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Review of international policy developments

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1 Introduction

In the context of the development of the Strategic Agenda Higher Education and Research 2011, the Dutch Ministry requested CHEPS to explore international policy trends regarding the relationship between higher education and the labour market. This should be reviewed mainly from the governmental perspective: what initiatives, policy instruments and approaches can be identified in other countries that can be useful for Dutch higher education policy?

The possible policies in this area cover a broad area, such as:

- steering the quantitative supply of graduates relative to labour market demands and counteracting mismatches;
- implementing capacity restrictions or other ways of steering student choices;
- reforms in the higher education system, degree structures and qualifications; assure that skills and competences acquired in higher education are appropriate to the needs of the economy;
- stimulating practice-oriented research at Universities of Applied Sciences with a view to enhance the employability of graduates;
- defining the role and responsibilities of the different stakeholders in aligning supply and demand: Higher Education institutions, government, employers; role of employers to increase the employability of graduates for example regarding course provision, and particularly their involvement in the context of quality assurance and accreditation processes.

In exploring these trends it is important to know on what basis these policies have been developed. What quantitative and qualitative data collections exist and how are these used to inform policy making in meeting labour market needs? What other arguments or particular national approaches are notable?

A related question the Dutch Ministry raised is whether the demand-supply issue would lead to policy initiatives by government to increase private financing of higher education delivery in a broad sense. This includes enabling and facilitating private providers to enter the HE market. The emergence of public /private partnerships wherein public HE institutions and private providers or business cooperate in providing (parts of) higher education programmes should also be covered. The aim here is not to list as many existing practices as possible. Instead, the focus will be on policy initiatives and practices to generate private funding and public-private partnerships with the aim to counter shortages on the

labour market. Are examples or tendencies found where governments incorporate these private elements in their overall HE policy?

This thematic report looks at a selective group of countries that are commonly involved in the CHEPS International Higher Education Monitor (IHEM). In particular we consider developments in Germany, France, the UK, Scandinavian countries (notably Sweden), Australia, and for certain aspects Austria and Switzerland. The aim is not to give a comprehensive overview of these countries, but to highlight certain aspects that were found most notable.

This review does not cover what HE institutions are doing themselves in enhancing graduate employment, such as course development and revisions in bilateral agreements with employers and/ or respective professional bodies, setting up career services or activities for alumni. As government policies are playing a subordinate role in such matters, these are beyond the scope of this report.

The actuality of the topic has been underlined by the European Commission when presenting the agenda for the modernization of Europe's higher education systems¹. Employability is at heart of this new higher education reform strategy to boost graduate numbers, improve quality and relevance of higher education and generally maximise what higher education can do to help the EU economy emerge stronger from the current crises.

The structure of the report

Section 2 discusses the issue of supply and demand on the national level. Some policy developments in particular countries will be discussed more in detail in combination with the most influential policy papers that have an impact on subsequent policy initiatives. What developments are expected and what policies have been initiated in aligning supply and demand?

Section 3 looks closer at particular programmes to bridge the gap between higher education and the labour market, the growing emphasis on competences and high level skills. The developments regarding particular programmes will be reviewed, such as the vocational sub-degrees (or Associate degree), the view on Bachelor degree as having a labour market relevant qualification, as well as Professional Masters and Doctoral Education.

Section 4 digs deeper into the notion of employer engagement. In its widest sense it encompasses collaboration regarding research, knowledge transfer, placements and internship, workplace learning, as well as involving employers in the design and delivery of programmes. Employer co-funding and private/public partnerships will be reviewed as well as practice-oriented research that Universities of Applied Sciences are undertaking in close

¹ European Commission (2011) *Supporting Growth and Jobs – an Agenda for the Modernisation of Europe's Higher Education Systems*. Brussels 20.9.2011.

cooperation with business. The central focus is on the role of governments in generating this demand from the private sector.

Section 5 investigates the anchoring of the higher education and labour market connection in Higher Education policies. In particular the structural role of the employers and professional bodies in quality assurance and accreditation processes will be reviewed.

The last section contains a number of major conclusions from the international review followed by a short reflection on the Dutch Strategic Agenda on higher education.

2 National policies on supply and demand

Many countries have a long tradition of forecasting supply and demand, but national experiences differ in terms of the periodicity, level of detail and methodology used. The main quantitative approaches are based on economic models. Most of the countries discussed in this report maintain a national system of long-term prognosis for employment by occupation (comparable to the ROA prognoses by occupation, sector and required level of education), combining forecasts for the country and regional and sectoral studies (for example prognoses on the demand for medical doctors, paramedical professionals or teachers to be used for the annual intake of new students in those areas). Although there is not a direct link, these long-term prognoses are setting the tone for subsequent policy making.

2.1 UK: The need for high level skills

In the UK the connection between higher education and the labour market has been monitored systematically over the years, such as the Destination of Leavers from HE surveys (six months after completing their studies and the longitudinal survey 35 months after completion), several other surveys during the graduate career as well as surveys among employers what they expect from higher education (National Employer Skills survey and Employer Perspective Survey). At present the Higher Education Statistics Agency (HESA) is the official agency to collect statistics on graduate employment. Generally these studies distinguish between the formation of subject-specific understandings and the promotion of other valued skills, qualities and dispositions. These generic skills or 'general graduateness' as the Quality Council (HEQA) terms them, are considered important as many 'graduate jobs' have been more or less indifferent to applicants' subject of study. In this sense the British labour market differs from those in continental Europe where the relationship between field of study and the labour market is more direct.

In policy terms the notion of skills dates from the Robbins report (1963) that emphasised instruction in skills suitable to play a part in the general division of labour. The skills issue (commonly measured as qualifications) has been a continuous issue and became materialised

in the Sector Skills Councils responsible for approving qualifications after their development by examining boards or lead bodies from the labour market.

For an understanding of current UK policies on higher education and the labour market the review by Lord Leitch in 2006 has been most influential². This review is set against a background of economic strength and stability in the UK, with one of the highest employment rates in the developed world. Although the UK has significantly improved the skills base with rising school and college standards and strong growth in graduate numbers, aspects of the skills base remain weaker than those in other developed economies. The report recommends and sets out a far-reaching reform agenda to become a world leader in skills by 2020. This means increasing skills attainment at all levels and regarding higher education that more than 40% of adults are skilled to graduate level and above.

Basis elements of a reform agenda are that ‘economically valuable skills’ must be delivered through a demand-led approach, facilitated by a new culture of learning, and an appetite for improved skills amongst individuals and employers. To attain these goals, the system must become more efficient, responding to market needs, and Government, employers and individuals must all engage more in skills development. The report identifies necessary institutional reforms and simplification.

Recommendations particularly addressed to higher education are:

- Strengthening the employer voice on skills through creation of a new Commission for Employment and Skills, increasing employer engagement and investment in skills (including reforming Sector Skills Councils who will approve vocational training).
- Increasing employer investment in higher level qualifications, especially in apprenticeships and in degree and postgraduate levels; significantly more training in the workplace.

The review recommends a simplified demand-led system with employers and individuals having a strong and coherent voice. In their view the role of Sector Skills Councils (mainly operating in the VET –sector) should be expanded to high skills and drive up employer investment in these skills. The review recommends widening the focus of HE targets to encompass both young people and adults via workplace delivery. It is expected that this will “dramatically improve engagement between HE and employers” (Ibid. p. 140).

In a response to the Leitch review of skills, the Department for Innovation, Universities and Skills (DIUS) asked in 2009 the Higher Education Funding Council (HEFCE) to take forward

² Leitch (2006) Prosperity for all in the Global Economy: World Class Skills

work in this area. Three strands of work for the Funding Council were defined as crucial for higher education policy³.

First, in order to build the skilled, adaptable workforce that is needed for the future, an increase in the number of students is needed. A long term target has been set that by 2020 at least 40% of the working age population should have a higher level qualification (level four or above). Increases in the current grant for teaching would allow a significant expansion with a particular focus (...) “on the need to increase participation in HE by underrepresented groups from all parts of the working population, to support flexible and innovative delivery models, and to offer better local access to HE in places where there is a shortage of supply”.

Second, to accelerate progress towards a new relationship between employers and higher education. This involves increasing volumes of employer co-funding being brought to bear to support skills development. This not only means a new approach to funding, but also a need for innovation and cultural change: “providers will need a growing appreciation of the requirements in the workplace; to provide and adapt courses swiftly in response to demand; to offer provision tailored to individual business; and make it accessible in ways that suit employers and students”.

Third, the need to widen participation, identifying and nurturing talent so that higher education is truly available to all who have the potential to benefit from. The Government has set a target to increase participation in HE towards 50 per cent of those aged 18 to 30.

The evidence supporting policies towards higher participation levels have not explicitly been mentioned. What has fuelled this policy of increasing participation is very likely to be related to changing labour market demands, as it becomes increasingly difficult to obtain “good jobs” without a degree. Employers in England reported that around 30% of jobs already require degree-level skills and given this fact are not confident that there will be sufficient skilled people available in the future to meet their evolving skills need⁴. Also the international competitiveness plays a role here.

A theme in all these areas concerns the importance of science, technology, engineering and mathematics subjects (STEM subjects). The Ministry supports pilot projects designed to raise demand for STEM among potential students and to sustain the capacity in institutions with very high cost STEM subjects. Where there is evidence of demand, the HEFCE should ensure that within available resources there are sufficient student numbers and to encourage employers to co-fund provision wherever possible.

³ Letter from Secretary of State for Innovation, Universities and Skills (John Denham) to HEFCE 18 January 2009.

⁴ See for example CBI The Voice of Business (2008) Stepping Higher, Workforce Development through Employer-Higher Education Partnership. (www.cbi.org.uk).

The policy emphasis on the skills system has been continued in the White Paper “*Skills for Sustainable growth*” (November 2010). The key issue in this paper is that the challenge higher education - although a value in itself with world-class research - faces is putting the undergraduate experience at the heart of the system. Educational opportunities should be available to many people throughout their lives in different forms: full-time and part-time; academic and vocational, whatever will help them achieve their goals at that stage of their life. In order to widen participation sufficient higher education places should be available for those qualified.

A question arises about the impact on future demand and the present developing mismatch between supply and demand. Actually in the last three years the growing number of entrants to higher education has been marked by an ever faster growing number of applicants. One of the reasons for this mismatch is the cap on numbers since 1994. Since this cap has been set at a level explicitly and significantly below demand, this has resulted in much greater levels of unsatisfied demand. Increasing the number of applicants without any formally recognised qualifications will undoubtedly put further pressure on the admittance system with the number of applicants rising more rapidly than the number of acceptances⁵. It is very doubtful that the present HE system is able to absorb a larger student population.

The present government is very explicit in order to meet expanded demand levels in higher education. Given the fact that public funding has to be reduced, a more cost-effective sector is to be needed if opportunity will be spread more widely. In the White Paper published in summer 2011 the Government sets out his reform policies for higher education⁶. The reform focuses on changes in the funding system (vouchers, i.e. – ‘funding follows the decisions of learners’) as a driver for a more responsive system. For our present discussion on labour market and privatisation tendencies the following objectives are standing out:

- Moving away from the tight number controls that constrain individual HE institutions, and expanding the flexibility for employers and charities to offer sponsorship for individual places outside of student number controls ...” provided they do not create a cost liability for Government”.
- Removing the regulatory barriers that are preventing a level playing field for HE providers of all types, including further education colleges and other alternative providers. They will be encouraged to offer a diverse range of higher education provision. In line with this, it will be made easier for new providers to enter the sector, including reviewing the title ‘university’. By supporting a more diverse sector

⁵ See for a discussion R. Coleman & B. Bekhradnia (2011) *Higher Education Supply and Demand to 2020*. HEPI.

⁶ Department for Business, Innovation and Skills – BIS (2011) *Higher Education: Students at the Heart of the System: Equality Impact Assessment*. (www.bis.gov.uk).

with more opportunities for all kinds of courses, it is expected that this will further improve student choices.

- Asking universities to look again at how they work with business across their teaching and research activities, to promote better teaching, employer sponsorship, innovation and enterprise.
- Improving and expanding the information available to prospective students, making available much more information about individual courses at individual institutions and graduate employment prospects.

The HEFCE is the strategic body to work out most of the government policies and this will be discussed in section 3.2 of this paper.

2.2 Germany: labour market qualifications

Traditionally the relationship between education and occupation has been quite narrowly defined in Germany. The field of study is the most important criterion for employers to recruit graduates in combination with aspects that can be subsumed as generic and personal skills'. The relationship is not always direct as in many cases phases of additional professional training are needed to prepare graduates especially in the higher ranks of a professional hierarchy.

Dual education (or cooperative education) has a long tradition and is generally considered as a successful model to close the gap between education and work. It operates mainly in the VET sector and the Berufsfachschulen, but finds its place increasingly in higher education.

Due to changes in the economic structure with a growing emphasis on the service sector, demand for a higher qualified workforce is expected to increase considerably. Various sources point to shortages in different areas and additional investments are seen as necessary. Following the advice for example by the Wissenschaftsrat, the federal and state governments agreed in the Hochschulpakt 2020 to enlarge the capacity of HE institutions to accommodate a larger number of students. This Hochschulpakt includes agreements about large financial investments, to be covered jointly by the federal and state governments on an equal basis.

The tuning of supply and demand takes place in the context of the contracts between the government and individual institutions (*'Zielvereinbarungen'*). The contract determines the capacity of the number of first entrants per study field of each institution. Monitoring of graduates on the labour market in the respective fields is part of the assessment.

In order to admit more students in the system, the Wissenschaftsrat advocates a more differentiated system than the basic distinction between universities and Fachhochschulen (Universities of Applied Sciences – UAS). Universities should have more autonomy to stress

their distinctive features and to develop their own individual profiles. According to the Wissenschaftsrat, universities should offer more practice-oriented programmes. In his view a majority of the students is interested in more professional education and consequently universities should reinforce the connection with the labour market, convey employable competencies and integrate these in the study programmes. Universities should find adequate, differentiated ways to connect research, education and practice⁷.

