3. Setting the Right Course: Steering Tertiary Education

3.1 Introduction

When the OECD was formed in 1961, tertiary education was not a leading concern of most member governments. Tertiary education, which was typically synonymous with university education, was not seen to be central to the well-being of most citizens or to the fortunes of national economies. Rather, it was a means of training members of learned professions, scholars, and civil servants.

The scope and significance of tertiary education have changed dramatically since then. And, as the preceding Chapter has shown, changes continue. Tertiary education has expanded in many OECD member nations to encompass half or more of all young adults. And it has simultaneously become much more diverse in its providers, in its learners, in the range of skills and training it provides, and in connections to the commercial life of knowledge-based economies. Public officials throughout OECD member nations have come to hold ambitious goals for tertiary education, viewing it both as a means to foster economic growth – through its capacity to create a highly skilled workforce and research that underpins a knowledge-based economy – and as a principal instrument for the fostering of social cohesion, widely dispersing the benefits of economic growth. These ambitious goals create a challenge previously unknown to governments: how can we best ensure that capabilities of tertiary education are joined to wider public purposes? Many governments have responded to this challenge by making far-reaching changes in the means by which they exercise authority *vis-à-vis* tertiary education institutions (TEIs), and in the structure of tertiary education systems.

In this Chapter we examine countries' approaches to system governance, the prevailing trends and the forces driving change. The Chapter begins by reviewing concepts and dimensions for analysing governance systems of tertiary education. We then propose current patterns of the way in which States steer the activities of tertiary institutions. This is followed by an investigation on how States structure tertiary systems, paying particular attention to policy choices with respect to differentiation. The Chapter further examines system linkages (within tertiary education and between tertiary education and other sectors), the relation between system level and institutional governance, and the way tertiary education policy is developed. The Chapter concludes with a set of policy options for countries to consider.

3.2 Governance of tertiary education: concepts and dimensions

3.2.1 The nature of governance systems in tertiary education

A general view of the nature of governance systems in tertiary education entails a definition of the word governance itself as well as a typology of governance systems in tertiary education.
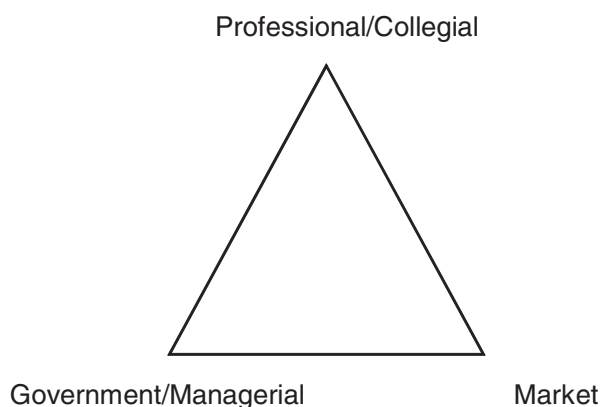
Definition of governance

A variety of definitions of "governance" in the context of tertiary education can be found in the literature (Goedegebuure and Hayden, 2007). Neave (2006) defines it as being "a conceptual shorthand for the way higher education systems and institutions are organised and managed". Toma (2007) defines governance as being: "both as simple and as complicated as responding to the question: who makes what decisions?" In this Chapter, "governance" encompasses the structures, relationships and processes through which, at both national and institutional levels, policies for tertiary education are developed, implemented and reviewed. Governance comprises a complex web including the legislative framework, the characteristics of the institutions and how they relate to the whole system, how money is allocated to institutions and how they are accountable for the way it is spent, as well as less formal structures and relationships which steer and influence behaviour (OECD, 2003).

Proposed typologies of governance systems in tertiary education

The analysis of governance systems in tertiary education has long since been on the research agenda. There have been a large number of attempts to develop useful typologies of governance systems in order to deal with inter-country variation and the complexity of national governance arrangements (Braun and Merrien, 1999). The turning point in the higher education literature is the often cited work of Clark (1983), among the first to establish a typology of governance systems. He proposed that co-ordination of higher education is organised in a triangular space consisting of the three dimensions of government (from highly centralised State authority to less State intervention), market (with different degrees of influence of markets) and academic oligarchy (with varying degrees of influence of the academic profession).[28]

Figure 3.1. Clark's triangle of co-ordination

Source: Clark, 1983.

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28.   See discussion on the application of Clark's triangle in Goedegebuure *et al.* (1993).

Another often cited typology of governance is that of van Vught (1989). He reduces Clark's triangle of co-ordination to a two-dimensional relationship between the State and higher education institutions. He proposes to differentiate between a "State control" model and a "State supervising" model, summarised as follows by Gornitzka and Maassen (2000):

- The "State control" model (also called "rational planning" model) is characterised by strong confidence in the capabilities of governmental actors and agencies to acquire comprehensive and true knowledge and to take the best decisions. Also, these governmental actors try to steer an object by using stringent rules and extensive control mechanisms. They see themselves as omniscient and omnipotent actors able to steer a part of society according to their own objectives.

- In the "State supervising" model (also called "self-regulation" model) monitoring and feedback are emphasised. Crucial to this is the idea that a decision-maker should only pay attention to a small set of critical variables that should be kept within tolerable ranges. In this model, government is predominantly an actor which watches the rules of the game played by relatively autonomous players and which changes the rules when the game is no longer able to lead to satisfactory results.

More recently, Braun and Merrien (1999) proposed a governance typology which accounts for the administrative strategies of the "New Public Management" (NPM) or the "new managerialism", which have characterised reforms in the governance of public services in OECD countries in the last two decades (see Section 3.6 and Chapter 5). They arrive at a "cube of governance" in higher education which mixes government models proposed by Clark and van Vught and the new managerialism model. They distinguish between a tight and a loose administrative control of universities by policy-makers (procedural dimension)[29] and a tight and loose goal-setting capacity of government in matters of education and research (substantive dimension).[30] The third dimension relates to the "political culture" of countries concerning the role that higher education systems should play as part of the public service system (from "non-utilitarian culture" to "utilitarian culture").[31] Braun and Merrien argue that "Almost everywhere notions like management by objectives, contractualisation, service-orientation, efficiency, institutional autonomy, steering at a distance *etc*. now belong to the daily discourse on reforms of the organisation of research and education in universities" (Braun, 1999).

Enders (2004) reviews higher education governance models, highlighting their increased complexity. He discusses a number of dimensions which call for the extension of conceptual models of higher education governance:

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29. It includes financial and management capacities of universities as well as aspects of personnel policy (*e.g.* setting of salaries; creation and suppression of posts) and student policy (*e.g.* selection of students; level of tuition fees).

30. It includes freedom to establish courses, choose the content and methods of courses and research, define organisational goals *vis-à-vis* environment; choose the personnel and students according to organisational and academic goals and standards; and choice of research topics.

31. Braun (1999) argues that "It is well known that we find a basic difference in the 'European way' of many countries which share the view that universities are cultural and non-economic institutions contributing to universal science on the one hand and the 'American utilitarianism' which expects useful services of their public institutions on the other hand".

–   *The existence of networks*. Enders (2004) indicates that "governance" is "now often used to indicate a new mode of governing that is distinct from the hierarchical control model, a more cooperative mode where the State and non-State actors participate in mixed networks". Governance of higher education institutions is also strongly influenced by informal networks, collegial agreements and more process-oriented decision-making structures (Gornitzka *et al.*, 2005).

–   *The significance of global forces*. Enders (2004) reveals that the "theory of political governance has so far dealt with political systems that have a clear identity, a clear boundary, and a defined membership" and is incapable of accounting for the influence of globalisation aspects such as the European dimension which is becoming much more integrated into the mainstream national-level higher education policy (see CHEPS, 2006, for an account of the growing influence of the European Commission on national higher education policy). Marginson and Rhoades (2002) propose a "glonacal agency heuristic" to conceptualise and shape comparative higher education research with regard to globalisation. Their approach points to three intersecting planes of existence, emphasising the simultaneous significance of global, national, and local dimensions and forces. Their approach combines the meaning of "agency" as an established organisation with its meaning as individual or collective action.

–   *The micro-level of academic work and life*. Enders (2004) highlights the importance of assessing the impact of changing modes of coordination in higher education on the academic workplace. Ferlie *et al.* (2007) also argue that more attention is to be paid to the relationships between the State and the academic profession given that understanding co-ordination within higher education systems cannot be reduced solely to State-institution relationships. They point out, for instance, that in many European countries, academic staff are directly employed by the State.

It is also important to bear in mind that changes in the governance of tertiary education are taking place in the context of fundamental changes in the governance and management of general public services. Tertiary education reform is tied into more general public sector reform (see OECD, 2006a).

Another complexity is the multiplication of actors in tertiary education governance. Some responsibilities are delegated to intermediate bodies such as research councils or quality assurance agencies. Other government levels (regional, local) and areas (*e.g.* Ministry of economic affairs, industry, labour) have reinforced their role in tertiary education. Further, external stakeholders (industry, business sector, employers, unions) are being increasingly included in consultative and decision-making processes within tertiary education (see Section 3.7). In this respect the State's role becomes one of a network manager ("steering through networks") and new regimes of governance emerge: we now see a more multi-actor, multi-level governance framework emerging in a number of countries (CHEPS, 2006).

3.2.2 The challenge of serving public interest

In the governance of tertiary education, the ultimate objective of educational authorities as the guardians of public interest is to ensure that public resources are efficiently spent by TEIs to societal purposes. There is the expectation that institutions are to contribute to the economic and social goals of countries. This is a mixture of many

demands, such as: quality of teaching and learning defined in new ways including greater relevance to learner and labour market needs; research and development feeding into business and community development; and contributing to internationalisation and international competitiveness.

There is a tension between the pursuit of knowledge generation as a self-determined institutional objective and the statement of national priority as defined in the aims and goals of the tertiary system. The objective, from a governance point of view, is then to reconcile the priorities of the individual institutions and the broader social and economic objectives of countries. This entails determining how far the former contributes to the latter as well as clarifying the degree of latitude the institution has in pursuing its own self-established objectives. The governance challenge is then to achieve the appropriate balance between the governmental steering and institutional autonomy in the pursuit of a better alignment between institutional initiative and the nation's economic and social development goals.

The design and functioning of governance arrangements and processes for tertiary education at both national and institutional levels are vital determinants of the effectiveness of the tertiary education system and of its capacity to contribute to national development. The objective is to put arrangements in place which are effective and efficient in addressing national economic and societal needs. They should also support the traditional and fundamental objectives of tertiary education in promoting scholarship through the creation, diffusion and maintenance of knowledge.

