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Issues in higher education policy 2006

An update on higher education policy issues
in 2006 in 10 Western countries

Frans Kaiser
Jasmin Beverwijk
Adrie Dassen
Jarno Deen
Ben Jongbloed
Marc Kaulisch
Andrea Kottmann
Liudvika Leisyte
Hans Vossensteyn
Egbert de Weert

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 Egbert de Weert



Center for
 Higher Education
 Policy Studies
 International Higher Education Monitor

Center for Higher Education Policy Studies (CHEPS)
University of Twente
P.O. Box 217
7500 AE Enschede
The Netherlands

T.: +31.53.489 3263
F.: +31.53.434 0392
E.: cheps-secretariaat@utwente.nl
W.: www.utwente.nl/cheps

Kenmerk: C7FK023

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1 Introduction

Higher education systems increasingly are open to influences from outside the system. Describing higher education systems in a highly dynamic context therefore requires a regular updating of the information presented. The annual CHEPS International Higher Education Monitor¹ (IHEM) update report provides insights into the latest developments in the higher education infrastructure, higher education finance, governance and quality assurance in the countries that the IHEM covers. In the first and main part of the report, the issues most pertinent in public debates and policies are identified and discussed. Information is collected from written and electronic sources as well as through consultation of national experts. The second part of the report is a comparative reflection. In this part, the issues are identified that are common in a number of national systems or even in most systems. Although no additional country information is presented in this section, the comparative analysis also builds on insights obtained from relevant CHEPS research projects. The cross-national presentation of issues in some cases thus can cast a different light on the national issues.

¹ The CHEPS 'International Higher Education Monitor' (IHEM) is an ongoing research project aimed at the monitoring of higher education systems and higher education policies in ten (Western) European countries and Australia. A major part of the project is commissioned by the Dutch Ministry of Education, Science and Culture. IHEM consists of in-depth country reports, (describing national systems and policies), thematic reports (providing in-depth comparative analyses of major issues in higher education research), trend reports (identifying changes in quantitative aspects) and a database with quantitative and qualitative information on the higher education systems. For further information see http://www.utwente.nl/cheps/higher_education_monitor/

2 Australia²

2.1 Educational Infrastructure

2.1.1 Shortage of engineers

The *Science, Engineering and Training Skills Audit Summary Report* was released in 2006 (Department of Science and Training, 2006). It was concluded that Australia potentially faces a declining number of engineers available to meet industry needs due to demographic trends³. Engineers Australia has also highlighted that a large proportion of current engineers who graduated in the 1960s and 1970s will retire over the next 10 years. A shortfall of 35 per cent of the 55,000 additional science professionals required in the coming six years was predicted. Against this backdrop, the Government believed there is a strong need to increase Australia's investment in engineering skills and announced that it would invest A\$56 million (€33 mln) over four years to fund an extra 500 Commonwealth-supported engineering places at university from 2008. These places are in addition to the 510 new engineering places commencing from 2007 which were announced by the Minister for Education, Science and Training earlier in 2006. Universities will be free to utilise the places in particular areas of engineering which are in demand.

Additionally, employer incentives worth A\$54.4 million (€32 mln) over five years were announced in order for more Australians to be supported in their workplaces to undertake Diploma and Advanced Diploma level qualifications. The Australian Apprenticeships Incentive Program is to be extended from January 2007 to support training at the Diploma and Advanced Diploma level. Up to 24,800 people will benefit from the new incentives over five years. Employers will receive incentive payments of A\$1,500 (€855) for each employee commencing a Diploma or Advanced Diploma program and A\$2,500 (€1475) when they complete. Employer incentives could be paid for employment-based training or, where this is not available, for institution-based training.

The Minister for Education, Science and Training launched the Australian Government's Science, Engineering and Technology Skills Audit on 19 July 2006. This audit is part of the Australian Government's commitment to boost Australia's research and innovation potential. The audit process involved comprehensive consultations, public submissions and a number of research projects that aimed to develop a comprehensive picture of skills issues in Australia. The Skills Audit was announced in response to concerns expressed by industry and the academic research community about Science, Engineering and Technology skills issues.

² In the beginning of 2006, Ms Julie Bishop MP succeeded Brendan Nelson as the new minister for Education, Science and Training. Nelson became the Minister for Defence

³ There has been a strong decrease in births till the late 1970s but since then, the number of newborns has grown again. That means that the cohorts entering higher education will increase in the near future.

Industry and science research organisations expressed concern that the supply of skills from the education and training system may not be adequate to meet current or future demand for skills.

2.1.2 Australian Response to the Bologna Process

The government published a discussion paper: *The Bologna Process and Australia: Next Steps* (Department of Education, Science and Training, 2006a), to stimulate debate within the Australian higher education sector about the Bologna Process. While the Australian Vice-Chancellors Committee (representing the interests of Australian universities) and Australia's Union for Tertiary Education Staff support efforts to achieve greater student and staff mobility, and welcome attempts to make Australian qualifications recognisable world-wide, both bodies question the necessity of changing degree structures to align with the Bologna Process.

2.2 Research infrastructure

2.2.1 Green light for the Research Quality Framework

In November 2006, the Australian government endorsed the *Research Quality Framework* (RQF). The RQF is to be implemented in order to strengthen the assessment of research carried out in Australia. The green light for the RQF came after a two year period of discussion; a brief overview.⁴

In May 2004 the Prime Minister announced that the Australian Government would establish Quality and Accessibility Frameworks for Publicly Funded Research as part of the *Backing Australia's Ability* policy. The aim of the Research Quality Framework initiative is to develop the basis for an improved assessment of the quality and impact of publicly funded research and an effective process to achieve this. The notion of a new quality assessment system for research also followed on from recommendations made in the *Review of Closer Collaboration between Universities and Publicly Funded Research Agencies* (Department of Education, Science and Training, 2004) and the *Evaluation of Knowledge and Innovation Reforms* (Department of Education, Science and Training, 2004a). These evaluations called for a mechanism to more adequately measure both the quality and the impact of publicly funded research.

Following a policy development tradition characteristic for Australian public policy, and reminiscent of the Dutch 'Polder model', a lengthy process of consultation and working groups followed the initial announcement. On the basis of initial discussions with the sector, the *Expert Advisory Group* (EAG) published an issues paper in early 2005 to start a formal consultation process. On the basis of this, the EAG developed the so-called 'Preferred Model' paper (Department of Education, Science and Training, 2005), outlining the basic elements of the RQF. The proposed model in essence boiled down to universities proposing groups of

⁴ Part of the following discussion and presentation of events is derived from a discussion with Lynn Meek and Leo Goedegebuure.

researchers for assessment by external panels on the basis of portfolios provided, resulting in a system of star ratings which would then form the basis for the allocation of lump sum budgets to the participating organisations. The paper resulted in 151 written responses by November 2005, with the main elements for debate and controversy being, not surprisingly, who were the researchers and groupings to take part in the assessment (eligibility), the evidence to be provided for the assessment, and the definition of what was to be defined as research impact.

Following further discussion in the EAG, the final advice was provided in March 2006 to Minister Julie Bishop, who immediately installed the *RQF Development Advisory Group* to get going with the implementation of the RQF. The final advice overall maintained the core elements of the preferred model, whilst at the same time making a claim for additional resources. These resources on the one hand were considered necessary to cover the costs of the RQF exercise as well as to raise the stakes by increasing the overall level of public research funding.

The Development Advisory Group took a close look at issues such as the operationalisations of 'quality' and 'impact'. It established four technical Working Groups to assist in the development of the RQF model:

- Quality Metrics Working Group - to identify the forms and sources of available data that may assist the process of research assessment by expert review.
- Impact Working Group - to advise on the optimal methodology for assessing the broad impact of university research.
- IT Working Group - to scope and plan for a data management system for the RQF.
- Exploratory Modelling Working Group - to advise on the possible funding models that derive from RQF outcomes.

Through these working groups, so-called guiding principles were developed that recently were made public.

In particular the principles of what is to be understood by impact have resulted in an unprecedented wave of criticism, particularly from the Group of Eight (a self-selecting group of research intensive universities). Because of its very wide ranging definition, operationalisation of what is to be captured under the heading of impact, the leading research universities argue that this is the final nail in the assessment coffin by opening the doors wide for low quality research to be an integral part of the assessment. What the effect of the RQF will be remains to be seen. A very valid question to ask is whether the costs of the RQF exercise outweigh the benefits. The vast majority of research funding already flows to a strictly limited group of institutions; the RQF probably would reinforce the Mathew effect, but it would be very unlikely that profound redistributive effects would occur, especially with the current appraisal of the 'impact dimension'.

On November 14 2006, on the basis of the Recommended model proposed by the Development Advisory Group for the RQF (Department of Education, Science and Training (2006b), the Minister gave the green light for the RQF. She decided that the first RQF will take place in 2008 and the next RQF exercise to be undertaken six years later, that is in 2014. Under this timeframe, data gathering would take place in 2008, with financial consequences

to follow from 2009. The minister stressed that the RQF would be a world's best practice framework for evaluating research quality and the impact of research, which will ensure that public funding is invested in research which will deliver real benefits to the wider community. In particular, the introduction of a measurement of research *impact* in the RQF will create a world-first research evaluation measure. In the meantime, the stage has been set for a round of "musical chairs" among top researchers, as institutions scramble for more than A\$600 million (€355 mln) in research dollars under the new research quality framework.

2.2.2 *The Productivity Commission*

In its draft report (Australian Government Productivity Commission, 2006) the Australian Government *Productivity Commission*⁵ finds no reason to make large changes to the overall level of public spending on science and innovation, but suggests there is a need for incremental shifts in how it is spent.

The commission's report states that it is important for government programs to maintain a balance between pure basic research and commercial product development. There has been a trend to focus more on commercialisation. However, the commission states that in most cases the private sector is best placed to fund the R&D that leads to marketable goods and services, and to reap the rewards from their sale. The objectives of R&D collaborative arrangements between business and universities – in particular the Cooperative Research Centres (CRCs) – should be re-aligned to the broad attainment of economic, social and environmental goals, not just commercial ones. In commenting on university funding, the Commission states:

'While the proposed Research Quality Framework has some benefits, there are also considerable costs. The Commission suggests that implementation of the RQF be delayed while other options for assessing and improving the quality and impact of block-funded university research are explored.'

The Commission will release its final report in March 2007.

2.2.3 *Economic Impact of Co-operative Research centers*

The Department of Education, Science and Training (DEST) commissioned an [Economic Impact Study Report](#) which focuses on providing an assessment of the full economic impacts of the CRC Program. The *Cooperative Research Centres* (CRC) Program was established in 1990 to improve the effectiveness of Australia's research and development effort. It links researchers with industry to focus R&D efforts on progress towards utilisation and commercialisation. Since the commencement of the CRC Program, there have been nine CRC selection rounds, resulting in the establishment of 158 CRCs over the life of the Program (100 new CRCs and 58 new from existing CRCs). There are currently 57 CRCs operating across six sectors.

⁵ The Productivity Commission is an independent agency. It is the Australian Government's principal review and advisory body on microeconomic policy and regulation.

The overall conclusion to be drawn from the impact study is that the CRC Program is delivering very clear net benefits for Australian economic welfare. For each dollar invested in the CRC Program (rather than left with taxpayers):

- Australian Gross Domestic Product is cumulatively A\$1.16 higher than it would otherwise have been.
- Total Australian Consumption is A\$1.24 higher than it would otherwise have been (Private Consumption is A\$0.10 higher and Public Consumption is A\$1.14 higher).
- Total Investment is A\$0.19 higher than it would otherwise have been (Inside Economics 2006).

2.3 Finance

2.3.1 2007 Budget

The federal (i.e. Commonwealth) budget for higher education was released in May 2006. It announced an increase in funding for higher education of more than A\$560 million (€330 mln) over five years from 2005-06. This is part of the Australian Government's commitment of A\$11 billion (€6.5 billion) additional funding for the sector over ten years through the Our Universities: Backing Australia's Future package. In the budget it was also announced that selected Australian universities will receive A\$ 95.5 million (€56 mln) more to undertake new infrastructure projects (through the Capital Development Pool).

However, the Budget makes no mention of additional funding to enable universities to implement the outcome of the new research assessment process (see par. 2.2.1).

2.3.2 The Student Learning Entitlement and its impact

The Commonwealth Government introduced the *Student Learning Entitlement* (SLE) in 2005 as part of the 'Backing Australia's Future' (BAF) reforms to the funding system for university student. The SLE is implemented in order to provide greater opportunities for more students to gain access to a Commonwealth supported study place, as new entrants occupy places freed by students who have used their SLE.

Australian citizens and permanent residents and New Zealand citizens:

- are entitled to Commonwealth support for seven years equivalent full-time study (Ordinary SLE),
- may be entitled to extra SLE for longer courses and/or postgraduate study once Ordinary SLE has been consumed (Additional SLE),
- can accrue Lifelong SLE at an ongoing rate of 0.25 EFTSL per year from the age of 27, with one EFTSL equivalent to one year of full-time study.

Having a Commonwealth-supported place (CSP) means that a student's tuition fees are subsidised through the Commonwealth Grants Scheme (CGS), with students required to contribute to the cost of their university education through a Higher Education Contribution Scheme (HECS) fee. Australian citizens and permanent humanitarian visa-holders are eligible for HECS-HELP loans. Other CSP students must pay their HECS fee up front (DEST, 2006b). Upon enrolment in a CSP, students receive a Commonwealth Assessment Notice

(CAN) informing them of their Commonwealth Higher Education Student Support Number (CHESSN), through which students will be able to track their SLE consumption.

It may be too early to determine what impact, if any, the introduction of the SLE has had on students and the choices they make in terms of their pathways through higher education. To date, the response to the SLE has come from universities themselves, focusing on the contribution of the SLE and other BAF reforms to additional, repetitive and costly administrative and reporting requirements on universities.

In an independent report (PhillipsKPA, 2006), the SLE is criticised both for the reporting burden it places on universities and for being ineffective in its stated aim of spreading Commonwealth support for university students more equitably. For example, the report states:

“In policy terms, the SLE appears to be of little benefit to students, providers, the Government or the public. It is a limitation on previous student entitlements and delivers no additional funding or other benefits to providers. There is no evidence that it will provide significant savings or obvious policy gains for the Government, and it seems of questionable public interest given the unproductive costs involved in its administration. Critically, it appears likely to be almost completely ineffective. An analysis undertaken by the University of Western Australia of the total load accumulated at the University of 16,000 students it had enrolled in 2005 indicated only five of that total would have exceeded their SLE, had the SLE limitations been made retrospectively. Given the courses studied by those students, it is also likely that the SLE would have been extended in each case. While it is acknowledged that it was not possible in the UWA analysis to include load undertaken previously at other universities, these figures suggest it is highly unlikely that significant numbers of students will exceed their SLE. Thus there are very serious policy doubts about the value of the SLE.” (PhillipsKPA, 2006, p. 35-36).