Labour market shortages are particularly prospected in the technical fields and a larger number of technically well prepared and informed workforce is needed. Policy measures are focusing on:

- interesting young people in nature and technology,
- increasing the attractiveness of technical occupations,
- improving the study results of students in technical fields and counter drop out rates,
- improving the quality of programmes and introduce curricular innovations.

The latter includes proposals for an extension of project-based learning and practice-oriented learning which tunes to the experiences and life situations of the students and can include competences acquired outside HE. Another policy is to introduce programmes with various study duration, including professionally-competent Bachelor programmes.

Bachelor degree as a labour market qualification

Although in Germany the Bologna-Process occurred relatively late, it has been used as an opportunity for a modernisation of study programmes in cooperation with the ‘societal stakeholders’, such as the participating institutions, students, employers, and employee representatives. A consistent orientation toward key competences, skills acquisition (including soft skills) and learning results c.q. outcomes enhances the awareness for labour market needs and working demands. Also work-relevant components such as internships and thesis papers on issues with practical relevance would increase the employability of graduates.

The situation of Bachelor programmes is of particular interest. In correspondence with the Bologna intentions a Bachelor degree should have a labour market relevant qualification. Empirical evidence shows a growing acceptance of the Bachelor degree on the labour market. In its graduate survey INCHER assessed that about 22 per cent of the Bachelor graduates from universities and 59 per cent from Fachhochschulen choose to enter the labour market directly. Moreover, these graduates indicate similar periods of seeking employment and equally high job satisfaction rates and utilisation of acquired competences compared to

⁷ Wissenschaftsrat (2006) Empfehlungen zur künftigen Rolle der Universitäten im Wissenschaftssystem. Berlin, p.9-10).

those graduates with the traditional degrees. Furthermore, the differences in professional success among graduates from different disciplines do not differ that much anymore than previously assumed.⁸

Other statistics point in the same direction. Particularly in SME's there is a growing experience with graduates and Bachelors fulfil the requirements at their workplace successfully. The majority of companies surveyed integrated the Bologna Process into their personnel policies. Even in fields like engineering Bachelor graduates are increasingly being recruited and depending on the size of the company this trend is continuing. In 88 percent of the companies the career development of young engineers depends on how they have proven themselves in corporate practice⁹. These outcomes contradict the general notion that Bachelor graduates would have no chances on the labour market. On the contrary there is an evolving normal situation for them in the transition to work and to start a career.

These labour market findings in combination with the general demand–supply factor and the growing need for more continuing (professional) education are utilised in higher education policy. In a joint declaration, employers, unions, HE institutions and student organisations strongly support the further development of the Bologna-Process and to anchor the goals of mobility, employability ('Beschäftigungsfähigkeit') and lifelong learning. Several key themes to achieve these such as creating more diversity of degree programmes, more flexible and modular structured pathways allowing for adequate consideration of a variety of desired qualifications have been materialised in the project nexus led by the HRK (see section 3.1).

2.3 Australia: move towards a student demand-driven system

Despite the structural reforms over the last decade (merging of institutions, various funding reforms) it has been felt that Australia requires a Higher Education system that is adaptive to the needs of a modern society and the consequential challenges of a global economy. The 2008 Australian review of Australian Higher Education (the 'Bradley Review') was set up because the system was felt inflexible to the demands of the modern economy. This review recognised the close links between tertiary skills and economic and social progress¹⁰:

Only citizens who are resilient, informed, adaptable and confident will manage the consequences of the new global economy with all its opportunities and threats. A strong education system designed to ensure genuine opportunity for all to reach their full potential and to continue to improve their knowledge and capacities throughout their lives will build such people.

⁸ Harald Schomburg, Studienbedingungen und Berufserfolg, Absolventenbefragung 2008 (results presented in Berlin, Okt. 2009).

⁹ HRK, Zahlen und Argumente zur Umsetzung der Studienreform (24-5-2011).

¹⁰ Bradley, D. et al (2008) Review of Australian Higher Education, p.1

In response to the finding and recommendations of the Bradley review, the Australian Government presented a comprehensive 10-year reform package for the HE sector¹¹. This includes Government's commitment to ensuring Australia's higher education system better meets future needs. Additional funding should support high quality teaching and learning, and improve access and outcomes for students from low socio economic backgrounds. An important target is that 40 per cent of all 25 to 35 year olds will by 2025 hold a qualification at Bachelor level or above. To support this target the Government will fully fund a place for all undergraduate domestic students accepted into a recognised public higher education provider.

One of the key factors reshaping higher education provision in Australia is the policy to implement a demand-driven funding and enrolment system, as stated in Australia's higher education policy blueprint: 'From 2012, Australian public universities ... will be funded for student places on the basis of demand'¹². This means that there will be no need for agreements on the number of funded places, as currently is the case. Instead, the preferences of students and the restrictions of universities determine student numbers. This will enable the sector to grow in response to demand from students and the needs of the society for more graduates. It is anticipated that this new system will produce an estimated 217,000 additional graduates by 2015. The new, open-ended, student centred funding system will encourage universities to respond to student demand and to be more responsive to attract students from non-traditional social backgrounds.

The precise impact of this policy has not yet been fully understood, as are the added complexities of high university attainment targets. The evidence shows a marked expansion in the number of students in the system, but several questions have been raised about the feasibility and the practicalities of reaching the 40% attainment target as set by Government. Although current data provides evidence to suggest some growth, it is uncertain whether it is sustainable¹³.

According to Angela Magarry the targets are ambitious and risks will be in expecting rapid adaptation and expansion without an adequate regulator to provide scrutiny over quality; and in not clearly articulating workforce requirements to balance institutional responsiveness to student demand against the national interest, and other needs of the society¹⁴.

Following Magarry's scepticism, two questions in particular need further attention:

¹¹ Australian Government (2009) Transforming Australia's Higher Education System, May 2009.

¹² Ibid, p. 17.

¹³ See Daniel Edwards (2011) Joining the Dots. Research Briefings vol. 1 and 2 (www.acer.edu.au/jtd).

¹⁴ Angela Magarry (2010) Australia's higher education system, a transformation in waiting. OECD conference Paris September 2010 Institutional Management in Higher Education.

- (a) How is the demand justified from the perspective of the workforce? Would the labour market be able to absorb a larger number of graduates?
- (b) To what extent can /should demand be absorbed by the current system as a whole or should new institutional structures be needed. Would this make desirable to establish new institutions, including privately funded providers?

Ad (a) Demand for a more highly skilled workforce

Various documents are consistently pointing to the fact that the Australian economy is restructuring towards service industries, where skill needs are heavily oriented towards those with professional qualifications – almost all of which these days require a university degree as a minimum entry level. Statistics show a proportional increase of persons aged 25 to 29 employed in professional occupations with degree qualifications. Between 2000 and 2009, 31.5 per cent of the total growth in jobs in Australia was in occupations classified as professional¹⁵.

Degree qualifications, of course, are not confined to persons holding professional occupations. A recent projection prepared by Access Economics for Skills Australia (the Commonwealth Government's advisory body on skills policy) concluded that there was likely to be rapid increase in the degree intensity of workers across a range of occupations. Access Economics based its projection on recent trends in skill intensity by occupation and on its estimates for productivity growth. The assumption was that the more rapid the growth in productivity, the greater would be the need for persons with post-secondary qualifications. Under the high-productivity scenario, the proportion of employees holding degree qualifications would need to increase from 24.0 per cent in 2007 to 33.8 per cent in 2025¹⁶.

Chandra Sha's study on economic changes and their implications for future demand for skills points in the same direction. In his report prepared for the Department of Education, Employment and Workplace Relations (DEEWR) he shows how the qualifications profile is shifting towards higher levels. In particular, the number of people holding diplomas as their highest qualification increased more than 10 per cent per year. Overall the total increase in employment of persons with qualifications is due to growth in employment, the shift to employment in high-skill occupations, and skills deepening. The qualifications requirements are expected to increase sharply in the VET sector, but also in higher education. Additional skill needs could arise as a result of a change in the tasks that are to be performed in an

¹⁵ Birrell, B., V. Rapson & F. Smith (2010) The 40 per cent degree-qualified target: how feasible?. In: *People and Place*, vol. 18, no.4, 13-29.

¹⁶ Access Economics, (2009) *Economic Modelling of Skills Demand*, A Report for Skills, Australia, p. 48.

occupation. In his view reforms that reduce barriers to participation would be one possible way to lift growth and reduce future pressures¹⁷.

Although a direct connection between these studies and the recent government policies has not been made, it is quite clear that the Australian Government's 40 per cent target for the proportion of 25 – 34 aged persons holding degree qualifications is in tune with these trends.

The State Government of Victoria makes a more rigorous step and argues that Victoria will need a higher attainment, around 47 per cent at Bachelor level and above, both to meet industry and workforce needs in this State and to contribute effectively to the attainment of the Australia-wide target. As Victoria's economic future is changing towards a knowledge economy, based on high-technology and high value-added goods and services, a more highly-skilled workforce is required. Victoria's universities "provide the education and training required to develop the knowledge, skills and opportunities graduates need to enter the workforce and they deliver appropriately prepared workers to industries competing in the global economy".¹⁸ The Panel based its views on a DIIRD publication (Industry Demand for Higher Education Graduates in Victoria 2008-2022) that stated that in order to meet Victoria's workforce needs, there would need to be a significant expansion of the higher education system, especially in certain disciplines, to meet Victoria's changing economic needs.

Ad (b) Capacity of the higher education sector

Questions have been raised in the extent to which the existing arsenal of higher education institutions would be able to meet the high participation targets and how universities would deal with the growth targets particularly regarding non-traditional students (low SES backgrounds, ethnic and mature students). Policy documents indicate that it is a significant challenge to create structures that also cater for the needs of mature-aged students and students who have not had a conventional pathway to higher education. These students may require tailored support and more flexible delivery options. The Higher Education Participation and Partnership program (HEPPP) for example provides funding based on their respective share of indicator of students from low SES. In order to attract these students, higher education providers may develop more flexible delivery options regarding length and nature in an attempt to diversify their student cohorts.

Another issue is whether the public system is well positioned to accommodate an ever larger number of students, or whether this system should be expanded. While currently about 95% of all students are enrolled in public universities, it has been the policy of successive Australian governments to encourage the growth of other higher education providers. It is

¹⁷ Chandra Sha (2010) Demand for Qualifications and the future labour market in Australia 2010 to 2025. Report prepared for DEEWR. Centre for the Economics of Education and Training, Monash University.

¹⁸ Report Advising on the Development of the Victorian Tertiary Education Plan (2010) Expert Panel, Kwong Lee Dow (Chair). Skills Victoria (www.skills.vic.gov.au).

likely that a significant proportion of the sector's future growth may be in newer, privately funded providers which will operate alongside the established institutions that receive public funding. The Bradley Review is clear when it states that the initial roll-out of a demand-driven system be limited to Table A higher education providers and to undergraduate courses - but that "consideration be given to expanding this to postgraduate courses and to other providers in due course".

The aforementioned Victorian Expert Panel takes the position that in order to accommodate a larger number of students more effective use of existing assets and infrastructure in the whole of the tertiary sector will be required. The Panel goes on to state that

(The Panel)... sees no short-term need for any new universities, but expects that new institutional structures may emerge over time. These may be completely new, independent institutions or they may arise out of collaborations between public and private providers and/ or with industry¹⁹.

The Panel is not very explicit how new institutional structures can be achieved. One recommendation is that the Victorian Government supports the further development of an open higher education market including the flow of Commonwealth funding to non-A providers as envisaged by the Bradley Review.

Another is that the Panel emphasises that in an expanding system, it is important to pay particular attention to the maintenance of quality provision. Students need to be assured they will hold a credible qualification at the end of their studies and employers need to be assured that the graduates they employ have the knowledge and skills associated with a bachelor degree. However, the quality regime must not act as a barrier to diversity and innovation, nor should it inhibit the emergence of new quality-assured institutional structures or a wider range of private providers.

For the Australian Government a strong demand-driven system would require a shift in direction for regulation and quality assurance of Australian higher education. For the latter purpose the Tertiary Education Quality and Standards Agency (TEQSA) has been established. The contours of a national regulatory framework with emphasis on student protection in a more market-based system will be discussed in section 5.3.2.

2.4 France: De l'Université à l'Emploi

The higher education system in France is very differentiated to duration and various types of programmes have been created to respond to specific labour market needs. Two explicit vocational training schemes in the university sector, the Higher Technicians' Sections (STSS-BTS) and *Instituts Universitaires de Technologie* (IUTs) account for more than two thirds of the

¹⁹ Ibid. p. 14/15.

higher vocational training in France. Both of these educational tracks give young people good prospects to obtain jobs after completion of their studies. However, the labour market prospects differ. The BTS is more of a final diploma giving direct access to the labour market, whereas the IUT diploma is increasingly regarded as a qualification for further studies in the Higher Education system. Vocational programmes also exist on the university bachelor level, distinguishing professional and general degree programmes (i.e. 'licence professionnelle' and 'license generale').

France has a very elaborated system to monitor the transition of graduates to work. The *Centre d'études et de recherches sur les qualifications* (CEREQ) is the central organisation to provide the State and regional departments with labour market information of all levels and types of programmes. These reports are an important source for HE policy on the national and regional level and increasingly by the AERES, the national evaluation agency for accrediting university programmes.

An important document that set the tone for current HE policy is the report "*De l'Université à l'Emploi*" (2006) by the *Commission du débat national Université-Emploi* (Hetzl committee). Central theme is the concern about the employability of students on all educational levels in the HE system. The large failure rates in certain subject areas and the large number of students in fields with very little employment opportunities are considered a waste of human potential and weakens the higher education system as a whole. The committee advocates to enhance the professional dimension of university education through a closer connection between higher education in its broadest sense and the labour market and a strengthening of the relationships with the employment sector.

At the same time the Committee stresses the equal opportunity as a national objective as well as supports the Lisbon agenda about the role of education and training for knowledge development and innovation.

