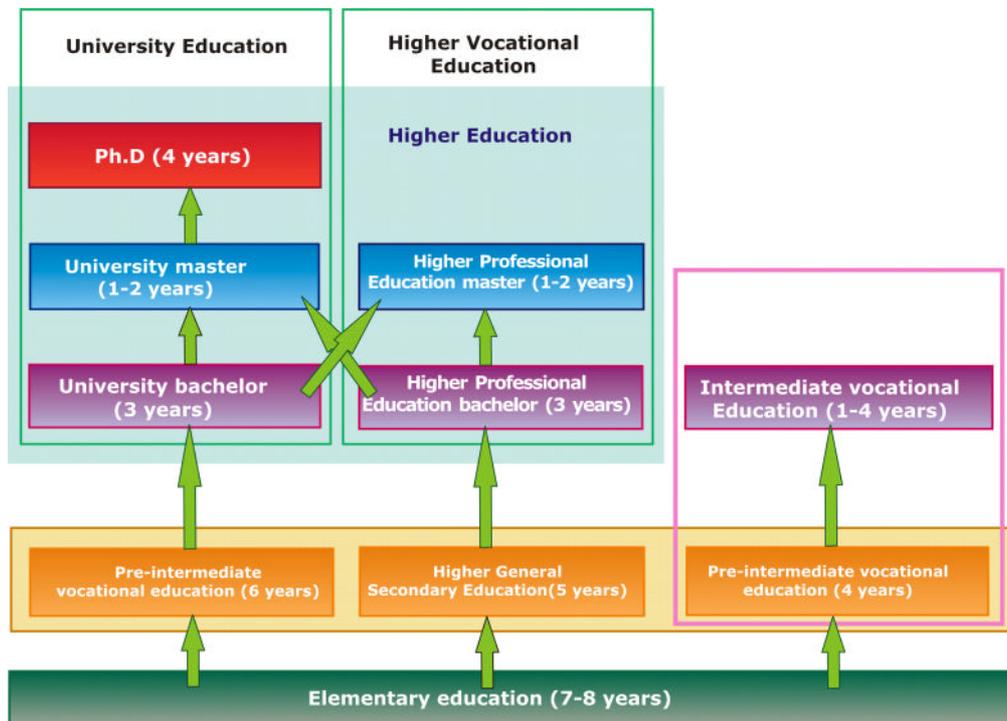


2 CHARACTERISTICS OF THE HIGHER EDUCATION SYSTEM

Ben Jongbloed

This chapter presents an overview of the main characteristics of the higher education system in the Netherlands. Section 2.1 presents some key facts about the system as a whole (types of institutions, number of students, degrees). Section 2.2 discusses the different types of higher education products, that is teaching and research. Section 2.3 presents a description of policymaking with respect to higher education and shows the different policy networks where policies are discussed and initiated. Section 2.4 is about the funding of higher education while section 2.5 discusses institutional collaboration. The final section (2.6) reflects on the regional dimension in Dutch higher education policy.

Figure 2.1 Educational system of the Netherlands



Based on: Nuffic 2005

2.1 Main features of the Dutch higher education system

2.1.1 Types of institutions

The Dutch higher education system is a binary system and consists of a university sector and a higher professional education sector (see figure 2.1). The university sector is also known as the Wetenschappelijk Onderwijs (WO) sector. The higher professional education sector is known as the Hoger Beroepsonderwijs (HBO) sector; abroad¹ referred to as University of Professional Education (UPE). Both the universities and the UPEs have their own function, as defined in the Higher Education and Research Act (WHW) of 1993: “The universities prepare students for independent scientific work in an academic or professional setting and the UPEs prepare students to practise a profession and enable them to function self-consciously in the society at large”.

¹ In 1999 the Minister of Education, Culture and Science officially gave *hogescholen* the right to use the title of *University of professional education* in an international context.

In Twente, all types of Higher Education Institutes are present.

University sector

The university sector consists of 13 traditional universities (including the UT), the Open University, a university for business administration (the private Nijenrode University), four institutions for theological training, and a humanistic university. Apart from Nijenrode University, all of the above-mentioned institutions receive government funding on a regular (formula-funding, see section 2.) basis.

Higher professional education sector

The higher professional education sector consists of 44 UPEs that include general institutions as well as institutions specialising in a specific field, such as agriculture, fine and performing arts, or teacher training. UPEs are primarily responsible for offering programmes that prepare students for particular professions. These tend to be more practically oriented than the programmes offered by universities. Saxion, Edith Stein and AKI are part of the UPE sector.