There are no doubts about its administrative consequences. As noted previously, it requires DEST and higher education providers to implement and maintain a system of unique national student identifiers, monitor and track each student’s consumption of their entitlement across providers and time, and report frequently to ensure that at any point in time the entitlement has not been exceeded. Each provider is also now required to develop and maintain administrative machinery to determine student requests for re-crediting of their SLE where they are unable to complete a unit of study for circumstances beyond their control. (PhillipsKPA, 2006, p.35)

2.3.3 Student support

In the 2007 budget it is mentioned that fee-paying students will be able to borrow more. The cap on FEE-HELP for all students will be increased from A\$50,950 to A\$80,000 (€30.000 to €47.250) and the cap for students in medicine, vet science and dentistry will be increased to

A\$100,000 (€59,000). FEE-HELP is a scheme that provides any student with the opportunity to study by giving access to an income contingent loan.

2.4 Quality

2.4.1 National protocols

In July 2006, the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) endorsed a revised set of *National Protocols for Higher Education Approval Processes*. The National Protocols were designed to ensure consistent criteria and standards across Australia in such matters as the recognition of new universities, the operation of overseas higher education institutions in Australia, and the accreditation of higher education courses to be offered by non self-accrediting providers. Five Protocols outline criteria and processes for higher education approvals:

Protocol A: Nationally agreed criteria and approval processes for all higher education institutions

Protocol B: Criteria and processes for the registration of non self-accrediting higher education institutions and the accreditation of their higher education course/s

Protocol C: Criteria and processes for awarding self-accrediting authority to higher education institutions other than universities

Protocol D: Criteria and processes for establishing Australian universities

Protocol E: Criteria and processes for overseas higher education institutions seeking to operate in Australia

The revised National Protocols are due to be implemented from 31 December 2007 and include a number of new provisions, which will allow more diverse types of higher education institutions to develop in Australia, including:

Specialist universities: High quality higher education institutions meeting the same requirements as other universities, with the exception of breadth of fields of study. They will be required to offer courses including research masters and doctorates, and undertake research activity, in one or two fields of study only.

Self-accrediting institutions other than universities: Selected non-self accrediting providers, usually with a strong track record in re-accreditation, will be able to seek authority to accredit their own courses.

University colleges: This title will be protected under the revised National Protocols, reserved for use by new universities, which at point of establishment, need only undertake research and research training in one field. It may also be used by provisionally approved 'greenfield' institutions based on a plan, which would normally be mentored by an existing university.

Overseas institutions: Clearer rules around entry and their use of university title will assist more overseas institutions to establish a presence here and offer their own qualifications, thereby increasing choice for students.⁶

⁶ Carnegie Mellon University opened its doors in Adelaide in May as the first foreign university in Australia. The number of students is 71 but it is expected to increase to 200 within three years.

The revised National Protocols will apply to both new and existing institutions. Compliance will be regularly assessed through the standard quality assurance processes that apply to each institution. Nationally agreed quality assurance arrangements include a system of institution registration, course accreditation, a national qualifications framework (the Australian Qualifications Framework, AQF) and external quality audits. The National Protocols specifically relate to registration and accreditation procedures.

The protocols, that may allow new providers to use the word ‘university’ in their institution’s name, have been welcomed by the private providers as a breakthrough.

2.4.2 *Learning and Teaching Performance Fund*

The Learning and Teaching Performance Fund (LTPF) will award A\$82m (€48 mln) in 2007 and A\$109m (€64 mln) in 2008 to those universities that excel in the teaching and learning aspects of higher education (Department of Education, Science and Training, 2005a). To discuss future directions, the Department of Education, Science and Training (DEST) published a discussion paper on the future of the LTPF. This led to extensive consultation with the sector. There were two groups that worked with DEST: an advisory group comprising representatives from the higher education sector, and the Australian Vice-Chancellors’ Committee (AVCC) Working Group on Learning and Teaching. The advisory group and the working group were consulted about the quantitative indicators and the weightings that would be used in the allocation model for 2006. There were mixed views in the sector on the appropriateness of the indicators used. The Department proposed to establish a working group to assist it to work through any technical improvements that need to be made to the methodology and to help develop an overall model that will lead to further improvements in learning and teaching in the sector. The department sought to identify issues that could be addressed to improve the fund for 2007 and to help plan the medium to longer term future of the fund.

Initial consultation with the sector found that there was a clear preference for openness and transparency about all the processes of the fund, and on this basis the data and methodology for the fund were published on the Department’s website. Based on the information produced for the previous round of the LTPF, a leading newspaper, *The Australian*, published an article which ranked universities. These preliminary rankings gained significant attention in the public arena. Many universities have expressed concerns about the publication of the rankings and have indicated that this adversely impacted on their enrolments. On the other hand, some universities that ranked highly in the league table have benefited from the positive publicity. Universities argued strongly that measuring performance at the whole of institution level is not appropriate as the data and indicators used are subject to large variations across fields of study. Aggregating the data also fails to take account of excellence in particular areas of strength, or encourage specialisation in specific areas.

There was broad support for allocating funding on the basis of university performance in separate areas of activity. Universities that demonstrated excellence on one or more outcome

groups could receive funding. Alternatively, universities could be funded for excellence in broad discipline areas. This approach could offset some of the limitations of aggregated data. To provide more meaningful data and allow time for changes to be reflected in the indicators, it was proposed that funding could be allocated on the basis of average scores over 2-3 years.

There was some criticism of the use of attrition as an indicator. The rationale for including employment as an indicator was questioned, as it can be influenced by local employment and/or economic conditions. Some argued that the fund should include postgraduate and international students in the assessment population and that the indicators for success, namely progress and attrition, should use all students rather than commencing domestic bachelor students. The *Graduate Starting Salaries* survey was not considered a viable indicator, as the starting salaries of graduates are affected by a wide range of factors unrelated to excellence in learning and teaching. Many of these factors are outside the university's control. There was support for including an instrument in the longer term that focussed on the views of students currently experiencing the university environment, such as the *First Year Experience Questionnaire* (FYEQ) or the *National Survey of Student Engagement* (NSSE).

There was support for an expert panel for the next fund round, to act as an objective observer.

3 Austria

In 2006 Austria faced two major political events: the Presidency of the Council of the European Union in the first half of the year and the general election for the *Nationalrat* on October 1st. Both affected Austrian higher education policies: rather than being characterized by innovations, new legislations or further developments as it was in the last years according to the implementation of the *Universitätsgesetz* in 2002, 2006 can be perceived as a year of moratorium only generating deed polls, conflicts and discussions. The Presidency mainly led to a declaration of priorities in educational policies (see bm:bwk 2005). General elections caused a change of government. End of December 2006 a coalition formed by Social Democrats (SPÖ) and Austrian People's Party will be in power. This also will lead to a change of the Minister. Elisabeth Gehrler resigned from her mandate in October, and is now working as an interim until the new government is acknowledged.

This moratorium also affected the perception of the 2006 OECD-Report 'Education at a Glance'. In it Austria's higher or tertiary education polled badly. Graduation rates of academics and expenditures for tertiary education were evaluated as being too low to serve the demands of a knowledge based economy (OECD 2006). Political reactions to the report can largely be regarded as supporting election campaigns in which education policy of recent years was criticized as a failure in total (Der Standard, 12.09.2006).

3.1 Educational infrastructure

3.1.1 Bologna and doctoral studies

Like in the foregoing year no major changes occurred in this area. The process of implementing the Bologna declaration is still ongoing.⁷ The approach is now extended to doctoral studies as already decided in 2005. An amendment of the *Universitätsgesetz* passed in June prescribes a standard length of three years for doctoral studies. Universities also have to establish a curriculum for those doctoral studies. The role of study plans is now discussed by different stakeholders: on the one hand e.g. student organizations argue that those plans could help to create a more structured and target oriented education. On the other hand, some parties fear that academic freedom and the role of research for doctoral studies will lose their importance. Compared to the statement of the *Rektorenkonferenz* and the BM:BWK published in 2005 only a few points were taken up in this amendment (cf. Updates 2005: 13 and BM:BWK 2005). Associations of doctoral students (e.g. *doktorat.at*; Müller 2006) as well as the *Hochschulrektorenkonferenz* (Österreichische Rektorenkonferenz 2006) request the forthcoming new government to proceed with these issues.

3.1.2 Excellence

Besides plans to establish the “*Weltklasse-Universität*” or the “*Exzellenz-Universität*” there were also plans to establish an “*Elite-Universität*”. While the plans for the *Weltklasse-Universität* were not enhanced yet, the plans for the “*Elite-Universität*” are partly realized. The overall target of these plans is to found an Austrian research institute of excellence modelled after the MIT. This project was initiated by different professors together with the FWF (*Wissenschaftsfonds*). At the beginning of 2006 these plans were evaluated positively by the *Nationalrat* and implementation was commenced. From the beginning problems popped up: The government’s decision about the location of the institute in Maria Gugging near Vienna led to the resignation of the founding committee. They deemed this location to be suboptimal to the requirements of an institute of excellence. The spatial distance to other universities and think tanks was regarded as being too big.

A new committee was appointed by the Federation of Austrian Industry in February to proceed with the establishment of the institute. Their main assignment was to elaborate plans for the administrative structure, profiling the research institute, planning of financing and the selection of staff. Their final recommendations were published in June 2006 (Harari/Kuelber/Markl 2006).

Additionally a board of trustees, composed of seven researchers and seven political representatives was appointed by the *FWF-Wissenschaftsfond* and the *Wissenschafts- und Forschungsrat*. But discussions about the “*Elite-Universität*” are still going on: assigning a final name (ISTA or AIST?) seems to be a minor problem regarding that the board of trustees did not yet find an agreement on how the university’s exact research profile should look like.

⁷ An update of these figures was not available for 2006.

3.1.3 Private Universities

The number of private universities has grown in 2006. The *Sigmund-Freud-Privatuniversität* in Vienna offering specialized study programs for psychotherapy was accredited late 2005. In 2006 about 269 students enrolled here. In total now 3.600 students are enrolled in private universities, about 1.500 who began their study during the last year.

3.2 Research Infrastructure

By the end of 2006, the *Forschungsförderungsgesellschaft* (FFG) is in office for almost 1.5 years. Research funds are allocated via four main programs: funding of free proposals, structural programs to improve the conditions for networking, innovations and excellence in science, thematic programs and finally theme defined programs. In addition the *Forschungsförderungsgesellschaft* provides support for the participation in international and European research programs. Structural programs are mainly dedicated to support excellence as they provide funding for centers of expertise, support innovation networks and the promotion of human resources. The other programs mainly focus on continuing research in successful areas, exploring new potentialities, and also steering for the complementary of research projects.

In 2006 in total about €362.4 millions have been spent, and more than 1000 research projects were approved. Time and working schedules have been set up to define the range of research topics for the period of 2006-2008. The agenda for thematic research covers e.g. investments in IT and nanotechnology but also in aeronautical and security sciences (*Mehrjahresprogramm* FFG 2005).

3.3 Finance

The budget for research in 2006 will be around €6.2 billions (bmbwk.gv.at). Again, like in 2005 an increase of 8% was realized, and about 2.43% of the GNP was spent for research. The original goal to spend 2.5% of the GNP for research has not been fulfilled, but Austria deems itself to fulfil its objective for 2010: to spend 3% of the GNP for research (Campus 2006/4: 5).

3.4 Governance

3.4.1 Staff development

Staff development was an important part of the *Universitätsgesetz* of 2002. Universities became autonomous enterprises, which made it possible for universities to establish a more flexible human resource policy. Academic personnel now are subdivided into three main and also hierarchical groups:

- the lowest level is the position of the “*wissenschaftliche Mitarbeiter*”. This position is mainly designed as a training relationship, leading to the doctorate, and can last for four years.

- The second level is the position of “*Promovierter Assistent*”. The doctorate is a prerequisite for this position, and temporary contracts last from four to six years at maximum.
- The third and highest level is the position of the “Professor” or the “Staff Scientist”.

Moving from one level to the next will not happen automatically anymore, candidates have to apply and compete for the positions. The positions on all levels do no longer have the civil servant status anymore; permanent employments are only possible for the third level.

To implement these new regulations the BM:BWK initiated several projects. Some of those aimed at the professionalisation of human resource departments at universities while other programs were geared to establish new training schemes for academics at the lowest level doing a doctorate. Results and effects of these programs and initiatives have been reported in September 2006 (BM:BWK 2006). This report indicates some positive developments, e.g. rising number of employees and a rising participation of women, and that universities have established strategies for the development of human resources.

However, the legal implementation and the effect of the *Universitätsgesetz* on collective labour regulation are still not set. New forms of contract and career models are not yet confirmed by labour legislation or tariff laws. A final collective agreement especially for the lowest level positions is still not placed (Ardelt 2006).

3.4.2 *Wissensbilanz*

The *Wissensbilanz*, an instrument for steering and evaluating universities was used for the first time this year. Its implementation caused discussions as well, especially the *Rektorenkonferenz* complained about its shape and the kind of implementation (Koch/Schneider 2006, Rektorenkonferenz 2005). They criticized the number of indicators as being too high, respites as being not consistent, and finally the system of indicators as not being clearly specified. The *Wissensbilanz* was also regarded as an instrument of control giving the Ministry of Education too much insight in university’s affairs therefore reducing its autonomy (Koch/Schneider 2006: 16).

4 Finland

The key words in Finnish education policy discussions are quality, efficiency, equity and internationalisation. Education is a factor for competitiveness. The current priorities in educational development are to raise the level of education and upgrade competencies among the population and the work force, to improve the efficiency of the education system, to prevent exclusion among children and young people, and to enlarge adult learning opportunities

4.1 Educational infrastructure

4.1.1 Polytechnics (AMK)

The development of polytechnic education focuses on internationalisation and the quality of provision (Ministry of Education, 2006b). To this end, measures have been taken to reform degree structures, step up study processes and facilitate international student and teacher mobility.

The Ministry of Education has granted profitability grants totalling €3 million to polytechnics. The amount of the profitability grant is determined by the number of polytechnic students graduating within the norm time. The following indicators were used in the decision: development of teaching and teaching methods, attractiveness and progress of education, connections to working life, and R&D activities as well as regional impact (Ministry of Education, 2006)

4.1.2 Universities

The main focus in the reform of university education and degrees has been to step up internationalisation and improve the quality of instruction and student counselling with the aim of shortening study times and speeding up graduation and entry to the labour market. The degree structure reform and the introduction of individual study plans have made university studies more flexible and as such promote lifelong learning.

4.1.3 Implementation of the Bologna agreement.

Finnish universities are actively involved in the implementation of the new two-cycle degree system which was officially adopted in August 2005. From 2008 on, students can no longer study under the old program structure. By 2008 also the ECTS system will be fully implemented. In the transition period from 2005 to 2008, students who enrolled under the old program structure can complete their programs the old way whereas new students have to start under the bachelor-master structure.

The Finnish universities initially took a fairly negative view of the Bologna Declaration. Now the situation has changed and universities are actively preparing their participation in the creation of the European Higher Education Area. The polytechnics took a positive view of the process from the outset, but the Ministry of Education has not seen it necessary yet to create a two-cycle degree system in polytechnics, which will keep the present system. The status of polytechnic postgraduate degrees in the higher education system as a whole must be determined explicitly.

In Finland universities and polytechnics have adopted the Diploma Supplement. Finnish higher education institutions also use the ECTS system in international student mobility schemes which revealed some problems in the Finnish credit unit system. This is why the

Finnish degrees have been reformed to be compatible with the ECTS in connection with the adoption of the two-cycle degree system.