The Committee advocates to create at every university a service that follows the students, their studies and their transition to work ("insertion professionnelle"). The expertise of CEREQ is seen as very valuable to support universities to develop this service. Every university should publish a biannual report with figures on graduate employment. Among the proposals of the committee to enhance graduate employability are:

- to integrate a professional dimension in all programmes – Bachelor, Master and Doctorate,
- to establish at each university a service for career counselling and support,
- to create a new role for an associate professor, assigned with a specific task to enhance the professionalization of university courses,

- to strengthen and validate stages/ internships that are mandatory in every programme, including the general Bachelor degree,
- to develop a regulatory framework for universities to engage with companies, contract regulations and the like.

In line with the Hetzel report, the French Government recently presented HE reforms in which graduate employability is one of the central themes, particularly regarding the Bachelor degree.²⁰ The reforms will reshape the Bachelor degrees in two respects. First, all Bachelor programmes should be made more flexible allowing students to change their subject field rather easily. By diversifying study courses, universities should take the interests of their students into account.

Secondly, Bachelor programmes should provide students with knowledge and skills that enable students to find work that corresponds to their qualification level. As in Germany the Bachelor degree is increasingly seen as a labour market qualification. In order to enhance this employability of Bachelor students, it will be mandatory for every Bachelor programme to offer students the opportunity to do an internship or to acquire work experience during their studies. In the French tradition the stage is seen as an important vehicle to facilitate entry into the workforce.

Two other proposals are worth noting. First, partnerships with companies will be promoted to assess the need for initial and continuing training.

Second, the objectives of Bachelor degree programmes are described in a range of skills which are deemed important by the government, including employment-related skills and competences. Benchmarks are anticipated to compare how well graduates from different universities are performing.

2.5 Scandinavian countries

Scandinavian countries show a various picture when it comes to the tuning of supply and demand. The following is a short overview of the main issues.

Denmark

In Denmark outcomes of labour market research and surveys of graduate employment are not used by the political authorities for funding, access regulation or ranking purposes. The Danish Association of Academics (AC) conducts employment surveys on a regular basis in order to demonstrate the need for certain groups of academics (with the risk that graduates from particular programmes may show higher unemployment rates). However, these

²⁰ Ministère de l'Enseignement Supérieur et de la Recherche, La Nouvelle Licence (dossier de presse), 22 juin 2011 (www.enseignementsup-recherche.gouv.fr).

surveys have not lead to direct government interventions except in a few cases such as medicine and dentistry where enrolments are based on prospective manpower needs.

Sweden

In the Swedish tradition there is a close monitoring of supply of and demand for HE graduates. Each year the National Agency for Higher Education publishes an assessment of the future balance in the labour market. Annual reports have been published since 2003 indicating the proportion of university graduates that have been successful on the labour market (12-18 months after graduation).

Using large national registry data (presumably census data), it is possible to make detailed descriptions of labour market characteristics and to classify graduates in four groups, namely established in the labour market, insecure position (shorter periods of unemployment), weak position, and no work. This makes it possible to analyse differences between universities and different study programmes. Historical developments for various groups can also be analysed.

In case of surplus or shortage of graduates the number of places offered in different programmes will be adapted. According to our Swedish expert, supply and demand are rather in balance and graduate unemployment is very low. A number of universities reported that they sometimes decide whether or not to start a new study programme on the basis of labour market analyses.

A current theme is the shortage of graduates from first-cycle programmes in engineering, teachers in primary education/ special education, and medical doctors. Policy initiatives to cope with this have been very meagre, sometimes the number of study places have been increased.

Sweden seems to replace the classical manpower planning by a system that relies more on individual student choices. The National Agency publishes reports about educational programmes and degrees that offer the best employment prospects, although it is acknowledged that students not always choose 'rationally' in this respect.

Finland

In Finland official statistics on supply and demand are collected by the Ministry of Education, Statistics Finland and Foredata Ltd. Regional councils produce studies on the labour market in their region. All this information is being used in regional policy networks in which with regional authorities, HE institutions, employers' associations and big companies are participating. From time to time the Ministry has been pressed to extend HE provision to meet the growing demand from the labour market. For example, in the late 90s when the IT sector expanded, an initiative was taken to establish a private IT university. This

did not happen, but the effect was that number of students in the IT sector financed by the Ministry increased massively.

HE institutions negotiate individually with the Ministry on the total number of available study places. Institutions are allowed to increase the number of students in particular subjects if there is a great demand for this in some region, thereby reducing intake elsewhere in other subjects. In the UAS sector (AMK) employers have to be involved in assessing such a demand. Joint initiatives with employers to start new programmes are less accepted given the demand factor on the national level.

Currently shortages exist in the healthcare and construction sector, but this has not led to initiatives from the Ministry to extend the number of study places. Professional associations play a role here (as in many other countries) to set limits on student growth in order to protect quality, status and future earnings in the respective professions.

3 Bridging the gap between higher education and the labour market

3.1 Towards a permeable system in Germany

In order to support universities with the further development of study programmes the HRK has launched the project *“Nexus – Konzepte und gute Praxis für Studium und Lehre”*. This project, supported by the Ministerium für Bildung und Wissenschaft refers to connection, a kind of hub connecting different end threads. The project will collect, systemise and disseminate information, concepts and good practices from universities. It is focused on the following thematic areas (‘Handlungsfelder’):

- Elaboration of skilful modularisation, attainment- and competence-oriented study programmes
- Differentiation and development of Master programmes
- Field-specific integration of labour market relevance in the study provision
- Diversity management in education and learning
- Stimulation of the permeability between academic and professional education
- Development of recognition of study results obtained abroad.

The project aims to be a platform for intensive discussions and workshops, to provoke challenging views and to exchange exemplary directions for solutions and conceptual developments. Central in this approach is an intensive dialogue with the institutions including all stakeholders within institutions and external constituencies.

In most of these thematic areas the employability is a central focus. Three of them will be looked at closer.

Differentiation of master programmes

It is assumed that since the number of Bachelor graduates will increase considerably in the coming years, many of them will be interested in continuing education in combination with work or taken after some years of working experience. In response to this demand the universities have the task to differentiate their provision further and to meet the demands of these students. Depending on the profile of the institution, the individual demand and the need for qualifications, Master programmes should be linked either directly following a Bachelor study or to some phase of professional work. This implies that work-based models, part-time organised or supported by distance learning, will increasingly be in demand. Nexus supports this differentiation of Master programmes

Labour market relevance

This theme starts from the view that graduates from Bachelor and Master programmes should be in a position to work autonomously, to acquire new knowledge and find solutions for new problems. Higher education should have the task to assist students to develop such abilities to be successful on the labour market. Methods and key qualifications will complement the field-specific qualifications.

This issue moves away from the traditional German perspective emphasising the academically trained specialist ('Fachleute') towards a rather close connection between a particular study and job tasks. Generic or soft skills are emphasised which may enhance the employability of graduates.

Permeability

The permeability ('Durchlässigkeit') between professional and academic education becomes increasingly important. This means on the one hand to broaden individual educational opportunities, on the other to encounter the prospective shortages on the labour market.

HE institutions are challenged to facilitate the access to higher education of those who are professionally employed but have no Abitur, for example by acknowledging competencies acquired through their working experience (e.g. EVCs). It has been put forward to arrange study trajectories that graduates from particular training programmes in professional areas can enrol in a higher semester. In the view of the nexus team, permeability offers the

opportunity for universities to develop their individual profile and contribute to attract new target groups for a higher education study to meet labour market demands²¹.

The other thematic fields also include labour market elements. Modularisation and competence-based programmes as well as diversity management of the student population (age, social class or individual life cycles) would enable a large group of people to enter higher education and increase their employability.

Increasing the permeability is one of the top priorities in the HE policy and all states have incorporated this in their legislation to stimulate initiatives by institutions, but it is not clear how institutions will be fuelled with additional resources. There is also much support from the side of employers. In a joint statement by the DIHK and HRK the permeability between professional experience and higher education is a central theme for the German higher educational system and all actors agree to collaborate intensively on this. All states have incorporated this issue in their legislation, but it is not clear whether they will be prepared to support this with additional sources.

One of the core tasks of nexus is to discern examples for the various profiles of the new Bachelor and Master programmes, and to disseminate innovative responses.²²

3.2 Workforce development policy in the UK

In the UK the relationship between HE and the labour market has been researched very extensively, probably more than in any other country.

Among the most important sources for HE policy at the national level are:

- the Destinations of Leavers from HE (DLHE) survey six months respectively 35 months after graduation²³
- the biennial National Employer Skills survey by the UK Commission for Employment and Skills (UKCES) and the Employer Perspectives Survey (also on a biennial basis by UKCES)²⁴.

Consistent threads in these surveys is decline of STEM study in HE (science, technology, engineering, maths) and particularly the emphasis on employability skills, suggesting this

²¹ “ Durchlässige Studienprogramme bieten den Hochschulen die Möglichkeit, ihr Profil weiterzuentwickeln und können dazu beitragen, neue zielgruppen für eine Hochschulstudium zu gewinnen. Ein wichtiger Schritt, um dem Fachkräftebedarf zu begegnen” (Peter Zervakis, Projektleiter nexus).

²² The nexus website mentions various initiatives taken by universities, faculties etc. (nexus@hrk.de).

²³ See www.hesa.ac.uk

²⁴ <http://www.ukces.org.uk/publications/er13-national-employer-skills-survey> and <http://www.ukces.org.uk/publications/er25-employer-perspectives-survey>

should be a key priority for universities. A definition widely accepted among employers is “a set of attributes, skills and knowledge that all labour market participants should possess to ensure they have the capability of being effective in the workplace – to the benefit of themselves, their employer and the wider economy”²⁵.

Although according to the HEFCE these reports “are not directly used to inform policy development” they are noted by HEFCE which is in charge to carrying out government policies. HEFCE’ focus has been on improving employability practice across the higher education sector in England. In the past (about 1997 to 2005) this was either done through additional funding direct to universities (for example through support for institutions’ learning and teaching strategies) or by funding the establishment of new support agencies (which subsequently merged into the HE Academy²⁶).

More recently under the previous Government, the focus of policy shifted to ‘workforce development’ in response to the Leitch Review of Skills as discussed before. The Government asked HEFCE to take forward work in this area. HEFCE invested over £150M – split between approximately £100M to support projects to get universities to change their infrastructure to be more responsive to employers – and £50M to co-fund work based learners, with employers the other source of co-funding. The objectives of this policy are to:

- Achieve the Governments targets for growth in co-funded students
- Test the potential scale of the employer market
- Stimulate HE institutional change
- Promote access into and through HE for a wide range of learners
- Build and platform of capacity and capability to grow workforce development into the longer term.

Some 35 projects have been supported and provided co-funding to over 100 HE institutions²⁷. This policy has effectively required universities to test the market – and market analysis has been an important feature of many of the projects. The extent to which they are taking account of employer needs is reflected in the numbers of students recruited and the co-funding contributions achieved. An evaluation of this policy is currently underway.

During the recession since 2008 HEFCE invested £25M in universities to help them respond to the recession by providing support to the unemployed and to businesses facing

²⁵ CBI, The Voice of Business/ Universities UK (2009) Future fit, preparing graduates for the world of work. CBI Higher Education Task Force (www.cbi.org.uk/highereducation).

²⁶ The HE Academy’s current work in this area can be viewed at <http://www.heacademy.ac.uk/ourwork/teachingandlearning/employability>

²⁷ The projects can be viewed on <http://www.hefce.ac.uk/econsoc/employer/projects/>

difficulties. Examples of support include workshops focused on business improvement, internships for unemployed graduates, and subsidies for businesses to access university expertise to support innovation.

In early 2010, additional funding has been provided to support more graduate internships – in response to increasing unemployment amongst recent graduates. Data on unemployed graduates by region was used to inform the HEFCE allocations of funding (data from the labour force survey²⁸). This information was used as a way to encourage universities to bid for funding.

Finally, the Government also asked to pilot some internships for undergraduate students from poorer backgrounds to get into professional occupations. Internships were completed in the summer of 2010. Both internship schemes have been evaluated and this will soon be published.

Strategically important and vulnerable subjects

HEFCE provides additional support to broad subject areas that have been identified as both strategically important to the country and vulnerable in terms of their longer term sustainability. HEFCE established an advisory group to identify strategically important and vulnerable subjects (SIVS), and what interventions will be most effective. More recently, the group has looked at graduate supply and demand, and on that basis the following subjects are currently identified as SIVS:

- STEM subjects (Science, Technology, Engineering and Mathematics)
- Modern foreign languages, area studies and related minority languages
- Quantitative social sciences

A range of funding mechanisms have been applied, investing £350 million to both stimulate demand for the subjects from prospective students and sustain subjects within higher education institutions.

Changing Government policy

The election of the Coalition Government in 2010 has inevitably led to changes in Government priorities for higher education. The new fees and funding regime marks the end of the current SIVS policy and transition to a new approach. The Government's grant letter to HEFCE in December 2010 states that adequate provision of SIVS is one of two top policy priorities and asks HEFCE to consider which arts, humanities and social science subjects should in future be within the SIVS scope. Given this, HEFCE is developing policy with stakeholders in order to identify key issues and concerns that can be backed up with

²⁸ <http://www.statistics.gov.uk/statbase/Source.asp?vlnk=358>

compelling evidence and might be addressed through collaborative endeavour – this work will inform the development of a new SIVS policy (expected to finalise in autumn of 2011).

Another change due to the reforms to HE funding and student finance, is that there will no longer be HEFCE funding for a great deal of the provision as supported through the workforce development policy. It is expected that the co-funding model will be phased out as part of the removal of the £3 billion of teaching funding across academic years 2012-13 to 2014-15. There is, however, loan support for part-time students where they are studying 0.25 and above of a full time equivalent student. Therefore attention will be focused towards transition of the institutions' activities founded on the co-funding model towards a model where the costs of provision are paid by the employer and by the individual (see section 4 on employer engagement).

3.3 Development of vocational sub-degrees

The last decade show a gradual growth of sub-degree programmes in several countries, variously named as Foundation Degree (UK), Associate Degree (Netherlands), or Advanced Vocational Degrees (France, Sweden). Sub-degree qualifications are generally defined as qualifications that are (a) recognised for progression within the higher education system, and (b) independently recognised by employers in the labour market.

The most important policy drivers behind the development of these qualifications are the need to widen participation and to make higher education accessible for those who would otherwise not have taken higher education and for those already in the workforce. Demands for these degrees come also from employers to increase the knowledge and skills of their workforce.

