Chapter 6
Norway: From Tortoise to Eager Beaver?

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6.1 Introduction: National Policy Tradition

Previous analyses of Norwegian higher education reforms and their effects on the higher education system have depicted Norway as a slow reformer characterised by localism and incrementalism that makes planned reforms difficult (Bleiklie, 2004; Bleiklie et al., 2000; Kogan et al., 2006). However, with the latest reform, implemented from 2003 on, there are clear signs that policy change is picking up speed and that Norway as a higher education policy maker is in the process of transforming itself into an eager and rapid implementer of comprehensive reforms. It is still early to make a final judgement because of the comprehensiveness and complexity of the latest reform. There are at least three perspectives that may help formulate expectations and possible explanations of the pace and direction of current policies. The first is the institutionalist interpretation according to which policy change tends to be path dependent and slow since new reforms, particularly those that aim at radical changes, need time to be adapted to existing norms, habits and conceptions about appropriateness. This expectation is strengthened when we are looking at the challenges facing reforms aiming at integrating and standardizing a diversified higher education system. Theoretically this institutionalist perspective of policy change tends to portray it as a gradual, incremental affair that may become abrupt only if circumstances create a situation in which existing policies are considered inadequate to sustain institutionalized systems of values, norms and practices in a given policy field (Baumgartner and Jones, 1993; March et al., 1989). The alternative is an actor's perspective where policies are regarded as the product of the actions of major players such as policy makers and affected groups where policies are understood in terms of the preferences of the actors involved in the decision process (Ostrom, 1990; Scharpf, 1997; Tsebelis, 1999). In such a case, the degree

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and pace of change depend on the aims of the actors and may be explained either by changing values and aims among actors or changes in the constellation of actors involved. A third perspective is based on the functionalist assumption that structural change tends to be based on evolving needs generated by developing pressures on social systems that e.g. cause them to grow, differentiate, and develop procedures to manage growth and differentiation. According to this perspective, change depends on external pressures and how social systems respond to them in order to remain stable (Ben-David , 1968, 1971, 1991; Parsons and Platt, 1973). The specific organizational forms of concrete universities depend on how society's need for cultural functions is expressed.

In this chapter I shall analyse Norwegian higher education reforms since about 1960 and try to understand the development in terms of the theoretical narratives presented in chapter 1. The narratives shall be used to emphasise and make explicit different change dynamics. Thus the New Public Management (NPM) narrative as it is applied here, assumes the following causal structure of change processes in public higher education systems. Changing ideas about appropriateness of public steering, its purpose, its prominence and its instruments lead to redefinition of the policy problems with which governments are faced and the adoption of reforms that espouse new steering instruments reflecting the new ideas. Thus, the NPM narrative bears a strong similarity to the normative or sociological institutionalist notion of policy change. The Network Governance narrative assumes a causal structure consistent with an actor's perspective. In this case, policy change is the outcome of changing actor constellations that lead to redefinition of policy problems, bring with them new ideas about the content and process of policy reform and adopt reforms intended to address these new or redefined policy problems. In addition to these narratives, a third neo-Weberian narrative is applied in this chapter. The change model borne out by this perspective is of a functional character in that it assumes the following causal sequence of events. Pressures from the environment of higher education, e.g. greater demand, results in growth and differentiation. This makes it necessary for public authorities to implement structural change in order to stabilize the function of higher education provision by controlling costs more efficiently and strengthening the efforts to steer the increasingly diverse sector more tightly. The two former narratives emphasize change away from traditional policy instruments and the adoption of new more market-like instruments (NPM). This may weaken traditional state steering and represents a move towards governance by networks that include state as well as non-state actors (NG). The latter narrative emphasizes continuity. Policy change is interpreted as an expression of the continued strength and versatility of the state. This is demonstrated by its ability to adjust to new kinds of pressures by adopting new policy instruments, yet retaining and strengthening its efforts at maintaining and extending its bureaucratic influence over an increasingly complex and costly higher education sector.

The chapter starts by giving a description of the Norwegian higher education system. Then the attention is turned to the reform history since 1960s and changes in a broad sense, including central government regulation, system characteristics, organization and governance of higher education institutions, degree structure and

study programs that have taken place. The chapter subsequently focuses on how the reforms have affected two specific areas, research funding and graduate education, specifically focusing on how their function and organization have changed. Finally I shall return to the theoretical questions raised above about how the pattern and outcome of the processes of reform and change the last forty to 50 years best may be understood.

6.2 The Norwegian Higher Education System[1]

The Norwegian public higher education system of today (2008) is made up by three kinds of institutions: 7 universities, 4 specialised university institutions, 2 national arts institutes and 24 state university colleges. There is also a private higher education sector. Altogether in 2004 there were almost 209,000 students in Norwegian higher education institutions, of which about 25,000 are in private institutions.[2] The Research Council of Norway funds much of the research in universities and colleges. Although formally separate from the higher education system, it is not possible to understand how the system works without some knowledge of the Research Council.

Until 1976, four universities and eight specialised university institutions made up Norwegian higher education. Traditionally Norwegian universities were regulated individually by separate laws and regulations, by which the central government set the basic framework for the universities. University teachers are civil servants, and until 1990 Parliament made decisions on detailed matters like the establishment of new professorships.

The University and College Act of 1989 brought universities and specialised university institutions under one common legal framework and marked the start of a process whereby a collection of universities, colleges and vocational schools was turned into a higher education system. The Higher Education Act of 1995 went one step further and brought all higher education institutions together within a common higher education system with four different kinds of institutions mentioned above. All institutions within the previous regional college system (like engineering, health subjects, teacher education etc.) are now integrated within the state university colleges. The upgrading of previous vocational schools to higher education institutions has, therefore, contributed substantially to the growth of higher education.

Since 1960, when student numbers reached 9,600, they have been rising constantly. The growth was particularly rapid and large during the two periods between the late 1960s and the early 1970s and between the late 1980s and the mid-1990s (Fulsås, 1993).

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[1] For developments until the mid-1990s this section relies heavily on Bleiklie et al., 2000, chapter 4.

[2] The private sector comprises many institutions, about 25, considering the small student number and the fact that 60% of those students belong to one private business school. About half of the private institutions provide some kind religious education.

The integration of the higher education system was also meant to be supported by the "Network Norway" which was launched by the Minister of Education in 1988 aiming in particular to facilitating student mobility and help institutions develop their profiles by appointing particular institutions as central nodes for all nationally recognized academic fields. One important tool to promote this end was the then Council of Norwegian Universities, a body for co-operation between Universities and specialised university institutions. The Council grew out of the former Rectors' conference and was charged with the co-ordination and promotion of national level initiatives by the institutions. The state colleges similarly established their Council of Norwegian Colleges in conjunction with the 1995 legislation. In 1997 the two bodies merged to form the Norwegian Council of Universities and Colleges. Then in 1998 the Network Norway Council was established as an advisory and co-ordinating body directly under the Ministry of Education as a way of providing more centralized clout behind the "Network Norway" reform. This body in turn was changed into The Norwegian Agency for Quality Assurance in Education (NOKUT) from 2003. The change meant that the "Network Norway" reform was abandoned. NOKUT is an intermediary independent body under the Ministry of education responsible for accreditation and quality assurance in higher education.