4.1.4 Changes in student selection

The objective of the changes being made in student selection is to enhance the efficiency of the student placement system. Secondary school leavers tend to delay their entry into higher education and the improvements to the placement system aim also at raising the proportion of the same year's secondary graduates in admissions to 50 % by the end of 2006 and to 55 % by the end of 2008. In 2005 it was 36%.

The main changes proposed include lighter entrance examinations, harmonisation of the points systems, increased admission based on school reports, fewer admitting units and closer cooperation in the selection process. The new and simpler system should be fully adopted in the 2008/2009 academic year.

4.1.5 Special programs related to the Lisbon agenda

Employment Policy Program to ensure access to skilled labour force

The main aims of the Government's Employment Policy Program are to reduce structural unemployment and prevent exclusion, to safeguard access to skilled labour force, to encourage people to remain longer in work, to enhance productivity and to improve the organisation and meaningfulness of work. Action is taken to:

- raise graduation rates through the development of student guidance, forms of study, student financial aid and the financing of education.
- accelerate transition to training and to the labour market with a view to lowering the age at which young people start and end their studies, raising the graduation rate and diminishing dropout in vocational and higher education.
- establish youth workshops on a permanent basis, increase and develop apprenticeship training, improve anticipation in vocational education, develop adult education and enlarge adults' education and training opportunities (Noste program).

Information Society Program

The purpose of the Information Society Program is to improve competitiveness and productivity, social and regional equality and people's welfare and quality of life by means of ICT. Another aim is to maintain Finland's position as one of the leading ICT producers in the world. In the Ministry of Education sector, the aim is to

- support citizens in obtaining the ICT skills needed in their life situations
- ensure that schools and libraries have rapid telecommunications contacts
- enhance the use of ICT in education and develop contents for virtual learning
- promote Finland's international competitiveness through R&D, an up-to-date research infrastructure and supercomputing
- strengthen cultural and content industries and relevant knowledge.

Civil Participation Policy

The Civil Participation Policy seeks to improve the support given by education for active and democratic citizenship, develop modern channels for civic participation and civic influence, and enhance the capabilities of the administration to engage in civic debate.

In education, the actions relate to

- the development of student council activities
- action and cooperation networks and collaboration between authorities
- dissemination of information about young people's channels of influence and good practices in citizenship education
- international cooperation
- contents relating to civic influence in teachers' initial and continuing education
- support to liberal adult education with a view to increasing citizenship education and skills, with special emphasis on immigrant and minority groups
- support to student organisations
- youth participation schemes at the local level.

4.2 Research, science and technology

4.2.1 Science, technology and innovation strategy

The Science and Technology Policy Council of Finland⁸ formulated Finland's Science, Technology and Innovation strategy (Science and Technology Policy Council, 2006). Finland's strategy is to ensure sustainable and balanced societal and economic development and to continue its success in combining economic development with overall societal and environmental development as well as citizens' well-being.

The main aims of development measures are:

- To promote overall functionality of the innovation system and internal renewal;
- Enhance the knowledge base;
- Improve the quality and targeting of research;
- Promote the adaptation and commercialisation of research results;
- Secure adequate economic prerequisites for the activities.

Focus area for research will be strong sectors of the Finnish economy like the forest industry, the metal industry and ICT. New focus areas will include promising branches, like biotechnology, new materials, software, knowledge-intensive services, the well-being cluster, culture and leisure, and nanotechnology. It was also decided to create and strengthen internationally competitive competence clusters and centres of excellence in science and technology. Existing R&D resources should be allocated on a larger scale to these.

⁸ The Science and Technology Policy Council of Finland, chaired by the Prime Minister, advises the Council of State and its Ministries in questions relating to science and technology.

The Science and Technology Council of Finland indicated also that the public investments in R&D will grow from 3.5% of the GDP in 2005 to about 4.1% in 2011. This particularly is needed to make Finnish higher education competitive in a period of an ageing population.⁹

4.3 Higher education funding

4.3.1 Funding and performance management

A committee looking into performance management in universities submitted its proposal for the further development of performance management and the funding model included in it.

The committee proposes that the focus in the funding system be shifted to strengthen conditions for research and researcher training. In the 2007–2009 agreement period, university core funding will be kept at a stable level throughout the three-year period, with a greater emphasis on quality and performance. Criteria describing research, researcher training and artistic activity will be supplemented with new criteria relating to the university's activity in research, postgraduate places, the target number of degrees and certain quantitative aspects of artistic activity. The weight of single doctorates will be reduced. The education criterion will only consist of the objectives of Master's degrees. Regarding the social service mission, it is proposed that the current allocation criteria be retained. The total amount will be fixed at the present level, as will the field-specific cost coefficients used in Master's degrees.

Based on the proposal, the Minister of Education and Science decided to reform the funding model between 2007 and 2009.

4.3.2 University salary system

The aim of the universities' new salary system is to make pay more fair, boost the salary competitiveness of the universities as employers, encourage staff to develop their competencies and their input, and to improve staff management and direction. In the new system, salary comprises one component based on job grading and another based on the employee's own performance. Agreement was reached on the new salary system on December 16, 2005, and it took effect on January 1, 2006 (Ministry of Education, 2005).

4.4 Governance

In higher education the key steering instrument is performance management. Polytechnics and universities agree with the Ministry of Education on how to promote the objectives of higher education policy in practice. The polytechnics' and the universities' performance agreements specify targets both for each institution and for the entire higher education sector for a three-year period.

⁹ The number of new bornes decreased during the period 19850 till mid 1970s substantially. This means that the number of young people into the labour market has decreased till the early years of this millennium. Although the situation is relatively stable now, the 'ageing effect' on the total labourforce can be felt for many years to come.

Universities were steered by means of performance management and the funding model included in it. Written feedback to universities was further improved. Feedback is given on strategic development, quality assurance, the new degree structure, student selection, the implementation of lifelong learning, the utilisation of research findings, internationalisation, research and researcher training.

5 Flanders

5.1 Educational infrastructure

5.1.1 Short higher vocational education

Developments in the labour market pointed out that there was a need to develop a qualification level in-between secondary education and higher education. The current programs on this intermediary level are technical, seven-year secondary education programs, the fourth level of secondary vocational training, and higher education that does not result in a bachelor or master degree (Vandenbroucke 2006). As from 2006, this type of education is referred to as higher vocational training (*hoger beroepsonderwijs, HBO*). The level of the qualifications of this type of education will be assessed by means of a qualification framework. By the end of 2006 this framework was under construction. The Flemish ministry of education aims to have a discussion paper on this framework ready by the end of 2006 and to start some pilot projects with the framework in the first half of 2007.

5.1.2 Recognition of prior experience

As a result of the discussions in higher education in Europe on the recognition of prior experience, in 2005 it was proposed to recognize prior experience by offering titles for professional qualifications (Kaiser, Beverwijk et al. 2006). In 2006, the government issued the flexibility decree which facilitates this recognition of prior experience (Vandenbroucke 2006).

5.2 Research infrastructure

5.2.1 Academisation of two-cycle Hogescholen programs

To facilitate hogescholen to develop their two-cycle programs in academic bachelors and masters, new funds are available to strengthen their research environment. These funds aim to stimulate cooperation between these hogescholen and universities with respect to research. Government aims to have €30 million available by January 2009 for this type of research funding. hogescholen should have finished the reforms of their two-cycle programs by the

academic year of 2012-2013. During 2007, government will assess the institutions' progress on this matter.

5.3 Finance

5.3.1 Postponing the new law on funding

In 2005 the ministry of education announced a new law on the funding of higher education, which should be up and running by January 2007. In this law, funding consists of four parts: a fixed element, incentive funds for specific policy priorities, a teaching related variable part, and a research related variable part (Kaiser, Beverwijk et al. 2006). During 2006, three discussion papers concerning the introduction of the new funding scheme were issued. The higher education institutions however requested to postpone the introduction of the new system because they were concerned that they lacked time to fully grasp the extent of the changes and make the necessary adjustments. Therefore, the introduction of this new law on funding has been postponed until the 1st of January 2008.

The ministry aims to issue a decree by the end of 2006 which facilitates the introduction of the new funding law by the first of January 2008. Additionally, the ministry aims to assess the effects of the introduction of the new funding system for the higher education institutions (Vandenbroucke 2006). One of the tasks the ministry accepted after criticism from the higher education institutions is the restructuring of the database tertiary education because this database is the main source of information for the allocation of the fixed part of the new funding scheme.

5.3.2 Stimulating student facilities

Next to the funds universities and hogescholen receive under the funding law, they will receive additional funds when they offer their student's facilities like housing, meals and student jobs, and promote the use of bicycle or public transport. These service related subsidies are for universities higher than for hogescholen (for a similar set of service-activities). During 2006 the Ministry developed a new scheme for this subsidy which does not discriminate between universities and hogescholen. As from the first of January 2007 onwards, there is €3.6 million available for hogescholen to further develop their service related activities.

5.3.3 Staff and Finance

Current laws determine that the unions approve of the employment conditions and that the university and hogescholen boards can only advise on this matter. However, a court ruling determined that this was illegal due to a violation of the equality principle. Government is therefore preparing a decree which enables both boards and unions to decide upon the primary and secondary labour conditions (*CAO*) (Vandenbroucke 2006). It is expected that

the decree will be approved of late 2006 and that the negotiations about a new CAO will be finalized in the first half of 2007.

5.4 Quality issues

In Flanders, there is increasing attention for the role of rankings and accreditation in students' choice for universities and hogescholen. In 2006, a few programs received accreditation and the Flemish government aims to have all programs reviewed by the accreditation committee as soon as possible. Additionally, the Flemish Ministry participates in a pilot project in which a multi-dimensional ranking system of bachelor (and in the near future) master programs is developed. In this project, in which Dutch higher education institutions participate as well, the methodology of the German CHE ranking is used.

6 France

6.1.1 Higher education and the greater societal turmoil

In October and November 2005, France was shocked by riots of youth in the suburbs of several large cities. The desperate situation in which youth (and others) in these areas live proved to be a real threat to French society. Government promised to put in a large effort to address the problems.

One of the tracks along which government tries to do so is through changes in the educational system and the role education can play in providing youth opportunities for an occupational career.

One of the measures taken was the drafting of a law on equal chances. This law, intended to solve problems, created a new crisis due to its article 8 on the *contrat première embauche* (contract for the first job; CPE). This CPE was a labour contract for those aged 26 years or less in their first job. The biggest problem with the article was that the employer could end the contract without proper notice during the first two years of the contract. This was supposed to stimulate employers to hire more youth and thereby reduce the high unemployment rates among youth. After fierce opposition from unions, students and youth, the original article was withdrawn in April 2006 and replaced by a proposal for a law on access of youth in the labour market (especially those who were in underprivileged situations).

At the end of 2005 a call for projects to promote equal chances in university was launched and in June 2006, 54 projects (out of 104 proposals) were selected. These projects focus on three axes: better information for pupils in secondary education; better tutoring/ guidance for students in higher education (for those who need it) and an involvement of industry in achieving these objectives. For 2006-2007 €3.7 million are allocated to these projects

Operation '100 000 students for 100 000 pupils' was started to stimulate pupils to continue their study into higher education.

The plan is that for 100 000 pupils in upper secondary education a personal tutoring student is available to draw the pupils into higher education. The *recteurs* (the head of the secondary school districts) launched a call for projects.

6.1.2 *The national debate on university and employment*

From April till October (the final report was published 24 October) a national debate was held on the problematic relation between university and employment. The debate was initiated after the riots in October-November 2005. The concluding report of the commission organizing the debate proposes six ways to improve the relation university employment (MENESR, 2006):

- Reduction of drop out in university
- Improve information and counselling. The Ministry has opened a new portal for students where they can find detailed information on the programs offered. This new portal, that draws heavily on the products ONISEP produces, aims to improve the information of prospective students (<http://www.etudiant.gouv.fr>). There is a search engine and general information on the job perspectives, Comparing information between programs is however very tedious if not impossible.
- Increase the professional orientation
- Create sustainable links between university and industry
- Create partnerships and provide information on career perspectives
- Reform the university system

To what extent the proposals will be adopted and implemented remains to be seen.

6.2 **Research**

The ‘Pact for Research’ was translated into a law that passed parliament on 18 April. The law (*la loi de program pour la recherche no 2006-450*) is structured around five objectives (MENESR 2006a).

Strengthening the strategic evaluation capacity and the definition of priorities

The science and technology council (*le Haut conseil de la science et de la technologie*) was put in place in September 2006 to advice the government regarding research priorities. Research priorities were also articulated through the funding of projects by the ANR (*agence nationale de la recherche*), according to national priorities.

Putting in place a unified, coherent and transparent research evaluation system

Based on the law, a new agency (*Agence d'évaluation de la recherche et de l'enseignement supérieur, AERES*) was officially established by the end of October 2006, to evaluate the research activities of public research units (as well as the teaching activities of public higher education institutions). The AERES is to replace the existing evaluation agencies (CNE and CNER). By the end of the year, members of the agency will be nominated.

Concentration of resources and facilitation of co-operation between actors in research

On 23 May, two instruments from the Pact for Research were launched: the procedure d'identification et de selection des réseaux thématiques de recherche avancée (RTRA) and the Pôles de recherche et d'enseignement supérieur (PRES). Both instruments aim at reinforcing the co-operation between actors in the higher education and research field and to boost the attractiveness of the French higher education system and research.

The RTRA are research networks grouped around research units in a certain region that may create the critical masse for conducting excellent research. Government puts in some money to create these *réseaux*. In May 2006 10 proposals for the construction of such RTRAs were selected for funding.

The PRES are created to mutualise the activities and resources between various research organizations and higher education institutions, to increase their visibility, efficiency and attractiveness. All higher education institutions have created a PRES. The most ambitious ones will get a four year contract with the state in which the mutual resources will be complemented (MENESR 2006b)

Improvement of scientific and academic careers

The first action announced here is the renovation of doctoral education. Doctoral schools have to become the sole places where doctoral education is offered and that may award doctorate degrees. Quality assurance will become more important, for which another agency is responsible (within the framework of the contract between the institution and the minister). In addition, the government will increase research allocations in order to increase the number of places available.

To monitor the career prospects of young doctors an observatory (*Observatoire de l'emploi scientifique*) will be created.

The creation of an excellence program (Descartes scholarships) in 2007, the expansion of a scholarship scheme to get new PhDs into jobs in industry and the creation of a new scheme (*Conventions pour innovation et la promotion de la recherche en entreprise*; CIPRE) for post doctorates are the last three policy measures in this respect.

Intensify innovation and the links between public and private research

The instruments used in this respect are predominantly financial

6.3 Governance

6.3.1 Introduction of the LOLF

The LOLF, the law on the new public budgeting and accounting system was introduced in 2001, but became in force for the higher education sector on 1 January 2006¹⁰. The LOLF is a way to improve the transparency of the budgeting system and to make it more performance based. With the new system, the Parliament has more information on the performance of the

¹⁰ For more information on the LOLF see <http://www.amue.fr/LettreLolF/>

public sector and the idea is that this will enable the Parliament to formulate better strategic policies and priority setting. Under the new law, Parliament discusses the whole budget, whereas in the previous situation only the new projects were discussed.