Other policy drivers that may apply differently across countries are: changing social composition of higher education as intermediate qualifications help minority groups obtain some experience of higher education; cost containment to both students and public funds; responsiveness to local labour markets; meeting the needs of employers, in particular SMEs; and providing routes into middle management.

In addition there is evidence that sub-degree qualifications are beneficial in meeting local labour skills shortages and consequently employment rates among intermediate qualifiers are good.

Countries differ in the way associate degrees have been initiated and what the respective role of government and employers are. For example in a market-driven approach like in the US employers have a major role from the start whereas in centrally-planned systems (e.g. France) the ministry largely determines the qualification levels. A kind of a third way can be found in initiatives in Sweden, Australia and UK. These will be discussed more in detail.

Sweden: Advanced (higher) vocational education

In Sweden there is a growing dialogue between employers and universities and colleges about the content and organization of their courses. One of the recent outcomes is the *Kvalificerad yrkesutbildning* (Advanced Vocational Education –AVE) as a new form of vocational post secondary education, tailored to the needs of the labour market. This is designed, constructed and carried out in partnerships between employers and educational providers. Rather than creating a separate institutional sector to provide this education, courses identified as “post secondary education” have been organized through close cooperation between upper-secondary, higher education, adult education, and private companies.

The purpose is to provide a vocational track where one-third of the time would be spent in the workplace “in the advanced application of theoretical knowledge”. These courses should be placed in the level 5-6 of the qualification framework, but the idea of involving employers on the advanced levels in higher education may be addressed as well. Two types of programmes have been distinguished, the Higher Education Vocational Degree (1-year) and the Qualified Higher Education Degree (2-year). The latter is similar to the Dutch Association Degree.

The courses are open both to those who recently finished upper secondary school and to those who are already employed and wish to develop their knowledge and skills within a specific area.

The Swedish National Agency for Higher Vocational Education (established in 2009) is responsible for all publicly funded courses throughout the country with the following tasks:

- Decide about public funding of these programmes
- Assess and audit quality and outcomes of courses
- Analyse and assess demands for qualified labour and labour market trends
- Coordinate and support a national framework for validation
- Act as the national coordinating body for EQF in Lifelong Learning

An AVE programme can be initiated by employers or by educational institutions, however, a prerequisite is that there is a real labour market demand and that employers take an active part in defining needs and are involved in the design and organisation of the curriculum. Assessment of labour market needs occurs on the basis of statistical data, consultations with employer organisation and other available sources. Providers must also show that there is a labour market demand for their courses. The Agency includes the Labour Market Council to support the Agency with necessary information. Among the members are the Confederation of Swedish Enterprise, Swedish Federation of Business Owners, Swedish Public Employment

Service, Swedish Association of Local Authorities and Regions, Swedish Confederation for Professional Employees, and the Swedish Trade Union Confederation.

Programmes in AVE are supposed to be flexible in order to respond easily to changing economic conditions. Regular monitoring of the needs of employers and participants will take place.

Financially the employer contributes by bearing the costs of workplace-related learning. The other costs are financed by the government and students are eligible to receive study grants and loans from the State student aid system (tuition fees are not charged in Sweden).

The National Agency for Vocational Higher Education strongly advocates involvement of the universities in developing these programmes. Universities and university colleges appear to be very eager to provide them. Although the degree in Sweden is distinct from and on a sub-Bachelor degree level, it is believed that these programmes should be clearly situated in higher education, a view strongly supported by employers. It brings in a strong vocational dimension in higher education with the potentiality to develop to higher levels up to the Master degree level.

To date, the majority of courses are in 'economy, administration and sales (27%), technology and production (27%), and in health care (9%).

UK: Foundation degrees

Foundation degrees were launched in 2002 as a new qualification equivalent to level 5 (in the National Qualifications Framework) and they correspond to the demand-led type of education provision as supported in the Leitch review (and originated from the Dearing report in 1997 to introduce a two-year sub-degree courses). These programmes integrate academic study with work-based learning offering practical, accessible options for employers and employees alike. From the beginning it was set out that the foundation degree should be both 'academically rigorous' and 'vocationally-oriented', linking higher education study to the world of work. It should also provide progression opportunities so that students could achieve a Foundation Degree (FD) as a qualification in its own right, but could also benefit from articulation to designated Bachelor awards at the next level of HE qualifications. Consequently, the Foundation degrees had to be university-validated and subject to the same quality assurance procedures as for other HE provision. Not the least important feature of the FD was to encourage and enhance more strategic partnerships between universities and colleges²⁹.

Foundation degree programmes are vocationally-oriented:

²⁹ Derek Longhurst, Chief Executive, fdf, Forward, Issue 24, June 2011, p4.

- six months after graduation the most graduates have a job on tertiary level, mostly with the employer they had before they started the programme.
- 77 per cent of the part-time students receive support from their employer, mostly in the form of study leave; 28 per cent receive financial support or get the tuition fees remunerated.

Rather than leaving the initiative to institutions and the free market in delivering FD programmes, Foundation Degree Forward (FDF) was established as a government-funded project supported through HEFCE to support Foundation degree development at regional level. This support involved consultancy to institutions and guidance in their responsiveness to employer needs. Small grant funds enabled good practice development that could be shared with others through publications, website and conferences. Through the work of Regional Development Workers (RDMs) FDF could fulfil a brokerage function to facilitate university engagement with employers.

Sector-specific arrangements have been developed in partnership with key employers and the relevant Sector Skills Councils (SSCs) in Retail, Travel Operations Management and ICT and other sectors. In this way the Foundation degree curriculum would be industry-recognised – and so that employers/employees also regarded the Foundation degree as transferable if the employee were to move to another region or employer.

An interesting observation in subsequent HEFCE evaluation of the FDF has been that the organisation's expertise should be diversified beyond Foundation degrees to stimulate employer engagement with higher education more generally, and not just in relation to the single qualification of Foundation degree. This resulted in the development of robust and sustainable employer partnerships³⁰. In this context the strategy in creating employer partnerships has been focused upon sectors where there is employment need but evidence of limited appropriate HE provision. The role of stimulating partnerships between HE institutions and the private sector has become part of the HEFCE Employer Engagement Strategy funded through HEIs (see section 4).

Australia: Associate Degree

In Australia the Associate Degree (AD) is not only used to meet current labour market needs, but are also aimed at students who are capable of undertaking higher education, but may be less prepared for university. This 'bridging function' has been stated explicitly. Using mechanisms such as smaller class sizes and more support through additional contact hours, the AD provides a viable transition between the directed learning at secondary school and the independent learning expected at university. For example the AD in engineering provides a broad based point of entry into employment as a para-professional engineer and a

³⁰ Derek Longhurst, Chief Executive, fdf, Forward, Issue 24, June 2011, pp.1-9.

pathway for graduates to articulate into an undergraduate engineering degree course. The course provides an introduction to the foundation studies of engineering, together with engineering management and a range of vocationally oriented subjects, which are intended to prepare students for employment in a dynamic and changing workforce.

Other universities are using the AD concept to improve access to higher education in regional and rural area. Courses are targeted at people returning to study or and is intended to introduce them to university study in a supported tertiary environment and to encourage the development of academic and problem solving skills.

The development of AD is a way for universities and TAFEs to work collaboratively in partnerships to deliver complete or partial level qualifications. Some TAFE institutes have begun offering higher education courses (e.g. in nursing, interior design, accounting). The Bradley review mentioned before encouraged to remove structural divides between sectors, and the AD can be used to enhance pathways and providing a variety of study modes as well as increasing the efficient use of existing infrastructure. For example, Deakin University guarantees a place in a range of bachelor degrees to students who successfully complete the associate degree at the one of Deakin's TAFE partners.

Blurring of boundaries between higher education and VET

The development of associate degrees in Sweden, UK and Australia shows increasingly collaboration between higher education and the vocational (VET) sectors. The question who is delivering this degree is not a major issue and neither a precise demarcation between higher and secondary education. Actually this collaboration is much encouraged by government policy. The Australian Minister for Education, Employment and Workplace Relations advocates more 'inter-connectedness' between the higher education and the VET sectors. This serves two goals.

First, collaboration between HE institutions and TAFE is seen as a vehicle to bring more young people into tertiary education and to create pathways that lead to further opportunities, including appropriate employment. Universities and TAFEs should work collaboratively on a range of issues relating to articulation, preparation of students and TAFE delivery of higher education in regional areas.

Second, the projected growth in higher education must align with actual industry and economic need. It is felt that in the HE sector current workforce development processes are relatively weak in comparison with the VET sector. Collaboration between tertiary providers and the VET will be a vehicle to strengthen industry networks between employers and tertiary providers.

The Victorian Government joins this view and defines its key role to remove structural divides between sectors and to facilitate and support reciprocal relationships between universities, TAFEs, industry, the community sector and government departments and

agencies. This includes facilitating cross-sectoral and cultural collaboration in a range of areas such as career development opportunities (including work placements), knowledge exchange and mentoring relationships.

The removal of structural divides between sectors comes close to the German plea for more permeability in the system as a whole, particularly across the boundaries between the vocational and the general/ academic streams. When course offerings on the sub-degree level can be offered by both HE institutions and VET colleges and most often in cooperation with the VET sector or upper-secondary education (Sweden), the distinction between these sectors is blurring.

3.4 Professionalization of the Bachelor degree

There is much discussion throughout Europe on whether the Bachelor degree is primarily meant as an intermediate degree to be followed by a subsequent master or also has a labour market value in its own right. As indicated before, policy developments in France and Germany show that the Bachelor degree should have a labour market relevant qualification. Empirical research reveals that this is increasingly the case and that Bachelor graduates find their way into employment. One reason may be that the labour market in continental Europe gradually gets adjusted to this degree like this is a very standard qualification in Anglo-Saxon countries.

Another reason is that the Bachelor degree can be reformed to enhance the employability of graduates. Such a ‘professionalisation’ of the bachelor degree has been pushed forward in France, for example by including work-relevant components such as internships or other practical elements in the curriculum. A consistent orientation on key competences and skills that are deemed useful in the workforce is believed to complement this. These include personal skills, capability to analyse practical problems, computer and language skills, disciplinary and employment-related knowledge. The distinction made in France between vocational and general/academic seems to be dissolved.

In Germany the discussion on the “Bachelor professional” may still tend in two directions. In order to increase educational provisions with clear differentiated profiles, the German Ministry launched the title ‘Bachelor Professional’ as a new qualification in the professional continuing education (‘beruflichen Weiterbildung’). This provoked much controversy between the different stakeholders.

The employers advocate the term ‘Bachelor professional’ as this signals the equality - not the similarity – with the general Bachelor degree in terms of the attained competence level. The Bachelor professional degree would guarantee an adequate entrance to professional areas. Employers consider the addition ‘Professional’ an excellent distinction from the academic Bachelor degree.

Although the German Rectors' Conference (HRK) and German employers are committed to the policy agenda to achieve more permeability between vocational/professional and academic education, they disagree about the application of the qualification 'Bachelor Professional' in professional continuing education. The HRK takes the position that the 'Bachelor professional' would not contribute to the goals to strengthen the employability of Bachelor degree programmes. The Bachelor-degree refers to an academic degree and the 'professional Bachelor' would lead to much confusion and does not contribute to the (international) transparency of the degree system. For the HRK this is a hindrance for the permeability of the educational system as a whole. Connections between continuing education and the Bachelor and Master programmes are not to be achieved through introducing a new title, but only by a comparison of competences.

3.5 Professional Masters in UAS

In European countries with a binary system, professional Masters have increasingly been established at Universities of Applied Sciences (UAS). A fundamental principle in most countries is that Master programmes should respond to clear labour market demands and that employers and/ or professional bodies should be involved in the organisation and recognition of these programmes.

However, these demands appear to be difficult to estimate when these masters programmes do not yet exist and so far no experience is available. Among the methods used to identify the demand are pilot studies, employers' surveys, working groups and committees consisting of experts from the respective professional fields about their needs for such programmes.

Some labour market analyses indeed showed that in some domains there is a need for a limited number of programmes in specific areas.

In Finland pilot projects about the demand for professional Masters concluded that there is a demand for higher level competencies in the predetermined fields (Technology, Health, and Business).

In Switzerland a number of analyses were conducted as well and the conclusion was that in some domains there is a need for a limited number of Master programmes that offer more specialisation and in-depth study, for example in the health sector. Switzerland has a clear position that professional Master programmes should respond to a clear labour market demand³¹.

Although these studies and expert group meetings are positive to establish professional master programmes in particular areas, the question whether there is a real demand by the

³¹ See for the health sector Bedarfsklä rung FH-Masterstudiengänge Fachbereich Gesundheit (2008).

labour market has not convincingly and unanimously been demonstrated. There is no clear evidence that certain positions cannot be filled with people with other training qualifications and/ or practical experiences³².

Arguments often ventilated were that professional fields are continuously changing and professionals are under pressure to develop their expertise on a continuous basis and enlarge the scope of their working tasks. Introducing new methods and new technology would require a continuous development of professional expertise.

Professional masters are mostly designed for people who have three years of working experience and professional networks are important for the recruitment of students (Finland, Switzerland and Germany). Representatives from the professional field are involved in the curriculum design and quality control/ evaluation. Student theses are practice-oriented and come about mostly in cooperation with the employment organisation.

In countries with a unitary system professional masters that lead to particular professions are accredited by the respective professional bodies. In Sweden the professional qualifications (contrary to the general qualifications) are usually awarded within regulated professions (e.g. nursing, special education specialist) and the programme requirements and qualifications are often specified by the State. In the UK the professional, statutory and regulatory bodies, such as the Professional Sector Councils contribute significantly to the development of professional curricula, determine course criteria, and accredit the programmes that give an entry to the respective profession. These strong ties assure that graduates from professional degrees possess the skills and competences required in the profession.

The funding of most professional Masters basically does not differ from the funding of the other degree programmes. Private funding (except from tuition fees) does not occur. An exception is the so-called *Weiterbildungs Masters* in Germany which is privately funded (see section 4).