The UPEs are a relatively recent addition to the Dutch higher education landscape. As late as the early-1980s they essentially constituted a mixed bag of around 350 very small, highly specialised vocational schools that were still classified by the government as secondary education providers. It was not until 1985 that they officially became part of the higher education sector. In 1987, a substantial number of mergers took place that reduced the number of *hogescholen* to 85. The mergers created a number of new *hogescholen* that were larger, at least in terms of enrolments, than several of the existing universities. During the 1990s merger processes continued, leading to today's total of 44 HBO institutions. Today, the curricular and programme diversity of the UPEs varies from large institutions, offering degree programmes at bachelor and sometimes master levels in most major academic fields, to smaller institutions specialising in the provision of arts, education, health-related or technical programmes. Unlike the universities, UPEs do not provide PhD degrees and they do not receive government funding for their master's programmes.

One of the issues in the debate on the future of higher education in the Netherlands revolves around the issue of (applied) research in the UPEs. Currently the UPEs do not receive any government funding to support this function, but many participants in the debate see a particular role for UPEs in strengthening the local economy by means of knowledge transfer and applied research aimed at the small and medium-sized enterprise sector (SME). The government responded to these calls by introducing the position of a lector, which is a special position (funded out of targeted funds) to be filled by an academic that engages in applied research and knowledge interaction with regional partners. (More on this in the final section of this chapter.)

International education sector

The higher education system also includes a third branch, with a relatively small number of students. It is known as *Internationaal Onderwijs* (IO), or the international education sector. There are 13 IO institutions of which 5 offer university degrees. They offer advanced training courses that originally were designed for people from developing countries who have work experience and whose jobs require highly specialized knowledge. These thirteen institutions provide postgraduate training and education in the English language in a variety of sectors and subjects to mid-career professionals from developing and transitional countries. The IO institutions support capacity building in the students' home organizations. The institutions also engage in research and advisory services in their areas of expertise.

The courses last from a few weeks to two years. The IO institutions also offer PhD programmes jointly with Dutch universities. For this, different agreements with some of the Dutch universities have been made. Today, the IO institutions have been placed under the umbrella of the

research universities. For instance, the ITC institution is now a separate operational unit in the University of Twente. The IO institutions receive yearly subsidies from the government. Part of the subsidy is intended to provide scholarships to international students.

2.1.2 Overall size of the HE system

In the academic year 2002/2003, there were around 180,000 students in the thirteen Dutch research universities (see table 2.1). The UPE sector had some 340,000 students in that same year (table 2.2). Apart from these bachelor and master's students, the research universities offer PhD positions to some 7,500 PhD students.²

Table 2.1: Student enrolment, universities 1996-2002

	All universities				University of Twente			
	full-time	part-time	dual	total	full-time	part-time	dual	total
96/97	153,189	11,406	-	164,595	6,169	16	-	6,185
97/98	147,643	11,814	-	159,457	5,700	36	-	5,736
98/99	146,879	12,185	-	159,064	5,591	57	-	5,648
99/00	149,612	12,808	42	162,462	5,672	68	-	5,740
00/01	152,648	13,825	74	166,547	5,813	75	-	5,888
01/02	158,277	14,195	84	172,556	6,021	134	1	6,156
02/03	165,356	14,607	79	180,042	6,458	134	1	6,593

Source: VSNU, digitaal ontsloten cijfers onderwijs

The number of students in universities has remained rather stable over the past 10 years, showing a decline towards the end of the 1990s and a recovery in the early years of the new century. About 64% of university students are in the social sciences and humanities programmes, a quarter in the natural sciences, engineering and agriculture. The remaining students (some 10-12%) are in medical programmes.

Table 2.2: Student enrolment, UPEs 1997-2004

	All hogescholen				Of which:			
	full-time	part-time	dual	total	Saxion	Edith Stein	AKI	ITC
97/98	235,429	44,741	2,080	280,162	8,751	876	583	1,242
98/99	239,515	48,487	3,261	290,530	8,801	926	599	1,290
99/00	246,495	54,675	4,977	305,810	9,402	952	576	1,046
00/01	247,832	60,868	7,073	315,773	9,881	1,022	590	1,002
01/02	249,361	66,147	9,115	324,623	10,569	1,044	598	923
02/03	249,713	65,628	10,430	325,771	10,850	1,040	563	1,032
03/04	259,210	67,828	11,792	338,830	11,257	1,108	538	944
04/05	271,295	66,611	11,623	349,529	11,890	1,192	500	892