3.2.3 The roles of the State

It is recognised that the State has a key role in promoting the best possible outcomes in tertiary education, for instance by ensuring appropriate levels of competition between TEIs as a stimulus for better performance, and by ensuring that the tertiary education system is outward-looking, nationally and internationally. By and large, the responsibility of the State is to set national goals, define the rules of the game and the regulatory framework within which the different actors in the system can perform most effectively.

Setting the goals and strategic aims

Typically, a key priority for governments is to provide a clear articulation of the nation's expectations of institutions. This is as a rule associated with the setting of goals for the sector and the formulation of a clear vision for the long-term development of the tertiary system. Most countries in the OECD area devise statements of strategic aims for tertiary education, with marked differences across countries.

For example, in New Zealand, the 2002-2007 Tertiary Education Strategy (TES) was "a high-level strategy that articulates the key goals for New Zealand's tertiary education system and defines how the system will help give effect to the government's vision and goals for New Zealand" (Ministry of Education, New Zealand, 2002). Six "sub-strategies" comprised the 2002-2007 TES: strengthening of the system capability and quality; contributing to achieving the Māori development aspirations; raising foundation skills to allow participation in the knowledge society; developing the skills needed for a knowledge society; educating for Pacific people's development and success; and strengthening the research knowledge creation and uptake function.

In Mexico, at the federal level and for the period 2001-2006, the key reference point for tertiary education planning was the National Education Programme 2001-2006 (*Programa Nacional de Educación* – PRONAE). It set out strategic and specific objectives and policies, action programmes and benchmarks for the tertiary education system. For the 2001-2006 period the strategic objectives proposed by PRONAE were: (a) Expanding coverage with equity; (b) High quality education; and (c) Better integration, co-ordination and management of the tertiary education system.

In Norway, in 2001, government specific objectives for tertiary education were defined on a White Paper. These were: *(i)* contribute to using the capacities and abilities of the population in such a way that consideration is taken both of the interests of the individuals and of the country's need for a highly educated work force; *(ii)* improve the quality of tertiary teaching and learning and research; *(iii)* ensure that applicants to TEIs are given equal treatment; *(iv)* promote conditions at universities and colleges that are favourable to the development and transmission of new knowledge; *(v)* use the resources of the sector more effectively; *(vi)* reduce the time actually spent by students before graduation, so that the actual length of study periods corresponds more closely to the formal requirements; and *(vii)* encourage increased international co-operation in tertiary education and research.

Most countries govern tertiary education through legislative frameworks. For example, in Sweden, activities of TEIs are governed by the Higher Education Act and the Higher Education Ordinance. The Act lays down broad objectives for Swedish higher education, which are supplemented by programme-specific goals in a Degree Ordinance. Policy objectives are also elaborated in government Bills and proposals. The annual appropriation directives specify the government's expectations of the tertiary education sector during a specific period, and in educational directives the government lays down certain specific objectives and required results for each individual institution. For example, the educational directives specify quantitative targets over a four-year period, and planning parameters for the subsequent four years. The national goals and objectives for tertiary education are deliberately formulated at a general level. The main responsibility for interpreting them, balancing the various goals against each other, and transforming them into concrete measures, lies with the individual institutions. However, the institutions are required to report back to the government on their results.

Regulating tertiary education

An important responsibility of the State is to create a regulatory environment that is aligned with the goals and aims for the sector and provides opportunities for institutions to meet the expectations of society. The purposes of regulation can be varied. According to King (2007), "they range from market control to market enhancement, and include, especially in the public services, accountability, enhancement of quality and standards, and social or national steerage (such as seeking increased consumer or lay influence in decision-making, risk management, enhancing social access to higher education, or greater public-private alliances for service delivery)". Regulation in tertiary education includes:

– Defining lines of authority and accountability;

– Defining missions (divide responsibilities among main actors, including intermediate agencies and the different types of institutions);

- Establishing work processes (*e.g.* defining rules for the establishment of new institutions, collecting and disseminating information, prescribing the framework for budgeting, quality assurance, legislation on intellectual property rights); and

- Facilitating linkages:

    o within tertiary education (*e.g.* credit transfer and collaboration within tertiary education);

    o between national system and tertiary systems abroad; and

    o between tertiary education and other sectors (*e.g.* school system, working life, surrounding regions and communities).

Regulations are embedded in virtually all tools available to government to influence or constrain behaviour of institutions, students, and other actors of tertiary education systems. The most common regulation tools or levels are (OECD, 2006a):

- Planning and policy leadership;

- Structure and governance: Who gets to make what decisions at what level?

- Financing, resource allocation, and subsidy;

- Incentives (monetary and non-monetary);

- Use of information (*e.g.* communication and reporting);

- Regulatory tools, including laws, ordinances, decrees as well as soft law; and

- Modes and processes of policy implementation.

King (2007) reviews conceptual approaches to regulation and, based on the international experience, concludes that:

- "Command-and-control"[32] regulation tends to be inflexible, can often be excessively hostile to those being regulated and can soon fall adrift in its standards as a result of rapid changes in dynamic industries.

- Self-regulation by a sector association or organisation is often regarded as more likely to attract greater commitment from those being regulated, and such approaches are often more knowledgeably-informed than found in direct State or legal regulation.

- "Meta" forms of regulation, in which audits of organisations' own regulatory and other procedures are undertaken, are regarded as possessing the advantages of resources efficiency, self-regulatory incorporation and sector sensitivity.

- Forms of "risk-based" regulation are preferred, in which the regulator's resources are focused on recalcitrants and those with poor track records of regulatory compliance.

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32.   "Command-and-control" refers to the prescriptive nature of the regulation – the command – supported by the threat of some negative sanction – the control.

Further, a basic characteristic of "good regulation" is the alignment of policy tools (including regulation) to ensure policy coherence. Failure to achieve this alignment can have the effect of nullifying the impact of one policy through the counter-influence of another policy (OECD, 2006a).[33]

Providing tertiary education

The State exercises responsibility for the provision of tertiary education. In most countries, the majority of tertiary students are enrolled in TEIs which are either considered State agencies or whose funding is predominantly public.

Steering tertiary education

"Steering" can be defined as "the externally derived instruments and institutional arrangements which seek to govern organisational and academic behaviours within HEIs" (Ferlie *et al.*, 2007). Steering entails the State devising an incentive structure that shapes institutional behaviour (or, more generally, the behaviour of tertiary education actors) towards national policy goals. It is associated with a less interventionist and more "facilitative" role for the State (which defines the national goals, establishes the incentive structure, and monitors the outcomes) and more discretion for institutions over a greater number of areas.

The strategic steering of tertiary education involves using agreed policy instruments, particularly resource allocation, to promote greater co-ordination and rationalisation, improved quality, efficiency and results. Typical instruments to guide the system from a distance and encourage institutions to adhere to national priorities and objectives are:

- Performance-based funding for teaching and learning activities;

- Targeted funding to achieve explicit objectives (*e.g.* development of partnerships with the surrounding region);

- Competitive research funding;

- Performance evaluation;

- Objectives-based contractual arrangements with institutions; and

- Publication of information on institution's performance.

An important implication of steering is that it requires improved human, material and technical capacities within educational authorities for better tertiary education co-ordination, planning and evaluation. Steering also involves the monitoring of outcomes (see Section 3.2.7).

Intermediate agencies are also becoming increasingly important in the steering of tertiary education. The entity responsible for defining and ensuring responsiveness to the public interest is most often a formal government entity such as a Ministry of Education. But some OECD countries such as Ireland, New Zealand, and the United Kingdom (except Northern Ireland) have established so called "intermediate" or "buffer" agencies

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33. An example is when a country with a federal system establishes policy directions regarding tertiary education at the national/federal level that are contradicted by the policies and actions at the state or local levels.

such as funding councils or quality assurance agencies to carry out many of the governance functions (*e.g.* the Tertiary Education Commission in New Zealand, the Higher Education Funding Council for England). These agencies typically act as an intermediary between TEIs and governments, allowing for a relationship which aims at avoiding "the hazards of excessive interference by governments in the institutions, especially in funding and internal management, while facilitating the steering of higher education within a policy framework set by governments focused on high level policy issues, rather than the details of administration" (Boland, 2005).

In Sweden, State agencies take on many of the tasks that in other countries rest with government ministries. Swedish ministries are mainly responsible for determining policy while major reviews and analyses, as well as a number of other tasks, are generally undertaken by the agencies under the authority of the ministries. Examples of agencies include the National Agency for Higher Education (tasks include evaluation and accreditation of institutions; policy analysis; supervision of compliance with laws and regulations); the National Agency for Services to Universities and University Colleges (which provides services to institutions such as co-ordination of admission procedures and procurement support); the Agency for Networks and Co-operation in Higher Education (tasks include the promotion of Internet-based distance tertiary education); and the Agency of Advanced Vocational Education (which co-ordinates the provision of Advanced Vocational Education).

This approach allows the intermediate agencies (or buffer bodies) to recruit, develop and retain staff with the relevant specialised skills and experience, and to provide a degree of organisational continuity which can be useful in promoting change. Intermediate agencies are also, and importantly, seen as means of enhancing the autonomy of TEIs. Some authors (*e.g.* Gornitzka and Maassen, 2000) argue that there is an emerging "agencification" taking place in a number of countries, in particular in the area of quality assurance.

3.2.4 System design

A crucial part of system governance is the design of the tertiary education system. The structure of tertiary programmes, the extent of differentiation within tertiary education, and the division of functions and tasks among different institutions in a national system are examples of choices education authorities need to make when designing tertiary education systems. Key elements in designing a system of tertiary education are as follows:

- *Components of a programme structure for tertiary education*. These might include short-cycle vocational studies, advanced vocational education, bachelor's studies which prepare students for the labour market as well as for further studies, master's programmes, doctoral Studies and lifelong learning courses.

- *Fields of knowledge and professional areas covered within the tertiary education system.*

- *Types of institutions and respective roles in the system*. This implies a clear articulation and transparency of the roles of different institutions.

- *A structure that links institution types and individual institutions to each other*. It is key to ensure ways of creating a coherent system of inter-related institutions, one where movements among institutions are rational and articulated.

- *Conditions for institutions to operate, including a minimum scale*.

The extent of differentiation within the system is a critical policy question

Diversity – in terms of factors such as types of institutions, study programmes, modes of delivery, student profiles – within tertiary education is a key policy question. In general, policy makers believe that a differentiated or diversified tertiary education system is essential if the needs of a diverse range of learners and the needs of knowledge societies are to be met. Many see increasing diversity as a necessary consequence of the rapid growth in tertiary education enrolments and the movement of many tertiary education systems from elite to mass systems.