3.6 Doctoral education and the labour market

Traditionally the doctoral degree is mainly destined for careers in academic and other publicly funded research institutes, but PhD holders have increasingly to look to the private sector in order to widen their employment prospects. However, many surveys across the world revealed growing problems PhDs are experiencing in obtaining stable employment and difficulties in finding employment outside academe. It is questioned whether doctoral students are well prepared for this broader labour market. The question is linked to a growing concern about their high level of specialisation: doctoral students are believed to be educated and trained too narrowly, they lack key professional skills to be attractive to future

³² See Vossensteijn et al (2010 Thematic report Professional Masters in the UAS sector (CHEPS/Min OCW).

employers, and they are ill-informed about employment opportunities outside academia³³. In order to cope with these criticisms doctoral studies have been reshaped and there is increasingly more attention to broaden doctoral studies and to include employability and 'transferable skills' acquisition in programmes. The following case from France illustrates how government used outcomes of labour market studies to bridge the gap between PhD studies and the labour market.

At the request of the Departments for Higher Education, Research and Technology of the French Ministry of Education, *Le Centre d'études et de recherches sur les qualifications (Céreq)* has carried out five waves of surveys since 1997 on the labour market entry of PhD. The various Generation surveys show that the conditions under which PhDs entered the labour market varied considerably. Céreq data show that this entry depends largely on the circumstances under which doctorates complete their degree. Apart from the discipline, the nature of funding and the type of research institute that hosts them are important factors that determine the success of their entry into the labour market. It turned out that those PhDs who were in receipt of a state research grant or who undertook their research under the so-called CIFRE scheme (industrial agreements for training) entered the labour market on better terms than the average PhDs. This is due to the nature of the CIFRE scheme which requires doctoral students to carry out a large part of their doctoral work in firms. In many cases, the procedure for obtaining funding through an industrial agreement is similar to the procedure for applying for a job: candidates have to outline their career objectives and provide evidence of their competences to the employer³⁴.

In response to the difficulties PhDs are experiencing on the labour market, the French government has put in place measures to bridge the gap between business and doctoral programmes. Arrangements have been put in place that are supporting and diversifying PhD programmes, such as extending the CIFRE schemes and the organisation of training seminars aimed at improving doctoral students' employment opportunities and to facilitate the transition to the private labour market.

Co-operative forms of doctoral training also exist elsewhere. For example, in Denmark PhD studies within a joint project between private actors and a university exist for a long time. Working time between the partners is equally divided, enabling the student to transfer knowledge between the two environments. The university can also be a foreign one, as long as a Danish university is then involved in the project as a third partner. Similar kinds of arrangements exist in other countries, as they do in the Netherlands. These are considered very useful in bridging the gap between doctoral education and the labour market.

³³ Nerad, Maresi (2004) The PhD in the US: Criticism, Facts and Remedies. In: *Higher Education Policy*, vol. 17, no.2, pp. 183-199).

³⁴ J. Calmand & J.-F. Giret, (2010) *L'insertion des docteurs. Enquête Génération 2004*. Interrogation 2007 Net.doc., no 64, Marseille: Céreq. (www.cereq.fr).

4 Employer engagement in Higher Education learning

In some countries, most notably in the Anglo-Saxon countries the term 'employer engagement' has become into vogue. Essentially, the term refers to the collaborative relationship between employers and the HE sector in developing awards that meet both academic needs and the practical needs of the industry. In its widest sense it encompasses collaboration regarding research, knowledge transfer, placements and internship, workplace learning, as well as involving employers in the design and delivery of programmes.

Employer engagement includes governing structures, such as representation of employers in governing bodies of the university, advisory boards, or university councils. Faculties may also involve employer representatives in Committees, for example in programme approval committees.

Another way - very common in Austria - is the organisation of regional meetings between staff of HE institutions and employers to discuss developments in Bachelor and Master programmes, quality and employability issues, internships and final work of students. This leads frequently to revisions in programme organisation and content.

Employer-responsive provision is more narrowly defined when provision is developed for and in conjunction with particular employers, such as tailored courses for particular employers or sectors, in-house learning.

Employer engagement is a multi-faceted topic meaning different things to different actors. There are two distinct reasons for the Government to increase the engagement of employers with higher education³⁵:

- Better skills planning: if the courses offered by the HE institutions can be better aligned with the needs of employers it might be thought that productivity will improve,
- Cheap growth: if employers can be persuaded to contribute financially, there is the prospect of increasing the pool of highly qualified people at reduced cost to the state budget.

To employers it means ensuring that they get well prepared HE graduates that they need, to universities and other (private) providers ensuring that their graduates and research are what employers need, and to students to enhance their career opportunities.

³⁵ Tom Satry & Bahram Bekhradnia, *Higher Education, Skills and Employer Engagement*, report by HEPI

4.1 The British approach

In the UK the HEFCE's employer engagement strategy has been developed as a response to the Leitch's report on the achievement of high-level skills for the UK workforce, and the Government's response to this. The policy agenda is not just about aligning supply with employer preferences, but also trying to persuade employers to contribute financially. HEFCE was asked "to develop a new model for funding higher education that is co-financed with employers, achieves sustained growth in employer-based student places, and introduces the principle of employer demand-led funding"³⁶. The approach is rather complex as it has different funding arrangements and relationships with employers. It is impossible to capture employer co-funded provision in its entirety. Here some major components will be outlined.

HEFCE's workforce development programme includes implementation of a co-funding method, as well as investment in transformational change across the HE sector to achieve the required growth in employer co-funded adult provision, and the laying of foundations for further growth beyond 2011. It aimed (amongst others) to test the potential scale of the market and the levels of demand from employers and employees, and promoting access to and progress through HE for a range of learners.

An important component of the HEFCE employment engagement strategy is the *Higher Level Skills Pathfinders (HLSP)*, with the objectives being to:

- embed HE in employer workforce development and skills strategies regionally, sectorally and nationally;
- embed workforce development and skills in HE providers' strategies;
- promote greater co-funding of HE provision by employers.

The latter includes developing appropriate mechanisms to support co-funding with employers and learners – by testing how programmes can be developed, packaged and marketed to create funding partnerships between employers, learners and providers which will share the costs and risks of provision. Employer co-funding is a priority for future provision, and is seen as a greater priority for higher level skills than other skills, as the returns to employers and learners are greatest.

The HLSPs are attempting to articulate the higher level skills needs of employers in their regions in order to understand demand. They have used key strategic documents and labour market information to focus their activities.

³⁶ HEFCE (May 2011) *Employer co-funded provision*. Attributes of students and provision, 2007-08 and 2008-09.

A key component of increasing employer engagement, especially with those employers who do not currently invest in high level skills, is the brokerage model as exemplified in the Train to Gain project in the FE sector³⁷. The broker or intermediary is seen as one of the best means of delivering a demand-led system to meet the need of employers. An important imperative of the HLSP was to develop links with Train to Gain. Each HLSP has developed a brokerage approach, but the roles adapted differ in various ways. The HLSP are developing a wide range of mechanisms to deal with the variety of ways in which business demand is expressed – individual brokerage, sectoral targeting versus a generic economy-wide approach, institution-based and regional approaches, and broker placement within HE or brokers linked to external HE specialists. A number of employer engagement routes have been undertaken, notably employer representative bodies (for example Sector Skills Councils), networking, direct contact and developing employer gateways³⁸.

In addition to the Pathfinders, HEFCE is funding a range of activities across the employer engagement and workforce development agenda. One is that HEFCE is providing funding through the Strategic Development Fund (SDF) for product development – funding projects designed to improve the capacity of institutions to work with employers to deliver tailored courses. Other examples are the HE Innovation Fund, the JISC Business & Community Engagement projects, and the Foundation Degrees which, as said before, has become part of a broader employer engagement strategy.

Taken together, these strategies enable the HE sector to develop new educational products which find a small but worthwhile set of customers. As some critics put it “these policy strands suggest an attempt to create a niche product offering some very limited expansion of the HE sector at minimal cost to the taxpayer rather than a revolution in higher education”³⁹.

A range of information on the HE sector’s engagement with business and the community has been collected, such as the Higher Education Business Interaction Survey (HEBCIS) which investigates the extent to which employers are involved in developing the curriculum⁴⁰.

4.2 Employer co-funding in work-based and continuing education

Work-based learning - dual education in Germany; workplace learning/ cooperative education in UK and Australia - is usually confined to learning derived from workplace

³⁷ The project Train to Gain also has a brokerage function designed to stimulate demand for employer-led provision by strengthening local links between colleges and companies wishing to purchase training for their employees. In addition it has a funding element linking a part of government support to the success of colleges in attracting more business from these employer-customers.

³⁸ Formative evaluation of the Higher Level Skills Pathfinders (2008), report to HEFCE by GHK.

³⁹ Ibid Sastry & bekhradnia p. 17.

⁴⁰ <http://www.hesa.ac.uk/index.php/content/view/2089/161/>

experience which is accredited as part of a higher education programme. The French system '*apprentissage*' follows basically the same lines. Employer engagement in relation to teaching and learning is characterised by situations wherein the employer and the higher education provider have an equal and mutually shared interest in ensuring high standards of training to support the initial formation of students to work in the employment sector.

This is a narrow definition of work-based learning and some argue for a broader conception, recognising higher education's role in the wider knowledge society and the increasingly parallel experiences of learning and working over most of the life course.

Other variations occur, such as closed courses delivered by HE institutions that are especially designed for a particular company or group of companies and the course is only available to employees of those companies (the term contract education is applicable here).

In general, policy drivers toward greater employer engagement are similar across countries, but there are differences in the extent to which governments get involved. A distinction can be made between the free market model wherein the state plays a minimal role, providing a legal framework intended to guarantee the free play of market forces, and the corporatist model wherein the state plays a more active regulatory role and there is an assumed general consensus between the state, the unions and the employers. North America represents the former model, while France and Germany are examples of the latter. The UK is somewhere in between given the active role of HEFCE using funds to encourage the development and delivery of new workplace learning provision.

Financial considerations are very crucial in valuing and stimulating this type of learning. In the free market model employers stress that it is important that governments introduce tax credits to encourage greater employer engagement (especially from SMEs) in work-based learning. In France, UK and Germany there are more financial resources from the government available, although employers complain that despite this funding the costs of involvement outweigh the benefits.⁴¹

The UK experience learns, however, that additional funding (to HE institutions) may not in itself increase workplace learning processes. There also needs to be a willingness on the part of employers to engage with institutions and on the part of learners to enrol on dual programmes.

The French government continues to encourage training through apprenticeships, mainly by using financial measures and incentives. Current legislation on lifelong learning requires French employers to pay 0,4% of their wage expenditure as apprenticeship tax. The funds serve to finance the costs of the apprenticeship, wages, and costs of training institutions (including HE institutions). The system of apprenticeship in France is important for the

⁴¹ E. de Weert (2006) International perspectives on workplace learning. In J. Brennan & B. Little (eds.) *Towards a Strategy for Workplace Learning. A report for HEFCE*. CHERI, London, pp. 61-70.

transition of graduates to the labour market. It is seen as a source of information for employers about potential recruits, their interests and capabilities. The influential employer association was lobbying in the past strongly for the development of a '*contract de professionalization*', involving a contract with companies to alternate learning and work, a lobby that has been accepted in the new Bachelor degree (see above section 2).

In Germany there is traditionally close cooperation between employers and HE institutions and there is a close dialogue concerning the creation of new study programmes. In the context of the Bologna-reforms a need is felt to expand this cooperation especially with local and regional employers. Policy makers make an appeal to employer engagement: for the development of dual study programmes, the recognition of achievements in vocational training as university qualification, personnel exchange, and the promotion of continuing education for qualified employees, for example in special study programmes.⁴²

These are all more or less good will and non-binding declarations. Employers have shown much interested in themes of the nexus project, but they are not willing to contribute financially. The Deutschland Stipendium initiative of the federal government and how low participation from the employers' side is illustrative.

However, examples of sponsorship do occur, for example of programmes from universities of cooperative education as illustrated in the box.

The University of Cooperative Education in Baden-Wurttemberg (UCE) are engaged with a large number of firms located in this state. All involved companies that pay for the education of the students exert a strong, ongoing influence on curricula and the organisation of the courses. In order to be accepted as partners in the dual learning system, enterprises must fulfil a number of requirements related to the size of the company, qualified personnel and state-of-the-art training facilities. If this is the case they are certified as a training enterprise.

K. Reinhard et al (2008) The Sponsoring by industry of universities of cooperative education: a case study in Germany. In: *Asia-Pacific Journal of Cooperative Education*, 9,1, pp.1-13.

A current issue of debate is the so-called *WeiterbildungsMasters*. These are further education Master programmes that are normally offered part-time and students are required to have a few years of work experience and actively involved in professional networks. These are privately funded and in the German context regarded expensive and their content is strongly practice oriented, stronger than the practice oriented regular Master programmes. There is, however, a strong demand for lifelong learning Masters which should be practice-oriented. In that sense the *WeiterbildungsMasters* fulfil a need and a policy desire.

⁴² Peter Zervakis (2008) Implementing Bologna in Germany: The universities in search for new business alliances, *European University/ Business Forum*, 1-6. (<http://ec.europa.eu/education/policies/>).

In the UK workplace learning has expanded, mainly due to the catalyst function of the HEFCE. Several examples can be found where universities work closely with business to plan and deliver programmes. Many programmes are designed to integrate the classroom teaching with practical placement experience. Sometimes specific for particular companies, but they can also have a broader scope, for example by meeting a growing labour market demand for civil engineers (see box).

Demand for civil engineers

The masters degree at the University of Southampton is helping to meet the great demand for civil engineers, offering students a year in industry as part of the course. The programme is a way of encouraging ambitious graduate engineers to obtain the higher qualification of MSc, which will accelerate their progress towards becoming chartered engineers. The course is accredited by the institution of Civil Engineers and has received initial funding from the university's EPSRC-funded collaborative training account.

Source: Universities UK, *Higher Level Learning, Universities and employers working*

The following provides a few outcomes of the HEFCE workforce development so far⁴³:

- the net funding allocated (more than £19M) has generated co-funding from employers of 39,8%. In 2008-09 this was 29,7%
- Co-funding from public sector employers totalled £7M (56% of total co-funding) and private sector 44%.
- 2706 employers providing co-funded contributions (existing relationships) and 1237 employers who are new to working with the institution.
- Recruitment of co-funded single number of students: 3600 (Foundation degrees), 12900 (undergraduate) and 250 (postgraduate courses).