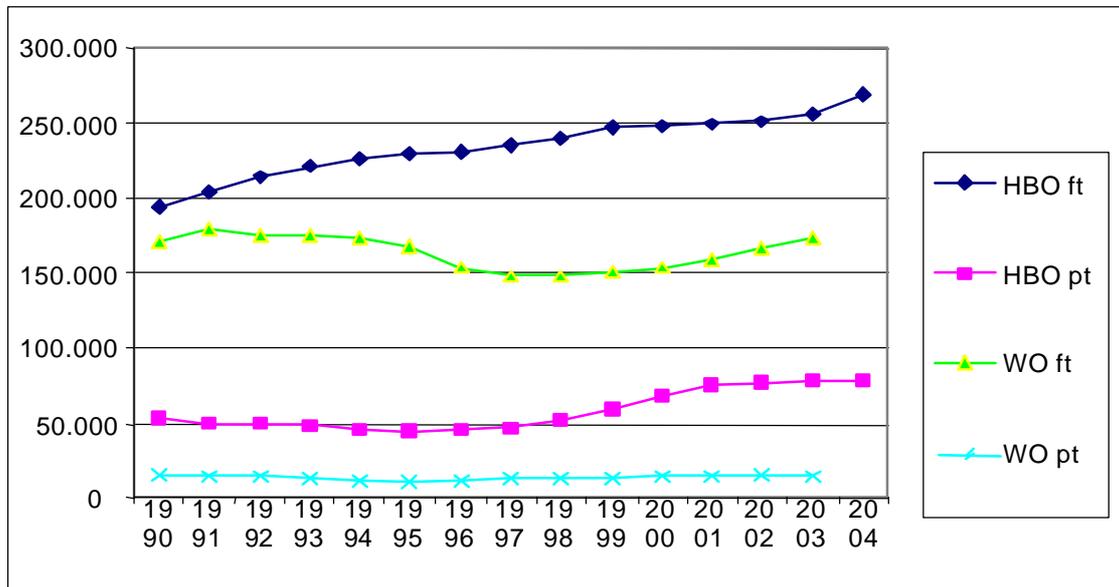
Note: Includes BA as well as MA students.

Source: HBO-raad, kengetallen.

² PhD students have a position in the university and formally are part of the research university's staff. The University of Twente has some 170 PhD students.

Figure 2.2 shows the trends in student enrolments in the university sector (WO) and the UPEs sector (HBO), making a distinction between full-time and part-time enrolments.

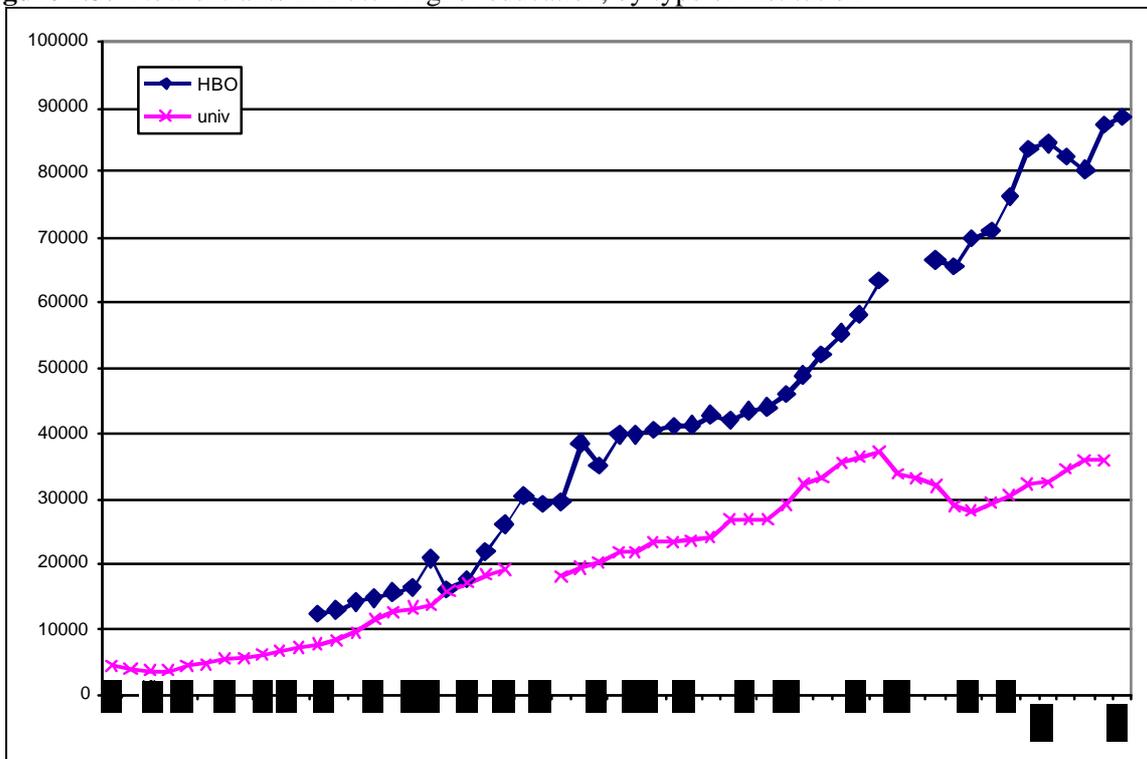
Figure 2.2: Student enrolment in UPEs (HBO) and universities (WO), full-time (ft) and part-time (pt), 1990-2004



Source: CBS Statline, www.cbs.nl.