Huisman *et al.* (2007) note that there are few studies that take stock of the level of diversity of tertiary education systems. They propose taking into account the following measurable features to build indices of system diversity: (1) institutional size; (2) form of institutional control; (3) range of disciplines offered; (4) degrees awarded; and (5) modes of study. Two indices are suggested: *i)* diversity of types of institutions within the system; and *ii)* diversity of institutions within the same type of institution. Using 1996 data for ten OECD countries, they conclude that in that year, the group of most diverse higher education systems comprised the United Kingdom, Belgium (Flemish Community) and the Netherlands. Sweden, France, Denmark and Australia had the least diverse systems while Finland, Germany and Austria were found to be in the middle of the spectrum.

There are diverse approaches to differentiation

The literature proposes three major lines of institutional differentiation: a distinction between universities and non-universities (often of the binary type); a distinction between specialised institutions with few focus areas and larger comprehensive institutions; and finally the co-existence of both public and private sectors of tertiary education.

In some countries, there are distinct institutional types. In the Netherlands, the two principal sectors of tertiary education are the research-intensive universities (the WOs) and the universities of applied science (the *hogescholen*, HBOs). There are 14 research-intensive universities including the Open University. There are 42 government-funded HBOs. The WOs and HBOs are separated on the basis of a division of labour (the "binary system") in which the great majority of research functions and capacities are concentrated in the WOs. On the whole HBO graduates are more specifically oriented to local and to occupationally tailored employment. There is a greater emphasis on generalist preparation in WOs. Finland has also established a binary tertiary system with a strong polytechnic sector that enabled the doubling of tertiary education enrolments between 1990 and 2000. The polytechnics are distinguished on the basis of shorter study programmes, a more technically oriented and applied approach, more input into governance from employers and local and regional authorities, and a greater element of localised financing. Tertiary education in Portugal is also characterised by a binary line, between universities and polytechnics. Only universities offer the doctorate while both universities and polytechnics offer first and master's degrees. Polytechnic first degrees "must value particularly training actions targeted at the practice of a professional activity, ensuring a component of application of the knowledge acquired to the actual activities of the respective professional profile", according to Portuguese legislation. At the master's degree level polytechnic degrees must "ensure predominantly that the student acquires a professional specialisation" in contrast to university degrees that must "ensure that the student acquires an academic specialisation resorting to research, innovation or expansion of professional competences".

In other countries the degree of institutional differentiation is considerably greater. In Mexico, one of the most important features of the system is institutional heterogeneity and its dynamic relationship with the government's co-ordination, planning and regulation. A number of different public subsystems, very different in size, nature and composition co-exist, including federal universities, state universities, technological institutes, technological universities, polytechnic universities, intercultural universities, and teacher education tertiary institutions. Similarly, in Japan, the expansion of tertiary education has been accompanied by increasing diversity in the mission and purposes of tertiary institutions. Nowadays, the tertiary sector extends well beyond the universities themselves: *Junior colleges* typically offer two-year sub-degree qualifications within a baccalaureate four-year bachelor's degree framework; *Colleges of Technology*, or *kosen*, are institutions offering high-level vocational qualifications through teaching and related research; *Professional training colleges* offer practical vocational and specialised technical education aiming to foster abilities required for vocational or daily life, or provide general education; *Graduate schools* conduct academic research, in particular basic research, and train researchers and professionals with advanced skills; and *Professional graduate schools* are oriented towards high-level graduate entry to key professions – for example, law, business studies, *etc*. The cultivation of diversity is now a stated policy aim. For example, in 2005 the Central Council for Education in its report, *A Vision for the Future of Higher Education in Japan* stated that:

> *"for the universal stage of tertiary education, it is necessary for each institution to clarify its own individuality and distinctiveness. Universities, junior colleges, colleges of technology and professional training colleges must all put education and research into operation that are fully based on each position and expected role/function and each institution must clarify its own individuality and distinctiveness. In particular, even for the same type of institution, each institution should clarify their own functions and goals out of a wide range of functions and goals based on the institution's own choices".*

Yet in other countries there is no formal institutional differentiation between, for example, research-intensive universities, regionally-oriented universities, or professionally-orientated teaching universities *etc*. but there are clearly differences in profile, capacity and mission that emerge across a unitary university sector. This is the case, for instance, in Australia and the United Kingdom, in which tertiary education is almost entirely dominated by universities, with few other types of institutions. In Sweden, where a formal binary system was abolished in 1977, institutions range from large "classic" broad universities to specialised institutions of different size in, for example, teacher education, the fine arts or agricultural sciences. However, within the formally unitary system, the distinction between university and university college remains.

Finally, in some countries, while some formal differentiation has been introduced, the tertiary system remains dominated by public university sectors. For instance, in the Czech Republic, the non-university and tertiary professional institutions each accounts for less than 10% of enrolments. Besides, the university sector is formally undifferentiated, driven by a traditional Humboldtian vision, highly autonomous, self-governing and characterised by strenuous academic career requirements. Similarly, in Poland, although the system is diverse in the formal sense (in that it contains vocational and private TEIs in addition to universities and other academic institutions), there is a lack of true diversity of mission and values, according to the team which reviewed Poland in the context of the project. International experience suggests that systems characterised by strong academic norms and values, limited influence from external stakeholders and uniform

policy/funding environments tend to display low levels of diversity as institutions all favour activities perceived to carry the highest prestige and rewards.

Private tertiary education takes different forms

Private tertiary education takes very different forms in different countries. There are distinguished examples around the world of high-quality private institutions, making the most of their freedom to innovate and to excel. At the other extreme there are also in some countries private institutions which act as a safety valve to absorb excess demand at the lower end of the market, but with little regard for quality and small benefit to the students who attend them.

In Japan there is a very high proportion of private institutions and students therein. Over 90% of junior colleges and professional training colleges are private institutions, as are nearly 78% of universities. In terms of student numbers this means that nearly 80% of under-graduates are enrolled in private institutions. Korea offers a similar picture. About 85% of universities are private as well as over 90% of junior colleges. In China, a marked trend has been the recent emergence of privately-run institutions – "*minban*" – whose numbers are increasing substantially, from 20 in 1997 to 226 in 2004. These include both for-profit and not-for-profit institutions. Many are established and controlled by affiliated public-sector institutions, providing the latter with a useful income stream.

By contrast, in New Zealand, private institutions (called private training establishments) predominantly operate in niche areas, by and large are small to very small institutions – with some noticeable exceptions – and number close to 900. While this figure represents over 90% of TEIs in New Zealand, private training establishments enrol only about 15% of tertiary students.[34] In other countries, the presence of the private sector is small (*e.g.* Spain, Sweden), non-existent (*e.g.* Finland) or not allowed (*e.g.* Greece).

The explosive growth of private tertiary institutions in some countries has raised concerns about the quality of the provision in some instances. This exposes the key role for educational authorities in regulating private participation in tertiary education: ensuring the quality of the provision and making sure that private providers meet legal, financial, capacity and programme offering requirements. A tertiary education market, just as any other public goods market, can only function well under clear rules which guide competition toward social ends, assure transparency and promote quality together with the rights of students (Brunner, 2006).

Scale for operation and mergers

Scale for operation is an important consideration in ensuring that institutions provide high quality education for their students and that resources are efficiently allocated, although policy decisions need to take account of, for instance, the importance of the regional dimension of tertiary education policy. In practically all countries there are cases of fairly small institutions, especially those located in non-urban areas. These might present a number of limitations. They might offer programmes in a restricted number of areas and rely often on academic staff whose primary employment is with an institution located in an urban area. Their curricula might also concentrate on public employment areas (*e.g.* teaching, nursing, social workers) while options in study areas more related to

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34. These figures consider New Zealand's broader definition of tertiary education as any post-secondary education.

industry might be more limited. In some cases, the small size might imply that they need to recruit and retain staff to teach specialised subjects which would, in a larger multi-faculty university, be provided by staff from other faculties. Mergers are a common approach to reinforce the operational capacity of institutions, which some countries have used. In Norway, the 26 university colleges were formed in 1994 through mergers of 98 existing colleges offering mainly teacher training, nurse training, and general engineering to bachelor's degree level (Kyvik, 2002). In the Netherlands, mergers between research-intensive universities and universities of applied science (*hogescholen*) have become a chief mechanism for creating flexibility and sustaining growth (Goedegebuure, 1989). Australia and the United Kingdom have also used mergers as key elements in major restructuring efforts to build larger and more comprehensive institutions (Harman and Harman, 2003).

Harman and Harman (2003) review the international evidence with institutional mergers, which they define as "the combination of two or more separate organisations, with overall management control coming under a single governing body and single chief executive". They identify, as particularly important drivers for mergers in higher education systems, pressures on governments to achieve:

- increased efficiency and effectiveness, especially to cope with rapid and substantial increases in enrolments and additional responsibilities for higher education institutions;

- action to deal with problems of institutional fragmentation and nonviable institutions;

- improved student access and greater differentiation in course offerings to cater for more diverse student populations; and

- increased levels of government control over the overall direction of the higher education systems, especially to ensure that institutions more directly serve national and regional economic and social objectives (Harman and Harman, 2003).

They note that mergers have also been used by individual institutions to address financial problems and external threats particularly those related to falling student demand and competition. In their review Harman and Harman (2003) offer a number of lessons from the international experience with mergers, including:

- Voluntary mergers generally work better than compulsory mergers, often triggered by external threats or some degree of government incentive, pressure or direction. Ideally all participating institutions should have some wins in merger negotiations.

- Mergers based on "unitary models" are usually harder to achieve than "federal models"[35] as they require institutions giving up more autonomy and blending of cultures but in the longer run work better in developing academic coherence and new institutional loyalty.

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35. In a "federal model", specified responsibilities usually remain with participating institutions, with an overarching or central body taking on other agreed responsibilities. Within the "unitary model", former participating institutions are not recognised as such and there is a single governing body, a single Chief Executive Officer and a single set of structures for governance (Harman and Harman, 2003).

– Educational authorities can play constructive support roles in merger planning and implementation through: articulation of merger goals and rationale; provision of advice, support and guidance to participating institutions; provision of funding incentives (such as grants to cover special merger costs and staff redundancies); and clarification of issues about staffing and salary levels.

– The chances of success will be enhanced if there is a strongly held shared vision of possible advantages and likely threats. Merger negotiations need strong, effective and creative leadership with sensitivity to cultural factors.

– Of great importance is the need to generate staff, student and community support for proposed mergers. This includes addressing issues of staff employment and the ability of students to complete the courses in which they are enrolled.

– Generally mergers work best if institutions that have agreed to merge can move as quickly as possible to merger implementation.

Finally, Harman and Harman (2003) stress that mergers are "by no means the universal panacea to deal with problems of systemic fragmentation, course duplication and non-viable institutions. Neither are they the sole policy levers available for system restructuring efforts." They conclude that "experience across national higher education systems demonstrates that no single set of restructuring and collaboration/merger solution suits all situations." Box 3.1 describes mergers in the Russian Federation with the creation of "National Universities".