These figures are not only workplace learning programmes, but indicate more generally the growth of the co-funding by employers.

4.3 Practice-oriented research at Universities of Applied Sciences

In countries with a binary structure, Universities of Applied Sciences (UAS) have been assigned a research role supplementing their major teaching task in preparing their students for the various professions. Core funding for these institutions is meant for teaching and is either missing or very limited for research. For the development of their research UAS had to find additional resources, either from the state through targeted programmes and from

⁴³ Data obtained from HEFCE expert, July 2011.

contract research, either from private companies or public partners. Since in most countries the research at UAS is closely linked to their educational activities, the research plays a role in strengthening the links with the labour market. A short overview will indicate how UAS (in Austria, Finland, Germany and Switzerland) through their research get engaged in public/private partnerships.

In most countries specific support programmes has been introduced for UAS research. A brief overview:

- In Switzerland, the Swiss Innovation Agency developed a specific programme accounting for a substantial share of funding, while Swiss National Science Foundation has a programme to support practice-oriented research in the social sciences (Do-RE programme). In all these cases these are competitive schemes with a strong focus in promoting technological research and cooperation with private companies.
- The German Federal Ministry (BMBF) maintains specific programmes for German UAS. In addition the Ministry of economic Affairs finances on a regular basis joint projects with trade and industry in which UAS are participating (especially with SME's). Separate subsidies have been granted to improve the research capacity.
- In Austria the Fachhochschul – Forschungsförderungsprogram FH-plus has been developed by the Ministry of Education and the Ministry of Transport, Innovation and technology. Within this FH-plus programme projects are funded to develop R&D structures in UAS.
- Finnish UAS receive project funding for a number of targeted activities and programmes, defined in the performance agreement with the state.

All these programmes play an important role to improve the capability of third-party funding for applied research and development projects, to generate third-part funding and to develop structural contacts between HE institutions and business. Several of these programmes are intended to support research projects on the condition that a contract partner also invests in the project (ideally on an equal basis). The following table gives an estimate of the different funding sources.

Table 1 proportion of different funding sources for UAS research⁴⁴

	Targeted funds (from Ministry/ other public agencies)	Private funds	EU funds	Other funds
Austria	48	11	5	36
Finland	37	9	32	22
Germany	22	40	16	22
Switzerland	37	49		14

Germany and Switzerland are relatively strong in attracting third-part funding. In these countries public policies strongly emphasise the service function towards the regional economy and private companies. In Finland, European structural funds have provided a specific niche for UASs.

The role of government can be very facilitating in attracting third-part funding. Most common is by providing funding arrangements on the condition that there is co-funding from external partners (similar to the Dutch RAAK-programme). The role can also be more active by establishing regional networks where several partners are brought together who are committed to particular industrial fields. An example is FH München which maintains an intensive relation with Bayern Innovative (see box).

Bayern Innovative was established in 1995 by the Bavarian Minister as a corporation for innovation and knowledge transfer. The Bavarian Minister of Economic Affairs, Infrastructure, transport and Technology chairs the supervisory board, while the LfA Bank Bayern is the main shareholder. Its principal aim is to initiate innovation processes, especially in SMEs. The involvement of larger companies and HE institutions notably UAS is also important. The cluster strategy strives to further mobilise the inherent strengths of companies through the formation of tightly woven regional cooperation networks in the form of thematically organised clusters. Network partners have combined their expertise in 'BayTech Centers' in order to deal with more specific matters. Students are working on industrial problems as advised by their supervisors through thesis work, internships and practical semesters that are mandatory for all students. Also in-house training in companies and seminars have been organised for UAS teaching staff and employees.

⁴⁴ The figures are estimates calculated on the basis of two sources: E. De Weert & M. Soo (2009) *Research at Universities of Applied Sciences in Europe. Conditions, Achievements and Perspectives (EDUPROF)*; B. Lepori (2010) *Funding for Which Mission? Changes and ambiguities in the funding of Universities of Applied Sciences and their research activities*. In; S. Kyvik & B. Lepori (eds) *The Research Mission of Higher Education Institutions outside the University Sector*. Dordrecht:Springer, pp. 61-77.

Several UASs are very successful in attracting external funds, sometimes on an occasional basis, but increasingly by signing covenants with renowned partners from industry. For example, FH Joanneum (Austria) signed (in June 2011) a comprehensive covenant with IBM Österreich to collaborate on the common development and realisation of R&D projects, including share of IBM-software and particularly assignments of themes for diploma/Master students. The involvement of students in R&D projects is seen as a fundamental success factor of professionally-oriented education.⁴⁵

This latter view is rather uncontested. Research at UAS has been motivated by its relevance for education and teaching, improving quality and in particular graduate employability. Research should contribute to the actuality and the quality of education as well as the anchoring of education in professional practice. In order to assure such a link, some governments have made the research activities of UAS part of the quality assurance process of study programmes at UAS. Institutions are then obliged to show how research and education are connected. Some accreditation agencies require a specification of how each programme and teaching staff are involved in research and how research methods and results have been integrated in the teaching process. The Austrian accreditation council, for example, requires for the professional Master's programmes a description of how students are involved in the R&D activities under the teachers' supervision and how this has been realised through project work, placements and diploma theses. A few countries use a quantitative measure, such as the number of students involved in research. This occurs in Austria and Finland where the respective ministries require statistics on how many credits students have earned in R&D projects.⁴⁶

4.4 Public/private partnerships and for-profit education

The recent decades have seen rapid growth in the number of private sector organisations offering higher education in many countries, and in the scale of their operations. Levy estimates that private sector provision has grown to approximately 30 per cent of total enrolments (this includes not-for-profit institutions often with a religious affiliation). Focusing here on the for-profit sector the USA has the fastest growing segment of higher education which has now reached almost 10 per cent of all enrolments. UNESCO figures show that enrolments in private institutions in many European countries in this review have been very low (less than 5 per cent). Scandinavian countries have some private university colleges (especially Sweden), but most of them continue to receive most of their funding from the state so their position de facto is similar to that of public institutions. Higher

⁴⁵ www.fh-joanneum.at/ca/icexm

⁴⁶ For further details see E.de Weert & M. Soo (2009) research at Universities of Applied Sciences in Europe, EDUPROF (www.uasnet.eu), in particular pp. 38-41.

education remains largely the preserve of public institutions created, funded and regulated by governments, although there is some expansion in this area. Some authors refer to the increasing 'privatisation' aspects of publicly-funded higher education institutions, mainly because of the rising tuition fees for students.

Levy distinguishes several types of private provider in higher education.⁴⁷ Here we concentrate on two of them. First, the for-profit private institutions that offer programmes in various areas. Some can compete with (top) public universities, others are small to medium niche providers, offering more practical, technical and occupationally specific programmes. They operate increasingly international and across national borders (e.g. off-shore provision). Several of them have acquired degree awarding powers by national constituencies or are applying for them.

Second, the increase of partnerships between HE institutions and private organisations for example in the development of teaching material or continuing professional development programmes for paying clients. In the UK private providers have expanded rapidly in delivering foundation, language and study skills courses to international students under a partnership arrangement with a host university (for example Cambridge Education Group and Kaplan).

The question here is not to present an overview of all kinds of initiatives in this area, but to consider the role of different actors, particularly the role of policymakers in the context of the relationship between supply and demand on the labour market and whether there are incentives or barriers for a further growth.

Among the scarce material that is available on this issue is a survey among 17 universities in the UK about their relationship with private sector providers and the reasons to be engaged into partnerships. Private providers were seen as being in many cases closer to professional practice and the working environment. They were often thought to be better in their responsiveness to students and in their marketing skills. There is also much resistance and feelings of threat, particularly where private providers openly compete with publicly-funded universities by for example recruiting international students at the cheaper end of the market and international institutions offering their own degree.

In most countries, private providers are subject to specific regulations, except in Switzerland where there are no restrictions and Denmark where there is prohibition of such providers. Generally explicit policy statements on the role of the private sector have not been found. But this seems an attractive option given the policy emphasis on a more highly skilled workforce and higher participation rates. It can be doubted whether public institutions would be able to absorb a larger number of students. Private providers can be closely aligned with

⁴⁷ Levy, D (2009) For-profit versus non-profit private higher education . *International Higher Education*, 54 Winter 2009, pp. 12-13.

government policies such as widening participation for non-traditional groups such as people with low SES, minority groups and those already in workforce. Moreover, they could offer the potential to achieve national objectives at lower cost, as many countries which have entered into higher education public /private partnerships have found.

The UK and Australia can be cases in point. Recent government policy changes following the Leitch Review respectively the Bradley Review seem likely to boost private provision further. Especially if the fees cap would be raised, would governments wish to see a greater role for the private sector as provider of teaching quality? And a cap on numbers at a level significantly below demand would lead to greater levels of unmet demand for higher education from large numbers of suitably qualified people, forcing them to find other educational offerings? UK Universities considered future scenarios concerning private providers awarding degrees. Possible factors that could affect the growth of the private sector are a reduction of supply in the publicly-funded sector, differential public funding for different subjects, or programmes or awards in different HE institutions, and employer demands for provision not provided adequately by the publicly-funded sector.⁴⁸

As discussed before in Australia (section 2), the Victorian Expert Panel expects that new institutional structures may emerge over time and recommends the further development of an open higher education market. Actually public/private partnerships between governments, corporations and universities are stimulated.

In the State of Victoria in Australia the state government funds Carnegie Mellon and University College London (UCL) to provide postgraduate programmes within an education city programme in Adelaide. In UCL's case the programme is also supported by a major energy cooperation.

Source: Universities UK 2010

An important policy driver for universities in the UK to enter into public/private partnerships, especially in setting up joint degrees emanate from the pressures to increase the employability of their graduates. There are various ways in which private providers collaborate with publicly-funded institutions in the delivery of degree awards. Most often private providers are offering their own certificated module within a UK partner university's degree. Organisations from which HE institutions take modules are:

- IT companies (Cisco, Apple etc.)

⁴⁸ Universities UK (2010) *The growth of private and for-profit higher education in the UK*. March 2010 (www.universitiesuk.ac.uk)

- Professional bodies offering part certification towards their qualification (e.g. in accountancy)
- Other awarding bodies.

The majority of such programmes are vocationally oriented and for the host university the external qualification adds to the student's employment potential and has currency in the labour market. As most universities want to extend their working relationships with employers, cooperation on the development of these modules enabling students to acquire skills they need fits well with universities' strategic aims. A university's widening participation or employer engagement strategy might emphasise expanding access through work-based learning or progression routes such as foundation degrees in partnerships with employers. Partnerships with private providers can be very attractive to HE institutions if they are successful in terms of income generation, improving education provision, contributing to achieving student number targets.

Government incentives and the general employability agenda have been important to bring about these collaborations. However, HE institutions or enterprises can very well be the major initiator. In Finland, for example, the faculty of Science of the University of Helsinki coordinates an umbrella organisation consisting of representatives from Finnish technology companies, chemical industry etc. Together the members arrange science fairs, support life-long learning for teaching staff, develop new course material, and the like.

Similar examples are found in France where for example the group *Véolia Environment* initiated a partnership with different universities. Engineering courses are provided on a jointly basis and a large number of students are offered an internship contract, regularly followed with permanent employment. The financing has been assured by the group and the universities on an equal basis.⁴⁹

Possible government policies are to remove regulatory barriers that are preventing a level playing field for higher education providers of all types and barriers for engaging in private/public partnerships. Two elements in particular stand out. The first is whether private providers will have access to full fee students as well as to governmentally-funded students. For example through mechanisms such as the voucher system being developed in the UK, which enable students to use them at private sector institutions. The second element as a policy incentive is to create conditions in the quality assurance regimes and accreditation frameworks. Developments in this area will be reviewed in the next section.

⁴⁹ Commission du débat national Université-Emploi (Hetzel rapport) (2006) p. 38.

5 Structural anchoring of labour market needs

This section looks particularly at regulatory frameworks in which the respective roles of HE institutions, the government and particularly the employers are well defined. In particular developments regarding quality assurance systems and accreditation of new and existing study programmes will be reviewed. It is a structural mechanism to assure that higher education provision delivers the quality and skills needed on the labour market. A movement can be noted to attach a greater place to labour market aspects in quality criteria and standards that are the core of the assessment processes.

Quality assessment can be conceived in a rather broad sense and encompasses current activities such as the (international) rankings of HE institutions and the search for and application of performance indicators in HE policy. These will be discussed separately. And finally qualification frameworks that function as an overarching bundle of knowledge and skills that students are expected to possess.

The development of qualification frameworks is a recognised way to connect labour market needs and higher education provision. These frameworks have the potential to bring together the skill needs of employers, the educational programmes to prepare students with these skills, and the information about the competencies needed for given occupations. National qualification frameworks have also emerged to create more transparency in an increasingly complex provision of qualifications and become the basis for strategic planning of education and training, meeting labour market needs and structuring opportunities for learners to enter and progress in their careers⁵⁰.

In many countries qualification frameworks are operative, most often established in close collaboration with employers and/or professional organisations. Good examples of national qualifications frameworks where tripartite planning councils – including employer representatives, trade unions and government – jointly plan licensing exams are found in Austria, Denmark and Germany.⁵¹

Cross-border frameworks (apart from EU Dublin and Tuning) appear which have been developed by professional bodies. A good example is EUR-ACE Europe-based accreditation system of educational programmes as entry route to the engineering profession.

5.1 University Rankings

In academic rankings criteria derived from the labour market perspective are sometimes used albeit to a lesser extent. The Times Higher –QS World University ranking adopts graduate employability as one of the indicators, but this only accounts for 10% of the overall

⁵⁰ OECD Tertiary Education for the Knowledge Society – Vol 2- p.224.

⁵¹ Ibid p.224

ranking, an impact which is actually negligible compared to the high weight given to research quality. The Academic Ranking of World Universities (Shanghai ranking) does not at all include the labour market into account – unless alumni of an institution winning Noble Prizes or Field Medals are counted as such.

