature is the high level of spending on higher education and research compared to other European countries. A fifth characteristic - and important success factor in the implementation of recent reforms - is the political consensus on goals for education and science policy. These features imply that the impact of governmental policies and reforms are high seen in a comparative perspective.

Other common features gaining ground in all Nordic countries are decentralization efforts and increased institutional autonomy. Increased autonomy goes along with new modes of institutional governance. Stronger institutional governance has been implemented, with enlarged responsibility for leadership and new managerial models. What is more, Sweden and Finland have early taken steps to involving external stakeholders in higher education governance. Denmark and Norway have moved in the same direction. The introduction of external members on university governing boards has increased the number of stakeholders and, as a rule, weakened the authority of professors.

In addition, universities have been given a third responsibility besides education and research - namely that of contributing to regional and national socio-economic development. Universities have been criticised for remaining largely isolated from other sectors such as the industry, with limited knowledge-sharing and mobility. As a result many researchers but also graduates are short of the kind of entrepreneurship and skills that are required by the labour market. Again Sweden and Finland were first to implement policies that helped improving the relationship between higher education and other sectors. The third role - the societal role of higher education and research was early acknowledged by the Swedish and Finnish higher education policy makers, while Denmark followed in 2003 with the implementation of the new university act. Norway has joined this development at a later stage.

Meanwhile and as a rule, the governments have made universities more accountable for education and research outcomes and responsible for identifying more diversified funding sources. Demands on legitimating activities have increased as a consequence, meaning that issues such as strategic planning of research, efficiency and control at institutional level have been given more attention. Concepts such as accountability, evaluation and competitiveness have increasingly dominated the agenda. National agencies have been established to perform systematic evaluations in order to receive better counselling and enhance institutional development. In some cases, evaluations have been used for control and resource allocation (cf. Kalpazidou Schmidt 2006; Kalpazidou Schmidt et al. 2003).

International trends such as the transition of higher education to a mass system (widening access and expanding higher education, often without additional funding), and European trends, such as increased mobility, education and research cooperation across borders have significantly influenced higher education systems throughout the Nordic countries. The market for higher education has been opened up with new institutions (as a result of mergers, federations or consortia building), programmes (offered mainly in English) and competition (for resources, students etc.), as well as with new modes of cooperation (networking, strong participation in the European Framework Programmes for Research and Technological Development etc.).

Again, the implementation of the new structures has varied between the Nordic countries. Differences existed within a range of issues. There have been differences in pace, strength and time in the introduction of reforms. Governments have been setting the aims and formulating the strategies for higher education and research, but the intensity and pace of change has varied.

3. Nordic higher education systems in a European perspective

The two key drivers of the developments on higher education in Europe, the Bologna Process and the Lisbon Strategy have reshaped the landscape. The Bologna Process is a bottom-up initiative towards higher education system convergence in the European Higher Education Area. The Lisbon Strategy, on the other hand, is a top-down initiative aimed at transforming the European Union to the most dynamic and competitive knowledge-based economy in the world. The link between the Bologna Process and the Lisbon Agenda was established in Berlin in 2003, where the close relationship between European education and research was confirmed.

The European Commission (EC), the EU executive body is not a direct player in the Bologna Process but joined it later with a view to strengthen the competitiveness of European higher education in the European Research Area²². The EC is a player in the European policy on reforming the universities (mainly through EU programmes promoting mobility such as Erasmus, Tempus and Erasmus Mundus), but its competencies in the field of higher education policies are in fact limited.

One of the key initiatives of the EC is the proposal on the modernisation agenda for universities, a part of the Lisbon Strategy for Growth and Jobs. In its Communication from 2005 (SEC/2005/518), the European Commission emphasises the role of the universities in achieving the objectives of the re-launched Lisbon Strategy by modernizing universities to strengthen education, research and innovation. In a Communication to the Council and the European Parliament (2006) on the

modernisation of universities, the EC states: "In short, European universities are not currently in a position to achieve their potential in a number of important ways. As a result, they are behind in the increased international competition for talented academics and students, and miss out on fast changing research agendas and on generating the critical mass, excellence and flexibility necessary to succeed. These failures are compounded by a combination of excessive public control coupled with insufficient funding".

The reforms of the European universities are part not only of the Bologna Process and the Lisbon Strategy but also of the wider European agenda to address global challenges. Although the Bologna Process and the Lisbon Strategy were established in different ways (the first as an intergovernmental process, the second as a supranational initiative coming from the EU member states) they seem to converge in one integrated approach in an effort to meet the new challenges (cf. Marginson et al. 2008).

The European Council²³ states that "the challenges posed by globalisation require that the European Higher Education Area and the European Research Area be fully open to the world and that Europe's universities aim to become worldwide competitive players". Furthermore, the Council underlines "the need for consistency in the work towards the European Higher Education Area on the one hand, and the European Research Area on the other". Emphasis is given to "the need to accelerate reform of universities in order not only to stimulate progress across the whole higher education system but also to foster the emergence and strengthening of European higher education institutions which can demonstrate their excellence at international level". In its latest Communication to the European Council, the Commission²⁴ emphasizes the importance of investing in R&D, innovation and education to overcome the current economic crisis.