The budget is now broken down in missions, that are broken down in 150 programs that are divided into projects. This gives the public agencies that work on those actions more insight in the contribution they are expected to deliver.

The agency responsible for a program (higher education and research is one of those programs) has to write an annual performance plan (PAP). In this PAP the objectives for the program and the indicators of performance are described. As an input for this PAP higher education institutions have to deliver information on those indicators. In order to reconcile the autonomy of the institutions and the national objectives of the program, those objectives need to be operationalised in a contract, along with the precise list of indicators.

The new law on finance (LOLF) was introduced in 2001 but it was not until the first of January 2006 that it was applied to the higher education sector. Because of this 'late' date of application, there is not yet a clear picture of the impact the new law has on the governance and management of higher education institutions. However, there have been some experiments at individual institutions. In an evaluation of the experiment in one university (Fouchet and Turc 2006) it was concluded that the experiment had an impact on the governance and management of the university. The introduction of the LOLF model has led to a change of organizational model, from the traditional professional bureaucracy model to a more performance based, transparency and activity oriented model (which the researchers call the LOLF-model). The formalization of university strategy as a prerequisite for performance budgeting and the development of new budgeting and reporting procedures were seen as major changes. However, the development of LOLF changes was also hindered or slowed down by poor ministerial and internal information systems and the influence of external pressures on the organization. The implementation of the new budgeting and accounting systems creates substantial operating costs.

The external pressures threatening the implementation of the LOLF model comprise specific regulations that frustrate the process as well as the huge societal pressures and challenges that universities are faced with. As described above, French society has been faced with grave problems. Government has put up the universities with the challenge to make a substantial contribution to solving those problems. These challenges, that universities have to face with limited financial means come on top of the daunting task to change the governance and management according to the LOLF model, a task for which most universities are not yet ready (Beyer 2006). In addition, the centralized government still sets human resource policies, tuition fees, selection and loan policy.

The LOLF has a large potential in creating a more transparent, performance based and flexible budgeting system; experiments show promising results. But at the same time university managers are complaining about the lack of tools they have to implement the LOLF (Beyer 2006). How and when the LOLF will lead to a new management model in higher education institutions remains therefore to be seen.

6.4 Quality

The *Agence d'évaluation de la recherche et de l'enseignement supérieur, AERES*, was officially established by the end of October 2006, to evaluate the research activities of public research units (as well as the teaching activities of public higher education institutions). The AERES is to replace the existing evaluation agencies (CNE and CNER).

7 Germany

Since 1st September 2006 the relationship between federal and *Länder* level on higher education and other policy areas is re-arranged. One of the most comprehensive constitutional reforms in the history of the Federal Republic of Germany amended the responsibilities of the federal and *Länder* level on specific policy areas. Education and especially higher education was one of the most debated policy areas. The *Länder* are now widely responsible for educational policies. Admission to higher education and degrees are two fields that remain at federal level but *Länder* can deviate from federal regulations. Former common tasks as construction of higher education (*Hochschulbau*) and educational planning (*Bildungsplanung*) are now solely tasks of the *Länder*. The federal government has the opportunity to cooperate with the *Länder* in providing financial means for specific programs such as construction of higher education but only if all *Länder* agree. Furthermore federal government and the *Länder* can cooperate in the *Bildungsberichterstattung* to compare Germany's performance in higher education internationally. In the higher education sector this constitutional reform was widely opposed because the unity of the higher education system is endangered. Especially two issues are matter of concern: the right of *Länder* to deviate in terms of admission and degree policies and the different capacities by the *Länder* to finance higher education (Bundesministerium für Bildung und Forschung 2006; Hochschulrektorenkonferenz 2006).

7.1 Educational infrastructure

7.1.1 Bachelor Master

The introduction of Bachelor and Master study programs progresses. For the semester 2006/2007 3212 BA-programs and 2080 MA-programs are offered at German higher education institutions (www.hochschulkompass.de; data from 31.10.2006). These come up to nearly 50 % of all offered programs in Germany.

7.1.2 Hochschulpakt

Projections on the future number of secondary school graduates enrolling in higher education show rapidly increasing demand of higher education. At the same time, the supply of study places is under pressure due to the ongoing transition to Bachelor and Master-programs. These programs require higher staff capacity than the traditional programs. To cope with this increased tension on the 'market' for study places, the federal government and the *Länder*

agreed on a *Hochschulpakt 2020* (Higher Education Pact 2020). One of the measures agreed in this Pact is to increase the number of study places by 90.000 till 2010 (Bundesministerium für Bildung und Forschung 2006). Federal government and the *Länder* will spend about €1 billion on these new study places. The federal government funds half of the additional costs. The funding starts from autumn 2007 on. Another instrument suggested in the *Hochschulpakt* is the introduction of a new staff category: lecturer. With this new, relatively cheap staff category, the cost of expanding the capacity may be contained. The *Hochschulpakt 2020* includes some specific conditions for the East-German *Länder* and Berlin because of their specific situation regarding future expectations on student numbers and financial situations. Those *Länder* guarantee to keep their study capacity on the level of 2005. According to the *Hochschulrektorenkonferenz* (HRK, the rectors' conference) even more funds are necessary to cope with the projected development. The HRK calculated an additional sum of €2.3 billion compared to 2005 per year till 2020 that would be needed to keep German's higher education at today's capacity and quality level (Hochschulrektorenkonferenz 2006).

7.1.3 Staff

The federal government, the *Länder* and the municipalities have negotiated a new labour agreement for civil servants with the labour unions. The former *Bundesangestelltentarif* (BAT) is replaced by a new labour agreement called *Tarifvertrag Öffentlicher Dienst* (TVöD). This labour agreement varies between federal government, *Länder* and municipalities. After a series of strikes most *Länder*, exceptions are Hessen and Berlin, agreed on a specific labour agreement for the *Länder*, called *Tarifvertrag Länder* (TV-L) (Gewerkschaft für Erziehung und Wissenschaft 2006). As a step towards a specific labour agreement for all academics (*Wissenschaftlertarifvertrag*) academics are treated in the TV-L in some respects differently from other civil servants:

- academics with temporary contracts are entitled to get sufficient time for research in order to pursue a doctoral thesis or other additional research output,
- the corridor of working hours per week is up to 48 hours and overtime should be equalised within a year,
- performance based salaries (if 3rd party funds are gathered) and
- recognition of earlier work experience in academe for salary classification to prevent inhibited academic mobility.

The federal government proposes changes in the allowance of temporary contracts for academics. Higher education institutions are not allowed to hire academics on temporary contracts if these academics worked already for 12 or 15 years at higher education institutions. The proposal says that this option will be allowed if these academics work on third-party-funded projects {Bundesministerium für Bildung und Forschung, 2006}.

7.2 Research policy

7.2.1 Hochschulpakt

The *Hochschulpakt* includes an agreement on a change in the DFG research funding. All new projects receive funds for overhead (*Programmkostenpauschale*). The expected costs for this are €700 million till 2010.

7.2.2 Excellence initiative

A highly debated issue on federal level is the *Exzellenzinitiative* (Bundesministerium für Bildung und Forschung 2006). With this initiative the federal government and the *Länder* created a competition between universities for additional research funding. Federal government and *Länder* will spend €1.9 billion on this initiative in the next five years (till 2011). 75% of the money is provided by the federal government. The funding is allocated by the *Deutsche Forschungsgemeinschaft* (DFG, German Research Council) and split into three project-based approaches: 1) Research Schools for young scientists, 2) internationally visible and competitive research and training institutions, so-called Excellence Clusters, and 3) promotion of "Future concepts for top-class research at universities". The funding is granted in two rounds. In the first round projects are funded for about €900 million. The most prestigious projects, the future concepts, are allocated to the LMU Munich, TU Munich and TH Karlsruhe (list of all funded projects in the first round: Deutsche Forschungsgemeinschaft and Wissenschaftsrat 2006).

This initiative for excellence is a cornerstone in the research funding of German universities. It does not only awards prestigious project funds but introduces also a new feature of research funding. Up to date institutional funding such as infrastructure was not part of research project funds. In the 'Initiative for excellence' scheme additional funds for infrastructure will be part of project funding. This new feature is seen as a first step to transform research funding gradually into a system where costs for infrastructure are included in the project funding. This transformation is also part of the *Hochschulpakt 2020*.

7.3 Finance

7.3.1 Tuition fees

Seven *Länder* have decided to introduce tuition fees (Baden-Württemberg, Bavaria, Hamburg, Hessen, Lower Saxony, Northrhine-Westphalia, Saarland). In Lower Saxony and Northrhine-Westphalia (NRW) first year students started to pay €500 per semester this autumn. In NRW the higher education institutions themselves decide if and which amount of tuition fees they charge. Baden-Württemberg, Bavaria and Hamburg introduce tuition fees in summer 2007 whereas in Saarland and Hessen students have to pay tuition fees from autumn 2007 on. All these *Länder* start with €500 per semester. Other forms of tuition fees such as tuitions fees for students with a very long study time are introduced also in nearly all *Länder* (exceptions are Berlin, Brandenburg and Schleswig-Holstein) (Studis Online 2006).

First statistics show two effects of tuition fees in NRW. First, less secondary school graduates started to study in NRW (-4000) although the number of eligible adolescents (with a *Studienberechtigung*) increased by 5000. Second, in NRW more eligible adolescents enter vocational training (+ 6600). The latter effect increases the scarcity of *Ausbildungsplätze* (places of vocational training) for lower qualified school leavers (Bündnis 90/Die Grünen 2006; Gillmann 2006; Schaumann 2006). On a third possible effect of the introduction of tuition fees in NRW, migration of first year students to other *Länder* without tuition fees, or to neighbouring countries, are no statistics available. To what extent the decrease of new entrants can be attributed to the introduction of tuition fees is not clear. It may also be caused by capacity reduction through Bachelor and Master-programs.

NRW is not only a prime example because first effects of tuition fees can be presented but also because it shows how change in government affects higher education policy. The social-democratic and green coalition introduced so-called *Studienkonten*. These *Studienkonten* allowed students to study for a specific time without paying tuition fees. If students have not used their *Studienkonto* they were allowed to use the remaining part for further education. In May 2005 a new christian-democratic and liberal government was elected. The government turned higher education policy upside down in two essential issues: tuition fees and the higher education act. The latter change is described in more detail below. The NRW government introduced tuition fees but allowed higher education institutions to decide on their own if they charge tuition, how much they will charge and when they start to charge. The tuition fees have to be used to improve study conditions. 28 of 33 higher education institutions have decided to charge tuition fees. One of the five institutions that have not decided about tuition fees yet is the University of Münster. The university is with about 40.000 students one of the largest universities in Germany.

The discussion on tuition fees is high in the agenda in all *Länder*. In *Länder* that are not interested in introducing tuition fees the opportunity to charge tuition fees is discussed for those students that obtained their qualification to study not in the *Land* where they want to study. But this solution to give benefits to so-called *Landeskinder* is highly controversial because it discriminates *Nicht-Landeskinder*.

What is 'missing' on the agenda in most *Länder* is a clear view on possible introduction of demand-oriented financial aid for students from low-income families. Caps of a maximum of debt after graduating and exceptional cases when no tuition fees have to be paid such as birth-giving, engagement in student affairs are introduced in various degrees.

7.3.2 Funding higher education and research

The situation regarding the basic funding of teaching and research in the higher education is shifting and there is quite some uncertainty regarding the future situation. The constitutional reform and the Higher Education Pact 2020 have contributed strongly to that uncertainty. Funding of higher education is a *Länder* affair, whereas the funding of research is predominantly a federal affair. The Higher Education Pact 2020 is an attempt to increase into federal government's funding of higher education after the constitutional reform. Federal government's funding for construction of universities fades out over the next decade. The

financial situation of *Länder* differ and thus their opportunities to fund higher education. In some *Länder* the financial constraints resulted in considerable budget cuts. It is an open question if tuition fees increase the available financial means of universities or if *Länder* start reducing their funding because funds are available from tuition fees.

In 2006 and 2007 the federal government and the *Länder* increase the budgets for non-university research by about 3 %. The Initiative for Excellence increases research funding nominally by €1.9 billion for the next five years. The *Länder* have to finance 25 % of the sum for projects their universities get granted. Also here it is an open question if these *Länderanteil* will be added on top of the higher education budget or if the budget for all parts of higher education that received no projects from this initiative is reduced by this *Länderanteil*. If the latter is the case then a considerable amount of higher education funding would be shifted from teaching and research to solely research.

7.4 Governance

7.4.1 Higher education acts in Länder

The most radical change in higher education law is passed in Northrhine-Westphalia. The new Hochschulfreiheitsgesetz takes effect on 1st January 2007 (Ministerium für Innovation Wissenschaft Forschung und Technologie in NRW 2006; Ministerium für Innovation Wissenschaft Forschung und Technologie in NRW 2006). The higher education institutions in NRW receive far-reaching competences in decisions about their finances, personnel and organisation. In terms of funding, higher education institutions receive benefits from the Land, they are incited to find new funding sources and they are entitled to decide to finance investments by loans. The Land guarantees that labour agreements and conditions are not subject to change due to this process. In the new structure rectors or presidents appoint professors on the proposal of schools or departments but can deviate from their first choice.

8 The Netherlands

In 2006 the new draft Law on Higher Education and Research, presented in 2005, was subject of much discussion and various suggestions were made for amendments. As a follow-up the Minister published in June 2006 a new draft version which differs on several parts from the earlier version. The main actors in the field, however, maintained their doubts about whether the Higher Education sector really needs a new law and were critical about various issues. The Educational Council expressed the general concern that the existing law of 1993 does need revisions, but these can effectively be handled by modifying the existing law rather than by introducing a new law. Revisions needed refer to quality assurance, the funding structure, the research tasks of hogescholen, and the research infrastructure.

Due to the general political situation which involves premature elections held in November the decision-making process regarding the new law has been postponed until the new

government is in function. Several issues which constitute part of the new draft law will be discussed in separate sections below.

8.1 Educational infrastructure

8.1.1 Participation

The Dutch Government has in the context of the Lisbon goals set as a target to increase participation in higher education and raise the level of educational attainment of the population. As a reaction to the advice by the Educational Council (end 2005) on this issue, the government reformulated the target for the coming decades: in 2050 50% of the labour force in the age group of 25 to 44 should have at least a Bachelor degree. Four ways have been proposed to reach this 50% goal:

- Qualify more students to enter higher education, especially by increasing the number of students that proceed from vocational education to higher education
- Increase the success rate of students and decrease the number of drop-outs
- Increase the number of graduates in the age group above 30 who are still lagging behind the younger age group
- Attract more foreign graduates for the Dutch labour market

Both universities and hogescholen support this government policy and both the University association (VSNU) and the HBO-council suggested various ways to contribute to the 50% goal. Universities underlined the need to keep a larger part of their students and to help them finishing their studies. In their view this requires more possibilities to meet the various needs of students: more focus on particular groups of students with extra support and counselling for students who need this, but also more possibilities for talented and motivated students to take more demanding courses. The VSNU advocates more freedom for universities to differentiate their Bachelor and Masters programs: creation of various study paths in the Bachelor programs, such as broad Bachelor programs which leave options open for later study choices, and Honours programs for a selected group of students as well as an extension of Masters with an extra half year. All these measures, together with extensive student support systems, are geared towards the enhancement of the success rate of students (VSNU 2006).