The CHE University Rankings in Germany provide information about over 130 universities and over 130 Fachhochschulen in Germany. The rankings include judgements of 3000,000 students and 31,000 professors, but does not include a survey among employers. Among the criteria that are used for the preparation of the ranking are the job market and career-orientation, but are the subjective view of those surveyed. The second ranking of the CHE, the CHE Excellence Ranking focuses on research criteria and does not include labour market criteria. Upon inquiry it appeared that CHE originally considered graduate employment in their rankings, but this was abandoned due to the fact that the differences between the German states and the difficulties which this entailed in comparing data collection methods.

Generally, the rankings at the level of whole universities offer no useful information that can be used as a decision-making aid for prospective students for the quality of a particular program.

5.2 Search for performance indicators

Both rankings and performance indicators are data processing tools that use many of the same indicators. However, whereas rankings list institutions according to a common set of indicators in descending order, performance indicators (PIs) have their origin in external evaluations by government authorities for funding purposes. They neither rank nor weight indicators and are therefore exempt from the inconsistencies due to arbitrary weighting factors. Their aim is to contribute to the public accountability of higher education by providing information on the performance of HE institutions and enable institutions to benchmark their own performance. PIs fulfil two purposes: funding and quality assessment⁵².

The following national institutions (a very selective list) are involved in developing PIs combining inputs, processes and outputs (including labour market indicators).

- In the UK the Higher Education Statistics Agency (HESA) is the official agency for the collection and analysis of quantitative information on publicly funded higher education. PIs provide comparative data on the performance of institutions in access, enrolments, student retention, learning and teaching outcomes, research output and employment of graduates – the percentage of graduates in employment or further

⁵² Jongbloed, B., D.W. Westerheijden(1994) Performance Indicators and Quality Assessment in Higher Education, *New Directions for Institutional Research*, 82, 37-50.

study. Indicators are presented separately according to the student characteristics and full/part-time study. The indicators are not used to inform funding allocations, but some of the underlying data is (although not in relation to the HEFCE skills policy).

- In Australia, the Department of Education, Science and Training (DEST) is responsible for producing PIs. DES attempts to create a 'level playing field' by removing differences in university performance due to factors that are beyond the control of the institutions. A high percentage of indicators are based on student and graduate opinion polls.
- In Sweden the Swedish National Agency for Higher Education (Högskoleverket) is the official agency responsible for collection and analysis of statistics on higher education to be used in the quality assurance process.
- In Spain the Government of Catalonia's Commission for Universities and Research jointly with the seven public universities in Catalonia developed the UNEIX inter-university information system focused on statistical information used for analysis, planning, programming and decision-making in the public university system⁵³.

The PI model for the Catalonian system includes an indicator of employment/labour market outcome, defined as follows:

$$\text{Employment quality index} = f[(C + I + W) * S] * 100$$

Where C refers to the type of contract, I is income or salary, W the suitability of work in relation to the studies take, and S is satisfaction.

The index provides information on the quality of graduate employment three years after graduation and indicates the degree to which the graduate labour market outcomes are satisfactory⁵⁴. The authors add that this is subject to economic factors that are beyond the control of the universities.

To date, there is no clear link found between performance indicators and policy measures. There are no indications that these have been used to inform funding allocations. On the systems level they may have a function in benchmark processes, but mostly they are taken into account in quality assurance processes.

⁵³ A. Prades, & S. Rodriguez (2011) A Proposal for a Performance Indicator Model for the Spanish Higher Education System, Catalan University Quality Assurance Agency (AQU). European Quality Assurance Forum, Budapest (November 2008).

⁵⁴ Ibid. p.53

5.3 Labour market inclusion in quality assurance

Quality assurance systems in many countries consist of a system of internal and external evaluations (assessing aspects of quality) and accreditation (making a yes/no judgement on the basis of defined standards and criteria). Most of these systems are primarily concerned with evaluations at programme level, although in the recent years there is an increasing involvement in activity at the institutional level and institutional audits. However, so far this shift in emphasis does not replace programmatic evaluations but are complementary.

In evaluations at programme level labour market considerations always have played a role. In many countries graduate surveys are part of the information gathered, mostly on the level of each individual programme. The type of information is broadly comparable to data gathered for the Dutch HBO/WO Labour Market Monitor.

The use of this kind of information and the weight that is attributed to them vary, depending on whether programme is more professionally-oriented or has a general or more scientific character. Evaluations of professional programmes have well developed labour market criteria and professional experts or individuals representing the relevant working field or relevant professional associations are participating in external visitation committees or review teams. The outcomes of labour market evaluation are mainly in the sphere of recommendations for improvement, for example renewal of learning materials, teaching methods or strengthening ties with the respective professional field.

Generally the labour market is not a dominant factor in quality assurance systems. In a survey among quality assurance agencies (ENQA survey) held in 2008 it was concluded that there is (...) “continued limited use graduate surveys and labour market information (...) perhaps a surprise in light of the current (political) pressures and emphases on ‘employability’, but these may not have yet worked through fully into the detail of the internal institutional or external quality procedures”⁵⁵. The report suggests that although this emphasis on employability and graduate skills is under-reflected in the priorities recorded in many of the quality procedures, it may be likely that greater emphasis on these topics will be seen in any future analysis of quality procedures (ibid, p. 88).

Shift to learning outcomes

One fundamental trend in national quality assurance systems in this direction concerns a move of methods from those based largely on the use of input measures (entry qualifications, hours of work staff qualifications, facilities etc.) to ones that are at least in principle, based on ‘learning outcomes’. Learning outcomes encompass the qualifications and competences a graduate is expected to have at the completion of learning. A common taxonomic description is divided in knowledge, skills and competences. Others include

⁵⁵ Costes, N. et al (2008) Quality Procedures in the European Higher Education Area and Beyond – Second ENQA Survey. ENQA Occasional papers 14, p. 86.

'attitude' as a separate dimension. This move is driven partly by the Bologna Process, but also by a range of national and international pressures including ones that are political, pedagogical, demographical and employment-related. This reflects the shift from a teaching to a learning focus, its relationship to society, industry and commerce, to employers and professional needs. By using learning outcomes, programmes can be made more suitable in terms of the demands of working life.

Learning outcomes are not only important for teaching staff and students to assess the value of their education, but also for employers who are increasingly faced with an ever-widening range of graduates and they will need to know what graduates from particular programmes have learnt and can do. It is therefore important to know what the involvement is of external stakeholders, particularly employers in developing and formulating learning outcomes and how labour market issues have been used in the evaluation.

In Scandinavian countries learning outcomes are increasingly an important element in national qualification frameworks and an integral part of quality assurance and accreditation. In Denmark a new set of accreditation criteria have been developed focusing on quality and relevance for the labour market. Use is being made of relevant employer and recruitment panels as well as surveys among graduates and employers, although there is some reservation about the suitability of these surveys for the achievements of the learning outcomes and will not be decisive to the assessment⁵⁶.

In Norway learning outcomes in initial accreditation (application for new study programmes) and in revisions of accreditations have been evaluated. Interviews with employers and graduate surveys, together with the institution's self-evaluation, a site visit and indicate the extent to which the graduates of a particular programme have attained the expected learning outcomes. Important question in the surveys is the degree to which the competencies achieved during the study match with the demands of the labour market.

Given the fact that the learning outcomes have fairly important information value to employers, the BOQA found that that so far employers and other external stakeholders have not been very involved or well informed about learning outcomes. A closer involvement is considered desirable, since learning outcomes would appear to present an easily understandable basis for discussions between students, teaching staff and employers.

In three countries - Sweden, UK, Australia – systems of quality assurance have been revised (or currently under revision) towards an output approach in which graduate employability is an important component. These exemplify how labour market actors are becoming structurally anchored in the quality assessment of HE provision. The countries will be discussed separately.

⁵⁶ G. Gallavara et al (2009) Learning Outcomes: Common Framework – different approaches to evaluation learning outcomes in the Nordic countries. Nordic Quality Assurance Network for Higher Education (NOQA), p. 45.

5.3.1 *Stronger labour market representation (Sweden)*

Mid 2010 the Government charged the National Agency for Higher Education (Högskoleverket) to develop a new quality evaluation system for first and second-cycle courses based on Government directives. Previous quality evaluations have focused on processes, i.e. how higher education institutions work, a focus that should be shifted to the outcomes of study programmes, i.e. what is achieved. Such a new system is intended to enable all potential students to choose between different courses and programmes that all maintain high quality standards and to inform their future employers that the award of a qualification confirms that students have attained the knowledge required. Essential is that this evaluation should focus on the result and study programmes and be intended to assess the degree to which the student's achieved learning outcomes correspond to the intended learning outcomes laid down in the qualification descriptors in the ordinances linked to the Higher Education Act. The descriptors are listed under three headings: knowledge and understanding, competence and skills, and judgement and approach⁵⁷. The learning outcomes emerged in close collaboration with the working field and as far as professional qualifications are concerned in close cooperation with professional associations.

For our discussion it is important to note that the Government was very clear about including labour market aspects in the new system. Evaluations are to be based on three factors: the students' independent projects, the self-evaluations submitted by the higher education institutions and questionnaires sent to existing students and to alumni.

In the new quality evaluation system labour market aspects are quite prominent⁵⁸. This is manifest in the importance of alumni surveys and the composition of the (external) assessment panels. Surveys among alumni with few years of professional experience can provide answers as to the way in which they feel they have achieved intended learning outcomes and how useful they consider their education to be in the labour market.

Alumni questionnaires will be sent primarily to students who graduated two years prior to the evaluation. It is assumed that at that time they have gained labour market experience while at the same time their studies are not too distant.

The labour market is well represented in the (external) assessment panels which consist of three categories of assessors: subject experts, students and practitioners. Practitioners are nominated by appropriate organisations in the world of work and are particularly important to assess the relevance of the programmes for the labour market.

⁵⁷ The ordinance with all the descriptors is available on the Government website: www.sweden.gov.se.

⁵⁸ Högskoleverket (2011) The Swedish National Agency for Higher Education's quality evaluation system 2011-2014.

In addition the National Agency intends to arrange ‘coordination meetings’ with other practitioners. Such meetings can include discussion of the outcomes in the qualification descriptors for the courses and study programmes to be evaluated.

The assessment panel submits its findings for each study programme using a three-level scale (very high quality- high quality- inadequate quality) on the basis of which the National Agency comes to its decision.

The new system has been launched recently. Experts from the National Agency note that labour market c.q. employability is not expected to be a “weighting factor”, but will be part of the overall considerations about the quality. It is too early to assess how effective this will be.

5.3.2 National regulator of quality and standards (Australia)

As indicated before, the Australian Government’s major reform agenda for higher education towards a demand-driven higher education system will enable the sector to grow in response to demand and the needs of the society for more graduates. According to the Government this demand-drive system requires a new accreditation, quality assurance regulatory framework for higher education. It was argued that the new approach would focus on outcomes and require that appropriate standards be in place in order to underpin confidence in the quality of Australian higher education. The cornerstone of the new quality arrangements, the Tertiary Education Quality and Standards Agency (TEQSA) is being established in 2011. TEQSA will be a national regulator within a newly established standards framework.

The need for clear and strong standards was one of the issues raised consistently during the Bradley Review and in subsequent consultations with the higher education sector. A particular need was felt for greater focus on outcomes and standards to ensure that students and the wider community can be confident about the quality of Australian qualifications.

*“Higher education’s strategic importance to Australia’s economic and social prosperity makes it imperative that our institutions have robust strategies for demonstrating students’ academic achievement (...) To enhance equity and excellence, institutions need to demonstrate that their graduates have the capabilities that are required for successful engagement in today’s complex world”.*⁵⁹

The focus on standards as central to quality assurance signals a shift in emphasis for Australian higher education. Previously, approaches to quality have been conceived as ‘fitness of purpose’ concentrating on the alignment between the goals of the institution and policies and processes in place for achieving these goals. In contrast to this internal reference orientation, the concept of standards implies a greater emphasis on agreed external points of

⁵⁹ Australian Universities Quality Agency, Setting and Monitoring Academic Standards for Australian Higher Education. p.4.

reference in measuring and improving quality. The reasons for measuring student outcomes lie partly in the diversification of higher education providers, course objectives and modes of course delivery. This has led to concerns about the preparedness of graduates and the comparability of graduates from different courses and similar courses offered by different institutions⁶⁰.

The requirements of professional associations may have an impact on the approval process and the subsequent operations of a provider, particularly in relation to the health sector. TEQSA intends to take a proactive role in opening discussions with professional bodies.

As information surveys among students, recent graduates and other groups will be used to provide information about whether students are obtaining, through their studies, the skills required to secure graduate employment. The Graduate Outlook Survey (GOS), undertaken annually by Graduate Careers Australia is one such survey. The GOS investigates graduate intake numbers, recruiters' perceptions of the calibre of their candidates, and the competences and attributes they considered most and least desirable.⁶¹

It is important to add that contrary to the current situation where quality assurance agencies only can make recommendations to institutions and do not have any compliance or enforcement powers and cannot compel universities to take action in any matter, the move to TEQSA also signals the shift from a quality assurance body that has 'powers of persuasion' to one that has 'powers to take action'.

5.3.3 *Employer engagement in quality assurance (UK)*

For the UK Quality Assurance Agency (QAA), '*employer engagement*' refers to the collaborative relationship between employers and the HE sector in developing awards that meet both academic needs and the practical needs of the industry. Although institutions are already involved extensively with employers, there is potential for the HE sector to build more effective relationships with them to maximise the benefits for learners, employers and employees. The UK Quality Assurance Agency seeks to support employer engagement but is responsible for ensuring that developments are made without compromising national academic standards of higher education. All employer-related awards should as well as meeting local practical needs, meet the national expectations set out in the Academic Infrastructure (see below).

⁶⁰ TEQSA (2011) Developing a Framework for Teaching and Learning Standards in Australian Higher Education and the Role of TEQSA. Discussion paper, June 2011.