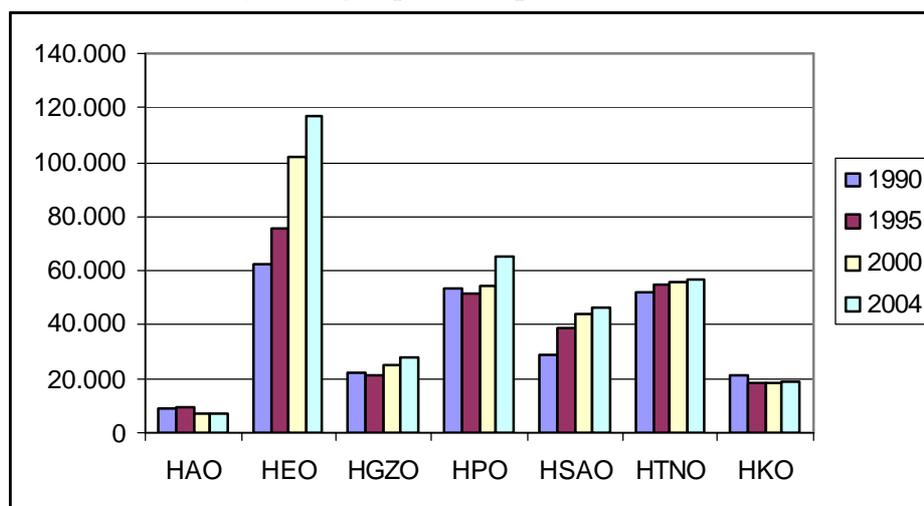
Student participation is increasingly concentrated in the UPE sector. This is also clear from figure 2.3, below, which shows the number of new entrants over the period 1950-2000.

Figure 2.3: New entrants in Dutch higher education, by type of institution



Source: CBS Statline, www.cbs.nl.

Figure 2.4: Students in UPEs by broad groups of disciplines, 1990-2004



Source: CHEPS, based on data from HBO-raad website

By far the largest share of HBO students are in economics and business-related programmes. This sector (HEO, in figure 2.4, above) has seen a sharp rise over the period 1990-2004. The number of students in agricultural programmes (HAO) experienced a decline, while engineering (HTNO) proved rather stable. Socio-agogic programmes (HSAO) and health related programmes (HGZO) saw a rise. Enrolments in teacher training programmes (HPO) have climbed back up again in recent years after having dropped in the mid-1990s. It goes without saying that within the broad groupings of programmes some specific programmes may have experienced declines or increases in the student intake. In particular, the traditional natural sciences and mathematics have seen the numbers of students decline, whereas in information technology, biology and some of the health-related programmes students' numbers have gone up in the past ten years.

2.2 Demand and supply of teaching and research

In today's knowledge-driven society, efforts to achieve optimal economic development include the provision of sufficient numbers of graduates with the required knowledge and skills to become available to the labour market. While the idea of manpower planning has long been abandoned, the need for well-founded labour market forecasts, differentiated by occupation and education, has remained. In the Netherlands, the Research Centre for Education and the Labour Market (ROA) of Maastricht University has been making forecasts of the developments in supply and demand in the labour market, differentiated by occupation and education, for more than fifteen years. Each forecast covers a period in the future of five years, and they are made every two years. The forecasts made are used to create policy-oriented reports and to provide information, often in the form of data files, to ministries and institutions in the field of education and the labour market, and to publishers of study and career advice material. The most recent ROA report, entitled "The labour market differentiated by occupation and education until 2008" (ROA, 2003), predicted good labour market prospects for graduates from universities and HBO institutions and identified a shortage of graduates to take on jobs in the education, health and engineering sectors.

The combined job centres run by the government, represented in the Centres for Work and Income (in Dutch: *Centrum voor Werk en Inkomen*, CWI), collect data on vacancies. Partly based on these data and based on the ROA and other government agencies' economic analyses, the Council for Work and Income (in Dutch: *Raad voor Werk en Inkomen*) publishes labour market analyses and forecasts. These also show a continued high demand for graduates, partly as a result of the ageing of the Dutch society (replacement effect) and the changing structure of the Dutch economy.