Based on an analysis of various data sources, the HBO-council expects that the demand for higher qualified people will exceed the supply in 2007 and will increase rapidly thereafter. According to the HBO-council a higher proportion of students from secondary vocational education should continue their studies in higher education. It suggests to organise a 'schooling summit' in which the educational sector, social partners, politics, and the Innovationplatform jointly discuss the policy measures that are necessary in order to reduce the shortage of higher qualified people in the work force (HBO-Council/RWI 2006).

8.1.2 Associate degrees

Experiments with the Associate Degrees (AD) were initiated in 2006 with the objective of exploring the demand for these short-cycle programs. Eleven hogescholen started with the first round of pilots which were selected on the basis of an advice by a Committee on Associate Degrees and assessment of the quality of the programs by the accreditation board. Since considerably more of such programs were proposed than could be accepted, the Ministries of Education, Culture and Science and Social Affairs decided to have an early round of new pilots in the beginning of 2007. In assuring that the meaning of these new programs is clear to both students and employers, AD will have a distinctive place in the educational infrastructure. Important conditions are that AD-programs are at least 120 ECTS, provide a separate diploma-supplement and are part of a Bachelor program. The accreditation body will assess these programs on the basis of its relevance for the labour market and the extent to which it is embedded in a Bachelor program.

8.1.3 Selection

Selection continues to be a hot topic. Although it is generally felt that institutions should be more selective – a view also advocated in the new draft law - institutions are quite reluctant particularly to selecting students who want to enter higher education. The University of Leiden, one of the few institutions that are in favour of a policy of selecting only the best students for some of its studies, carried out an experiment. Two groups were distinguished, one group which had high scores on a selection test and a group which had no high scores. Both groups were admitted to their studies. At the end of the first year it appeared that both groups did equally well. Thus, if such a selection would actually be implemented, many new entrants would be turned away on unjustifiable grounds. The university concluded that selection on the basis of the test is not (yet) possible. Most universities as well as student associations prefer an assessment of the capacities of the students after the first year, on which basis a student gets an advice about proceeding with the study or not. In a similar way the VSNU stresses the importance of an adequate student counselling system.

Selection to Masters programs is becoming more common as is selection for an increasing number of Honours Programs, especially when these programs are accessible to a limited group of students only.

8.1.4 Binary higher education system

The binary system continues to be a hot topic, due to the growing aspirations of the hogescholen to provide postgraduate studies and to extend their research function.

The draft higher education Law states that hogescholen can formally be entitled as universities if they meet the necessary requirements. In that case they can do research and can provide doctoral programs. The new draft Law also fosters more collaboration between universities and hogescholen in terms of sharing their financial means and merging their administrative and managerial affairs, for example in the form of a holding company.

These ambitions and plans are strongly, and not surprisingly, criticised by the university sector, but there were various other organisations that opposed the idea of hogescholen getting 'full' university status, and the attempts to undermine the binary system: the employers' organisation VNO-NCW, and various advisory boards. One of the main objections is that the missions of hogescholen and universities will overlap to a large extent. Current research claims of hogescholen comprise to a large extent applied research and development activities. Universities, however, are also much involved in applied research and are subject to much political and administrative pressure to increase their applied research (relative to basic research) and particularly to contribute to the knowledge valorisation of scientific knowledge. This raises the question to what extent the research activities of hogescholen can be defined and delineated from university research, and if so what are the major distinctions? And if so, what are the expected effects on the funding regime and reward systems compared to the prevailing practice for university research?

In its advice to the government, the Advisory Council on Science and Technology (AWT) assigned different functions to universities and hogescholen. Whereas the universities contribute to the development of scientific knowledge and as well as contributes to the utilisation of this knowledge in society, research activities in hogescholen have a different function. The latter activities should contribute to the maintenance and development of the professional practice in society. The aim of the research function of hogescholen is twofold:

to contribute to the development of professional practice and

to contribute to knowledge transfer and knowledge circulation for regional and economic development and to contribute to the innovative capacity particularly in small and medium-sized firms.

This view has been received very well both by the HBO sector and the University sector as well as by other organisations. Following this AWT report the employers associations VNO NCW and MKB-Nederland (for SME's) see the preparation of high level professional as the core task of hogescholen, but argue that hogescholen have an important function for the knowledge development of the professional fields through practice-oriented research, and "design and development".

The same type of discussion takes place regarding doctoral education, especially the provision of professional doctorates. Some hogescholen have launched such programs publicly with the argument that there is a need for them and that this will contribute to a further differentiation on the doctoral level. Rather than reducing the debate to the question who has legitimate claims on professional doctorates, there is a tendency to see this development as a challenge for universities and hogescholen to collaborate in a constructive way. If hogescholen get a role in the provision of (professional) doctorates, it is seen necessary to upgrade the HBO staff in terms of their academic skills and their research capacities (see below under personnel).

As far as the funding of postgraduate education (Masters and Professional Doctoral Education) at hogescholen is concerned, several actors argue that this education is part of continuing education and primarily meant for those with a number of years of working experience. The financial responsibility for this type of education belongs primarily to the participant, eventually supported by the employer (MKB-Nederland and VNONCW 2006).

8.2 Research infrastructure

8.2.1 Advisory committees

The independent committee on Science Dynamics (Commissie Dynamisering), which was established mid 2005 to advise the government about the relationship between outcomes of external peer reviews and university research programs, presented its findings (commissie Dynamisering 2006). The Committee states that the Netherlands has a relatively efficient research system that performs very well in qualitative terms against relatively low funds and that, as far as the interaction with non-university centres is concerned, compares well with other countries. In order to increase the efficiency and effectiveness of the system the Committee proposes a number of concrete measures, some of which require extra financial investments in research in a structural way. One such a proposal regards the provision of structural funds on the central university level which can be used on the basis of the outcomes of external research evaluations. Another proposal is to stimulate the involvement of companies and other social organisations in research policy (participation in boards of the research council) and stimulate companies with large R&D funds to invest part of their budget on a jointly basis in university research.

Furthermore, the Committee states that university policy makers should take the outcomes of research evaluations into account, which however, would not imply financial consequences for example by rewarding top research groups. Some doubts are expressed about the new system of quality assessment. Whether visiting committees should be organised on a jointly basis or not should be considered more explicitly than currently is done.

The Dutch Research Council (NWO) presented its report "Science assessed". This report discusses the need of more investments in scientific research, excellence in research, more focus and mass, valorisation and appropriate personnel management of the institutions.

8.2.2 The Science budget

The reaction of the Government to both reports was quite positive and many views and proposals have been supported. The government refers to its Science Budget which advocates concrete steps to a more dynamic approach in order to realise more focus and mass and a stronger exchange between research and society. For this purpose the 'smart mix' has been developed, for which an extra amount of €100 million is available. The government aims with this policy to enhance the excellence in research and the valorisation of (the results of) research by making the funding more performance-dependent. One way to enhancing the valorisation is to give social parties and companies a bigger say in the advisory and administrative structure of the research council. The Government agrees with the Committee on Science Dynamics that valorisation is no one way direction: It is not merely offering relevant knowledge by universities and research groups, but it involves a clear articulation of demands by companies, also for long term research (Kabinet 2006).

In the annual higher education budget, the Government launched to increase the budget for research and science with particular investments for:

excellent scientists and strong research groups. From 2007 on about €100 M. is available on an annual basis for:

- research and knowledge transfer in the field of a new generation of game technology
- knowledge and innovation claims
- a special program meant for ‘creative doctoral students’ who can start doctoral research in the field of their own choice.

8.2.3 *Personnel*

For universities one of the major issues concerns the position and future career prospects of starting (young) researchers. Both the VSNU and the Committee on Science Dynamics have expressed their concerns. As the latter Committee states, despite diverse programs which were established in the last few years, the proportion between permanent and temporary appointments for scientists has deteriorated in the last five years since many permanent positions are disappearing. This is particularly precarious for the career perspectives of postdocs who are depending on temporary contracts. The government paper ‘Research talent assessed’ from 2005 contains some policies in the direction of a tenure track system for young researchers. In the reaction to the Committee on Science Dynamics, the Government stresses that more permanent positions for young people should be created and that a tenure track system should be considered which includes the question what this would imply for the total volume of researchers. The Government states that realisation of an effective policy focused on talented researchers is necessary, also within the existing budget and that changes in the HRM-policy of universities should be considered. In this context the universities indicated to be prepared to develop tenure tracks for starting scientists, to increase the number of research positions, to improve the employment conditions, as well as a better counselling of doctoral students and enhancement of challenging career perspectives for (young) researchers (VSNU 2006).

As already indicated before, the government decided to increase the budget for research and science with a particular investment for ‘creative doctoral students’ who can start their doctoral research in the field of their own choice. This involves an amount of € 4 million and will start in 2007 on an annual basis. This new program is in addition to the existing programs for young researchers, such as the Rubicon and the *veni-vidi- and vici* scholarships.

In the hogescholen the lectorate has become a recognised position and its number has increased to 253 lectorates in 2006. Lectorates are relatively small organisational units which are active in a large variety of subject areas. They are charged with applied research focusing on questions which arise from the professional practice and are considered an important vehicle for the research aspirations of hogescholen.

Each year the results of the lectorates are assessed and in 2006 an actualisation of this assessment took place over the previous year. This is based on 113 lectors who have an average appointment of 0.6 fte and 10 staff members who are working within a lectorate (SKO 2006). The most important conclusions are:

- (1) The position of the lectorate in the knowledge infrastructure shows a positive development. It appears that compared to some years ago there is more intensive

collaboration with the knowledge infrastructure through individual contacts, guest lectureships, and collaboration in research projects.

(2) The knowledge circulation with firms and institutions (and vice versa) has intensified. After three years about 60% of the lectorates exchanges knowledge with more than 10 companies, especially with SME's. Furthermore, lectorates have undertaken forms of cooperation on both local, regional, national and international level.

(3) It appears that the teaching staff of hogescholen are increasingly involved in the lectorate, in the research activities and in curriculum innovations.

The funding of lectorates comes from three different streams: from a special fund allocated to lectorates, funds which are made available by the hogescholen themselves and revenues from contract activities. Over the years the proportions of the latter two streams increased, which are an indication of the fact that the position of the lectorate is increasingly recognised both by the hogescholen as well as by their external constituencies.

8.3 Funding

8.3.1 New funding mechanism

This year the part of the higher education Law that regulates the new funding system was presented to Parliament. This system is based on the provision of learning entitlements to students connected with the funding of higher education institutions. This allows students to exchange their entitlements for their education at any place and time against a legally determined tuition fee. Higher education institutions will receive their funding on the basis of number of students with learning entitlements. Students who run out of entitlements will have to pay higher tuition fees to be determined by institutions up to a fixed amount, the maximum of which has been cut down under student pressure. It has been agreed that for the time being this cannot be higher than twice the legally determined amount.

Much criticism has been raised against this proposal. The universities and the hogescholen and their representative bodies as well as student organisations were against this law, each for their own reasons. Also several advisory boards expressed their criticism. Some objections are more practical in nature, such as the administrative burden on institutions and increasing bureaucracy, and the question whether students can save their entitlements or not. Other criticisms are more fundamental, namely the question whether the new system will have the intended effect in terms of a more differentiated and market-driven higher education system and more student mobility. It was also pointed out that the current proposals bear the chances of fraud and undesirable strategic behaviour both from the side of institutions and students.

Despite these criticisms the new law has been accepted by the Parliament (Lower Chamber). Decision-making by the Upper Chamber still has to take place, presumably after the new government is in place. Implementation of the new funding system was foreseen in 2007 but the minister has decided to postpone this date to September 2008. The reason given is that 'universities and hogescholen have their administrative systems not in place'

8.3.2 Student support

The current financial student support system remains intact, with the exception that student loans can be paid back depending on income in 25 years (which at present is 15 years).

The financial conditions for Dutch students who wish to study abroad have been relaxed. To date, students who are eligible for a Dutch bursary have to be enrolled at a Dutch institution. As a consequence they can only take parts of their education abroad such as a stage or exchange project. From September 2007 on this requirement does no longer apply and Dutch students can move to any country. So the Dutch bursary is becoming international in nature. One condition is that students in the previous six years have lived in the Netherlands for at least three years.

8.4 Governance

The new draft Law on higher education contains several proposals to reduce the administrative burden of universities and hogescholen. Several educational and administrative issues would not need further regulative requirements from government, with the exception of the position of students and the role of the professional staff in relation to the management of the institution. Generally the governance concerns the relationship between government and institutions and the current philosophy is focused on increasing the autonomy of higher education institutions.

Nevertheless, higher education institutions continue to complain about the information they have to deliver in the context of accountability procedures, and other new demands such as the new funding system which as institutions argue entail more administrative actions. Several studies have been carried out to measure the amount of bureaucracy (Bouwens and Oudemans 2006). Reference can also be made to the report on Science Dynamics mentioned before which states that there is no clear view on how the financial means are distributed between the primary process (education, research, and knowledge transmittance) and the secondary processes and that more transparency is needed. The research council (NWO) emphasises that further streamlining of administrative procedures is necessary in order to reduce the overhead costs.

Because of all these concerns, the Minister has invited all educational sectors to develop a 'bureaucracy benchmark'. At the end of the year, the Minister will present a number of measures to the Dutch Parliament aimed at diminishing the administrative burden for institutions.

8.5 Quality and rankings

In 2006 views on the change of program oriented accreditation into institutional accreditation have changed. Most actors in higher education now agree that institutional accreditation is not desirable, both for practical reasons and for the fact that the comparability of the same study programs of different institutions are less clear.

One issue raised is the balance between internal and external quality control. Central question is what aspects can be assessed on institutional level and what on the departmental level. Individual programs should be assessed on a regular basis and the results of which should be accessible for the public. An assessment of the institution as a whole would not be able to fulfil this function¹¹.

Another issue which has received more attention is the development of a classification system of institutional types and profiles and a ranking system in terms of performance of institutions. These topics provoke much discussion and resistance, particularly the ranking of institutions which may reinforce the role of the prestige of institutions. There is a general belief that if rankings are unavoidable this should be done well and based on the purpose it should serve, namely the provision of adequate information for stakeholders. It is said that their main purpose is to inform students and prospective students as part of the study information systems. Particularly for those candidates abroad with limited access to information such a system could be very helpful. The general view is that such ranking should be multi-dimensional, and should avoid a situation where institutions are ranked as a whole. Ranking should pay attention to both teaching and research, performance, based on objective criteria and have an international scope. Currently the Ministry supports a pilot project in which a multi-dimensional ranking system of bachelor (and in the near future) master programs is developed. In this project, in which Flemish higher education institutions participate as well, the methodology of the German CHE ranking is used. In addition, the Ministry supports the development and maintenance of a database with all basic information. Based on this database, student information systems, like the www.studiekeuze123.nl have been developed.

9 Portugal

9.1 Educational infrastructure

9.1.1 Short higher education programs

In 2004 and early 2005, there were debates on upgrading the short two-year technical vocational programs, offered by secondary education institutions. In 2006 the Council of Ministers approved law nr.74/2006 that regulates the courses of technological specialization, including these short two-year technical vocational programs. The courses of technological specialization are defined as post-secondary courses.