⁶¹ It is interesting to note that a new funding system in Australia includes an indicator framework underpinning performance-based funding. In first instance the employment and further outcomes indicator was part of this indicator framework. However, universities were concerned that factors affecting this indicator are outside the sphere of a university's influence. Economic and regional factors as well as field of education may affect the employment rate of students. For this reason the Government decided not to include this in indicator in Reward Funding (See CHEPS Monitor report on profiling and funding (2011) – Chapter on Australia).

The Quality Assurance Agency for Higher Education's interests in employer-engagement focuses on the quality assurance of work-based and work-related learning and how higher education institutions (HEIs) assess, accredit, and certificate such learning.

There is an increasing emphasis on the delivery of employer-related learning through consortia, such as Lifelong Learning Networks and Skills Pathfinders (see before), with different models emerging for the organisation of such provision. QAA is keen to ensure that HEIs continue to identify how confidence in the quality of their programmes and standards of their awards is achieved and demonstrated, they do not need however to over-elaborate their quality assurance procedures.

QAA works in collaboration with professional, statutory and regulatory bodies (PSRBs) to share information and experience, with a view to rationalising regulation. The Agency runs a regular PSRB forum, in collaboration with the UK Inter-Professional Group (UKIPG), aimed at promoting debate and information sharing between QAA and professional bodies. In addition, QAA maintains memoranda of understanding or memoranda of cooperation with several professional bodies.

Regarding the issue of private/public partnerships and privatisation the White Paper published recently (summer 2011) aims to remove the regulatory barriers for new providers to enter the sector and to simplify the regime for obtaining and renewing degree-awarding powers. Likewise degree-awarding powers will be decoupled from teaching in order to facilitate externally-assessed degrees by trusted awarding bodies. The White paper announces a new regulatory framework for all providers in the HE system that protects standards and quality and adopts "a risk-based approach" to quality assurance.⁶²

Academic Infrastructure

The Academic Infrastructure⁶³ is a set of nationally agreed reference points which give all institutions a shared starting point for setting, describing and assuring the quality and standards of their higher education courses. The Academic Infrastructure has four elements, including the Code of practice⁶⁴ for the assurance of academic quality and standards in higher education. This Code is concerned with the management of quality and the other three give advice to institutions about setting standards.

The Code is made up of 10 sections, of which section 9 on Work-based and placement learning is of particular relevant to employer engagement, for example referring to employers' role in relation to assessment. In ensuring the quality and standard of work-based learning, some institutions make special arrangements for scrutiny of such provision in their approval, monitoring and review processes. This may include seeking feedback from

⁶² Department for Business, Innovation and Skills (2011) Higher Education: Students at the heart of the system.

⁶³ <http://www.qaa.ac.uk/academicinfrastructure/default.asp>

⁶⁴ <http://www.qaa.ac.uk/academicinfrastructure/codeOfPractice/default.asp>

both employers and students about their experience and, in some cases, review of relevant service departments or cross-institutional review around a theme such as placements.

It should be noted that the academic infrastructure is currently under review and will shortly be restructured.

5.4 Labour market information as a tool for study choices

All quality assurance review systems discussed here now very much include a strong feature on the information that is provided by institutions, given that this information will help students make better informed decisions and contribute to raising quality. In the UK system of institutional audit (soon to be replaced with institutional review for HEIs in England and Northern Ireland) review teams will provide a commentary on the public information provided by the institution. Institutional review will from 2012-13 make a judgement on the information provided by the institution, much of this information is of relevance to employment (rates of graduate employment and whether employed in a graduate level job).

In particular it includes the Key Information Set and Employability Statements. Institutions in England, Wales and Northern Ireland will be required to produce from September 2012, a 'Key Information Sets' (KIS) - a comparable sets of standardized information about undergraduate courses. They are designed to meet the information needs of prospective students and will be published 'in context' on the web-sites of universities and colleges. The KIS will contain areas of information that students have identified as useful. These areas are:

- student satisfaction
- course information
- employment and earnings outcomes/ salary data
- accommodation costs
- financial information, such as fees
- students' union information.

The KIS will also provide information on the results of the Destinations of Leavers from Higher Education (DLHE) Survey, which asks graduates what they will be doing six months after they complete their studies. Also on the KIS are key results of the National Student Survey (NSS) a key part of the Quality Assurance Framework. The aim of the survey is to gather feedback on the quality of students' courses in order to contribute to public

accountability as well as to help inform the choices of future applicants to higher education.⁶⁵

In institutional reviews, teams will also be informing themselves about information provided by the HEI by professional bodies that accredit courses, links with employers as set out on institutional website, and the institutional published employability statement. These statements sets out what universities and colleges offer to their students to support their employability and their transition into employment and beyond.⁶⁶

In Australia in parallel to the establishment of TEQSA the website *MyUniversity* is being developed. MyUniversity will provide information on courses, campuses, facilities, support services, and the quality of teaching and learning outcomes. The website is being developed by the federal Department of Education, Employment and Workplace Relations. The aim is that the combined registration and audit data will provide a wealth of reliable and comparable information to potential students, their parents, employers and industry groups to inform their decisions.⁶⁷

Also in other countries (e.g. Sweden) much value has been attached to labour market information by institution and by course. This will be expanded and improved. It is believed that key information on graduate employability will steer prospective students in their student choices, and assist their parents and teachers/ study advisors at secondary education. This is increasingly seen as an effective way of steering the future supply of and demand for higher qualified people.

6 Conclusions

This report presents a broad review of current policies on the connection between higher education and labour market needs. Some of these policies are strongly embedded in national traditions and regulatory policy frameworks that cannot be easily replicated elsewhere. But they can function as eye-openers for other countries to adapt them somehow in their own policies. This section contains a summary of the main findings from the national studies, followed by a brief reflection on the Dutch Strategic Agenda on higher education, research and science.

⁶⁵ For further information on this please see: <http://www.hefce.ac.uk/learning/nss/>

⁶⁶ For further information please see: <http://www.hefce.ac.uk/econsoc/employer/employstate/>

⁶⁷ Ian Hawke, Interim Chief Executive Officer, TEQSA, A new approach to quality assurance in Australia (INQAAHE Conference, Madrid , 4-7- April 2011.

6.1 Summary of major national policies

What is very clear from this review is that the labour market is a very central element in higher education policies. Most governmental policy papers discussed here start from the basic idea how to assure that the system as a whole delivers the kind of graduates that are needed in modern knowledge-intensive societies. In all key aspects of higher education – access, funding, governance, quality – this aspect has been addressed.

The following conclusions are found most commonly in most countries.

1. Demand for high level skills is expected to grow, which means that a larger proportion of the working age population should have a higher level qualification. The policy in Anglo-Saxon countries to implement a demand-driven funding and enrolment system will enable the sector to grow in response to demand from students and the needs of society.
2. More permeability between professional and academic streams is seen as desirable. This should not only facilitate the mobility of students, but higher education would be able to attract new target groups to meet labour market needs.
3. Sub-degree programmes (associate degrees) integrate academic study with work-based learning offering practical, accessible options for employers and employees alike. These programmes, sometimes identified as “post secondary education” have been organized through close cooperation between upper-secondary, higher education, the VET sector, and private companies. It is felt that in the HE sector current workforce development processes are relatively weak in comparison with the VET sector and collaboration between VET and higher education can be used as a vehicle to strengthen industry networks for higher education. Moreover the distinction between the sectors is blurring.
4. Bachelor degree programmes should have a labour market relevant qualification. This means that in Bachelor programmes more attention will be given to employable skills and will include practical periods like internships.
5. Also in Masters and Doctoral education there is more attention for employable skills on higher levels. Professional Masters in the UAS sector are becoming more common, although it is difficult to determine whether there is an actual labour market need when they do not yet exist.
6. Practice-oriented research by Universities of Applied Sciences has an important function to strengthen the relationship with the professional field. The role of government can be very facilitating in attracting third-part funding. Most common is the provision of funding arrangements on condition that there is co-funding from external partners. The role can also be more active by establishing regional networks

where several partners are brought together who are committed to particular industrial fields.

7. Employer engagement is increasingly seen as an effective way to improve the relationship between higher education and the labour market. For employers this ensures that they get well prepared HE graduates and for universities that their graduates and research are what employers need. A sector-based consortium approach to involve employers in influencing HE provision appears to be more effective than working on the basis of a generalised approach to employer engagement.
8. Public / private partnerships and for-profit education are growing in many countries. Recent government policy changes (notably in the UK and Australia) seem likely to boost private provision further and these governments see a greater role for the private sector to encounter greater levels of unmet demand in the public sector. The role of government is to remove regulatory barriers that are preventing a level playing field for higher education providers of all types, and legislative barriers for engaging in private/public partnerships. An important drive for universities to enter into public/private partnerships stems from the policy pressures to increase the employability of their graduates.
9. Quality assurance and accreditation have increasingly become structural instruments to strengthen the ties between higher education and the labour market. The representation of employers and practitioners in quality assurance processes has been strengthened to ensure that employable skills will be included in all programmes. This is considered a most effective way to anchoring labour market needs in HE provision.
10. Many countries put much effort to improve and expand the information about the labour market value of individual courses at individual institutions. Reliable and comparable information on graduate employability to prospective students, their parents and employers is increasingly seen as an effective way aligning the future supply of and demand for higher qualified people.

6.2 The Dutch Strategic Agenda in international perspective

In the Strategic Agenda the Dutch Government outlines the main objectives for higher Education, Research and Science⁶⁸. The Agenda contains various elements that aim to strengthen the labour market relevance of higher education courses. One of the central objectives is to meet a more diversified student population in terms of previous training,

⁶⁸ Ministry of OCW/Economic Affairs (2011) *Kwaliteit in Verscheidenheid - Strategische Agenda Hoger Onderwijs, Onderzoek en Wetenschap*, Den Haag, Juli 1, 2011.

educational level, age, and personal interests. This has to be achieved by enabling HE institutions to specialise and to develop their own specific profile, thereby increasing the diversity of educational provision. As far as the labour market is concerned the document advocates more differentiation regarding the level of education, such as the Associate Degree and excellence programmes. In addition more flexibility is needed in the system in the context of the increasing demand for lifelong learning for those in employment (or seeking employment).

There are quite some common elements found in the Dutch Agenda in the light of the conclusions from our international review, although countries accentuate each of them in various ways. The aim here is not to give an extensive overview, but to highlight a few components.

Expansion of the system

The Agenda emphasises a reduction of programmes, i.e. less new programmes and a rationalisation of the existing provision towards a broadening of programmes. This should result in a more compact higher education system with a better screening of students who are equipped for university education, whereas the HBOs would continue to accommodate a growing number of students. In other countries we note a move towards a student demand-driven system and an emphasis on the need for higher level skills, thereby less being occupied with institutional differences. Although it is believed that in these countries the current system is well positioned to cope with this expansion, the development of private education and private/public partnerships have been stated explicitly. The Agenda also sees potentially an extension of education by private providers, albeit mainly on the sub-degree level. If the Associate Degrees can increase with a volume of 15% of the total Bachelor by 2020, the HBO will grow tremendously. The question, also raised in other countries, is whether the capacity of the higher education sector as a whole would be able to adapt to such an expansion.

Bachelor degree programmes

An important policy objective is to arrive at a broadening of study programmes, especially in the bachelor phase. This would result in a reduction of the total number of programmes in both the universities and universities of applied sciences. Broader Bachelor programmes would facilitate the study choices of students enabling them to choose their specialisation gradually in the course of their studies rather than from the start. These students would have access to a varied number of Master programmes. Less attention has been given to the University Bachelor programmes as a labour relevant qualification and the enhancement of employable skills of Bachelor graduates, as is the case in Germany, France and the UK. There remains an inclination to consider the university Bachelor degree as an intermediary step to a full-fledged university degree on the Master level. Moreover, a stronger labour market relevance of University Bachelor programmes is felt to be at odds with the binary system

with a distinction between academic and vocational streams. This does not seem to be an hindrance in other countries with a binary structure where a further professionalisation of the university Bachelor degree has been pursued.

Associate Degree

The Associate-degree programmes, until recently provided on an experimental basis, will be permanently implemented. There has been a debate whether AD should be located within higher education or in the VET sector. Now the Government decides to situate these programmes as part of the HBO-Bachelor, although this will have a distinctive profiling within the Bachelor-degree. This view is in line with international developments. Although in some countries the distinction between the two sectors is blurring, the higher education sector maintains the responsibility for the AD rather than attaching an independent role to the VET-sector in providing the AD. Although the Agenda enables the VET-sector to provide parts of the programme in collaboration with the HBO, Sweden, Australia and the UK are intensifying such collaboration as a 'bridging function' between higher education and the labour market. Higher education can benefit from the strong industry networks prevailing in the VET-sector using them as a vehicle to involve employers in the design and organisation of these programmes.

Employer engagement

For the HBOs (UAS) the Dutch Agenda is very explicit: the labour market relevance of Bachelor courses should be improved and employers must be more involved in the re-arrangement of programmes. Traditionally employers are engaged in this sector through the system of quality assurance and accreditation as well as the adaption and innovation of programmes in view of developments in the respective professional fields. The Agenda states that the connection with the professional field is conditional for the recognition of institutional profiles and that employers should articulate their educational demands towards HE institutions. Similarly the professional Master programmes in the HBO-sector should arise from concrete labour market demands. Likewise the university Master programmes should strengthen their labour market relevance.

The question arises how this can be achieved and particularly how employers can be involved in this process. In some countries the employer engagement is well developed. Examples are the UK with the tradition of sector skills councils, operating mainly in the VET-sector but less detailed adaptable to higher education as well as Germany with a long tradition of employers involvement in cooperative education and a more pronounced employer's role in HE policy in general.

More active policies are the workforce development strategy (in the UK) to stimulate cooperative programmes between HE institutions and industry, to developing mechanisms to support co-funding with employers and learners, to support initiatives by HE institutions

to enhance the employability of students, to develop brokerage models, or (as in France) to develop regulatory frameworks and arrangements for universities to engage with companies. In addition the role of employers has structurally been strengthened in systems of quality assurance and accreditation. In these system graduate employability has increasingly become an important component. These international developments can be instrumental in achieving a higher employer engagement and enabling employers to articulate their demands. It should be considered whether these practices can be applicable in the Dutch higher education context.