As a consequence of the above mentioned, comprehensive reforms are carried out in many European countries, driven by criticism that higher education and research policies have been too fragmented, and characterised by national over-regulation, limited autonomy and tendency to uniformity, lack of competition for students, researchers and resources, insufficient funding, low access rates and mobility, and underexploited research results.

A question now is how and to which degree the Bologna Process and the Lisbon Agenda have influenced the Nordic higher education policies. Developments within higher education and research policy in the Nordic countries have no doubt been strongly influenced by the European agenda and efforts to mobilise the universities to make their contribution to the European Higher Education Area and to the European Research Area. Nordic countries may even state that they are

in the forefront in relation to EU research policy making.

The achievements of the Bologna Process among the Nordic countries, although of a non-binding character, are considerable, and particularly as regards the convergence of degree structures and introduction of common frameworks for quality assurance and qualifications. In particular, the harmonisation of the structure of the degree pathways in some Nordic universities such as Norway and Denmark, that have had an initial five to six year programme leading to a candidates degree (Masters level), has been harmonised to a basic three year undergraduate degree plus a two year Masters level degree. Among the EU member states most committed to the Lisbon Strategy are the Nordic countries. Finland and Sweden spend already more than 3 percent of GDP on R&D, which is the target of the Lisbon Strategy, while Denmark is aiming to achieve the target in 2010. Norway participates fully in EU programmes in education, training and research.

It has to be pointed out that there are changes leading to convergence of the Nordic systems that occurred within the framework of the Bologna Process and the Lisbon Agenda but which are not necessarily caused by these processes. The Bologna and Lisbon have rather enabled, sustained and amplified developments already driven by strong forces and particular interests at the national level. Examples of such initiatives are the Finnish reforms implemented after the economic crisis in 1990s or the Danish reforms in the beginning of the century by the newly elected liberal-conservative government with the support of the Danish industry.

These examples show that policy makers and other stakeholders often support European and international policies and actions when they are consistent with national preferences and interests. International, European and regional perceptions have high legitimating weight and are rarely questioned when used to support national preferences. In this case both Bologna and Lisbon have provided support to developments already on the way. The reform process of the Danish higher education and research system was initiated as a response to pressures from national stakeholders and was legitimated through the Lisbon Agenda and Bologna Process. Similar processes were early initiated in Finland and Sweden as a response to economic crisis and in order to address internationalization and globalization challenges.

4. Conclusions

Organisation and governance of higher education institutions has changed in almost all the Nordic countries. A new distribution of power and responsibility has been set up. Although the trend is the same, namely stronger institutional governance and management by result, the pace of

the changes and the very intensity of the implementation differ between the countries. The common trend and reform patterns described in this article are not only characteristics of the Nordic countries but are part of the reform agenda for higher education in many EU member states (cf. Maaseen 2008).

The key objectives of reforms have been (i) enhancing institutional governance and management; (ii) increasing the institutional autonomy by decreasing the direct state control and government intervention and focusing on the strategic orientation of the systems of higher education; (iii) diversifying the funding basis of higher education institutions and systematically increasing the competitive funding (iv) strengthening the quality and attractiveness of higher education and developing appropriate quality assessment mechanisms.

Higher education systems in Denmark, Finland, Norway and Sweden are increasingly governed by results. The tendency clearly points to higher degree of institutional autonomy and self-regulation. As a consequence, the traditional notions of collegiality and consensus-based decision making has come under pressure, which has given way to a more professional leadership (managerialism), institutional governance and management with clear responsibilities and top-down steering.

Although the Nordic, like several other countries, consider higher education as an area of national competence (rather than a matter of supranational EU competence), they are aware of the need to adjust policies in order to strengthen institutions and secure continued competitiveness in the global economy. Nordic countries therefore actively take part in the decision making at European level and incorporate European recommendations, guidelines and discourses in order to address globalization. The countries traditionally show a great commitment to implementing EU decisions, legislations and agreements at national level, not only such as the binding Lisbon Strategy but also the non-binding Bologna Process recommendations. While the countries in many ways differ from each other, their higher education systems are obviously becoming less national and more European (cf. Fägerlind et al. 2004).

One of the strengths of the European agenda can prove to be the concern of governments, in times of economic recession, not to be left out of socio-economic developments in a globalized world. It could be argued that governments implement European higher education policies not only because they are committed to European goals but because these are considered by the governments as effective ways to respond to the challenges stemming from the pace of globalization (cf. Litjens 2005).

All Nordic countries have been affected by the processes of Europeanisation. The commitment and willingness to cooperate and implement European recommendations and policies however, does not mean that the aim is to achieve a complete homogenization of the higher education systems. The pace, the timing and the intensity of reforms have been decided in accordance to national needs and demands. This factor is one of the explanations for the observed differences in the systems, despite the well-established European and Nordic cooperation.

The importance of higher education and research to the state and society through its contribution to the economy put pressures on the institutions: The new modes of operation - with the market forces playing a key role, the increasing expectations on accountability (both in terms of efficient use of public funds and quality of outcomes), and the introduction of performance-based funding and evaluation procedures have become key elements in the rapidly changing higher education landscape. The institutions need to find a balance between their traditional role as providers of research and education, the market imposed pressures, and their societal role.