Law nr 74/2006 is framed within the initiative “*Novas Oportunidades*” (New opportunities). This program includes a set of actions aiming at improving the qualification of the Portuguese population and developing lifelong learning. These objectives are an integral component of the national effort under the EU Lisbon Strategy and consider the following goals;

¹¹ This view is also stressed by the employers association VNO NCW (September 2006)

- Increase the offer of vocational education in upper secondary education to enrol an additional number of 100,000 students. The Government's aims that by 2010 vocational education should represent 50% of the total offer of upper secondary education, the other 50% corresponding to general education leading directly to higher education.
- Offer a new opportunity to students that would leave the education system before completing basic education. It is envisaged that until 2010 there will be an adequate number of vacancies in vocational program offering an alternative route for the completion of basic education.
- Integrate vocational courses in upper secondary schools that traditionally only provided general courses leading to higher education.
- Implement a system for the recognition and certification of competencies and to offer new vocational training opportunities to adults with low qualifications (Ministry of Science, Technology and Higher education, 2006).

9.1.2 Degree structure/Bologna

Although until early 2006 the Government had not yet officially defined the new degree structure, from debates on the introduction of the Bologna structure in Portugal it appears that the Portuguese accepted the basic three cycle structure. Through the *Decreto Lei* 74 of 2006 of 24th of March the Government officially adopted the new degree structure whereby it established the organization of higher education into three cycles, Bachelors, Masters and Doctor degree, as was already mentioned in the Law 49/2005 that aimed at the change of the *Lei de Bases do Sistema Educativo* (Basic Education Law).

The 74/2006 law defines that university higher education and polytechnic higher education have different orientations and vocations. The polytechnic higher education sector offers bachelors (undergraduates) and masters programs while the university higher education sector offers bachelors, masters and doctorate programs.

The organization of the courses is based on the European system of transfer and accumulation of credits (ECTS). The first cycle corresponds to 180 credits or three years of working curricula. However, following the minimal conditions of formation of certain professionals such as doctors, veterinaries, nurses, dentists and others, as stated in Directive 2005/36/CE of the Council and European Parliament of 30th of September of 2005, some courses may have longer curricular times at this cycle. Others formations at this cycle, such as Conception engineering, may be longer due to consolidated practices in the European Union. These courses can reach a limit of 240 credits. To enrol in the master course, the student should have completed the first cycle degree obtained either in Portugal or abroad, or have graduated from a course with similar equivalence. The master course can also be granted after an integrated study cycle, comprehending 300 to 360 credits. To enrol in a doctoral course, the candidate is required to have completed a master course, or have an educational, research or professional curriculum that is recognized as enabling the candidate to undertake such an advanced course.

In parallel with the 'Bologna reform', two major regulatory initiatives have been implemented from the academic year 2005/06 on:

- access rules have enforced minimum grades of 95/200 in the national access examinations for all candidates in every sector of higher education;

- a minimum number of 10 students per degree program has been required for public funding, with this limit being announced to increase to 20 students from 2006/07 (Ministry of Science, Technology and Higher education, 2006).

9.1.3 Access

The Law 49/2005 of 30th of August made the Basic Education Law more flexible regarding access to higher education of individuals that did not have a secondary or equivalent diploma. The Basic Education Law stated that these individuals were required to do an exam. The Law 49/2005 of 30th of August attributed to each higher education institution the responsibility for the selection and acceptance of mature students, emphasizing as a main criterion the professional experience of the candidates. In this way regulation concerning admission of mature students to higher education is more flexible. In March 2006 an additional law, Decreto Lei 64/2006, was accepted that regulates the elaboration of exams to evaluate the participation and enrolment of citizens above 23 years old in higher education and aims to enlarge the recruitment of students. The mandatory components of the evaluation of the capacity of the candidates to enrol in the bachelor (licenciatura) course are:

- evaluation of the school and professional curricula,
- evaluation of the candidate motivations by means of an interview
- realization of theoretical and/or practical exams (provas) that determine the evaluation of knowledge and competences considered as required to the enrolment in the course. These exams may be organized in accordance to the different profiles of the candidates and the profile of the course to which they desire to enrol.

9.1.4 Internationalisation

Two programs were started (see below), and other agreements are being prepared with other US top universities. The programs so far were made with two top US research universities. They were chosen based on their research and post-graduation expertise. MIT is widely recognized as one of the best engineering schools in the areas of engineering systems and the Sloan school of Management is one of the best management schools in the world. CMU is known in the world as a leading research university in the research and post-graduation in ICT fields.

The MIT-Portugal program was launched on the 11th of October of 2006. The program intends to create synergies between R&D units, faculty, researchers and students through the formation of consortia between schools of engineering, schools of science and technology and schools of economy and management based in seven Portuguese universities. Moreover, participating in the program are enterprises, *Laboratórios Associados* (Associate laboratories) and *Laboratórios do Estado* (State laboratories). The program will be based in wide areas of intervention, namely, in engineering and management. The identification of these areas of intervention was made through an assessment lead by a wide team of faculty and researchers of Massachusetts Institute of Technology, mobilizing in this process several Portuguese universities and R&D units. The assessment identified opportunities to reinforce the technological and research cooperation as well as R&D capabilities and postgraduate teaching

of national universities within an international context. In the field of engineering, the program will be coordinated by MIT's Engineering Systems Division and it will be developed in four main areas: Conception engineering and advanced systems of industrial production; Energy systems; Transport systems; and Bio-engineering systems. In the field of management, the program will be coordinated by MIT's Sloan School of Management and it will develop primarily a MBA program with a strong international emphasis. The launch of doctoral seminars that will initiate already in 2006 is also envisaged.

The collaboration program CMU-Portugal also started. On the 27th of October the program agreement was signed between the Portuguese Government and the Carnegie Mellon University. This program is based upon a reciprocity that will allow conferring double degrees between the participating Portuguese university or universities (depending on the course) and CMU, at master and doctoral levels. The collaboration is focused on three annual master programs in the areas of software engineering, information networks and IT security. At doctoral level, the collaboration is focused upon computer and electronic engineering, computational sciences, speaking computational processing, information and technology management and mathematics. Aside to the collaboration at post-graduate level, other programs, mainly research oriented will be developed in software engineering, information networks, IT security, Critical infrastructures and risk evaluation, speaking computational processing, information and technology management and mathematics.

9.2 Funding

9.2.1 New funding formula

Direct core funding of public institutions has been based on a formula since the early 90's, which has been used to distribute the overall annual budget among public universities and polytechnics to cover for their running costs. The initial formula was designed in close collaboration with the Council of Rectors of Portuguese Universities (CRU), and it has evolved in time based on successive negotiations with CRU and Coordinating Council of the Portuguese Polytechnics Institutes (CCISP). The allocation of funding through the formula is mainly input based, namely the number of enrolled students, weighted by tariffs based on specific costs of each institution (in a way to account for diversity in the qualifications of teaching staff) and the field of study (i.e., favouring some degrees that need more practical or laboratory classes, e.g., medical sciences and engineering). In general the formula takes into consideration the following aspects:

- the teacher/student ratio;
- the non-teaching staff/teacher ratio;
- the standard composition of the teaching staff; the expenditure (and structure) of central administration (based on central administration personnel/student ratio); and
- the budget structure expressed in the percentage composition of personnel costs and other operational costs.

More recently, the allocation rationale changed to become progressively performance-based. For the 2006 budget the Government has adopted a new formula that aims at allocating the

available total budget by progressively introducing criteria related to quality and to performance. It should be noted that under the current context of excess capacity, higher education institutions compete for students, so that the number of students represent some level of performance, at least in terms of the attraction capacity for each course/institution. The new formula is based on the overall number of students, but includes the following ‘quality’ factors:

- Qualification of teaching staff, as measured by the fraction of PhDs in the total number of teachers of each institution
- Graduation rate, as measured by the number of graduates (in relation to total enrolments in initial training) and the number of master and PhD degrees awarded (in relation to the number of teachers holding a PhD)

In addition, the formula includes two institutional factors to answer to specific characteristics of each individual institution and training area:

- Average personal cost for each institution, to account for the specific characteristics of the teaching and non-teaching staff of each institution.
- Student/teacher ratio for each scientific area.

Moreover, the formula contains cohesion factors (maximum and minimum limits to the budget variation relative to the previous year) to ensure that no institution will be faced with excessive budget cuts, although it may attenuate the effects of the quality parameters.

Post-graduate programs have been funded above the average level for initial training, with funding per student achieving €4883 and, therefore, about 20% higher than typical values for graduate programs.

Contractual funding of institutions has been established under the current funding law of higher education through contracts for specific issues. It represents public funding above the basic funding for higher education (as determined through a funding formula) and the contracts established in recent past for specific “contract-programs” and for new installations through “development contracts”.

Up until 2005 direct funding of **social support services** was based on historical record. These activities were funded through the public institutions or to students of private institutions. The funding comprised individual grants and subsidies for meals, accommodation, sports- and health care facilities. Since the definition of the annual budget for 2006, the direct funding of social support services is based on a funding formula, which comprises two calculation elements:

- the service level of each support service, measured through the number and average cost of scholarships, meals and occupied places in student residences registered in the previous year activity;
- the efficiency of each support service, in terms of direct support grants given to students as a percentage of global service expenditure.

9.2.2 Tuition fees

The Law 74/2006 has opened part of the public higher education system to the introduction of tuition fees. Public universities are now allowed to ask for additional tuition fees for postgraduate education, without any limitation.

9.3 Accreditation and quality

The implementation of the Bologna process will also influence the present national system of quality assessment, as an accreditation system will be implemented in order to meet the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (EHEA) as adopted by ministers in Bergen in May 2005 (Ministry of Science, Technology and Higher education, 2006)

In article 53 of the 74/2006 Law, it is mentioned that the accreditation for the courses has to be made in accordance with the European higher education system quality standards. The same articles refers the need for an accreditation agency to be created as an entity with scientific and technical autonomy that articulates its activities with higher education institutions, professional associations and other relevant actors. It is expected to be created after the international evaluation of the OECD and the European Association of Quality Assurance in Higher Education (ENQA) of Portuguese higher education which was completed by the end of 2006.

10 Sweden

Many of the changes that were proposed last year were implemented in 2006. Some policy issues were raised this year including the introduction of tuition fees and more autonomy for higher education institutions. In September there were general elections and this has caused a major political shift in Sweden, with a centre-right government for the first time in twelve years.

10.1 Educational infrastructure

A major higher education reform was proposed last year with the bill (2004/05:162). This bill was amended in the beginning of 2006 and implemented in June 2006. Work is currently underway with implementation of a number of important changes, such as the introduction of a three cycle system. The changes are expected to be implemented for the 2007/2008 academic year.

There has been a surge in the number of non-European Union students, which has increased by 32 percent compared to the same period last year. The surge could be attributed to the larger number of courses offered in English. There currently is a debate to introduce tuition fees for doctoral and non EU students. Universities and unions are opposed to this.

The new government has proposed in its budget for 2007 that:

- Teachers will be given increased opportunities for academic skills development and resources will be set aside to allow teachers greater scope to conduct research as part of their professional activities.

- During this electoral period, the Government intends to propose three orientations in upper secondary school: an academic orientation, a vocational orientation and an apprenticeship program.

10.2 Research policy

The new government has proposed to strengthen Swedish research by providing overall an additional SEK 900 mln (€99 mln) to research for the 2007 budget.

The first changes resulting from the government bill 2004/05:80 (Ministry of Education, Research and Culture 2005) were implemented in 2006 with the allocation of twenty Linneaus Grants and the creation of four Berzelii centres. The aim of the Linneaus Grants is to enhance support for research of the highest quality that can compete internationally. It also aims to encourage universities and colleges to prioritize research fields and to allocate funding for them. Research environments were nominated by universities and university colleges, and international reviewers decided which environments are to receive support. The Berzelii Centres conduct basic research in the following areas: Forest Biotechnology, BioNanoTechnology, Brain Research and Nanomaterials. The centres will be built up with funding from the Swedish Research council and VINNOVA¹² who both contribute a maximum of SEK 5 mln (€550.000) per year. Moreover, there will be co-funding from the university/college, the business community, and the public sector. The total budget for each centre will be about SEK 170 mln (€18.8 mln) over a ten-year period.

In January 2005, the Board of the Swedish Research Council set up the Committee for Research Infrastructures (KFI). KFI's main function is to support the creation and use of infrastructure to pave the way for Swedish research of the highest scientific quality. In 2006, KFI published 'The Swedish Research Council's Guide to Infrastructure' which is Sweden's first long-term plan for research infrastructure, with a perspective of 10–20 years. The report will be revised annually: the next version, planned for summer 2007, is to be used in the Research Council's documentation for the next Government Research Policy Bill. The plan covers everything from planning, development, and operation of research infrastructure to its phase-out and disposal. It gives an overview of the current infrastructure, involved identification of needs and opportunities for new or improved infrastructure of great potential for future groundbreaking research.

The Swedish Research Council's Guide to Infrastructure has been compiled by KFI and its four evaluation panels, which are responsible for monitoring, analysis and supervision of infrastructure in the following areas:

- astronomy and subatomic research
- research on molecules, cells and materials
- research on the Earth and its near surroundings
- e-science.

¹² Swedish Governmental Agency for Innovation Systems

10.3 Finance

The government's 2006 fiscal policy bill proposed new measures meant to reduce unemployment and increase employment. These include:

- Higher student support. Student support will be raised as early as on 1 July this year by SEK 300 (€33) a month, of which SEK 100 (€11) will be a grant and SEK 200 (€22) a loan. This reform will cost close to SEK 500 mln (€55,2 mln) per year.
- Research and development at SMEs. The Government proposes to boost the resources available to the Swedish Agency for Innovation Systems by SEK 100 mln (€110 mln) from 2007 onwards. These funds are to be used for the program "Forska & Väx" ("Research & Grow"), which targets SMEs. As stated in the Budget Bill for 2006, a five-year drive will put a total of SEK 900 mln (€99,4 mln) into research and development at SMEs between 2006 and 2010.

10.4 Governance

The Association of Swedish Higher Education, which represents Sweden's 42 institutions of higher education, published a manifesto in June 2006 asking the national government for more funding and greater autonomy. Decentralization is an important issue in Sweden. In latter years, as the demands on the higher education institutions have grown, central political authorities have increased reporting requirements and extended the legislation governing the institutions. The increasing reporting requirements have been criticised by higher education institutions. From their point of view, a transition to a greater degree of detailed control is undesirable. Also, many institutions would like to see a better match of goals and requirements to the individual institutions, rather than today's more general assignments. The manifesto also calls on private industry to increase its financing of research at universities. To accommodate this, the manifesto proposes the law to be changed to allow tax deductions for corporate or private donations for research purposes.

10.5 Quality

The current quality evaluation system will be replaced after 2006 when the six year period it was intended for has passed. Work on the new quality evaluation system that will be introduced in 2007 began in 2004 with a concept design by the National Agency for Higher education. The proposed future quality evaluation system comprises five elements:

- Audits of the institutions' own quality assurance and quality development systems: The National Agency will audit and assess how the quality procedures function at a higher education institution. It is especially important to ensure that these procedures are focused and that evaluations cover every level in the institution.
- A smaller number of subject and program evaluations determined on the basis of data from monitoring: One way of linking monitoring and evaluations is to use data from monitoring to determine what to evaluate but other criteria could be used as well.
- Thematic evaluations: In the new system greater weight will be given to thematic studies which aim to acquire in-depth knowledge about different circumstances and phenomena that are significant for the quality of higher education. Potential themes for evaluation are

cooperation between the higher education institutions and the supportive measures offered by the institutions to their students.