The internal organizational pattern of higher education institutions that is developing has a number of characteristics that are common across all institutions. Institutions are organized in three or two administrative levels so that each institution is divided into faculties or divisions. At universities and some state university colleges, the divisions are in turn divided into departments as basic units. Until recently leadership at each level was "shared" in the sense that there was one administrative line, headed by an administrative officer at each level (university director, faculty director or office head) and one corresponding representative elected body (board) at each level, elected for 3 year periods where academic staff was in majority, headed by an elected leader (rector, dean or chair). The supreme body at each level is a representative board. After a protracted process that started with a government initiated reform proposal in 2000, Parliament adopted a new legislation in 2005 that leaves it to the institutions to decide whether they will keep the existing system of governance or replace the existing system of "shared" leadership and elected academic leaders or adopt a new system of appointed leaders with total administrative and leadership authority at each level. At the same time the elected bodies at faculty and department level with decision making authority may be replaced by advisory councils. At institution level the board of 11 members is composed of elected members from academic staff, administrative staff and students and external representatives appointed by the Ministry. The board may chose to change its composition, but the main rule is that no single elected group should have majority. The outcome seems to be a range of varying arrangements often combining elements of the existing and new principles of leadership and governance.

Norwegian higher education institutions are almost entirely funded over the national budget. Student fees are still symbolic. The major changes that have taken place since 1990, with a major change in 2003, is a shift from rule based towards incentive and performance based funding.

6.2.1 The Degree System

From 2003, Norwegian higher education institutions were obliged to introduce a new degree system as part of the national implementation of the Bologna process. The introduction of 3-year bachelor degrees, 2 year masters degrees and 3 year doctoral degrees had varying implications. Whereas master degree studies within arts and sciences were shortened by 1 year, the outcome varied for the professional programs. While some professional programs were shortened (law, dentistry) others successfully resisted change (medicine, psychology). With the new system, a course credit model was introduced throughout the higher education system that primarily affected the humanities and social sciences were the traditional system had survived. The new degree system and the course credit model were meant to serve a major political goal of making higher education more efficient by increasing completion rates and reducing time to degree.[3] At the same time it was declared that "students have a right to succeed" and the introduction of the new degree system was also accompanied by a funding system that puts an increased emphasis on student throughput and better funding levels in order to improve the quality of teaching.

6.2.2 Research Funding and the Research Council

There are two major sources of research funding related to Norwegian higher education. The first source consist of direct grants from the Ministry of Education to higher education institutions as professors and associate professors are supposed to spend 45% of their working hours on research in addition to 45% on teaching and 10% on administrative duties. The overwhelming majority of academic positions in universities are associate or full professorships, whereas academic staff at state university colleges tends to hold different kinds of lecturer positions in which they are supposed to dedicate between 25% and 10% of their working hours on R&D activities. The second major source is competitive grants from the Norwegian research council, and its historical development shall be briefly outlined below. Other important sources of research funding, such as the Ministries, shall be discussed in Section 4 on patterns of research funding.

The first Research Council of Norway were established by the national government in 1949 with three different Councils for Science and the Humanities (NAVF),

[3] The new system replaced a system in which the lower degree, (cand.mag.), was a rough parallel to a Bachelor degree. It was programmed to take 4 years to complete and consisted of one semester of "preparatory" studies, two basic courses (grunnfag) and one intermediate course (mellomfag). These "basic" and "intermediate" courses were quite different from a course in a course credit system. A basic course represented two semesters or one full year of studies, whereas the intermediate course consisted of one basic course plus one additional semester. The higher degree (*hovedfag* or *embetseksamen*), which was roughly equivalent to a Masters degree, was gained after 2 years of specialisation based on the intermediate course after completion of the lower degree. A liberal education was programmed to be completed in 6 years.

Technical and Natural Sciences (NTNF), and Agricultural Research (NLVF). The former was the main provider of funding for basic research; the two latter ones were the main sources of funding for applied research.

In 1995, the then five councils were merged into one national research council, The Research Council of Norway. The fiercely debated merger was justified as an attempt both to break down disciplinary divisions and the sharp division between basic and applied research.[4] Thus, when the Councils for Science and the Humanities (NAVF), Technical and Natural Sciences (NTNF), Agricultural Research (NLVF), Fisheries Research (NFFR) and Applied Social Research (NORAS) were merged into one single national council, they were not preserved as sub-divisions within the new council. The new council was thus organized in "program areas" that were supposed to break down the divisions represented by the former councils. The period following the merger was characterized by conflict and led to a dramatic change of top leadership 1 year after the merger, before the open conflict tapered off. Then from 2003 in the council was reorganized in three divisions, representing roughly basic research, applied research and innovation that aimed at making an even clearer and more radical break with disciplinary divisions.[5]

6.3 Four Waves of University Reform

The aim of this part is to give a rough sketch of the main phases of higher education policy since the 1960s. It focuses on the policies as they evolved during the university expansion the last 4.5 decades and identifies four different periods of higher education policy with their own distinct principles of policy formulation: (1) expansion and democratisation, (2) educational selectivity, (3) quality and systemic integration and (4) teaching efficiency, standardization and internationalization. The two periods of strong higher education expansion, the years before and after 1970 and 1990, correspond roughly to the first and third phase of higher education policy. The periods are not clearly distinct as they to some extent overlap in time. The fourth period starting in the late 1990s is the period we are still a part of today, and its principles of policy generation forms the general political setting of Norwegian universities today.

In order to come to grips with the current higher education policy developments, I have already argued that it is necessary to go back to the policies and practices during and after the first educational expansion in the late 1960s and early 1970s. Looking at policy developments over time I shall argue that although there are important continuities, there has also been an important shift of emphasis. Whilst policies in the

[4] The Council for Science and the Humanities (NAVF) was responsible for basic research, the other four councils for applied research. The latter council (NORAS) was originally established as a sub-division of the NAVF in 1978 under the name of the Council for Social Planning (RFSP). It was reorganized as a separate council, NORAS, in 1989.

[5] With the establishment of one research council with a broad area of responsibility Norway chose an organizational model that ran against the tendencies in other OECD countries.

1960s and 1970s were preoccupied with the *quantitative* aspects of higher education, i.e. its overall size and capacity, policies from the late 1980s on have put more emphasis on the *quality* of higher education with a stronger focus on the efficiency and effectiveness with which institutions and system produce desired outcomes.

6.3.1 Expansion and Democratisation 1960–1980

Traditionally, Norwegian universities were regulated by separate laws and regulations by which national authorities set the basic framework for each individual university. University teachers are civil servants, and until about 1990 Parliament made decisions on detailed matters like the establishment of new professorships. However, there were fairly tight informal relations and a common understanding that universities must be granted considerable autonomy in order to function properly[6]. When the Ministry of Church and Educational Affairs (hereafter referred to as the Ministry of Education) in 1969 proposed a common act regulating examinations at all universities, objections were raised on the grounds that it would impose standardization on essentially different institutions thus threatening institutional autonomy. Apart from regulations governing examinations, the universities remained regulated by separate laws until 1990, despite the fact that the Ministry of Education on several occasions in the early 1970s declared common university legislation an objective. Thus it was "natural" for the central authorities to let each institution deal with its own situation (Midgaard, 1982: 285). Consequently changes in the governing structure of Norwegian universities were the product of local institutional politics and how each institution settled its affairs with central authorities.