Box 3.1. Mergers in the Russian Federation with the creation of *National Universities*

In the Russian Federation, the government is strengthening the capability of a number of national universities by merging existing institutions, as part of broader reforms to improve tertiary education. This initiative, in the context of the Priority national project "Education", aims at improving the ability of institutions to contribute to the social and economic development of the regions in which they are located.

The first national universities are being created in Krasnoyarsk (Siberia National University, which results from the merger of Krasnoyarsk State University, Krasnoyarsk State University of Non-Ferrous Metals and Gold, Krasnoyarsk State Technical University and Krasnoyarsk State Academy of Architecture and Construction) and in Rostov-on-Don (South National University, the merger of Rostov-on-Don State University, Rostov-on-Don State Pedagogical University, Rostov-on-Don State Academy of Architecture and Arts, and Taganrog State Radio Engineering University).

The merger process relies on a number of features: *(i)* the close partnership with local business communities and regional authorities; *(ii)* plans to expand the autonomy of institutions, including possibly their acquisition of corporation status; and *(iii)* the participation of local business representatives in the governing bodies of national universities.

3.2.5 Level of institutional autonomy

This Section outlines the nature and dimensions of institutional autonomy, a key factor in the governance of systems of tertiary education.

The nature of institutional autonomy

"Institutional autonomy is most commonly thought of as the degree of freedom the university has to steer itself, however, this common conception does not necessarily make the task of defining the term easier" (Askling *et al.* 1999). Mora (2001) highlights that "university autonomy cannot be considered as synonymous of collegiality". He defines

autonomy as the "right of the institution, not of its employees, to set its own objectives and manage its own affairs without interference from the State". Salter and Tapper (1995) argue that an analysis of autonomy should make a distinction between the autonomy of the individual institutions and that of their academic staff. The argument is that, in the past decade, the link between institutional and individual autonomy within the British university system has been broken. A decline in the autonomy of the academics has been matched by an actual enhancement of the autonomy of the universities as institutions.

Berdahl (1990) proposed to distinguish between two types of autonomy: procedural and substantive. "Substantive autonomy is the power of the university or college in its corporate form to determine its own goals and programmes – if you will, the *what* of academe. Procedural autonomy is the power of the university or college in its corporate form to determine the means by which its goals and programmes will be pursued – the *how* of academe" (Berdahl, 1990). In practical terms, substantive autonomy refers to the authority of institutions to determine academic and research policy such as standards, curriculum, programme offerings, research areas, staff policy, and awarding degrees. Procedural autonomy refers to the authority of institutions in essentially non-academic areas such as budgeting, financial management, or non-academic staff. To some extent, McDaniel (1996) incorporated Berdahl's approach with "his distinction of 'institutional management' (procedural) and 'academic affairs' (substantial)" (Braun and Merrien, 1999). Furthermore, McNay (1999) developed a model "depending on the degree of control over policy and of practice" that can be linked to procedural and substantive autonomy respectively.

Figure 3.2 provides an overview of the different aspects typically associated with institutional autonomy.

Figure 3.2. Aspects of institutional autonomy
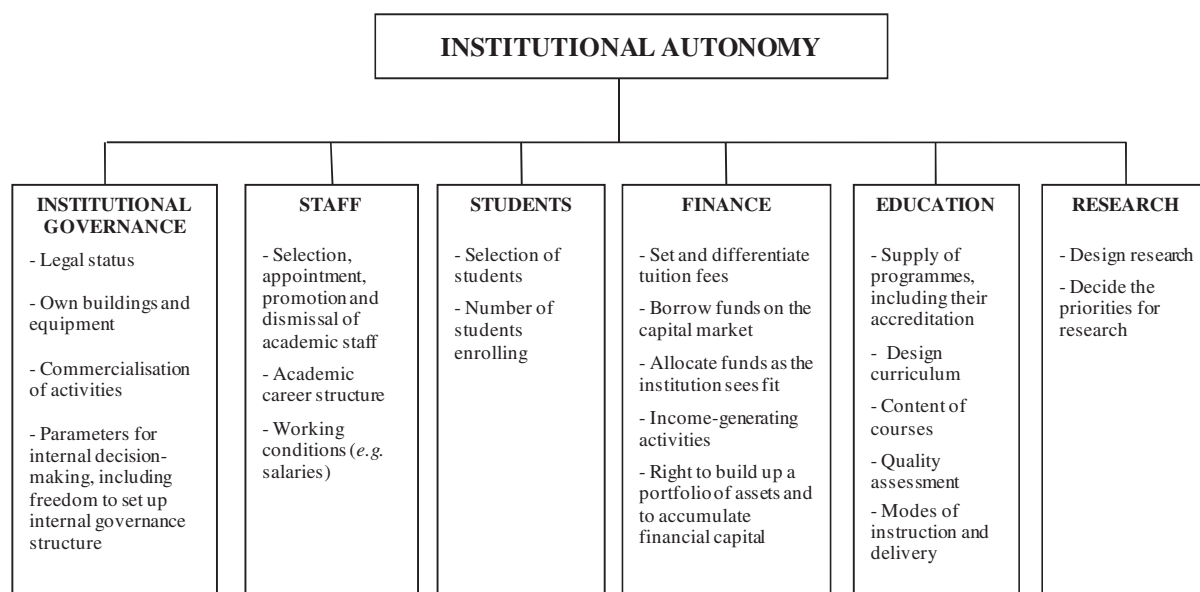
In some countries "autonomy" has a different significance because authority has been delegated to institutions' organisational units (faculties) more than to the institution. For instance, in Poland, in the largest public institutions, the autonomous management of funds, including public subsidies, is often the responsibility of faculties. These can raise their own funds and use them for their own development. This decentralisation of financial management within institutions might have some negative implications, since it often leads to disputes between the central administration and faculties and is likely to hinder the strategic development of institutions (*e.g.* creation/closure of organisational units, cross-faculty collaboration). In general, the distribution of decision-making responsibilities and the degree of (internal) institutional fragmentation are important factors conditioning the extent to which co-ordinated change in as well as of higher education organisations is possible or likely (Gornitzka, 1999) (see Section 3.6).

The legal status of institutions

An important aspect in the regulatory relationship between the State and institutions is the legal status of institutions. In broad terms, institutions can be considered either as a State agency or as a legal independent person. In the former case, institutions are treated in a way similar to other State agencies such as the National Statistical Office, abiding by public service regulations and being financed by the public budget. In some instances, they may be granted some specific status as a State agency.

Granting independent legal status to institutions[36]

Granting independent legal status (ILS) to TEIs is one means of giving greater autonomy to institutions. Having ILS means that the institution concerned is legally responsible for its functioning. One of its forms is that of a foundation.[37] A university foundation has four main defining features: *(i)* it is an independent legal entity; *(ii)* it has a mission (or charter or mandate) to serve defined public (or national or societal) interest in tertiary education and research; *(iii)* as a not-for-profit public interest legal entity, has favourable tax treatment on its incomes, assets and trading activities undertaken in the pursuit of its foundation goals; and *(iv)* it has the autonomy to raise funds and manage its assets in pursuit of the foundation goals. In its more extensive form, ILS may grant the rights to: borrow and raise funds; own building, equipment and other financial assets; fully control budgets to achieve objectives; set internal administrative and management procedures; set academic courses and evaluation procedures; employ and dismiss academic and other staff; set salaries and reward systems; set criteria and size of student enrolment; and set the level of tuition fees (Hasan, 2007).

University foundations offer a number of advantages for institutions to use their autonomy (Hasan, 2007):

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36.   This subsection is partly based on Hasan (2007).

37.   Independent legal entities in the education field can take many forms. They can be incorporated (*i.e.* they are a company) or unincorporated. In either case, they can be for-profit or not-for-profit. For example, all higher education institutions in the United Kingdom are legally independent bodies with a charitable status. Some are incorporated but not-for-profit. But a charity can trade and earn profit for its charitable aims and it can set up a separate non-charitable company for that purpose and be liable for tax on its profits.

- Institutional leaders have the maximum freedom to pursue their goals in the best fashion they see fit without external intrusion or constraint.

- Institutional leaders can plan with a long term view without being subjected to changes in government's budgetary policies yearly given that contributions made by the government are not part of the State budget.

- Bring opportunities for generating additional resources.

- Place accountability on the shoulders where responsibility rests.

However, there are a number of arguments against the foundation approach (Hasan, 2007):

- Running a foundation requires a new set of skills that the institutional leadership may consider difficult to acquire.

- A foundation approach implies a restructuring of internal management, which might be difficult to undertake.

- Staff may see the transition from a public service status to a university employee status filled with risks and uncertainties.

- There are concerns that a foundation status for universities is a form of privatisation where the government is giving up its responsibilities, and which can lead to full commercialisation.

- There are concerns about the feasibility of foundations, *e.g.* as a result of not high enough scale or sufficient expertise to run foundations.

- There are claims that foundations would create a two-tier system of first and second class universities.

A review of the international evidence by Hasan (2007) provides some insights into the conditions which might facilitate the successful setting up of university foundations. These conditions include:

- Foundation status should be voluntary. The key issue is the readiness and willingness of institutional leaders to exercise the independent legal status. The process of introducing university foundations should be a piece-meal rather than across-the-board imposition.

- The level of autonomy granted has to be meaningful.

- The transition to a foundation status requires support structures and arrangements (*e.g.* favourable tax treatment; philanthropy laws; provision of advice to assist foundations in developing strategic plans; expertise in asset management).

- A threshold of scale needs to be achieved, which may require co-operation and mergers between different institutions.

- A credible process of evaluation both external to the foundation and internal to the institution needs to be established.

3.2.6 Market-type mechanisms in tertiary education

This Section analyses market-type mechanisms in tertiary education. State authorities may choose to widen the market relationships in which institutions are engaged, by

granting more room for institutions to compete (*i.e.* deregulation) and by encouraging competition through, for instance, the authorisation for private institutions to operate. Recent policy activity in OECD countries has concentrated on the balance between government regulation and market-type mechanisms rather than the development of a private tertiary education sector as a substitute to the public sector.

Nature of market-type mechanisms in tertiary education

Formally speaking a market is a means of organising the exchange of goods and services based upon price, rather than upon other considerations such as tradition, or political choice (Dill, 1997). A market is a set of arrangements which allows buyers and sellers to communicate and thus arrange the production and exchange of goods, services or resources. A market mechanism is a means that facilitates the co-ordination between demand (consumer) and supply (producer). Market-type mechanisms can also be defined as "an enhancement of competition through more performance based incentives" (Kaiser *et al.*, 1999). Both buyers and sellers compete and their wishes are articulated through adjustments in the quantity and/or price of the commodity exchange (Amaral *et al.*, 2003).