- Appraisal of “particularly eminent educational settings”: This new feature uses a special application and nomination procedure that designates a “particularly eminent educational setting.
- Appraisal of applications for entitlement to award degrees. Appraisals of these applications will continue. For these appraisals and the above it is currently being determined which aspects are to be appraised and on which criteria the appraisals will be based.

11 United Kingdom

Higher education sector has seen some changes in 2006 in the UK. The major policy documents and discussions relate to the widening participation (or lack of it) and to the changes in research quality assessment after 2008 RAE. Important debates have been focusing on competitive knowledge economy in UK, changing research funding, especially third stream income, fair access, teaching and research quality.

11.1.1 Higher Education Funding Council for England (HEFCE) Strategic plan

After consulting its partners and stakeholders HEFCE published its Strategic plan for 2006-11 in April 2006 (HEFCE 2006). The principle areas are nearly the same as they were in the previous strategic plan, however, building on institutions’ strengths and excellence in delivery, as well as developing leadership, governance and management were integrated into two areas: sustaining a high quality higher education sector and enabling excellence. Thus the current strategic plan includes six strategic aims:

- enhancing excellence in learning and teaching
- widening participation and fair access
- enhancing excellence in research
- enhancing the contribution of higher education to the economy and society
- sustaining a high quality higher education sector
- enabling excellence

The plan expects all the institutions to achieve national objectives in contributing to economic and social development, widening participation and fair access, and delivering world class research while at the same time participating in the regional knowledge transfer activities. The plan has a very concrete list of strategic objectives, risks and performance targets. Indeed, it reads as a performance agreement, where HEFCE imposes certain measures for higher education institutions. For example, in terms of enhancing excellence in learning and teaching, the plan postulates the following performance target: ‘The proportion of higher education institutions reporting high levels of employer involvement in the higher education curriculum increases to 80 per cent by 2009; (HEFCE 2006 p. 16) Moreover, it sounds quite prescriptive, as for instance in the case of the widening participation aim: ‘To embed

widening participation in the corporate policy and practice of higher education institutions.’ (HEFCE 2006 p. 17)

Interestingly, the aim to enhance the contribution of higher education to the economy and society is largely directed towards securing long-term third stream funding. Here the role of the Higher Education Innovation Fund is important, where the percentage of funding will be distributed on the basis of formula from 2008 onwards. In this respect, regional partnerships will be encouraged and here the Lisbon agenda is mentioned. However, perhaps the most debated aim is that of enhancing excellence in research.

11.2 Educational infrastructure

11.2.1 Widening participation

Widening access and improving participation in higher education according to HEFCE is a crucial part of its mission and forms one of their strategic aims. It is seen as vital for social justice and economic competitiveness.

HEFCE plans to support widening participation objectives through three main strands of activity: increasing demand for higher education and opportunities to access it, offering new opportunities for progression on vocational courses and for lifelong learning, and embedding widening participation in higher education institutions’ corporate policy and practice.

The two key performance targets were set for 2006-11:

- To increase participation in higher education in line with the funding and policies set out in the Secretary of State for Education’s annual grant letter for 2006
- To increase the proportion of students from under-represented groups in higher education.

OFFA continues its work. Quite a few articles in the press were related to the failure of the widening participation policies, since most institutions still do not improve the students from disadvantaged backgrounds despite of the significant HEFCE increase of funding to universities in this respect (from £48 mln (€71 mln) 2002-03 to £344 mln (€510 mln) 2006-07. (Claire Sanders, THES, July 28, 2006) According to UCAS (UCAS 2006), there was a fall of 3.7% in the accepted applicants to higher education institutions in the UK, however, the Director of OFFA Sir Martin Harris noted, that ‘proportion of students from lower income backgrounds has increased slightly’. However, there is no mention of 50% participation rate in the policy documents anymore (OFFA 2006).

11.2.2 Personnel policies

After the introduction of the top up fees, the Association of University Teachers (AUT) and The University and College Lecturers Unions (Natfhe) went on a boycott in March 2006 in order to increase the salaries of academics by 23 % within the next three years. This was not welcomed by the personnel chefs at universities, who threatened to not pay salaries for the boycott days. The negotiations were postponed and the dispute took three months, when finally the University Employers Association agreed to increase the salaries by 13.1% over

the three years. As a result, redundancies loomed as noted by (Thomson and Fazackerley 2006)

11.3 Research infrastructure

11.3.1 Enhancing excellence in research

Preparations for RAE in 2008 are well advanced and 900 panel members have been appointed. The timely delivery of 2008 Research Assessment Exercise and the development of new metrics based methodology are the most important and debated issues in the plan.

The key aim in the HEFCE strategic plan is to develop and sustain a dynamic and internationally competitive research sector that makes a major contribution to economic prosperity and national wellbeing and to the expansion and dissemination of knowledge.

The proposal is to change the funding method from 2009 on with the aim to have 'a simple, robust, transparent method that will reduce the administrative burden on higher education institutions.' They will review the possibility of developing quantitative measures of research quality and outputs, which might in the longer run be used in both allocating resources and monitoring outcomes. They intend to build upon work done in developing bibliometric indices and output measures, applicable across a range of disciplines and types of research. They believe this could lead to fully transparent and less burdensome approaches to allocating resources. They welcome the Governmental national review of the options for a metrics-based approach to assessing quality and allocating grants for research. (HEFCE 2006, p. 23)

The academics and the top management of universities in UK have been actively participating in the consultation on changing the research quality assessment and related research funding system. Five different models were proposed by a work group jointly chaired by David Eastwood, the acting chief executive of HEFCE, and Sir Alan Wilson, the director general for higher education at the Department for Education and Skills after the budget speech of the chancellor, Gordon Brown in March 22, 2006. He said he wanted to 'radically simplify' the way in which research funding is allocated and to develop a 'metrics-based' system, where money is related to the impact of published papers and how much money it attracts in grants and contracts. (Ford 2006) The Guardian claims, that the Treasury had been lobbied by a group of influential vice-chancellors who argued that the RAE was a waste of money and funding could be decided on the basis of what research grants or industrial contracts a university department has won or the impact of its research, measured by citations by fellow researchers in academic journals. (MacLeod 2006)

The consultation ended on October 13, 2006. Individual universities reacted differently depending on the type of institution. For example, the VC of Bristol University accept the proposed change of RAE into the metric-based system: 'If in the end the arts and humanities want to run a small RAE themselves that would be fine, but this is the way forward for science.' (Fazackerley 2006) While James Stirling, PVC of Durham is definitely against such a system: 'We see no way of achieving this without including a large element of tried-and-

tested peer review. Any new system that has the effect of concentrating resources in a few large institutions in which science, technology and medical research predominate is simply unacceptable.' (Stirling 2006).

Before the Gordon Browns statement in March, many universities were in favour to get rid of the RAE. For instance, Natfhe, the union for lecturers in new universities and the Association of University Teachers were positive about 'scrapping the RAE', since it highly contributes to the stratification of the system and the new universities end up with teaching-only departments which also can lead to the closures of departments.

One of the major lobby groups uniting 19 universities, the Russell group was positive that RAE 2008 was maintained. Its chairman was positive about Government's attempt to simplifying the research funding process. However, the group urged for a careful introduction of the new system on a gradual basis after thorough testing. They did not accept any of the five proposed metrics-based models. In their view, the procedure should involve peer-review, especially due to differences in disciplines. The Russell group would like to continue with the link between quality assessment and research funding. The inclusion of peer assessment groups would help to integrate subjects in the Arts, Humanities and Social Sciences within the common framework. (Russell group website, Response to the Cooksey Review).

Campaigning for Mainstream Universities (CMU) universities group comprising 35 'post-1992' universities and 1994 groups do not provide information about their responses to the consultation. The opinion seen in the press is that the opinions have been divided, and have even led to some members leave the group, as in the case of Sheffield Hallam University Principal, who left CMU in 2006.

The Higher Education Policy Institute (HEPI) paper (Sastry and Bekhradnia 2006) looking at the consequences of the five models argues that the proposal to make funding dependent on winning research grants would not only increase costs dramatically but damage intellectual freedom by making universities dependent on major funders. (MacLeod 2006) In their view, the proposed models would damage the research base since it will:

- provide an incentive to undertake contract and grant funded research over curiosity-driven research that does not have a customer
- divert QR funding to provide an effective subsidy to private providers of research funds
- drive down the prices charged for contract and grant research, underpinning the sustainability of the UK's research base
- provide incentives to universities to focus on staff with a track record of bringing in grant and contract income, at the expense of others
- greatly increase the transaction costs of securing research funds
- greatly increase competition in the already highly competitive research environment
- further separate teaching from research.

They propose not to continue of the RAE, but a system based on both peer review and metrics (Sastry and Bekhradnia 2006, p.12).

Gordon Brown also announced that the Medical Research Council and NHS funds for research will be merged in order to be more efficient in providing money for research and development. According to Michael Sterling, the Chairman of the Russell group, universities are cautious about this pooling of resources. (Sterling 2006a)

11.3.2 Scotland

The Scottish Further and Higher Education Funding Council published a report on Attracting Research Talent to Scotland. The report looked at patterns of recruitment of researchers to Scotland's universities and concluded that Scotland is an attractive destination for researchers. Over 55 per cent of staff recruited since 2000 came from outside Scotland, with around 40 per cent from the rest of the UK, 8 per cent from the EU and another 9 per cent from the rest of the world. The study shows the importance of retaining researchers, as only around 25% expect to stay in Scotland for their next career move. In the view of the Council, a dynamic and high-quality research base is vital to the continuing development of a vibrant and creative knowledge economy, and Scotland's ability to attract international research stars as well as to develop home-grown talent will be important to future success. (Scottish funding council website) Another report commissioned by the SFC found out that graduates remain highly satisfied with their time spent studying at Scottish universities and colleges. (24 July 2006, *Ibid.*)

12 Reflection

There is a growing interdependence of higher education policy issues and debates. The expanding scope of (international) networks of higher education institutions, higher education policy makers, students, researchers and other stakeholders seems to have enhanced complexity of higher education (policy) discussions. In this report we touch only at the surface of the complexity. To reduce complexity a little further, we present a number of issues that can be seen as ‘attractors’ to which many policy makers as well as other stakeholders seem to be drawn to.

The emergence of such communalities in national higher education policies is partly due to the growing interdependence but it is also influenced by processes at the international level, or to be more specific, at the EU-level. In 2005, the stocktaking processes in both the Bologna and the Lisbon process lead to considerable attention for the initiatives at the European, supra national level (see the previous edition of the IHEM update report). In 2006, the EU continued to influence the national higher education policy arenas by producing a number of communications on higher education and research. To what extent these communications have had an impact on the national higher education policies is difficult to tell, but knowing the European higher education policy context helps to understand the communalities in higher education policies that will be discussed below.

12.1 The EU policy context

12.1.1 Modernisation Agenda

In May 2006, the European Commission published a communication (the Modernisation Agenda) in which it suggested nine changes that are considered major keys to modernize Europe’s higher education institutions and to reinforcing the societal roles of universities¹³. These changes are:

1. Break down the barriers around universities in Europe. Geographical mobility needs to increase substantially and therefore student grants and loans should be fully portable within the EU and the core Bologna reforms should be achieved by 2010 (comparable qualifications, flexible curricula and trustworthy quality assurance systems).
2. Ensure real autonomy and accountability for universities. Institutional autonomy is a precondition for innovativeness and responsiveness and therefore should be enhanced. At the same time universities should accept institutional accountability for their results. This requires new internal governance systems. National governments should build up management and leadership capacity within universities.
3. Provide incentives for structured partnerships with the business community

¹³ Delivering on the modernization agenda for universities: education, research and innovation, Commission of the European Communities, COM(2006) 208. In this communication, the term universities is used to denote all types of higher education institutions.

4. Provide the right mix of skills and competencies for the labour market. University programs should be structured to enhance directly the employability of graduates, as well as to offer broad support to the workforce (lifelong learning). The Commission suggests that labour market success should be used as one of the performance indicators and be awarded in funding systems.
5. Reduce the funding gap and make funding work more effectively in education and research. The Commission proposes to devote at least 2% of GDP (including both public and private funding) to a modernized higher education sector. The Commission suggests a re-examination of the mix of student fees and support schemes and more focus on output based funding, possibly differentiated by institutional profiles.
6. Enhance interdisciplinarity and transdisciplinarity
7. Activate knowledge through interaction with society.
8. Reward excellence at the highest level. The Commission suggests that individual universities should identify the particular fields where they can achieve excellence and concentrate there. Networking, the proposal for a European Institute of Technology and the European Research Council are proposed initiatives in this respect.
9. Make the European higher education area and the European research area more visible and attractive in the world

Many items of the modernization agenda are 'reappearances' from previous years: mobility, lifelong learning, quality assurance and excellence were already on last year's EU-agenda . There are some new items like the 2% target, but in general the agenda is a restatement and reframing of familiar policy issues and initiatives. However, communicating this 'new' modernization agenda underlines the urgency the Commission attributes to higher education reform. At the same time, the Commission is (painfully) aware of the limited role it has as a direct actor in the modernization of universities: universities and member states are the key players.

12.1.2 The European Qualification Framework (EQF)

The core of the EQF is a set of eight reference levels, describing what a learner knows, understands and is able to do. This focus on learning outcomes is supposed to

- Support a better match between the needs of the labour market
- Facilitate the validation of non-formal and informal learning
- Facilitate the transfer and use of qualifications across different countries
- Be an instrument for the promotion of lifelong learning.

Member states are to relate their national qualification system to the EQF by 2009. The EQF proposal was adopted by the Commission on 5 September.

12.1.3 EIT and ERC

The Commission has produced two communications in 2006 regarding the establishment of a European Institute of Technology (EIT). The EIT is seen as a flagship project for excellence in higher education, research and innovation. The first communication, of 22 February, was criticized by the Heads of state and government, and therefore a second communication (8 June) was produced in which the proposed structure and functioning of the EIT was revised

after further consultation with various stakeholders. In this proposal the EIT will have a Governing board with a light support structure. This board will on a competitive basis select and support Knowledge Communities to carry out the tasks related to research, education and innovation.. The Knowledge Communities will be integrated partnerships, consisting of teams put together by universities, research organizations and industry. The proposal underwent a further consultation process during the second half of 2006.

The European Research Council (ERC) is widely regarded within the scientific community as a necessary component of the European Research Area. In the last few years, it has evolved from a concept to a detailed operational proposal and should become a reality with the 7th Framework Program. The European Commission has strongly supported the idea of the ERC and worked hard to turn it into reality.