Changes in the environment of higher education institutions have affected the relationship between the institutions, the government and society at large. Those are in-depth changes and have had some major, even dramatic, effects on institutions, their activities and staff. With increased significance of higher education and research for the state, a decrease in the value of the faculty and a "proletarianisation" of the academic profession has likewise been noticed (Halsey 1992). Professors have partly lost the trust, which is characteristic of their profession and have to gain it again. Use of competition mechanisms have forced institutions and staff to engage "in competitive behaviour similar to the one prevailing in the marketplace for grants, contracts, and student selection and funding" (Torres et al. 2002). Professors have lost the agenda for research to appointed leaders and a growing number of other stakeholders.

It should be acknowledged that academic freedom has always been challenged for various reasons. The policies of strengthening accountability and competitiveness have somewhat weakened however the authority of academia and undermined the traditional elite. In this environment, trust in the self-steering capacities of professors to manage research and education has diminished trust in the era of competitiveness and accountability has to be earned, over and over again (cf. de Boer 2002, Enders 2006, Trow 1996).

On the other hand, the autonomy of institutions is growing. Higher education governance continues, and will continue to be influenced and controlled by the state, as it evidently does not appear to relieve its control over institutions (the basic funding still comes from the national

budgets), but transforms the way it executes its influence. There is hence a tension between increased autonomy and the determination of the national state to maintain control. Governments are not interested in withdrawing from their responsibility on higher education but try instead other means to control and steer the institutions. As the decentralisation reforms intensify, central government control is not longer implemented through normative legislation but through governance i.e. by appointed external representatives of university boards, funding mechanisms and evaluation systems.

Most universities in Europe are subject to influences similar to those that characterise Nordic higher education systems. It is therefore significant to continue to explore the drivers of higher education reforms, discuss the policies and instruments that are used and identify the intended as well as unintended effects that reform efforts may result in.

Notes

- 1 The Bologna Process was initiated in 1999, when twenty-nine European ministers in charge of higher education met in Bologna to lay the basis for establishing a European Higher Education Area by 2010 and promoting the European system of higher education worldwide. 10 years later, the total number of signatory countries in the Bologna Process is forty-five. In the Bologna Declaration, the ministers affirmed their intention to: (a) adopt comparable degrees; (b) implement a system with two main cycles (undergraduate/graduate); (c) establish a common system of credits, encourage mobility, and promote European cooperation in quality assurance; (f) promote European dimensions in higher education.
- 2 At the Lisbon and Barcelona European Councils in the beginning of the new century, the European Union committed its member states to become the most competitive and dynamic knowledge-based society and economy in the world by 2010, and to increase investment in research on average to 3 percent of GDP. The European Council, in March 2005 based on an evaluation of the progress made, re-launched the Lisbon Strategy and refocused priorities on growth and employment, placing the main emphasis on knowledge, innovation, and optimization of human capital.
- 3 Eurydice 2008:12
- 4 A university development contract is a letter of intent stating strategic areas in which the university intends to focus on.
- 5 Ministry of Science, Technology and Innovation, Denmark 2003.
- 6 In accordance with a decision of the Danish Parliament, there is at the moment an ongoing evaluation of the university act, which is expected to be finalised at the end of 2009.
- 7 The new research council structure is currently also under evaluation.
- 8 Danish Prime Minister's Office 2006
- 9 Evaluation of education is performed by the Evaluation Institute, which is an independent institution established in 1999 by an act of Parliament, formed under the auspices of the Ministry of Education.
- 10 Ministry of Education, Finland 2007
- 11 Ministry of Education, Finland 2004
- 12 Norwegian Government 2001

- 13 Ministry of Education and Research, Norway 2005
- 14 Michelsen et al 2006. See also Frølich et al. 2010.
- 15 Ministry of Education 2001
- 16 Ministry of Education and Research 2000
- 17 European Commission, Expert Group Report 2008
- 18 For a discussion of the different types see Harman 1986, Lang 2002
- 19 Ministry of Science, Technology and Innovation, Denmark 2006
- 20 The European Institute of Innovation and Technology was established with the aim to integrate the three sides of the "knowledge triangle" (higher education, research, business-innovation).
- 21 Iceland has a very small higher education system and is not discussed in this article
- 22 In 2000, the European Union decided to create the European Research Area (ERA), a unified area all across Europe, which should (i) Enable researchers to move and interact, benefit from world-class infrastructures and work with networks of research institutions; (ii) Share and use knowledge effectively for social, business and policy purposes; (iii) Optimise and open European, national and regional research programmes in order to support the best research throughout Europe and coordinate these programmes to address major challenges; (iv) Develop strong links with partners around the world so that Europe benefits from the worldwide progress of knowledge, contributes to global development and takes a leading role in international initiatives to solve global issues.
- 23 European Council, 23 November 2007, proceedings.
- 24 A European Economic Recovery plan, Lisbon strategy for growth and jobs 2009

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