When examining the dynamics of a particular sector such as tertiary education it is important to recognise that there is not a single market, but rather multiple and interrelated markets. There is a market for students (under-graduates, post-graduates, doctoral students), a market for research staff, a market for teaching staff, a market for research grants and scholarships, a market for donations, a market for graduates, a market for company training, and so on (Jongbloed, 2003).

Types of market mechanisms

Market-type mechanisms adopted by government can be specified as "policies that aim to establish or enhance the eight kinds of 'freedoms' for providers and/or consumers in the higher education sector" (Jongbloed, 2003). Jongbloed (2003) identifies eight conditions (essential ingredients) of markets:

– **On the side of the consumers:**

  o Freedom to choose provider

    Examples of market mechanisms which facilitate the choice of provider by students are: a system of vouchers which students can use in the institution of their choice; a well-developed student support system which makes tertiary education more affordable for students at the time of attendance; a support system covering students enrolled in any type of institution (portability of grants and loans); and the public funding of private institutions, which broadens the choice of students.

  o Freedom to choose product

    Most mechanisms which facilitate the choice of provider also strengthen the freedom to choose the product. Some institutions may present themselves as offering some room to choose specific configurations, specialisations, support facilities and individualised options in terms of combining learning, working and caring for a family.

o Adequate information on prices and quality

Market mechanisms lead to more efficient outcomes when information on the relative prices and quality of the services can be accessed and interpreted easily. Useful information might include consumer guides, evaluation reports, quality assessment reports, rankings, and performance indicators.

o A price which influences choice (i.e. functions as a market mechanism)

Charging realistic fees which bear some relation to the cost of providing the service urges providers to pay more attention to their customers and turns students into discriminating consumers. A deregulation policy which allows institutions to have a say in setting and differentiating fees could contribute to the goal of encouraging students to take into account price-quality trade-offs in their choice of programmes and institutions.

– **On the side of the providers:**

o Freedom of entry

Examples of policies which influence the entry of providers into the market for tertiary education services are: available public funding for new entrants (including from the private sector); accreditation processes to obtain a license to operate or to grant public recognition to degrees offered; authorisation of for-profit providers; and opportunities for mergers. Countries differ considerably on the extent of entry barriers, in particular for private institutions. In Spain, for instance, private universities must comply with rigorous rules regarding, among other things, the number of academic programmes offered, the student-teacher ratio, the proportion of full-time professors and their academic qualifications. By contrast, the only requirement in Chile for a new university to start operating is approval of its curriculum plans and programmes by an examining public university (Steier, 2003).

o Freedom to specify the product

Examples of regulations which affect the freedom for institutions to determine their offerings are: autonomy to license/accredit new programmes or to remove current programmes; availability of public funding for new programmes; autonomy to redeploy staff in line with a re-organisation of programme offerings; availability of curricular standards; and freedom to offer a diversity of modes of instruction and delivery (*e.g.* part-time; distance education).

o Freedom to use available resources

The scope for institutions to engage in market relationships is increased when institutions: have greater discretion in selecting students; are more autonomous in the management of their human resources; and benefit from greater autonomy in determining the deployment of financial means. Additionally, government policies may create legal opportunities and strong incentives for institutions to commercialise aspects of their core activities: research (*e.g.* licensing, patents, and start-up firms) and teaching (*e.g.* through the sale of training activities, distance education).

    o   Freedom to determine prices

> The scope of market mechanisms in tertiary education is considerably expanded if institutions: have a say in setting and differentiating their own fee levels; are allowed to set market fees for non-degree programmes. In particular, differentiated fees might be a stimulus for institutional diversity, programme differentiation and new forms of programme delivery. In general, countries have not permitted public institutions to set tuition fees on a market basis, most especially for domestic students studying for their first degree (see Chapter 4). However, in some countries fees for other students may be set on a market basis, including: non-degree students, international students, students pursuing advanced professional degrees, or students who are enrolled in seats at public institutions that are not funded by the State. Where tertiary institutions may be established on a for-profit basis (*e.g.* Japan, United States), tuition fees are characteristically set on a market basis.

The scope of markets in tertiary education can be widened through either deregulation efforts or through policies to increase competition between providers of tertiary education. A number of market mechanisms seeking to enhance competition among institutions have been introduced throughout the world, including competitive research grants, contract research, performance-based funding formulas for teaching and learning activities, and public funding on the basis of the number of students. In some systems, competition is seen as the main driver of change at the institutional level and at system level and as the prime instrument to bring about convergence between institutional initiative and national objectives. At the same time, institutional autonomy is seen as the latitude for the individual institution to devise a particular strategy to compete with other institutions for funding and to demonstrate excellence publicly (Thorens, 2006).

Rationale for introducing market-type mechanisms

There are a number of reasons for the introduction of markets and/or market-like forms in tertiary education systems. Foremost is a desire for economic efficiency understood as "value for money", particularly given the growing costs of meeting social demands for universal access to tertiary education (Williams, 1996). Also important is a desire to use market competition as an incentive for greater innovation and adaptation in tertiary education, than was thought possible through traditional forms of coordination relying on State control or professional norms. Authorities also anticipate that widening the scope of markets will induce, or compel, institutions to become increasingly flexible, resourceful, and "entrepreneurial." This is happening in a context where greater opportunities for commercialisation of knowledge now exist. Brunner and Uribe (2007) provide a comprehensive analysis of markets in tertiary education with an application to the Chilean system.

One can note that governments have adopted market-type mechanisms for various reasons to achieve different goals. As pointed out by Kaiser *et al.* (1999), the expansion of market-type mechanisms is intended 1) to generate more private resources (in light of public austerity); 2) to improve the quality of teaching; 3) to enhance responsiveness to the needs of society, the labour market and students; and 4) to increase productive efficiency.

Widened competition through expanded private provision

The authorisation of private institutions to meet enrolment demand that would otherwise go unmet in public institutions has been characteristic of "supply-constrained" countries in Europe (including the Czech Republic, Estonia, Poland, Portugal and the Russian Federation)[38] and Latin America (*e.g.* Mexico and Chile) (see Figure 2.5 in Chapter 2). In these countries, most of the new non-public institutions occupy a peripheral place, providing instruction for social science and business courses in which demand exceeds supply, or offering qualifications that are heavily vocational in orientation. Research activity and long courses, especially in the natural sciences, are rarely offered.[39]

In other countries, such as Japan and Korea, market-like mechanisms strongly influence tertiary education. The great majority of institutions are private; students choose institutions and institutions choose students in a market-like system where supply and demand are powerful forces; and many funding policies that exist – for example, the relatively small amount of governmental revenue in the system, the dominance of loans that enhance student/consumer choice – also enhance a market-like system. In this case, the government objective is to enhance the positive elements of markets.

The development of for-profit private tertiary education sectors in countries is a much more limited but growing phenomenon. In the 20th century, if for-profit education existed, it had a very small share of enrolments, was heavily vocational in orientation (more nearly "training"), operated at below the tertiary level, or in niches in which traditional public institutions were unwilling or unable to serve (*e.g.* working adults in part-time study, non-degree programmes). For-profit education was therefore non-competitive with higher education core. However, in the 21st century, legal and commercial changes are underway within the tertiary systems of OECD countries that may lead for-profit education to play a role that is directly competitive with some core aspects of tertiary education in some countries.

Legal changes in some OECD member countries have authorised the establishment of for-profit providers of tertiary education that may hold the status of university – either on a pilot basis as in Japan (2004), or by providing a full authorisation, as in New Zealand (1989), Australia (2000) or the United Kingdom (2004). In the United States there is the emergence of large, career oriented, degree-granting, institutions that are competitive with higher education core, through the consolidation of fragmented, traditional for-profits, and the development of large publicly-traded for-profit corporations. In the United States, the for-profit sector is the fastest growing sector of any institutional type. The strategic introduction of for-profit tertiary education has typically had as its aim the introduction of great flexibility and innovation in provision, thereby compensating for perceived gaps and inflexibilities in public provision.

Challenges associated with widened scope of markets

The literature has identified a number of risks associated with the widened scope of markets in tertiary education. To begin with, if tertiary institutions become deeply engaged in market relationships – particularly as these move from the periphery of their

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38. For an overview of the role and relevance of private higher education in Europe see Wells *et al.* (2007).

39. For example, in Mexico, 3.5% of enrolments in "mathematics and exact sciences" are at private institutions, while more than one-third of social science enrolment is at these institutions.

operation to their core research and teaching activities – the incentive of profitability may threaten their intellectual independence and integrity (see, for example, Bok, 2003). Income generation also bears the risk of the institution entering into direct competition with private businesses, consultancy firms or other commercial education providers. This may lead to concerns about conflicts of interest, unfair competition and market distortion, especially when commercial businesses argue that publicly funded institutions use government grants to engage in cross-subsidisation and under-pricing (Jongbloed, 2003).

Widespread challenges exist concerning quality and its assurance when the scope for competition, especially through expanded private provision, is large. Low barriers to market entry are seen as a risk of degrading quality. Countries with strong private tertiary education sectors, such as Japan and Korea, are placing tertiary education in a tight framework of nationally organised quality control, while de-regulating the institutions in order to encourage greater innovation, creativity and enterprise at institutional level. There is a case for regulation to assure that market failures related to information, transparency and quality are controlled.

Market competition might also be inefficient if, for example, there is a small number of institutions operating in the same domain (diversification of service weakens competition), or there is a lack of scale of institutions (potential inefficient use of some resources). There is also the risk that competitive pressures acting in the short term may be reconciled only with difficulty to the long-term interests of continuity in research. Another fear is that competition can drive up student costs (new fees and loan schemes), possibly hindering the access of low-income students (see, Massy, 2003, for the case of the United States). In order to bring efficient outcomes, market mechanisms also require the availability of extensive information to the main players such as prospective students, institutions and employers. Box 3.2 about the National students survey in the United Kingdom provides an example of a valuable resource for prospective students to make choices about what and where to study.

Box 3.2. National students survey in the United Kingdom

The National Student Survey (NSS, *www.hefce.ac.uk/learning/nss*) is a national initiative that has been conducted annually since 2005 under the auspices of the Higher Education Funding Councils for England and Wales (HEFCE and HEFCW respectively) and the Department for Employment and Learning of Northern Ireland (DEL). These bodies have a statutory role in ensuring that the quality of teaching in higher education is assessed, and they believe that students' views should form an important part of the assessment.

All students enrolled in under-graduate courses are surveyed in their final year of study, and are asked the extent to which they agree with a series of statements about their course. The questionnaire takes no longer than five minutes to complete and covers the areas of teaching, assessment and feedback, academic support, organisation and management, learning sources and personal development. In 2006 for instance, 56% of final year students from 145 institutions responded. Results indicated that over 30% of them definitely agreed and 50% mostly agreed that they were satisfied with the quality of their course overall. Only 10% mostly or definitely disagreed.