The central authorities were not passive in university politics, however. A committee of higher civil servants and one deputy minister, the University and college committee of 1960, (Universitets- og høgskolekomitéen, a.k.a. the *Kleppe commission* after its chairman) made plans for the expansion of the institutions in Oslo, Bergen and Trondheim, that for the first time predicted and recommended a radical expansion of the higher education system. Later far more controversial and ambitious plans to reform the entire post secondary educational system were drawn up by a government commission for post secondary education (Videreutdanningskomitéen, a.k.a. the *Ottosen commission*). Appointed by the Ministry of Education in 1965, it was composed of civil servants, politicians and representatives of the universities and the school system. Its mandate was to suggest measures in order to make existing

[6] Forland (1993) aptly illustrates the point in a comparison of the 1948 University of Bergen legislation with the national University legislation of 1989. The 1948 law was formulated in a bottom-up process, its first draft being formulated by a working committee of two professors at the Bergen Museum, an institution which formed the institutional basis of the university. It is also important to bear the smallness and intimacy of the system in mind. In the late 1950s one Education Ministry official knew personally all Norwegian university professors (Kjell Eide, personal communication, Nov. 1992).

institutions of higher education more efficient and suggest ways in which to expand the system in the future. In a series of four reports delivered in the period between 1966 and 1969, it proposed comprehensive reforms of the post secondary educational system in order to meet the challenge of rapidly rising student numbers and the imminent transformation of the higher education system from elite to mass education. Although potentially radical, its recommendations were general, specifying certain objectives and leaving it up to the institutions how they preferred to implement them. The commission recommended that all university education should follow a predetermined pattern: (a) basic education (bachelor level *cand. mag*. degree), 4 years based on the already established system at the faculty of science, University of Oslo, (b) specialization (master level *hovedfag degree*) 2 years, (c) research education (*doctoral degree*) and continued education. Its proposals for university reform were fiercely opposed both by leftist students and professors who saw what they regarded as their academic freedom threatened. The commission gained, however, widespread support for its proposal to establishing a system of regional colleges, and in 1969, a year after the recommendations were given, the first district colleges were established. Thus a binary system was created where the new and successful institutions, numbering a total of 14 separate colleges in 1990, provided both shorter vocationally oriented higher education in a variety of fields and convenient regional policy instruments for the government.

With regard to their internal structure, Norwegian universities suffered tensions of the same nature that was found elsewhere in Scandinavia and Europe, the pressure from rapidly rising student enrolment, the rapid increase in the number of university teachers below full professor level, and in the number of technical and administrative staff.

The process of local reform at Norwegian universities was not a direct response to student unrest, although it certainly was affected by the student political action of 1968–1969. Firstly, there has been a long-term trend in Norway towards broader participation in university government. The University Acts of 1905 (Oslo), of 1948 (Bergen) and of 1955 (Oslo), represented successive steps in this development, and well before 1968, students, teachers below professor level and technical and administrative staff were represented on the governing bodies such as faculty councils and university boards, although they were all dominated by holders of academic top-positions (i.e. professors and readers). At the department level, the old chair structure was in the process of being modified in the direction of a representative structure with an elected board and chair rather than the traditional chair holder as the centre of power. The working conditions of all categories of teachers were fairly uniform in the sense that practically all of them were supposed to do both teaching and research and teach at all levels. Secondly, the process of reforming the governing bodies had started at the Universities of Oslo and Bergen before the unrest got off the ground. As the reform process was under way and experiments with the governing structure at department level were encouraged, the university system was largely able to absorb student protest in a rather flexible way.

Both at the University of Oslo and the University of Bergen, commissions reforming the governing structure were at work. The student protest was at its most intense in 1969 and 1970, but soon subsided. By 1972/1973 the political climate

had changed in the sense that demands for participation did not catch student attention to the extent it had some years before. The technical-administrative staff unions were also driving forces behind the demands for representation and voting rights, and they made at times common cause with the students. When the committee proposals in the final analysis were to be cleared by the government, it tended to support demands of voting and representation rights. Even while the Bergen committee was still at work, the Ministry of Education in 1970 introduced an amendment to the University of Bergen Act that laid down the principle of a representative central board at the university (Forland, 1993: 281).

The outcome of the commission's work in individual institutions and the final modifications made by the Ministry and Parliament in 1976 resulted in representative structures whereby permanent academic staff held a majority in all elected decision making bodies at department, faculty and university levels, with minority representation from academic staff in temporary positions, administrative staff and students (Forland, 1993: 274–288; Midgaard, 1982: 299, 310).[7]

Although resisting the tide of educational reform, "the educational revolution" and the massification of higher education meant that the universities did change, as did government policies. The 1970s thus came to be characterized by expansion and institutional differentiation of the higher educational system. It also meant, however, that budgetary growth was funnelled into the regional college system, whereas university budgets grew only slowly and not enough to keep up with the growth of the student population. Two policy developments contributed to this trend. Firstly, regionalism became a powerful political argument in higher educational policy, and contributed to a political climate that put the universities at a disadvantage. Secondly, budgetary growth became disentangled from the needs of the school system for qualified teachers and linked with changes in student numbers, as the primary function of the universities was transformed from the production of state employees to the distribution of education conceived as a welfare entitlement. From the mid-1970s to the late 1980s, student numbers in the shorter vocationally oriented educations rose, whereas the university student population stagnated (Fulsås, 1993).

6.3.2 Educational Selectivity – 1980s

The policy of vocationalism is often seen in connection with a 1984 Government report to the Parliament on higher education presented in 1984 (St.meld. nr. 66, 1984–1985), which gave high priority to specific vocational studies. I shall make the argument that the origin of this policy can be traced back and related to changes in research policy preferences during the early 1970s when the government started to put more emphasis on applied research in specific areas related to "production", "environmental problems

[7] The exception was the new University of Tromsø where the structure was somewhat different and where permanent academic staff although the largest group, did not hold an absolute majority on the highest governing body, the University Parliament (Fulsås, 1993).

and resource problems" and "human growth and development". This does not mean that we are dealing with an isolated national development. 'Vocationalism' was an international trend that affected many countries in Western Europe (Vabø, 1994).

These selective policies had a number of consequences for the universities. In general, it was a financially rather depressing period since most of the expansion of educational capacity came in the college sector. This must be seen against the backdrop of diminishing trust in universities that after the setbacks of the reform attempts in the 1970s were often accused of being "useless ivory towers" and leftist strongholds. Additionally, it was also underpinned by a general ideological climate characterised by a demand for more socially 'relevant' and useful universities. Educational expansion therefore had to come in the college sector with its shorter programs, and a general increase in vocationally oriented short-cycle studies was considered necessary. However, in a number of disciplines, particularly in technology and the sciences, but also the social sciences, new research opportunities presented themselves because of increased availability of external funding.

The selective policies represented an attempt to manage the output of research and education by technocratic means. The policy meant that the government made more deliberate choices to support particular disciplines and educational programs on the assumption that this would promote economic growth. The effect of the policies that was felt by the universities was mainly that whilst demand for research-based education in general was at low ebb certain areas of research were strengthened. Particularly for the 'free' faculties this was a difficult period, as many of their educational tracks were too 'general' and not 'relevant' enough. Various attempts at introducing stronger vocational elements or to start new and more 'exciting' courses than existing 'dull' ones were made in order to attract students (Vabø, 1994). Most of these reforms were discarded or faded away when the next 'sea change' came with the policy of quality and integration.

6.3.3 Quality and Systemic Integration – 1990s

The policy of quality in higher education in Norway is closely related to the person Gudmund Hernes who served as its 'catalyst' on the national political scene.[8] However, similar policies were commonplace in Western Europe at the time

[8] The advent of what we have called 'the policy for quality and integration' can be traced back to a media controversy in the national daily *Dagbladet* during the spring of 1987. Sociology professor Gudmund Hernes launched the controversy while he was a guest professor at Harvard, and wrote an article titled "*Is it acceptable to be ambitious in Norway?*" ("*Kan man ha ambisjoner i Norge?*"). Hernes criticized Norwegian universities; in particular his own institution— the University of Oslo, for mediocrity and suggested that one might learn a thing or two about academic standards and ambitions from Harvard. In the summer of 1987 Hernes, also a politician and previously social democratic Deputy Planning Minister, was asked to head a commission on higher education reform, later to be known as the "Hernes Commission". Its report was released the following year (NOU, 1988: 28). In the fall of 1990, Hernes once again, while a guest professor at Harvard, was

(Bauer et al., 1998; Kogan and Hanney, 1998; Neave, 1986, 1988), and we may safely assume that similar policies would have been introduced in Norway anyway. One may even argue that the previous period of selective policies represented an earlier version of the policy of quality in its emphasis on the *output* of teaching and research, rather than the previous focus on the *input* of money, students and teachers. Hernes himself has emphasised the links between the proposals of his Commission and those of the Ottosen Commission in the late 1960s. Both aimed at a more integrated, flexible and efficient higher education system. There were, however, significant differences in focus and emphasis of the new policy that gave the universities new opportunities to strengthen their positions.