The Commission has proposed that the ERC should consist of a Scientific Council supported by a Dedicated Implementation Structure. The Scientific Council (ERC ScC) will be the supervising body of the ERC, acting as an autonomous entity and independent of other organisations or influences. It will establish the overall scientific strategy for the program, monitor and control the quality of operations and evaluate the implementation of the program. It will establish the positions on implementation and management of calls for proposals, evaluation criteria, peer review processes including the selection of experts and the methods for peer review and proposal evaluation. It will also be responsible for the communication with the scientific community and key stakeholders on the activities and achievements of the ERC. The Dedicated Implementation Structure (DIS) will be responsible for the operational management of the ERC, as provided for in the annual work program. In particular, it will implement the evaluation procedures, peer review and selection processes according to the principles established by the Scientific Council and will ensure the financial and scientific management of the grants.

The EU may stimulate and facilitate the modernization of universities, and formulate and suggest required changes, but it is not the major actor in that process. The major actors are the universities and the national governments. They decide to take the suggestions on board in national and institutional policies and implement those policies. How EU-suggestions and national policies relate to each other will be discussed in the sections below.

12.2 Common issues and trends in higher education policy

12.2.1 The reign of relevance

The role of higher education, and more specific, the part that traditional universities play in it is changing. This is nothing new. With the change from elite to mass higher education in the 1980s and 1990s, universities were drawn into society. Responsiveness to the needs of that society has become a most important attribute of higher education institutions and systems. This change is clearly visible in European policies regarding higher education (the Lisbon declaration and the Modernisation Agenda) where higher education is called upon to secure the economic competitiveness of the EU and its social cohesion. Higher education is not (yet)

seen as the panacea for the societal problems national and supra national governments are facing, but relevance to society has become a crucial evaluation criterion for higher education. This reign of relevance has been reported for both teaching and research activities. In teaching, programs need to be geared much more towards the needs of society than they used to be. Curricula should comprise more practice oriented elements and links to companies and industry to provide graduates with more opportunities on the labour market. Raising the level of educational attainment of the labour force has become a major driver for access policies in many countries: we should educate more students to keep up in the retrace towards the competitive knowledge society. The push to produce more science and engineering graduates (or better to keep the number of S&E graduates from falling even further) is an issue that is on the agenda in many countries, although this year it was overshadowed by other issue in most countries, except for Australia, Finland, and the UK. Relevance in research is an ongoing issue, but the fact that not only the outputs of research but in some countries (Australia and UK) also the impact of those outputs in society are considered as evaluation or even funding criteria signals a gradual but strong trend shift towards relevance based research. The trend that a large part of extra R&D money is directed towards technology oriented research is another indication that there is a shift towards relevance. Research in those fields is assumed to have a higher impact on the competitiveness of a society than other programs, like humanities.

The use of higher education policy to accomplish societal changes normally has a mid-term term or long term perspective: it takes some time for the outputs and outcomes to seep through in society. There has been one country in which higher education policy has a more short term perspective, i.e. France. There the higher education system is faced with the challenge to contribute to the solution of immanent societal problems.

12.2.2 Tools to meet the challenges, and their cost

Whether higher education systems can meet the challenges depends on the instruments it is given or it is allowed to develop. (Central) governments in many countries have devolved responsibilities to higher education institutions: they are better placed to be responsive to the need of society Central governments give up (some) decision making power and higher education institutions are getting more leeway to develop and implement their own policies. An important issue in this respect is human resource management. In a number of countries staff policies were a central affair, but the institutional discretion in this has grown in Austria, Flanders, France (be it very limited) and Finland. Despite these processes of decentralization and growth of institutional autonomy, many higher education institutions are complaining. The tools institutions gain from decentralization are not (always) sufficient to solve the problems that central governments now put on the plate of the institutions. Driven (or pushed) by the supra national policy agendas, central governments formulate more and more tasks and targets for the higher education systems, without specifying how those targets can be met. In some countries, the actors that have to contribute to achieve those targets are left with insufficient or inadequate tools and resources to do so. Regulations regarding internal governance structures, tuition fees and student selection still limit institutions to respond to the demands in an adequate way.

The backside of the coin of more decentralisation and autonomy to institutions is that accountability requirements have grown. Institutions have to show what they have done with the public money they received from central government. In many countries this is building up to a point where institutions run into a huge administrative burden providing all that information. This process is aggravated by trends that funding is becoming more performance based. In France and Austria, as well as in Sweden, the costs of reporting have grown the last few years, and in Flanders (database for funding), the UK (RAE), and the Netherlands and Australia (learning entitlements) the administrative burden are considered serious obstacles for efficient policy implementation.

12.2.3 Impact of elections on higher education reform processes

With relevance as a leading factor in higher education policy it should not come as a surprise that higher education has become more politicized. One way to tell is the impact election results have on higher education debates and reforms. In a number of countries general elections and the shifts in political power following from them have had a significant effect on higher education policies. In Austria the reform processes have come to a halt and the new government has announced a moratorium. A similar process was seen in the Netherlands where it is not clear to what extent the suspended plans will be pickup by the new government. The German political change was in 2005 but its consequences could be felt in 2006 as well, especially regarding policies on tuition fees. The consequences of the political change in Sweden were less dramatic.

12.3 Educational infrastructure

12.3.1 The pace of the reform processes

The three cycle structure is on its way in all countries described. The pace at which the new educational infrastructure is implemented still differs substantially. Some countries like the Netherlands have implemented the bachelor master structure some years ago and are churning out their last graduates in the old programs, whereas other systems still allow new entrants to the old programs and will award old and new degrees for another five to ten years. The mission of enhancing transparency on the international degree market, one of the key goals of the introduction of the bachelor master structure, is because of these differences in pace not yet accomplished.

The situation regarding the third cycle is even less transparent. Transformations of the third cycle, as the final stage of higher education, have therefore been postponed in a number of countries. This 'lack of attention' (regarding structural reform) is on the one hand understandable because of the sheer size of enrolment in first and second cycle, compared to the third cycle. On the other hand it can be considered to be problematic as the production of high level knowledge workers is seen as a crucial element in the national and international economic strategies. In 2006, the theme doctorate education popped up in Austria (new regulations), France (plans to reform) and the Netherlands (graduate schools)

12.3.2 Access

Access to higher education, levels of participation and the production of knowledge workers are issues that remain on the national (and international) agendas. To be more competitive, we need to have more higher educated workers and for that we need more higher education graduates. Higher access rates as well as higher completion rates are seen as crucial for bringing forward the (European) knowledge society. In addition, access policies are (or should be) aiming at widening participation, bringing in more students from non-traditional groups. This comprises young people from socially deprived groups but also mature students who enter or re-enter higher education (lifelong learning is the buzzword here). Access policies may also focus on bringing in students for specific programs, like science and engineering.

The diversity of goals of access policies can also be seen when looking at the instruments that are used to accomplish those goals. One way to stimulate access and completion rates is the introduction and further development of short(er) higher education. In 2005, short higher education was included in the European Qualification Framework; not as formal part of the first cycle but as an option national government could use. In the Netherlands, Flanders and Portugal, countries where short higher education programs (shorter than two years) did not exist, have started discussions or experiments to develop this type of programs. One of the rationales of short programs is that they may attract and keep in students from non traditional groups. Bringing in these students is seen as a crucial part of access policies since traditional groups participate at a high rate already. There are also financial instruments used to bring in students from non traditional groups.

Not only the instruments used to bring in more students differ between countries: the policy context differs as well. In a number of countries discussions on future access to higher education are heavily influenced by the demographic situation. If the size of arriving age cohorts (the 18 year olds) decreases or increases rapidly, this may lead to serious problems in the capacity of higher education systems to accommodate the demand for higher education.

The concern for future impact of demographic changes on the demand for higher education is most outspoken in Germany. The age cohorts arriving at higher education have been growing the last fifteen years, but it can be foreseen that the future age cohorts will shrink (to around 80% of the arriving cohorts in 2006). Demographics have also an impact on the Portuguese higher education policy context. There the relevant age cohorts have declined for the last two decades and will continue to shrink another 5 to 10 years. Rising rates of participation have disguised this decrease of the age cohort, but the tensions on the market for new students are growing. Sweden is a special case in this respect. It used to be a country in which the decrease in the 18 year old cohort during the late 1980s and 1990s was relatively modest. However, since the early years of the current millennium the age cohorts have started to grow at a relatively fast pace and will continue to do so till the end of the decade. This strong upswing will be followed by an even stronger downswing, which may very well lead to severe capacity problems (in terms of excess capacity) around 2020.

In general, it may be concluded from the birth statistics that the growth in the 18 year olds cohorts that can be seen in most countries (except Portugal) will continue a few years, after which (around 2010) it will turn into a decrease in a number of countries. France and, to a

lesser extent the Netherlands, are exceptions to this trend; there the cohorts will remain stable or grow.

12.4 Research infrastructure

The EC puts a lot of resources into the promotion of excellence in research. The stimulation of networks of excellence, the creation of institutes of excellence (EIT) and the coordination of the selection through research councils are instruments that can be found in individual countries as well. The German Excellence initiative and the Austrian Elite university have strong resemblance with the EIT idea, but 'weaker' forms can be found in many more countries where centres of excellence are created. The creation of networks was on the agenda in Austria and Finland.

12.5 Finance

In the realm of finance there are three common themes. The first one relates to the role of (performance) indicators in the funding mechanisms. In all countries core funding is calculated with a formula in which output oriented indicators are included. What is relatively new is the role outcome or impact indicators play in calculating public funding. The EC proposed to include one in the funding formula for teaching (position on the labour market of graduates), but in the countries reviewed this is not (yet) implemented. In research funding, impact factors have popped up in Australia and the UK.

Most of the specific, targeted funding is research (or better R&D) oriented. In many countries it is deemed to be crucial for the survival of the national economy to invest more in R&D and in particular in S&T related R&D. The 3% target, as formulated in the Lisbon process) is used to make claims for more public funds. Target funding of teaching activities is less visible; whether the 2% target formulated in the Modernisation Agenda will change this is to be seen.

In the eyes of many policy makers and other stakeholders in higher education, tuition fees are the natural enemy of open access. If fees are raised (like in England) or introduced (like in Germany and Portugal for a number of programs) there are immediate discussions on how the negative effects on access can be mitigated.

12.6 Governance

In the Modernisation Agenda, the EC pushes for more institutional autonomy and new internal governance models. In a number of countries the developments point in that direction. Institutional autonomy regarding staff and HRM has been enhanced in Austria, Germany and, to a limited extent, in France. In Sweden and Portugal there are discussions and proposals to use contracts between the state and the individual institution.

12.7 Conclusion

The influence of supranational and international processes on national higher education policies is unmistakable. The goals, intentions, rhetoric and targets laid out in Bologna and Lisbon and restated in various documents, the latest being the Modernisation Agenda, have shaped a large part of national debates and policies in a European or even global mould. This does not mean that higher education policies are becoming the same in each country. The general themes are looking more similar, but the way these themes are dealt with differs between countries. It is not only the historically grown higher education context (structures, attitudes towards change, role of higher education in a society) that differs, it is also the changing political and constitutional context and the situation on the street that form the national higher education debates and policies. Being aware of this complexity is the first step towards understanding the dynamics of higher education policies.

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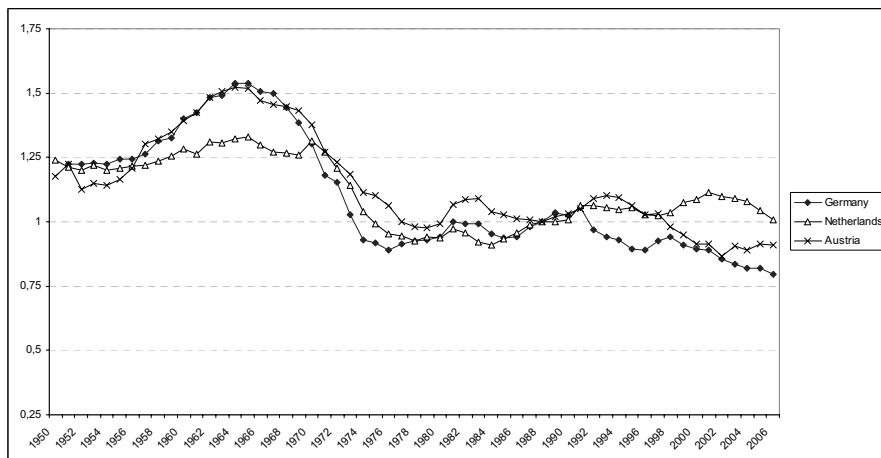
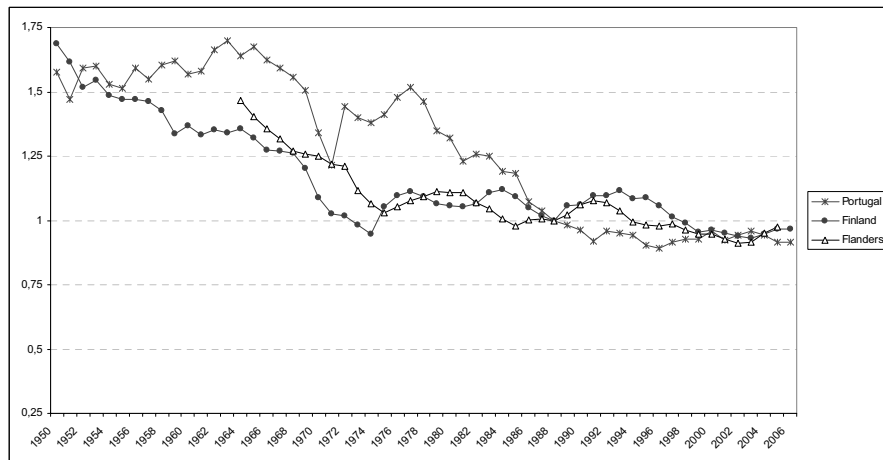
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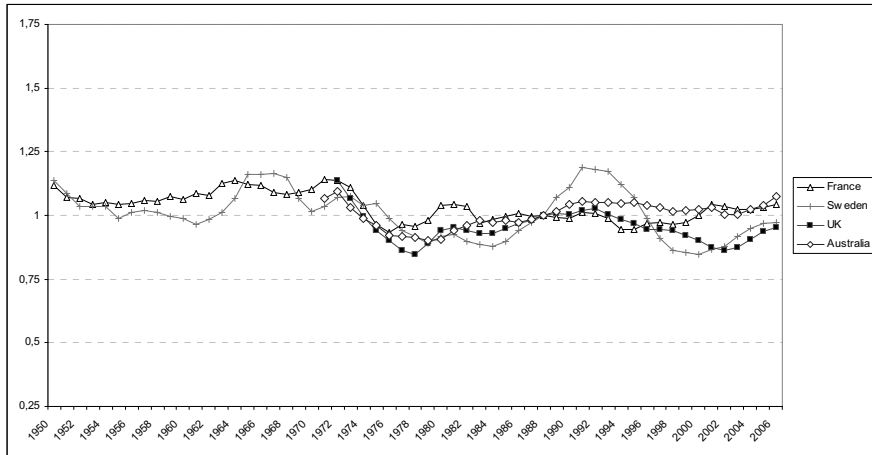
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14 Appendix: The demographic context

Changes in the population aged 0-1 years (1988=1)

The year of reference, 1988, was chosen because the new borns of 1988 are 18 years old in 2006. The age of 18 is in most countries the traditional starting age in higher education. The changes after 1988 are an illustration of the changes that may be expected in the near future in the age cohorts from which most new entrants are recruited.





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