As well as providing useful information for prospective students, the NSS data show universities and colleges how they can improve the quality of their students' experience. A wide range of innovations and improvements were spurred by the results of the 2005 survey, including new facilities and student support schemes, extended opening hours for libraries and other services, new assessment and feedback systems, and more effective student consultation procedures.

Results of the NSS are available on the Unistats Web site (*www.unistats.com*), disaggregated by subject and institution. The Web site also allows users to generate comparisons across several institutions. The NSS provides a valuable resource for prospective students to make choices about what and where to study, and is also a powerful tool for institutional improvement.

3.2.7 Accountability

An increasingly important element in the governance of tertiary education systems is accountability. Whether located within the context of publicly funded tertiary education systems, or publicly supported systems, the demonstration of "value for money" or of "responsible and relevant activities undertaken with the taxpayer's money" are now widespread in most reviewed countries. This trend of greater transparency and public accountability develops alongside the move towards greater autonomy. It reflects the recognition that there is a public interest in tertiary education which needs to be reconciled with the benefits which institutional autonomy can bring. Areas where public interest is to be preserved include guaranteeing academic quality and standards; ensuring the equity of student admission procedures and the accessibility for students from poorer families; or ensuring an appropriate use of public funds within institutions (*i.e.* internal efficiency).

Accountability can take a number of forms, including:

– *Quality assurance framework.* Quality assurance systems not only serve the purpose of improvement but also of accountability (see Chapter 5).

– *Performance-related funding.* One approach to ensure that institutions focus on their performance is to allocate funding on the basis of some performance indicators (see Chapter 4).

– *Accountability through market mechanisms.* Accountability can be strengthened through the reinforcement of market mechanisms. For instance, for the case of teaching and learning, the idea is that the more students "vote with their feet" the more institutions will be held accountable (see Section 3.2.6 and Chapter 4).

– *Participation of external stakeholders in institutions' governing bodies.* External representatives provide advice and support for the institution to facilitate its contribution to society (see Section 3.6).

– *Information on institutional results provided publicly.* One way of demonstrating accountability is for institutions to publish performance measures, including measures of the quality of teaching and of research and the labour market outcomes of graduates (see Chapter 5).

There is no debate about the appropriateness of accountability. Yet there is debate about the growing burden of compliance and the detailed reporting associated with accountability. Institutions often stress an in-built tendency for detail and an over-emphasis on compliance rather than on getting on with the job. Accountability tools are often perceived as prescriptive and interventionist. Therefore the challenge is to find an appropriate balance between securing the public interest on the one hand and encouraging institutional autonomy on the other (see Section 3.3).

3.3 Steering TEIs: practices, trends, and drivers of change

In this Section we show that many countries have chosen to devise new structures of governance, permitting TEIs to exercise wider autonomy over their own finances and management. Others with a long legacy of institutional independence from educational authorities have opted to make institutions more accountable for the accomplishment of public purposes through the monitoring of their performance or outputs, and the establishment of performance reporting, performance contracts or similar tools of

governance. The result is reforms that simultaneously stress self-regulation, greater reliance on market forces, and institutional entrepreneurship while at the same time strengthening accountability, establishing new mechanisms for system coordination, and devising performance-based instruments. New approaches to governance in tertiary systems combine the authority of the State and the power of markets in new ways.

It appears that most OECD countries have increasingly converged around a *shared vision* of tertiary education policy, oriented toward a public policy framework in which detailed administrative direction is diminished, institutional autonomy widened, and accountability mechanisms strengthened. This pattern has been associated with a "facilitatory model" of relationship between tertiary education and government (Neave and van Vught, 1991). This vision has been embraced in a broad range of tertiary systems, including those in which publicly-managed and financed institutions predominate (or exist to the exclusion of others), and those in which private management and financing of tertiary institutions play a large role.

While this trend may hold across a wide range of countries, closer inspection reveals a much more complex and varied picture. In some countries more than one vision and practice of policy direction may exist, owing to the presence of different tertiary sectors that operate under entirely different policy frameworks, due to the division of authority between federal and sub-national authorities, or due to the sheer scale of the country and its tertiary institutions. For example, with 300 000 citizens, 18 000 tertiary students, and 8 tertiary institutions, Iceland's tertiary policy community is marked by personal acquaintance, common understandings, and a single set of public authorities operating within a single legal framework. Conversely, it is difficult to identify a single coordinated and integrated "system of tertiary education" in China, where an estimated 23 million students are enrolled in 1 731 "regular tertiary institutions", 73 of which are affiliated with the Ministry of Education – while the others are affiliated with other central government ministries; the education commissions of provinces, municipalities, and autonomous regions; or private entities.

Further, while a common vision of public management with respect to tertiary education may be broadly shared, actual policy practices and the trajectory of policy change vary widely. Political and legal traditions, constitutional arrangements, and styles of public sector management vary widely, as does the legal status and historical role of tertiary institutions (Neave, 2001).

Two broad patterns of change in public governance of tertiary education can be identified. First, there are tertiary systems in which institutions, chiefly universities, were legally State agencies, and were subjected to detailed administrative direction – though perhaps enjoying full substantive autonomy. Here there has been, generally, a widening and deepening of financial and managerial autonomy *vis-à-vis* the State. Elsewhere, in systems where institutions operated with a fairly high level of autonomy *vis-à-vis* the State, demands for heightened accountability and greater efficacy in contributing to public purposes have led to more extensive guidance by public officials, characteristically through tools that focus on institutional performance.[40]

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40. Herbst (2004) describes these trends as "contrasting developments." In his study of funding he notes, "In Europe and in countries shaped by European traditions, block grants are being used to extend the financial autonomies of institutions. These grants not only demand greater accountability on the part of institutions; they also frequently imply performance funding measures. Conversely, in the US the customarily looser strings which tie state and public institutions together are being tightened."

3.3.1 Pattern one: reducing State control and widening institutional autonomy

In a number of tertiary systems, the most significant governance trend has been the widening of institutional autonomy, from more discretion over the use of financial and physical capital to greater authority over personnel matters. This has characterised most European countries in the last two decades with tertiary systems moving away from detailed State control to more institutional independence (Eurydice, 2000).[41] This is likely to result both from the realisation that it would be both difficult and counterproductive to continue to exercise strict control in today's changing world (Neave and van Vught, 1994) and from a new approach to the management of institutions adopted in the public sector (Dill, 1997). Some of the governance innovations which are taking place are characteristically aimed at research universities, and may not extend to other tertiary institutions.

From State agency to legal person

Several examples exist of countries which have recently granted independent legal status to at least some of their institutions.

− Japanese incorporation of national universities (2003) (see Box 3.3).

− Austria's Universities Act (2002) granted independent legal status to universities. The Austrian example is characterised by an across-the-board implementation of full independent status for universities. Universities' autonomy was drastically expanded; universities are now free to decide on employment conditions, academic programmes, resource allocation without government approval (Sporn, 2002), and to borrow funds. The legal authority is exercised by a governing board made up of 5-9 members, with some appointed by the government. Academic personnel are university employees on private contracts (Hasan, 2007).

− Finnish government proposal for university incorporation (8/2007).

− Portugal approved new legislation allowing public universities to become foundations (New legal regime for institutions of higher education, approved in October 2007).

− Denmark's Universities Act (2003) granted *partial* independent legal status to universities. The law offered self-governance to the universities by recognising them as special administrative entities in public law. The universities were offered scope for enhancing their private funding without risking public funding. The main tools for budgetary allocation became development contracts and other supplemental contracts. The law offered more autonomy in areas such as the approval of new academic programmes and the number of staff. However, universities were not given the right to own and manage their estates and do not have the facility to borrow from the private sector (Hasan, 2007).

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41. Historically, Continental European universities developed under the Humboldtian tradition were granted significant substantive autonomy in areas of standards, curriculum and research. At the same time, universities were (and remain in some cases) subject to significant "procedural" controls in non-academic areas (OECD, 2006b).

Box 3.3. National and public university incorporations in Japan

Japan's tertiary education system comprises both public and private institutions. The public sector consists of national and local public universities which are established respectively by the national government; and prefectures or cities. While private institutions enrol by far the majority of under-graduate students, national institutions play a significant role in research and post-graduate education. Since the establishment of the first national university in 1877, Japanese national universities have been operating as public agencies and academics have held civil servant status.

In 2004, the government decided to remove national universities from the governmental legal framework as part of a broader restructuring of the Japanese economy and society. National universities became "national university corporations" with a view to increase their autonomy and responsible independence. The incorporation of national universities was accompanied by legal changes to ensure that the internal decision-making effectively utilised the expanded autonomy of universities. To this aim, management systems were strengthened with a strong President heading the institutions, external participants were introduced in ranks of trustees, and the civil service status of academics was discontinued. On the other hand, each national university corporation obtained the ownership of its lands and buildings, and was granted responsibility and autonomy with respect to expenditure.

Increased competitiveness and enhanced accountability in research and education are expected from these reforms, and an Evaluation Committee has been established to monitor the implementation and impact of the changes in each of the national universities.

In addition, public universities established by the prefectures or cities can also become independent agencies since 2004 on the judgement of their prefecture or city. As of 2007, 33 public university corporations had been constituted.

Source: MEXT (2007), OECD/IMHE (2007).

No change in the legal standing of tertiary institutions as State entities, but substantial delegation of operating autonomy

In other countries with a tradition of detailed State regulation, there was no change in the legal standing of tertiary institutions as State entities but a shift from direct administration to substantial delegation of operating autonomy. Examples are:

– France, *contractualisation in universities* (see Box 3.4).

– Sweden, the 1993 *Higher Education Reform* with a transition from a "State control" model to "State supervision", with expansion of institutional autonomy and the introduction of governance by goals and results. The reform gave institutions greater discretion over the organisation of programmes, educational offerings, institutional organisation, and internal resource allocation (Askling *et al.*, 1999; Bauer *et al.*, 1999).

– Norway, the "Quality Reform" legislation of 2002 and 2005, which has considerably increased institutional freedom to introduce or remove courses and programmes.

– The Czech Republic and Poland, which after 1990 quickly handed over to the TEIs not only financial autonomy but with it, the responsibility for planning their broad mission, their strategic future and their programme offerings. In the Czech Republic the Higher Education Act of 1998 changed the legal status of TEIs from State to public institutions with important implications such as the transfer of infrastructure property to institutions and the establishment of boards of trustees.