When the Commission report was delivered in September 1988, it was apparently received with general acclaim by leading academics and administrators. Most academic groups seemed to have something to gain by supporting the proposals made by the Commission. Its main ideological argument rested on three presumptions: (1) explosive growth of knowledge, (2) internationalisation of knowledge and (3) demographic changes. This meant that in order to develop the economy and preserve society in an increasingly tough international economic competition Norwegians had to "live by their wits" (NOU, 1988: 28). The third challenge for higher education was the demographic changes that both meant scarcer supply of new students, increased needs for re-education and continuing education and the need for replacing the ageing population of university teachers.

The policies of the Hernes Commission were couched in the language of 'quality', but 'efficiency' nevertheless was a fundamental value and one that ideologically preceded 'quality' in the sense that there was a heavy emphasis on output and the speed with which an output of acceptable quality is produced. If we look at the organization both at the system level and at the level of individual institutions, 'integration' was an important means to achieve as well as an important aspect of 'quality'. Institutional fragmentation was considered a problem both within university faculties with many small departments and in the college sector with its many small units. In order to avoid extreme dispersion of resources in a small society with limited supply both of material and human capital, the Commission wanted to move in the opposite direction from what had been the prevailing trend during the 1960s and 1970s. A higher degree of specialisation of individual institutions in the university sector, linked with a tighter co-operation between them was a means the Commission suggested in order to improve this situation. These ideas were behind the suggestion of the Network Norway – a co-operative network of all higher education institutions. The Commission suggested furthermore that departments and research groups be of a minimum size in order to provide 'critical mass' or necessary conditions for high quality academic institutions. It proposed accordingly, both to merge colleges in order to create regional educational centres, and to fuse

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appointed Minister of Education of the incoming social democratic government. When the Prime Minister Gro Harlem Brundtland asked him to accept the post as Minister of Education: "… I told her I would say yes, but on the condition that I shall be concerned with quality throughout the entire educational system." (Interview: 18.11.94).

small university departments in order to make bigger ones. An important aim of the Commission was to strengthen the administration of the universities, and to develop a proper division of labour between administrative tasks and tasks that belong to the realm of academic autonomy. Within elected bodies, where academic staff controlled the majority of seats, the Commission wanted to strengthen the authority of senior staff members. Another key element was the devolution of authority from government to individual universities, but with stronger demands for plans and goals as well as reports of results from the institutions to the government.

There are several reasons why the Commission report won an immediate approval by university academics. One important reason was that there was apparently something to gain for all affected parties from the proposals in the report. It did not attack cherished academic privileges such as tenure. More importantly, the Commission based it proposals on the premise that research-based knowledge of all types was in demand. Its arguments for basic research and graduate education provided a new legitimacy for increased budgets and more academic positions, although it did not leave altogether the old notion of student demand as a criterion for resource allocation. The Commission also based its proposals on the premise that there should be a 5% real annual growth in the general university budgets in the coming years, so there would be some gain for all academic groups. The concern for 'quality' had a strong appeal to academics and tended to make them favourably inclined. Many of the Commission's proposals were originally promoted by the universities themselves or the major trade union in the field, the Union of Researchers. From the perspective of university teachers, it was also an attractive feature that the report seemed to sustain the 'binary system' with its relatively clear distinction between the university and college sectors. A demand by central authorities for longer studies and graduate education clearly favoured the university sector. University administrators, furthermore, clearly had something to gain by decentralisation of responsibility from the Ministry to the institutions. Academics and administrators, however, both had to accept the introduction of activity planning and reporting procedures that partly followed from NPM policies introduced throughout the civil service, and partly from new ideas that spread internationally within higher education as well.

The Hernes Report emphasised quality and higher efforts in research and education. The institutional 'reality' of the academic field, however, moulds reforms. There is also an important characteristic of the consensus culture in Norwegian political and administrative life that makes it a common strategy to declare an initial support of a governmental policy and then try to reach their aims by influencing the way in which it is implemented. In spite of the relative positive reception of the proposals, the way in which they were implemented was piecemeal, gradual and tentative.

6.3.4 Efficiency, Standardisation and Internationalisation – 2000s

When the government followed up the white paper of the Mjøs Commission (NOU, 14: 2000) with an ambitious reform proposal (St.meld. nr. 27 (2000–2001)), Norwegian

higher education institutions seemed on the brink of becoming engaged in one of the most comprehensive and fundamental reform processes in their history. Parliament formally approved the reform proposal on June 12. 2001. The reform got the upbeat name "The Quality Reform". It proposed apparent sweeping changes as to the way in which institutions were managed and organized; introduced a new degree structure that entailed a change in the way in which study programs were organized aiming at shortening time to degree and raising completion rates; and intended to internationalise Norwegian higher education in a way that was basically different from previous attempts with the same stated purpose.

The Quality Reform thus was poised to break with the Norwegian tradition as careful and conservative reformer in the field of higher education (Bleiklie et al., 2000). The ambitions were impressive. After a period of steep growth during the 1990s, the first decade of the twenty-first century should be dedicated to flesh out the comprehensive higher education system that was built up with a qualitatively improved content. In its report to Parliament on the proposal, the government stated that the goal went beyond the ambition of creating better higher education institutions. The ambition was to make Norway "a leading nation of knowledge". I shall argue that although a break with tradition still is a possibility and that current policies still may cause changes that will be more radical than previous reforms, subsequent developments indicate that the reform process may be about to slow down and become somewhat diluted. Thus, we may argue that both the extent of change and the direction in which it will move depend on a number of conditions that are not yet settled.

The reform consisted of three main components: (1) *The study program reform* which involved the implementation of the recommendations of the Bologna declaration with the introduction of a new degree structure: the so-called "3 + 2 + 3" or "3, 5, 8" system indicating the duration of the bachelor-, masters- and doctoral degree programs. The reform emphasised the responsibility of the institutions for efficiency and successfulness of the study programs and the need to introduce modern teaching methods, frequent feedback to students, longer teaching semesters and portfolio evaluation instead of traditional lectures and written exams with rather long intervals that dominated particularly in the humanities and social sciences. The main goal was to make the degree studies more efficient by shortening time to degree and increasing compliance with program schedules and completion of study programs. The reforms aimed at making students float more quickly and with more ease through the system. Several tools were supposed to be introduced in order to achieve these aims, such as contracts between student and institution, more coherent study programs, better use of the entire, enlarged academic year, more varied and better adapted teaching methods and more teacher-student contact with frequent feedback to students. (2) *Internationalisation* aimed particularly at increasing mobility of bachelor degree students and to offer a 3–6 months' stay abroad for all students who wish to travel. The aim was that 20% of the students should make use of the offer. (3) *Organizational changes* concerning the formal status of higher education institutions in relation to central government, governing structures at all levels within institutions and introduction of an incentive based element in the funding system that puts a heavy emphasis on the efficient production of exams and student credits.

Among these three reform proposals, the radical element seemed to lie in the degree- and study program reform which, if implemented as promised, was aiming at changing the curricular, teaching and degree structure as well as student and teacher roles in fundamental ways. This apparent break with tradition may be explained in various ways. One explanation may be related to changing characteristics of the higher education sector itself, such as changing values and/or new actor constellations, may have created a more reform minded ideological climate. Another explanation of this break with the tradition as a careful reformer may be that this tradition was overrun by another Norwegian tradition: that of clever implementer of supranational agreements and decisions. In the effort of introducing a new European degree system, which is the intention of the Bologna declaration of 1999, Norway has been a front-runner if we consider the pace of the reform effort. However, as already observed in connection with previous reforms, one cannot overlook the possibility that reforms that may appear radical, even revolutionary when announced, may slow down and become diluted by resistance in the implementation stages. Signs of such slowing down and withdrawal of radical proposals have been observed in several contexts and shall be discussed below.