With respect to the public research system in the Netherlands, we have to mention that the public science and research community comprises the research universities, the Academy of Arts and Sciences (KNAW) and its 18 research institutes, plus the research council (NWO) and its 9 institutes. Universities conduct most of the basic research. Applied research is carried out (partly publicly funded) by the five Large Technological Institutes (GTIs), the four Leading Technological Institutes (LTIs), the Netherlands Organisation for Applied Research TNO (an independent contract research organisation) and its 14 institutes, and, finally, by the DLO agricultural research institutes.

The so-called Leading Technological Institutes (*LTIs*) were conceived in 1997 as – virtual – organisations in which companies and knowledge institutes (including universities) participate (public-private partnerships). There are four institutes which operate in the separate fields of nutrition, metals, polymers and telematics. These LTIs aim at stimulating R&D co-operation between public and private partners in areas of importance for the economy and society. The Telematics Institute is based in Enschede.

2.3 Policy-making in higher education³

The Dutch national government has traditionally played an important role in the coordination of higher education. However, over the years the autonomy of both the research universities and the UPEs has increased on various areas, such as finance, human resources, infrastructure and the programming of teaching and research. In particular after the mid 1980s, the autonomy of research universities increased substantially thanks to a new policy framework. One may argue that at the beginning of the 21st century the Dutch government is still heavily involved in the area of higher education, but the nature of its involvement has substantially changed. Generally, it seems to be less interventionist and leaving formally more room to manoeuvre for others such as the universities. At the same time we can easily observe an intensified engagement of the government with respect to research. This is not only visible through more state regulation, but also through the use of market-based mechanisms to increase the performance and efficiency of the higher education sector.

Steering from a distance

In 1985, the white paper “Higher Education: Autonomy and Quality” introduced the concept of ‘steering from a distance’, and argued that the national government should fulfil a facilitating role instead of trying to plan the system from the top by detailed regulation. The higher education (HE) providers were given a large degree of autonomy and responsibility. The Act included the outline of the funding mechanism for the HE sector as well. Funding for education was to be formula driven (with a high emphasis place on degrees conferred and graduation rates). Core funding for academic research, however, was largely based on historical considerations – its roots lying in an agreed upon number of academic staff.

The Higher Education and Research Act gives the institutions considerable freedom of programming. They are first of all responsible for maintaining quality, providing an adequate range of teaching and research programmes and ensuring access to education. Quality evaluation is exercised by the institutions themselves, by external experts and, on behalf of the government, by the Inspectorate for Higher Education. In principle, the government assesses on an ex post basis only whether funds have been deployed effectively and whether the intended results have been achieved. If major shortcomings are identified, the institutions will be informed accordingly. If discrepancies between ideal and reality persist, notably in the field of quality, the government has the option – with due regard to the proper procedures – of using coercive powers backed up by sanctions.

Accreditation

The existing evaluation system was adapted recently, mainly as a consequence of the developments around the Bologna process. The year 2003 marks the transition for the quality assurance systems of

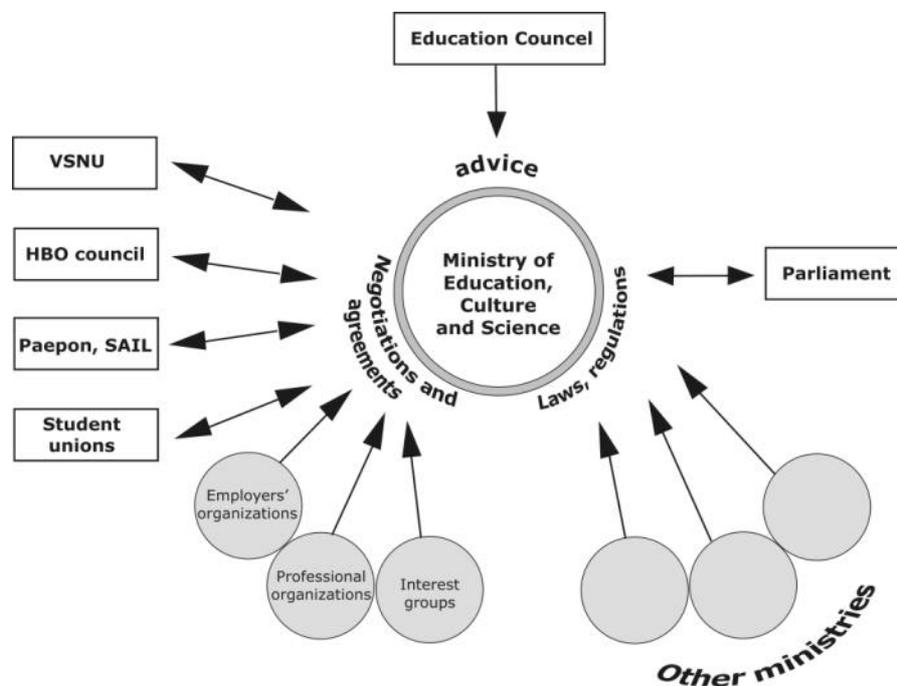
³ First paragraph is based on De Boer, 2005.