Box 3.4. Contractualisation in universities in France

While French universities legally have pedagogical, scientific, administrative and financial autonomy, the French State has kept important prerogatives such as allocating employment positions to universities, as well as establishing, regulating, and funding higher education institutions. In this context, the system of 4-year contracting which has been operating for 15 years has allowed universities to gain more practical autonomy. Institutions propose a project to the State and negotiate the means to implement it. The institution commits itself to a plan of action to achieve quality improvements in return for extra-budgetary financial resources. In practice, this implies that some of the prerogatives of the State – including on budget and employment positions – can be partly delegated to the institutions

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Drivers of change

The primary motivation for granting greater autonomy to institutions is to improve the responsiveness of TEIs to national and societal demands. A number of impetuses for change are:

– Perception that countries will more fully benefit from the innovative capacities of universities if they shift from State agency to "entrepreneurial university" (Clark, 1998). State controls are perceived as running the risk of creating inflexibilities and damaging the capacity for innovation. There is also the view that decisions are best taken by those who are specialists in the subject and closest to the action. More autonomy is also seen as giving the possibility of creating a distinctive institutional profile.

– Response to a new political context marked by sustained public budgetary pressures and an anti-regulatory orientation, which, in combination, constrain the possibility of funding increases to tertiary education, while at the same time challenging the traditional role of the State *vis-à-vis* tertiary institutions.

– The desire for greater efficiency which should follow from devolution, especially speed of decision-making.

– A greater realisation that the State does not have the planning capacity to provide direct micro-management to individual institutions, especially in expanded systems.

– The concern that institutions as State agencies lack the incentives and capacity to commercialise research, or to effectively compete for international researchers or research funding.

In their analysis of European higher education, Aghion *et al.* (2008) conclude that a key condition for Europe to foster the emergence of world-class universities and maintain a competitive higher education sector is that the degree of autonomy of universities from public authorities, on average, increases considerably. The authors argue that the European system of higher education "will be better and more vibrant if it is open to the free play and interaction of self-set strategies on the part of universities."

Challenges associated with change

Whilst there is emerging consensus that in many instances more autonomy is desirable, there is concern as to whether institutions will be able to manage it effectively, and this raises issues of:

- robustness of internal management at various levels *i.e.* in some countries, the grafting of elements of a managerial culture on to the existing collegial and professional bureaucracy cultures. Institutions need capacity and, in particular governance and management arrangements, to effectively exercise their autonomy.

- appropriate governance and interface mechanisms with the external environment.

- swift response processes with regard to external initiatives and overtures.

- a strong risk assessment function in the face of multiple opportunities.

3.3.2 Pattern two: from subsidy to steering

In systems where institutions have by law and custom been substantially independent of State authority, emphasis has been place on how to make institutions more accountable for the accomplishment of public purposes through the monitoring of their performance or outputs, and the establishment of performance reporting, performance contracts or similar tools of governance. These policy practices can be found in the Netherlands and "Anglo" systems (Australia, Canada, Ireland, New Zealand, South Africa, United Kingdom and United States), among others (Rowland Eustace, 1982).

The example of New Zealand is illustrative. McLaughlin (2003) argues that the tertiary system in New Zealand went through distinct periods of change focussed on different themes. From 1990, competition and private contributions were introduced with the objective of broadening participation. This can be seen, apart from a political-ideological change, as a reaction against the up to then prevalent elite characteristics of the system. This direction of policy change continued during the 1990s with emphasis on market-like competition, student choice (diversity) and an emphasis on private returns to tertiary education. From 2000 onwards, while maintaining the general thrust of competition and markets, the emphasis shifted more towards governmental steering in an attempt to closer align tertiary education with New Zealand's socio-economic development.

Steering can be relatively complex and involve a large number of actors. In New Zealand, the main agencies are the Ministry of Education, the Tertiary Education Commission (TEC), the New Zealand Qualifications Authority (NZQA) and Career Services Rapuara. TEC, NZQA and Career Services are so-called Crown Agencies with their boards appointed by the Minister. TEC is a combined policy/implementation agency, involved in institutional capacity building, overall policy advice, and allocation of government funding. NZQA provides overarching quality assurance, administers the national qualifications framework, registers private providers and evaluates overseas qualifications. The main instruments are the Tertiary Education Strategy (TES) and the institutional investment guidance statements (see Box 3.5). Governance operates as follows. The cornerstone is formed by the TES, which is derived from the country's national development goals. Through the TES the basis for articulation of national goals and priorities into institutional actions is laid. The central view of priorities – related to things that government knows – is balanced against a bottom-up view gained by creating the expectation that each TEI will work with its local or national stakeholders to determine what is required at a more detailed level. The TEIs produce a plan, for approval by the TEC, which responds to both these sets of priorities. This involves multi-year funding, with the duration of funding approval dependent on the institution's performance

and its contribution to the national priorities. The resultant is a rather unique mix of central steering within an overall context of market-oriented dynamics.

State supervision is also evolving into elaborate systems of incentives and sanctions that allow governments to "steer from a distance" (CHEPS, 2006). A wide range of tools that focus on performance are being implemented, including:

- Performance indicators (Cave *et al.*, 1997).

- Performance-related funding (Herbst, 2007).

- Negotiated performance contracts (*e.g.* Iceland).

- Investment planning (*e.g.* New Zealand, see Box 3.5).

Box 3.5. Governance, steering and planning (investment planning) in New Zealand

In New Zealand, the government sets out national goals and priorities for the tertiary education sector every five years in the Tertiary Education Strategy (TES). Institutions use the TES and information derived from their stakeholders to determine what is required at a more detailed level. Institutions then produce an investment plan that responds to both these sets of priorities. The investment plan outlines the institution's strategic direction, activities, policies and performance targets and explains how the institution expects to contribute to the achievement of the TES priorities. Institutions' investment plans and their performance against a variety of performance measures are discussed with the TEC. This leads to the allocation of government funding to tertiary institutions by the TEC. The TEC uses investment plans, performance monitoring and accountability tools to steer institutions towards the TES priorities.

From a policy analytical perspective, the concept of the TES-investment plan-performance report cycle provides the opportunity for systematic coordination, the articulation of national priorities into institutional priorities and the possibility of translating and relating this to the fundamental concept of systemic and institutional diversity. The investment plan approach appears well-suited to the dynamic policy environment characteristic of New Zealand.

Drivers of change

A number of factors lead the State to reinforce its steering of tertiary education:

- *Embrace of "evaluative State" paradigm by political leaders.* Neave (1988, 1998) has characterised the "evaluative State" as an emerging mode of system control for tertiary education in which State administration of universities is giving way to more "remote steering at a distance". In this view new responsibilities and managerial freedoms are being laid upon institutions by governments, including for attaining certain elements of national strategic planning, which require a commensurate increase in *a posteriori* external accountability and evaluation (as summarised by King, 2007).

- Need to better balance autonomy and accountability.

- Desire to mobilise a performance culture to break down old scholarly privileges and university bureaucracy.

- Attempts to meet intensified international competition, *e.g.* in worldwide market in elite doctoral education.

Challenges associated with performance-based steering regimes

Examples of challenges with performance-based steering regimes are:

- Those who lead and work in tertiary institutions may perceive performance-based steering as an approach that jeopardises institutional autonomy. Tools that focus on performance are sometimes alleged to be highly prescriptive and interventionist.

- Successful implementation of performance-based steering requires of public officials data and analytic capacities which they may sometimes not adequately possess; likewise, institutions may lack integrated information management systems or administrative capabilities.

- Because of the intelligence of its constituent parts, institutions of tertiary education are not easy to steer. Crude measures do not work and even the more sophisticated instruments run the risk of being perverted or used for other purposes than those intended.

- There is a risk of creating, unintentionally, a kind of compliance culture in the institutions.

- Activities and outcomes that are poorly measured – such as teaching quality and learning outcomes – may be given less attention.

- Performance-based systems that concentrate resources in high-performance institutions may jeopardise common degree standards across like institutions and degrees.

3.4 Diversifying tertiary education systems: practices, trends, and drivers of change

During the past decade in a majority of the countries under review government policies have encouraged diversification of tertiary institutions and/or programmes. Faced with the growing diversity of societal and student demands, some governments have responded by creating new more vocationally-oriented non-university institutions, giving them a leading role in the training of a skilled workforce. Elsewhere, policies have encouraged wider differentiation within an unitary system through the encouragement of competition among institutions that vary in mission, reputation, price, and ownership.

Few studies have investigated approaches to diversification of tertiary education systems (Meek and Wood, 1998). Some studies suggest that government intervention limits the diversity of the tertiary education system, and greater institutional freedom produces more diversity (Birnbaum, 1983). Other studies indicate that government regulations are necessary to promote and protect differentiation (Skolnik, 1986; Huisman and Morphew, 1998).

Drivers of change

A number of motivations for diversification of tertiary education are:

- Making tertiary education systems more responsive to the needs of the economy and labour markets. Policy makers anticipate that a highly diverse tertiary system will better respond to the needs and preferences of society and lead to social benefits and economic growth (Dill and Teixeira, 2000).

- Responding to the needs of a pool of prospective students which is larger and more varied with respect to social backgrounds, academic preparation, and aims. This holds not only for students coming from secondary school but also for

individuals in the labour force requiring continued training. The latter group is likely to grow as the result of sharp ageing populations in some countries. In addition, growing numbers of international students lead to new demands on national systems (see Chapter 10).

– Widening access to tertiary education and promoting social inclusion (see Chapter 6).

– Providing highly-qualified professional education (see Chapter 9).

– Addressing regional needs and foster competition (see Section 3.5).

Two broad patterns of diversification in tertiary systems can be identified. Some countries went for the creation of more vocationally-oriented non-university institutions. Other countries opted for unitary systems where the emphasis is on enhancing diversification in terms of mission and reputation through competition among institutions of a similar type.

3.4.1 Pattern one: creating more vocationally-oriented institutions

In order to introduce differentiation in their tertiary systems, some countries opted for segmenting institutions in a number of well-identified types. Firm lines are established across sectors while uniformity is intended within each sector. In recent decades, examples of new sectors within non-unitary systems include:

– University Colleges in Norway;

– *Instituts Universitaires de Technologie* (IUTs) in France;

– Polytechnics in Finland and Portugal;

– Professional higher education institutions (*rakenduskõrgkool*) in Estonia;

– Technological universities and technological institutes in Mexico; and

– Professional Institutes and Technical Training Centres in Chile.

Challenges associated with the creation of vocational sectors

The creation of vocational-oriented sectors raises a number of challenges:

– *Avoiding "academic drift"*. Perhaps the most obvious challenge is the pervasiveness of "academic drift". The term refers to the widespread, persistent and inappropriate aspiration of more vocationally oriented institutions to emulate the mission and practices of established and generally "elite" universities (see for example Raffe *et al.*, 2001). The causes of academic drift are complex, but usually include the social and cultural status attributed to older universities and their members (staff and students); the more generous resourcing available to elite and research-oriented universities; and the "trickle-down" effect of academic staff recruitment: most staff in all but the most prestigious institutions are likely to have obtained their qualifications from an institution higher in the academic hierarchy than their present place of work.