One important reform tool was a new funding model that will be described below. It aimed at introducing a clearer separation of education and research and emphasised the role of incentives in promoting quality and efficiency in education and research.

In the recommendation from the parliamentary Committee on ecclesiastic affairs, education and research that prepared the proposal before submitting it for the final vote in Parliament, the high reform ambitions were reiterated verbally. The committee unequivocally stated that the reform required extra funding, basing its estimates on those made previously by the Norwegian Council of Universities and Colleges. It stated furthermore, that if the reform was implemented without these extra resources, it would jeopardize, rather than improve the quality of higher education. These considerations indicated that the effects of the reform were perceived to depend on the extent to which sufficient resources were provided for the new teaching programs. In its 2004 national budget proposal the government increased higher education grants to a level that, although somewhat less than the institutions had asked for, was considered sufficient by them to carry out the reform successfully.

The changes that have been proposed with regard to institutional organization and leadership were initially offered less attention. The committee proposed new legislation that suggested alternative principles for organising the institutions under the Ministry. A majority proposed that they be organized as “public enterprises” whereas the minority recommended that they keep their status as “special civil service institutions”. Regarding internal organization, a majority wanted the institutions to have appointed leaders and “unified” leadership, whilst a minority wanted to keep the existing arrangement with elected leaders and “shared” leadership, i.e. one elected academic leader (rector, dean or department chair depending on organizational level) and one head of administration (director general, faculty director or office head). Whilst leaders at each organizational level had their mandate through elections and the consent of elected representative bodies, the new system meant that appointed leaders had their mandate from superior authorities in a hierarchical chain in which

department chairs report to deans who in turn report to the rector who reports to a board appointed by the Ministry based on recommendations from the institution. A strong minority proposed to keep several elements of the existing arrangements.

The Ministry subsequently left it to the institutions to choose whether they wanted to retain the "shared" leadership model or introduce a "unitary" leadership model and named a special commission (the Ryssdal Commission) to study the matter and produce a joint recommendation on the issue. In connection with the committee work, a public controversy surfaced in the summer of 2003. It was triggered by a declaration that was circulated on the Internet and argued against a legislation that might organize universities as public enterprises. The controversy raised the issue of potential consequences of organizational reform, and it was contended that it might jeopardize university autonomy and the freedom of research.

The report of the Ryssdal Commission was released in September 2003, but the committee was unable to agree on a common recommendation. However, although the majority and minority recommendations were similar to the parliamentary proposals, they were modified somewhat. The most significant modification was that in this case the majority proposed that institutions be organized as independent foundations rather than as public enterprises. The group of professors that initiated the public controversy was now arguing against the new majority proposal. They organized a campaign against the proposal and collected more than 4,000 signatures from a majority of Norwegian professors and other academic employees. By late October 2003 the group established "Vox Academica", a forum for information and debate in order to "shed light on" the implications of the new law if the majority proposal is adopted.

The introduction of the Quality Reform started the fall term of 2002, and the study program reform as well as the internationalisation of study programs was scheduled to be fully introduced by the beginning of the fall term 2003. The institutions initially complained that the funding they received failed to meet the requirements of the study program reform and predicted that funding problems would increase in 2004 unless additional grants were provided. However, the budget proposal for 2004 went further than sceptics predicted in meeting the demands for extra funding; a funding level that was also kept for 2005.

In early 2005, Parliament introduced a new legislation where it was decided that the institutions keep their status as special civil service institutions, and left it to the institutions whether and to what extent they would keep their traditional internal organization or introduce the new system of "unified leadership". Many institutions have chosen mixed solutions, e.g. introducing the new model with appointed leaders at department level, but keeping the traditional "shared" model with elected leaders at the faculty level and chief administrators. Some institutions have chosen a "unified leadership" model. The main pattern is elected rectors and double leadership at institutional level and appointed unified leadership at faculty and department levels. The government thus had to let go its ambition to have a more organizationally integrated and standardized higher education system. As important in this context is the extensive use of economic incentives in order to boost the efficiency of study programs, emphasizing student numbers, credits production and time to degree.

The organizational reforms also meant a strengthening of institutional autonomy by transferring decisions on a number of matters to the institutions. In addition, the new independent intermediate agency, NOKUT, became responsible for accreditation and evaluation. This meant that the authority to decide whether a state university college could be upgraded to university status was transferred from the Ministry to NOKUT. Yet within institutions, the traditional academic freedom, both the authority of the academic staff/the professoriate and the autonomy of the individual scholar, is circumscribed by stronger external influence on institutional boards and stronger institutional leadership to convey that influence throughout the organization. Furthermore, the reform also looks to strengthening the power of students as consumers, emphasising the importance of student numbers for funding.

Recently there are signs of an increasing scepticism against the reform. Questions have increasingly been raised about the effects of the reform on academic quality, and the relationship between quality and efficiency, as the first graduates under the new system are starting to emerge. At two major universities new rectors were elected in 2005 on programs that were less enthusiastic and emphasised the need for a critical scrutiny of the effects of the Quality Reform. Finally, by 2006 it was possible to start measuring possible effects of the reform in terms of increased efficiency measured by time to exam and retention rates. So far, the results indicate that there have been almost no measurable changes (Michelsen and Aamodt, 2006).

6.3.5 Change and Stability in Higher Education Reform Policy

In trying to consider the four periods of higher education policy since 1960 in a long-term perspective, I would like to make two observations. If the reforms are considered as developing interpretations of what ought to be the proper social contribution of higher education institutions, it is safe to say that these interpretations have varied from period to period. The policy for expansion valued any studies as positive. Resistance among students and junior academics, however, meant that the proposed restructuring of the ‘free’ faculties never took place, and the universities never complied with the demand for ‘short cycle’ education. The utilitarian policies of the 1980s, which grew out of the previous experiences, gave clear priority to specialised ‘short cycle’ education, to certain disciplinary fields and to the college sector at the expense of research universities. The introduction and increase of applied research in the university sector served partly as a new way of sustaining funding levels in some fields, while others withered. The policy of quality and integration turned this situation upside down. The quality of education and research on a broad scale became important. However, the policy of quality was simultaneously driven by a strong quest for efficiency with a focus on the capacity to produce higher volumes of candidates and research publications. The policy of efficiency and internationalisation continues the quest for higher efficiency both through the study program reforms and the organizational reforms. It differs from the former period in several important respects, in particular because of the impact of the Bologna process and

how it served to give increased legitimacy to the study reform, but also through the ambitious plans for increased student exchange. In addition, the emphasis is to a lesser extent on graduate educate education and the focus has shifted somewhat towards undergraduate education.

I shall not draw any conclusion about the extent to which the study reform represented an early and swift implementation of the Bologna agreement or to what extent it would have been introduced anyway and was merely conveniently justified by it. Suffice it to say, as a second observation, that it may be regarded as the first apparently successful implementation of the restructuring of undergraduate education within the 'free faculties' that somehow had been on the agenda since the 1960s.[9] The four periods with their different policy principles have to some extent, formed the institutions of higher education in Norway, and it is a likely proposition that structural features from these different periods may be uncovered in the institutional fabric like archaeological layers. The institutions had to fend off or adjust to new policies, and had to translate political demands into the 'language' of higher education. Higher education is, however, no fixed and uniform entity, and the ability to resist, exploit and adapt to a given policy may vary.

It is still early to draw a definite conclusion as to whether Norway has transformed itself from a reluctant and slow reformer to an early adopter and swift implementer of drastic changes in higher education. In this section of the paper we have seen how a very forceful start has gradually slowed down and how forces of resistance, not always very clearly articulated, have begun to have their effect. We may conclude therefore, that Norway may still prove to keep its reputation as a slow and incremental rather than a revolutionary reformer.