Dutch higher education (e.g. Jeliaskova & Westerheijden 2004:328). Complementary to the quality assessments, an accreditation system was introduced. In June 2002 the Dutch parliament passed the Accreditation Act and during the summer of that year the Netherlands Accreditation Organization (NAO) was founded. About a year later, the Dutch and Flemish governments signed an agreement of cooperation and the NAO became the NVAO. Assessment agencies, such as the Quality Assurance Netherlands Universities (QANU), conduct the actual external assessments of the academic teaching and research programmes.⁴

Evaluating research

In 2003 the national system of evaluating research was changed, although self-evaluation and external visitation (peer review) are still the main components.⁵ Research institutions have to evaluate themselves every three years. Every six years these internal evaluations are complemented by external peer reviews. The report of the external review committee is the central document for the research institution to account for its research with regard to various stakeholders. The evaluation system is carried out under the auspices of the university, the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Netherlands Organization for Scientific Research (NWO).

Figure 2.5: The formal policy network



Based on: F. de Vijlder (1998)⁶

2.3.1 The policy network regarding higher education

When it comes to the capacity, contents and quality of the education programmes offered by higher education institutions, the prime mover in policy-making is the Minister of Education, Culture and

⁴ In 2004 the NVAO has authorized five assessment agencies to assess the programme's qualities. One of them, the QANU is a privatised organization, branched off from the VSNU.

⁵ The evaluation system aims at three objectives with regard to research and research management: 1) *Improvement* of the quality of research through an assessment carried out according to international standards of quality and relevance; 2) *Improvement* of research management and leadership; 3) *Accountability* to higher levels of the research organizations and funding agencies, government, and society at large.

⁶ *National Policies to Strengthen the Economic Role of HE-Institutions in the Netherlands. National Level Case Study: The Netherlands.* Report for TSER/HEINE-project. Enschede: CHEPS

Science. However, in reality there is a complicated network of institutions and agencies that influences policy-making. This is shown in figure 2.5.

Parliament, naturally, decides on legislation, including the budget for the higher education sector. The common interests of the universities are represented by the VSNU, the Association of Dutch Universities. The *HBO-Raad* (the Association of *Hogescholen*) is the parallel organization for the UPEs. Like the VSNU, the *HBO-Raad* is the employer party in the negotiations on collective labour agreements and performs a number of other coordinating roles for its members, the individual higher education institutions. Students are represented in the student associations, which have frequent talks with the Minister in the “Students’ Chamber”.

The *Education Council* is an important and independent advisory board of the government. Its reports – either written on the instigation of the Minister or on its own initiative – touch on important issues in the (wider) educational field. There are other advisory bodies and agencies that regularly touch on education-related issues. Worth mentioning are the WRR (the Netherlands Scientific Council for Government Policy, an independent think tank for Dutch government), the Social and Economic Council of the Netherlands (SER), the Netherlands Bureau for Economic Policy Analysis (CPB) and the Social and Cultural Planning Office (SCP).

Apart from these bodies, the Ministry of Economic Affairs, and the Ministry of Finance have to be mentioned, although in fact all other ministries in one way or another have a say in educational policy-making. Apart from the ministries already mentioned, the key players, advisers and policy-makers in the policy arena for science and technology are,:

Advisory bodies

- AWT (Advisory Council for Science and Technology Policy)
- KNAW (Royal Netherlands Academy of Arts and Sciences)
- SER (Social and Economic Council of the Netherlands)
- WRR (Scientific Council for Government Policy)
- CPB (Netherlands Bureau for Economic Policy Analysis)
- Rathenau Institute (to study the societal implications of science and technology)
- COS (the System of Sector Councils for Research and Development, set up to provide recommendations on how scientific research can best be geared to meeting society’s needs. There are five sector councils)

Funding bodies/agencies

Ministries/departments:

- Ministry of Education (OC&W)
- Ministry of Economic Affairs (EZ)
- Ministry of Agriculture and Fisheries (LNV)
- Ministry of Transport, Public Works and Water Management (VWS)

Intermediary bodies:

- NWO Netherlands Organization for Scientific Research (Dutch research council)
- KNAW (Royal Netherlands Academy for Arts and Sciences)
- STW (the Technology Foundation)
- ZonMw

SenterNovem (amalgamation of the Implementing agency for innovation and technology (Senter) and the Netherlands agency for energy and the environment (Novem))

Interest groups:

- VNO-NCW (the Confederation of Netherlands Industry and Employers)
- MKB Nederland (Royal Association MKB Nederland, representing the SME sector)
- LTO-Nederland (Dutch Organization for Agriculture and Horticulture, representing the agricultural, horticultural, and green services industry)
- VSNU
- HBO-raad

Governance of science, technology and innovation in the Netherlands is profoundly divided between a decentralized style in research (the sphere of the education ministry) and a very hands-on style by the Ministry of Economic Affairs. The research and innovation system has grown to become very complex, with large numbers of organizations involved. While this produces a risk of ‘stickiness’, it also means there is a good measure of de facto coordination. A new, high-level council (the Interdepartmental Committee for Science, Innovation and Informatics, CWTI) has been created to prepare and co-ordinate policy decisions from various departments. The Interdepartmental Investigation Innovation Policy (in Dutch known as *Interdepartementaal Onderzoek Technologiebeleid* (IBO)) conducted in 2002, concluded that the portfolio of policy instruments for innovation of all Ministries was departmentalised and fragmented. Co-ordination and collaboration between Ministries was one of the options recommended by this government report.

2.4 The funding of HEIs

In general, the HEIs can draw on three so-called *geldstromen* (flows of funds). The first flow is the regular core funding of research universities and UPEs. The second flow refers to research grants provided by the Dutch Research Council (NWO). NWO offers competitive funding on the basis of research proposals from university researchers. The third flow of funds concerns the revenues from contract activities, consultancies and research commercialization activities carried out by the research universities and the UPEs. Often, income from interest, university bookshops, student restaurants et cetera is also included. A large part of the third flow activities refers to knowledge transfer in the sense of research carried out for industry and public sector organizations. A slightly smaller part refers to contract teaching for companies (and individuals – such as the MBA programmes offered by the research universities), short courses, and lifelong learning. Part of the projects in the third flow activity refer to research projects or educational activities for regional industry. However, the largest part is contract research carried out for government or not-for profit organizations. In table 2.3 below, an overview is given of the various income categories of the HEIs in Twente.

Table 2.3 Income of the HEIs in Twente in 2004

2004 (x €1.000.000,-)	Total income	1 st stream	2 nd stream	3 rd stream
UT	205.0	150.3	24.1	30.6
Saxion	79.4	69.6	3.7	6.1
Edith Stein	5.5	5.0	0	0.5
AKI	4.0	3.2	0.7	0.2
ITC	32.3	22.2	5.0	5.0
SWOT	3.9	0	0	3.9
TSM	1.0	0	0	1.0
Total	331.1	250.3	33.5	47.3

Source: individual HEI's

2.4.1 The funding of research universities

Each research university in the Netherlands receives a formula-based lump sum for teaching and research. This lump sum allocation is driven by parameters that partly find their origin in teaching, partly in education and partly in historical considerations. The allocation mechanism is known as the ‘bama’ model, which stands for bachelor-master model, after the two types of degrees offered to university students. Bama has been operational since the year 2003. It is a distribution model that distributes a fixed amount of funding across the thirteen universities. Basically this means that the Minister of Education (or rather: Parliament) determines the budget for the university sector as a whole, and subsequently distributes this budget across the individual universities according to a set of fixed rules (a formula). Apart from the bama allocation, the universities receive allocations for academic teacher training, for academic hospitals, and for unemployment benefits paid to former university employees.

The bama model is largely output-driven, which means that the allocation for each university depends on the degrees granted to students (BA, as well as MA degrees), the number of new entrants per university, and the number of PhD degrees and (for technical universities) postgraduate designer certificates. A distinction is made between programmes in the social sciences and humanities and law, on the one hand, and the programmes in natural sciences, engineering, and agriculture on the other. The latter receive a higher weight in the formula, to reflect the higher cost of programmes in the laboratory-based fields. Medical programmes receive an even higher weight. The ratios between the weights are 1 : 1.5 : 3. In addition, the weight for bachelor's degrees is twice the weight for master's degrees. Apart from these variable allocations, each university receives a fixed – historically based – allocation.

The research function of universities is funded largely (say, two-thirds) on the basis of historical allocations, with the largest universities receiving a larger share. Part of the research funding, however, is performance-driven in the sense that the number of PhD degrees conferred translates into the budget allocated to each university. Also the number of master's degrees (and to a lesser extent, bachelor's degrees) affects funding. Again, degrees in the technical or natural science receive a higher weight (twice the 'low rate') compared to degrees in social science and humanities.

There is no allocation for regional mission related objectives. Such funds would be coming from competitive sources or regional authorities and would be offered to accomplish specific goals. In other words, funds for regional engagement derive mainly from specific funds – that is non-core funds. The institutions will have to apply for such funds or compete to get regional innovation or stimulation budgets.