6.4 Tracers Issues

6.4.1 Patterns of Research Funding[10]

Research spending in Norway has increased considerably in later years with a 3.8% real growth from 2001 to 2003. However, in spite of Norway's favourable economic situation as a wealthy oil nation with a growing economy and extremely favourable public finances, the country finds itself among the low research spenders measured as a percentage (1.7% in 2002) of GDP, well below the OECD average (2.26%) and far below the neighbouring top spenders, Sweden (4.3%) and Finland (3.5%). The central government plays a comparatively prominent role in Norwegian research funding as it provides almost half of total funds invested in research (46% in 2003). A similar

[9] By 'free faculties' are meant the humanities, social sciences and sciences as opposed to the 'professional faculties' like medicine, law and engineering etc.

[10] Main source: the 2004/2005 government report to parliament on research policy: St.meld. nr. 20 (2004–2005), Ministry of Education and Research. *Vilje til Forskning*.

share is provided by industry (48% 2003), whereas foreign contributors, among them the EU, provide a smaller share (7% in 2003).

The relatively low general level of research spending is understandable in comparative terms in the light of the low level of industry spending on research (0.82% of GDP) compared to the OECD average (1.4%) and far behind Sweden (3.07%) and Finland (2.4%). Government spending on the other hand, is high (0.76% of GDP) compared to the OECD average (0.68%), and Norway ranks number seven among OECD countries, behind Finland, France, Iceland, Germany, Sweden and the USA. Industry is slowly catching up, however, but nevertheless it has been argued that the policy of reaching the OECD average or some other standardized percentage does not make much sense without taking the specific needs of Norwegian industry into consideration. One important consideration in this context is the research intensity and needs of the major sectors of the economy (Maurseth, 2006).

In terms of resource streams, the public and private sectors appear to be almost separate realms as 80% of industry research spending in 2003 was invested directly on research within the industry sector whilst 80% of public funding went to public institutions. Conversely, about 10% of public funding went directly to industry while about 13% of industry spending went to public institutions.

Government research spending in Norway is distributed between two types of public institutions, universities and colleges (55% in 2003) on the one hand and public research institutes (35%) on the other. The remaining 10% went to industry. Most public funding goes directly to research institutions, but about one quarter (26%) is distributed competitively through the Research Council of Norway (RCN). The existence of one research council spanning all kinds of research (basic and applied) and all disciplinary areas is one distinguishing characteristic of the Norwegian research sector. In addition to the brief outline of the history of the research council in Section 2, it is worth mentioning a few characteristics that may distinguish the organization of the RCN in comparative terms. When the research councils were amalgamated into one organization, it was argued that it was an advantage for overall planning and steering capacity to have all research council spending under one organizational umbrella. A major counter argument is that putting all competitive research funding under a common organizational umbrella eliminates competition and invites nepotism. Both assumptions may or may not turn out to be corroborated by actual processes and practices depending on a number of factors in addition to the formal organizational arrangements.

Another distinguishing characteristic of the Norwegian research sector is the relatively comprehensive sector of research institutes. (St.meld. nr. 20 (2004–2005: 168–187). The sector dates back to the first decades after WWII, and the institutes were usually established as vehicles for contributing to problem solving in specific areas of social and economic life, such as innovation and technological development in the industrial sector, transportation economy, social welfare, foreign policy, peace research, alcohol related problems, hospital research, fisheries and so on. After the whole social planning ideology behind the establishment of the sector was increasingly called into question from the 1980s on, the efficiency and organization of the sector has been called into question The sector subsequently went through a

number of mergers, had its level of basic government funding reduced and its relative size have diminished. Nevertheless, the sector is well established and will in all likelihood continue as a significant contributor to the Norwegian research effort.

Since the 1980s, the Universities have launched several initiatives that were designed to attract more external funding both from public sources and the business sector. One such initiative was the establishment of research parks where the goal of increased business-university co-operation and increased business research funding were important drivers. Another initiative was the establishment of organizations for externally funded research. As we already have seen the initiatives did not change the situation where business and public research funding are realms apart in terms of funding flows. Still therefore, university research is mainly funded by public sources.

In recent years a number of developments that affect the patterns of public research funding have taken place. The first is the establishment of national centres of excellence selected and funded by the RCN, the purpose of which is to increase the competitiveness of Norwegian research institutions in areas of national importance. The first batch of 13 centres was established in 2002 for a funding period of 5 + 3 years after a comprehensive international and national review process. They were all located in the major university cities of Oslo, Bergen, Trondheim and Tromsø. Apart from three centres in history, political science and linguistics, they were concentrated in the disciplines of medicine and the sciences. The second development is the establishment of the Fund for Research and Innovation in 1999. The fund has grown very quickly since then, and yields from the Fund amounted to more than 14% of public research funding in 2005. The idea behind the establishment of the fund was to improve the conditions for stable long-term funding of research. Most of the contributions from the fund are distributed through the RCN, whilst somewhat more than 20% goes to the higher education sector. Finally, the expansion of the higher education system in itself contributes considerably to an increasing research effort as all tenured academic positions in traditional research universities are supposed to be devoted equally to research and teaching, whereas a limited number of the positions in the college sector have a smaller research component (10–30%). Although competitive funding schemes are becoming increasingly popular in Norway, the public-private mix in the provision of research funding seems remarkably stabile. Research funding for higher education institutions is overwhelmingly provided by the state, while public and private research funding still seems to belong to separate realms. Thus we find few traces of Network Governance. The increasingly competitive funding schemes indicate that research funding is changing as NPM style policy instruments are increasingly used. Yet the stability of actor constellations, and public-private division of labour, suggest that state control over research funding has not been weakened. The evidence makes it tempting to interpret the changes in support of a neo-Weberian narrative, where the state adopts new policy instruments in order to improve steering and make Norwegian researchers better able to compete internationally, e.g. for EU-funds, by increasing competition for research funding through publicly steered and professionally managed allocation procedures.

6.4.2 Doctoral Education[11]

The reforms of doctoral education in Norway may in many ways be considered a representative case. They have been characterised by increasing formalisation and attempts at making the programs more efficient and predictable, by a redefinition of responsibilities in which the institutions have been charged with a responsibility for the outcome of graduate programs that previously rested with the individual student. The main challenge that had to be faced in the case of graduate studies was, and still is, the relatively disorganized and inefficient character of doctoral education in humanities and social sciences.

6.4.2.1 Graduate Education and New Doctorates

Graduate education beyond the master level in Norway has not traditionally been much standardised and certified. Since the mid-1970s, however, there has been a piecemeal process in which universities have established new doctorates and built up organized education programs in all fields. This development represents an effort to standardising graduate education as well as university career patterns and academic qualifications.

It is often claimed that until the introduction of new doctorates from the mid-1970s, Norway did not have any research training (Tvede, 1994: 43). To the extent that it existed it was in any case old fashioned and inefficient. It is not difficult to corroborate this view if one limits oneself to look at the doctorate level. However, if we let the expression research training mean all kinds of education involving research practice, then the traditional 'higher degrees', i.e., the *magister* and the *hovedfag* degrees, must be included as graduate education. Both degrees involve substantial research and the production of a thesis. The "new" doctorates in Norway, meaning organized doctoral programs, were first introduced in the technological disciplines and natural sciences, and later on they were gradually introduced in law, humanities, social sciences and medicine over a ten to 15 year period. One of the central aims of the Hernes Report (NOU, 1988: 28) was to strengthen the forms of graduate education and thereby the role of doctorates in Norwegian academic life. In order to analyse this process it is necessary to look closer at the previous status of the doctorate in Norway and the political processes that lead to the introduction of the new degrees. In the analysis we shall focus on how different disciplinary areas developed diverging perceptions of the need for the new doctorates.

6.4.2.2 Tradition Challenged

Traditionally the doctorate (*dr. philos, dr. juris, dr. med, dr. techn*, etc.) was not a part of a graduate education – if we by that mean organized study programs that require the dissertation to be completed within a specific time frame. In the nineteenth century

[11]For developments until the 1990s this section relies heavily on Bleiklie et al., 2000, chapter 9.

a doctoral degree was first and foremost an honour given for brilliant research. During the first half of the twentieth century it became gradually a normal prerequisite for anyone who wanted to become a reader or a professor at a university. In the decades after W.W.II until about 1970 the traditional doctorates were thus mainly a kind of promotion test for future readers or professors. This may be corroborated by looking at the mean age of doctoral candidates. During the post WWII period the mean age has oscillated been between 41–43 years in the humanities and between 38–39 years in the social sciences. In the sciences, the mean age of doctoral candidates varied between 36 and 37 years until the introduction of the new degrees (Olsen, 1988: 24, 37). These mean ages may represent what was considered the 'appropriate' age within the different disciplinary areas for a candidate to present himself to be considered for a professorship or a readership. If we combine these observations with the low degree of mobility and high degree of 'self-reproduction' of academic groups that characterises Norwegian higher education, a pattern emerges where the 'production' of doctorates and the completion of doctoral degrees apparently were determined by the needs of the university as an institution rather than by the needs of scientific development. Thus doctoral education suffered from a situation in which the needs of the institution, the, 'rhythms of university life', came at odds with scientific needs of (some) disciplines (c.f. Bourdieu, 1988: 155). According to scientific needs one would expect that a candidate complete a thesis when he or she is ready to report its scientific results to colleagues in order to contribute to the development of a discipline or a speciality.

The expansion of the middle tier from the late 1950s until the early 1970s and its improved status and working conditions made it possible for academics to get tenured research positions without a doctorate. Thus the significance of the doctorate as a requirement for a university research position was weakened. The homogenisation of the corps of tenured staff since the late 1960s until the mid-1970s, whereby working conditions became almost identical and wage differences significantly reduced, made the doctoral distinction superfluous in many ways. If we look at the statistics over university personnel from 1985, it is only at the medical faculties that a majority of tenured academic staff held a doctoral degree. On average, 38% of all tenured academic staff at universities and scientific colleges were *doctores* at this time, and the lowest ratio was found in the humanities and social sciences (Olsen, 1988: 48).

The other challenge to the traditional doctoral degree came from the sciences. The higher science degree (*cand.real*) was changed during the 1950s to accommodate the perceived need for a stronger specialisation and systematic research training. In other words, the science degree was made more specialised and research oriented, whereas it previously was less specialised and defined by the needs of secondary school teaching.

The start of this process took place in 1961 when the Faculties of Sciences at the Universities of Oslo and Bergen appointed a joint committee to evaluate the student needs for further education after completion of the *cand.real* degree (the Rosenquist Committee).[12] The committee proposed to introduce a new doctoral degree in the natural sciences – *dr. scient* – modelled upon the American Ph.D. This degree was

[12] All references to the Rosenquist Report are from: *Vitenskapelig forutdannelse i matematisk-naturvitenskapelige fag. Innstilling fra utvalget. Blindern, 5. desember 1963*.

intended to replace the *dr. philos* for this disciplinary area. The proposal criticized the traditional doctorate as unfit for a modern research education and the needs of a modern research organization. It proposed a new degree that could be taken within 3–4 years after the *cand.real* and should include both a general education component and a researched thesis. Rather than an internal promotion test the new degree was considered an entrance degree. The proposal was also tailored to the requirements of research training within the dominant "hard-pure" research mode, in Tony Becher's terms, in the natural sciences (Becher, 1985, 1989). The main academic reaction to the report of the Rosenquist Committee was fear that the doctoral degree might loose status if the proposed *dr. scient* degree was introduced. This fear is most evident in the report by a committee under the Conference of University Rectors.[13]

Little happened concerning doctorates after this report. The topic did not re-enter the agenda until the Ottosen Commission made some fairly vague proposals about graduate education and the doctorate, and in 1969 the Conference of University Rectors established two separate committees; one for the sciences and one for humanities, social sciences and law. The sciences started to develop plans for a graduate education within the framework of the *dr. philos* degree, whereas there was little enthusiasm for this solution in the committee for the humanities, social sciences and law. Although lack of funds was used as an argument by the latter disciplines, there were other factors at play. The rather massive resistance should also be seen in the light of a negative alliance of radical and conservative groups within these two disciplinary areas. Whilst conservatives tried to preserve the status of the *dr. philos* degree by preventing the establishment of a new and competing degree, radicals fought against a new degree based on a politically motivated critique of the doctorate and the universities in general. Around 1970 it was not inconceivable that the doctorate would just whither away. The decisive breakthrough in the attempts to introduce a new doctorate came in 1974 when the Ministry let the Norwegian Institute of Technology introduce a *dr. ing* degree in engineering. Natural scientists in Oslo subsequently pressed further for a *dr. scient* degree, and the same year the University decided to apply to the Ministry for permission to introduce the degree.

6.4.2.3 Formalisation and Practice

The introduction of the new doctorate in the natural sciences was undertaken in the form of a regulation of the entire degree structure in which reductions in the stipulated time needed to complete the master level degree (*hovedfag*) was part of the restructuring at graduate level. After 2 years study stipulated for the *hovedfag* degree, a student could extend the *hovedfag* thesis by continuing 2 years within the doctoral program for a *dr. scient* degree. The *hovedfag* thesis thus would have to become a part of the doctoral thesis if a student wanted to complete the degree within the stipulated time

[13] *Den norske doktorgrad. Instilling frå komitéen til drøftelse av den norske doktorgradsordning, oppnevnt i henhold til vedtak 10.mai 1966 av det XIV møte av norske universitets- og høgskolerektorer.*

(Forland, 1996: 489). The *dr. scient* degree was instituted in 1978, and the introduction of new doctorates in science and technology could not be ignored by the social sciences and humanities (Jarning, 1985: 134–138). From 1980 onwards, new doctorates were introduced in these disciplines. A committee appointed by the University Board in Bergen suggested in 1981 a different solution to the problem of relating traditional and new doctorates. The *dr. philos* and the new degrees were both considered by the Committee to be of equal academic status, but they should be organized differently. Whereas the new doctorates should be part of an organized graduate education program, the *dr. philos* was to remain a 'free' degree open to everyone who wanted to specialise in a field of research on an individual basis.

This compromise, untying of the Gordian knot in the struggle between proponents of change and the status quo was apparently a well-balanced compromise, but for the new doctorates in the humanities and social sciences – *dr. art* and *dr. polit* respectively – it was almost a 'kiss of death'. Whilst the number of successfully completed new doctoral degrees increased sharply in the natural sciences and technology, the number of completed traditional degrees fell in these areas (Olsen, 1988: 37). In the social sciences and the humanities the development was quite different. A strong increase in the total number of awarded doctoral degrees took place during the 1980s, but was mainly an increase in the number of traditional dr. philos degrees.[14] This must be seen against the backdrop of the increasing emphasis that was put on the doctorate as an academic distinction during the 1980s, culminating in 1990 when a doctoral degree, or equivalent competence, was made a condition for tenure at the universities. The emphasis upon doctorates by university leaderships may be seen as a way in which they tried to increase the prestige of the universities compared to the college sector and thus counteract the levelling effect of the integration process within the higher education system.

6.4.2.4 Doctorates and New University Policies

The situation described above changed during the 1990s. The number of doctorates earned each year has become an important performance indicator, rewarded financially since 1990, and it has increased strongly in the humanities and social sciences as well. To produce graduates within the specified time of 3 years is thus a strong concern for the institutions. The fact that a doctoral degree has become a requirement for a tenured position has put the doctorate at the very centre of the whole reproduction process of the university. The increased attention directed towards the doctorate as a formal qualification and as a production goal has led to a number of different efforts aiming at developing an efficient organization of graduate education. One of the main targets since the Hernes Report has been to develop a stronger co-ordination of education programs at the doctoral level

[14] One reason for this was that a degree that was supposed to be completed in three to 4 years was considered an inferior *dr. light* degree preferred by those who for opportunistic reasons take an easy short-cut in order to gain an esteemed title.