2.4.2 The funding of UPEs

For most UPEs, funding is only based on the teaching load. For the UPEs that specialize in performing arts (e.g. AKI), funding is based on capacity considerations, that is on the number of first-year students admitted (after selection). Teaching load is a function of the following:

- the number of enrolled students
- the number of (bachelor) diplomas awarded
- the number of years graduates have been enrolled
- the number of dropouts
- the number of years dropouts were registered in the institution.

The funding formula stresses performance, especially in terms of graduation rates. So, again funding is performance-driven. Similar to the research university sector, higher weights are attached to students in the laboratory-based subjects as compared to students in classroom-based subjects.

Like for the research universities, there is no arrangement to take regional factors into account for the core funding of the UPEs. Again, specific funds must be generated from initiatives undertaken by the UPE itself.

2.4.3 IO institutions

The funding of the IO institutions is through a subsidy based on a basic allocation, so a fixed amount per institution to guarantee a minimum teaching and research capacity. The amounts have been established per institution and depend mainly on strategic policies and historical background. Furthermore the institutions receive allocations for unemployment benefits and for housing.

2.5 Inter-institutional relationships

Although research universities and UPEs have a different character, cooperation between the two types of institutions has more and more become a reality. Where in the past the focus was on small scale cooperation in teaching and pedagogic practices that went on the shop floor level of the institutions, today many cooperation agreements are signed at the top (or strategic) level of institutions.

Project: Reinforcement cooperation Saxion UT

Saxion and the UT have cooperated for a long time on a broad field of aspects. Since the beginning of this year, this cooperation has become a more structural character. For this purpose the executive board of both institutions started for this purpose a long-term project, Reinforcement cooperation Saxion UT. Aim of this project is to structure the cooperation on the field of teaching and research programmes as well as facility sharing.

Research universities and institutes for international education

Another type of cooperation exists between research universities and the institutions for international education. As explained earlier, the international education (IO) institutions have a distinctive status and mission. Often they are not included in the educational statistics and only to a limited extent are they influenced directly by overall higher education policy. Nevertheless, five of the IO institutions were recently embedded in the university structure and each has established administrative ties with a research university. For instance, the UT acts as an intermediary (administrator) in the administrative relation between the ITC in Enschede and the Netherlands Ministry of Education, Culture and Science.

3TU

The third type of alliance to be mentioned here is between the three technical universities (3TU), that is: the universities of Twente, Eindhoven and Delft. The cooperation covers topics such as the provision of graduate programmes, fields of research to be covered by each of the institutions and cooperation in attracting more funds from national and international sources.

For the most part, however, the research universities and the UPEs compete in different markets. They compete for Dutch students, international students, PhD students, research staff, public research contracts and contracts with private business – simply because the resources and reputation they derive from that contribute to their survival and their strive for a strong position in the market.

2.6 Regional dimension “inside” the national higher education policy

It is fair to say that the Netherlands is a small country. Combined with the fact that there are 13 universities (or 14 if you include the Open University) and some 45 UPEs, this means that every region is served by at least one higher education institution.

The situation for the UPEs is the result of a development over time that saw the UPEs formally become part of the higher education sector, followed by a period of consolidation that saw their number decline from almost 350 in the early 1980s to 45 in 2005 and that today sees many UPEs become involved in alliances with universities and other UPEs. The result of this, however, is that students – in particular the ones that do not live in or near the major metropolitan areas who wish to enrol in a particular educational programme at a *hogeschool* – often can find only one provider in their region. Therefore, within the region, the degree of competition in the *hogescholen* sector is lower than it was in previous times.

When it comes to the universities, the historical development has seen a policy of decentralization that left many decisions on educational output and research activity to the institutions themselves. Regional considerations only played a minor role in policy-making. With respect to the establishment of new universities, efficiency arguments related to the maximization of the available student potential, political arguments and, to a lesser extent, regional development motives have been predominant. As to the establishment of new institutions, the foundation of a third technical university in the eastern part of the country was favoured because the stimulating effect on the participation rate was expected to be the largest there and the university could add to the improvement and the overall structure and the socio-economic development of that area. Two other peripheral areas were disfavoured, viz. the province of Friesland, as a university there would withdraw students from Groningen University, and the province of Limburg, because of its peripheral situation and limited student potential.

So far, the regional mission has received more attention in UPEs compared to the research universities. This is because of the spread of UPEs across the country and the specific mission of UPEs and research universities. The latter pay attention to the advancement of scholarship in particular. UPEs have an important function in educating professionals for the labour market. Recently, the UPEs have been advocating a larger role in knowledge transfer and making contributions to their region. While they so far have not received a separate flow of funds for this, the *lectoraat* – a new position in the UPE, resembling an associate professorship – was introduced. Along with this, funds were made available for a limited number of years to create more interrelationships between UPEs and their region.