(cf. NOU, 1988: 28, 95–105). Since 1990 three major co-ordination measures have been implemented. Firstly, the Council of Norwegian Universities has a national responsibility for the co-ordination of doctoral programs. Secondly, boards of graduate education (*Forskerutdanningsutvalg*) have been established at each university, at the institutional and at the faculty level. Thirdly, some doctoral courses are co-ordinated by national disciplinary councils (*nasjonale fagråd*). The extent of this latter co-ordinating effort still varies considerably across disciplinary areas.

The main effect of these efforts on graduate education has so far been a drift in the direction of formalisation and homogenisation, based on an administrative standardisation that influences the research process. The main problem for the Faculties of Social Sciences and Humanities has been the lack of commitment to the new doctorates among their academic staff. The result has been a flow of students through the system that although increasing still is considered too small and too slow. Relatively few have yet been able to complete their doctorate within the specified time of 3–4 years. There is therefore a strong pressure on both students and supervisors to improve performance in this respect.

In the wake of the Quality Reform, all previous disciplinary doctoral degrees were replaced by one degree, the PhD. The new degree may be seen as one further step in the direction of formalisation and homogenisation. Like the previous degree it is supposed to be completed in 3 years. The introduction of the new degree is also supposed to be followed up by an increased emphasis on the training component, and the universities are expected to establish "research schools". Until now the degree of formalisation and development of the research schools has been very uneven, across universities and across faculties within universities. Since its inception in the sciences in the 1960s the development of doctoral education has been the history of a slow but steady progress of the American PhD model that emphasises the degree as a formalisation of research education and a requirement for anyone who wants to become a researcher in an academic discipline. The process of national standardisation and formalisation reached its current stage when the PhD was introduced with the Quality Reform in 2003. Apart from the fact that NPM-style incentive policies are being used to increase efficiency and boost production of new PhDs, the evidence support the neo-Weberian narrative emphasizing increasingly forceful attempts by national authorities to standardise and increase the efficiency of doctoral education nationally by means of legislation and funding policies.

6.5 Concluding Discussion: Ontinuity and Discontinuity in Norwegian Higher Education Policy

Whether we consider higher education in terms of the major general reform efforts or more specifically through the prisms of research funding and doctoral education, certain common characteristics seem to emerge. The first is that there are some important continuities and discontinuities in the direction of reform activities. One common characteristic of the efforts throughout the period has been the attempts at developing the higher education system and its institutions into a more formalised

and standardised one that is better equipped to process increasing student numbers efficiently. Perceived lack of efficiency has particularly characterised the humanities and social sciences where the majority of students were to be found. Also, graduate education reforms have tried to impose higher productivity and efficiency on the programs within these disciplines. The pattern of a slow moving reform activity characterised by a relatively low level of conflict and a slowly changing system has also been a stable feature, where core elements in the latest major reform safely may be regarded as the implementation of reform goals formulated over 40 years ago. Although the government has always demanded certain social contributions from the universities, the specific content of those contributions have changed as have the means by which the government has tried to achieve them. As for the contributions we have seen how the ideas about what is 'useful' education have changed over time, as have the functions of the doctorate within graduate education. The importance of internationalisation and Europeanisation through the Bologna process have no doubt increased supranational influence over higher education development although it is still an open question what aspects of higher education policy that are influenced and how strong that influence is. Around 1990 the significant change in government steering of higher education changed from emphasising rules to emphasising much stronger management by objectives and outcomes which implies delegating more responsibility, but not necessarily more power, to higher education institutions. It is still early to say whether the current reform will fundamentally alter Norway's position as a reluctant and slow reformer, but recent developments may indicate that old patterns seem to re-assert themselves and increasingly slow down the process of planned policy change.

The apparent radical nature of the Quality Reform, its emphasis on teaching and undergraduate studies, may lend support to perspectives which assume that policies have changed fundamentally since 1980. The NPM and Network Governance narratives make such assumptions. However, only the former is supported by the data presented above as there are no indications of a change from traditional hierarchical to a network structure. The changes in the type and number of actors involved are within the traditional state structure. These changes include an increase followed by a drastic reduction in the number of higher education institutions because of institutional mergers; introduction of new intermediate bodies such as the evaluation agency NOKUT and stronger supra national influence, in particular from EU-policies. In the area of research funding, several attempts have been made to forge stronger ties between research and business interests and bring actors from industry into closer cooperation with research institutions, the establishment of research parks and the applied emphasis on the allocation of research funds from the RCN. However, as we have seen, business related and public research funding still seem to belong to mainly separate realms. Furthermore, although the goals and means underlying these efforts have changed, the attempts at forging stronger ties between public research funding and private businesses, between public investment in research and the development of new products and processes, is not a new phenomenon. Both the latter observations indicate that these policies represent a continuation and new expressions of a long-term ambition on the part of the state rather than a new phenomenon emanating from new forms of governance, such as NG.

There is more solid evidence of NPM measures in the reform policies. This started first as a careful move from ex ante to ex post control from 1990 on. Then it was followed by more comprehensive moves in connection with the Quality Reform, comprising the proposal of a new leadership structure, the funding system that started with an estimated 40% incentive based funding share – about 25% based on teaching efficiency and 15% on research performance – and a further transition from ex ante to ex post control following the establishment of NOKUT. Both in the areas of research funding and in doctoral education, NPM policies are clearly evident in the funding policies. Incentive funding, based on performance indicators and ex post control are increasingly used as a steering instrument.

In the Norwegian case it is far from obvious that state control over higher education and research has been weakened (Bleiklie and Byrkjeflot, 2002). The most striking characteristic is a remarkable stability regarding the coordinating forces that have been regulating higher education. Apart from the fact that growth has been followed by more formalised forms of management and control, higher education institutions have been integrated parts of the civil service throughout the period, and manpower needs as central authorities have defined them, have been decisive for the overall size and structure of the system. Thus, the national system for communication and creation of knowledge has not become a less important basis for research and development of experts and elite personnel. It still sets the conditions for what kinds of received knowledge shall be taken for granted and passed on to new generations, and for the norms that regulate career advancement and elite selection (Byrkjeflot, 2001). In addition to the continuity regarding coordinating mechanisms, the continuity thesis also holds true regarding the content of the reforms. Core elements of the Quality Reform, such as the study reform and the new degree structure are the last stages in government attempts to develop a system of mass higher education that have progressed slowly and haltingly since the 1960s (Bleiklie et al., 2000; Michelsen and Aamodt, 2006). The above observations lend considerable support to a neo-Weberian narrative that emphasizes continuity regarding the strong role of the state in the regulation of higher education. However, if we look at the certain aspects of the way in which the institutions are funded and governed, and not least the role of the European level operating through the Bologna-process, it is easier to make the case that Norwegian higher education finds itself in the midst of a period of profound transformation that at the same time may indicate a continued strong role for the state in higher education. The changes are related to the formalisation of university studies and the teaching process, as well as the formalisation of research activities. These are primarily attempts by the state to establish reliable macro steering instruments for a growing public higher education system. Although private sector research spending has increased more sharply than public spending, public spending measured as a ratio of GNP, is increasing and well above the OECD average. In addition, there are few indications that state control over the use of public research funds have decreased. As for doctoral education, the current reforms are the last in a continuous series of efforts over a 50-year period that basically has had the same goal. The aim has been to provide an organized, efficient and reliable doctoral education based on research needs as defined within the ‘hard-pure’ research tradition of the sciences.