– *Avoiding fragmentation of subsectors*. A concern is that rather strong barriers might be established between universities and vocationally-oriented sectors. These barriers might be visible in research (*e.g.* lack of networking between

universities and non-universities) and in teaching (*e.g.* reduced multidisciplinarity; lack of effective recognition of learning across institutional sectors affecting mobility within tertiary education). The potential weakness of such approach to diversity is also that it can lead to an unhelpful and uncoordinated provision lacking an overall "steer" which would optimise the benefits of the entire system to society.

– *Defining the vocational orientation of an institution*. The vocational/professional – academic differentiation might be conceptually blurred given the possible existence of well established professional disciplines in universities. All tertiary sectors are also now well engaged in community-oriented activities. Moreover, internationally the theory-practice separation is at the very least questioned.

– *Defining the role of non-universities in research*. In most countries, there is generally a lack of a clear vision on the research role of non-universities. The challenge is to develop a vision and appropriate framework for research development in non-universities so they best serve their mission.

3.4.2 Pattern two: encouraging wider differentiation within a single institutional type through competition among institutions

An alternative to diversify tertiary education is through universality in institution type while relying on competition across institutions to bring variation in institutions' missions and profiles. Institutions of a similar type can be differentiated across a wide range of dimensions, including:

– Student selection;

– Degrees awarded;

– Programmes offered;

– Type of research;

– Price; and

– Extent of engagement with surrounding community.

Binary university systems were abolished in Australia and the United Kingdom.[42] In these two countries, the immediate tendency was the convergence around the single template of research university, comprehensive across fields of study. Arguably this foreshadowed a larger number of research intensive universities than either nation needed; and in fact both national systems contain a substantial number of universities in which doctoral training and basic research are not fully established in all fields. The British Research Assessment Exercise and the current Australian policy of fostering greater diversity through university-driven missions now point towards a pattern of more complex and diverse specialisations within the national system. In both nations several types of institution have emerged on an informal basis with self-managed groupings. For

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42. In Australia, the "binary division" between Colleges of Advanced Education and Universities was replaced by a "Unified National System" in the late 1980s. However, tertiary-level vocational education is also provided by the Technical and Further Education (TAFE) sector. The binary line, the distinction in mission between universities and polytechnics, was abolished in the United Kingdom in 1992. All polytechnics and some colleges of higher education have since obtained university status.

example, in Australia, over the past decade there has been an increasing tendency for universities which are similar to form groups or consortia. These serve a number of purposes including advocacy on behalf of the group, sharing good practice and benchmarking. There are three formal groups of universities – the Group of Eight (the older, research-intensive universities), the Australian Technology Network and the Innovative Research Universities. Some regional universities comprise a less formal grouping.

In Iceland, government policies have encouraged competition among institutions with the aim of promoting diversity in tertiary education. Private institutions are now eligible for public funds after meeting general criteria, and new institutions have been elevated to the university level.

Challenges associated with widening differentiation within a single institutional type

Achieving diversity within the framework of the single institutional type raises a number of challenges:

- − There are concerns about whether one type of institution can perform at a high standard in meeting social obligations of tertiary education: promoting social inclusion, producing world-class frontier research, providing highly-qualified professional education, and working closely with small and medium enterprises.

- − Funding mechanisms have to be reconsidered in systems where universities don't all have the same capacity to undertake research activities (*e.g.* Australia, Iceland, and United Kingdom).

3.5 System linkages

One of the biggest challenges that tertiary education is facing – and to a large extent, already addressing – is to step out of its traditional ivory tower and outreach towards its environment. To this aim, linkages need to be built and/or strengthened not only within increasingly diverse tertiary systems, but also up and downstream with upper secondary education and the economic world, as well as with the surrounding regions and communities in which TEIs operate.

3.5.1 Linking tertiary education up and downstream with secondary education and working life

The past decades have seen a rapid expansion of tertiary education participation, driven by the demands of a growing, upwardly mobile (or at least upwardly aspiring) population (see Chapter 2 and Johnstone *et al.*, 1998). The corollary is a change in patterns of tertiary education participation with a growing diversity of student populations in terms of age, socio-economic background, basis for admission, mode of attendance, aspirations and academic abilities. Meanwhile, the demands placed on TEIs have also evolved as the transition to knowledge economies heightens the need for multidisciplinary and adaptable workers, the regular upgrading of their skills, and thus less traditional demands for tertiary training, with greater emphasis on flexible and modulated provision.

These trends have implications at the system level in terms of how regulations, policies and incentive and reward structures can steer all actors in directions that best serve societal and economic objectives. Close linkages with upper secondary education – which feeds students into tertiary education systems –and with the economic world – in which they are ultimately to work – are important to ensure that changing demands for tertiary education are accommodated and that all students are given the opportunity to thrive, while meeting the needs of the economy.

Accommodating changing demands for tertiary education

Growing diversity of learners

Whilst tertiary education has long been the privilege of small elites, the dramatic expansion of participation over the past three decades has overhauled the makeup of student bodies and meanwhile, their aspirations and expectations of tertiary education. Indeed, nearly one third of the population now attains tertiary education across the OECD, up from only 19% three decades ago (OECD, 2007a). Other noteworthy trends include the increased participation of females, mature students and those from less privileged socio-economic backgrounds (see Chapters 2 and 6).

Illustrating this evolution, students commencing under-graduate studies in Australia are admitted via a wider range of pathways than just four years ago. In 2005, those undertaking tertiary education directly after upper secondary school completion comprised only 42% of the total. Others had followed less traditional pathways and included students with a previous tertiary qualification (25%), students from tertiary vocational courses (10%), as well as lesser numbers enrolling with professional qualifications, employment experience, mature age entry *etc.* (Martin and Karmel, 2002). Likewise, the growing participation of mature students means that more students have family responsibilities making it more difficult for them to follow traditional modes of full-time attendance. As an illustration, a 2005 study on the living conditions of students in Norway found that 39% of them were living with a spouse or partner while 22% had children at home (Ugreninov and Vaage, 2005).

Adjusting provision

Student bodies have thus become much more heterogeneous than in the past in terms of educational backgrounds, constraints for attendance and expectations. The expansion of tertiary education has implications for policy as tertiary education systems need to adjust to accommodate a wider spectrum of students. As put by Figgis and Parker (2002):

> *"Governments need to think holistically about education, as they strive to provide a system which will prepare people to participate in the knowledge based economy – a system which must accommodate a cohort of increasingly wide diversity, an ageing society, the pervasiveness of ICT, shifts in the labour market and technological change. In this kind of environment, linear, hierarchical concepts of knowledge and skills are beginning to be questioned. Such questioning has far-reaching implications for how education credentials are acquired and will function in the future."*

As clients are becoming more diverse, provision needs to adapt. The traditional mode of full-time and campus-based attendance is ill-suited to the needs of adults and lifelong learners, who often undertake tertiary studies while working and supporting a family. In this context, part-time and credit-based offers, evening classes, and the range of distance modes of delivery are gaining in importance. As a matter of fact, the increased participation of adults and mature students in Australia has translated into a growing proportion of students enrolled other than full-time and on campus. TEIs thus need to develop more flexible modes of tertiary education delivery.

Flexibility is also required in terms of programme offer. The needs of an increasingly competitive and technologically-sophisticated economy call for diverse responses from the tertiary education sector (Johnstone *et al.*, 1998). Rapidly changing skill requirements in working life create a strong demand for lifelong learning and skill upgrading – in the form of short-cycle offerings and industry training. As put by Jacobs and van der Ploeg (2006), individualisation and increased heterogeneity is an inexorable trend. The need for a skilled labour force has also led many governments to extend tertiary education opportunities to wider groups of students, including those coming from vocational pathways.

Country experiences suggest two main strategies to help governments achieve these goals. The first one aims at better articulating tertiary education upstream with secondary education. Meanwhile tertiary education also needs to be responsive to changing demands from the economy.

Articulating secondary and tertiary education for successful tertiary study

A challenge for tertiary education policy lies in bridging the gap between upper secondary and tertiary education. Indeed, one corollary of the massive expansion of tertiary participation is a high level of non-completion of tertiary programmes by students. In the OECD, three out of ten new entrants in tertiary education fail to successfully complete their degree on average (OECD, 2007a). Dropout is not necessarily an indication of students' failure to meet the standards set by their TEI. It may also result from their realising that they have chosen the wrong subject, or finding attractive employment before completing their degree. Irrespective of the underlying reasons, student abandon might be an indication that programmes did not meet their needs or expectations, and as such, constitutes an important source of internal inefficiency of the system (see also Section 4.11).

This lays the agenda for policy makers, in enhancing the system's ability to achieve successful tertiary study for a diverse range of learners. In doing so, a key barrier results from the possible disconnection between upper secondary and tertiary education. There are organisational reasons to this potential situation: insofar as these stages of education are often governed by different ministries coordination of educational pathways and curricula may be undermined. There is therefore a need for mechanisms to better articulate secondary and tertiary education so as to enhance tertiary outcomes and the system's internal efficiency. In this respect, efforts may be directed in several directions, including student information and career guidance, articulation of upper secondary and tertiary curricula, tracks between vocational secondary education and tertiary education, as well as bridging and remedial programmes.

Information and career guidance

The first mechanism by which study completion may be enhanced lies in improving student information at the upper secondary level, so that students' enrolment decisions and choices of subjects reflect their needs, expectations and abilities. Indeed, as institutions become more differentiated, the number of courses to choose from increases, and courses become more differentiated in content between TEIs, the need grows for information and advice to help young people decide what and where to study (OECD, 2004; OECD and the European Commission, 2004). Asymmetries of information between insiders and outsiders of the tertiary education system all too often lead students along the wrong tracks, incurring large costs in terms of motivation, self-confidence and wasted time and financial investments. This risk is particularly high for students from low socio-economic background who cannot rely upon parental guidance and advice (see Chapters 4 and 6). According to Orr (1998, 1999), what is needed is much stronger communication and collaboration between secondary and tertiary systems to help students understand what they need to know and be able to do to achieve the ambitions that so many have. Information on available tertiary education opportunities is not sufficient, prospective students also need information on the ability requirements, demands and labour market outcomes of various programmes to make informed decisions and limit the odds of choosing the wrong track.

To a large extent, information and career guidance at the upper secondary level are out of the realm of tertiary education policy. However, tertiary education authorities may facilitate initiatives that enhance transparency for prospective students, *e.g.* launch national student satisfaction and graduate destination surveys, support the development of guides or Web sites providing comparative information on courses and programmes, or encourage joint initiatives of upper secondary and tertiary institutions such as open doors days at TEIs. An interesting initiative in this respect is the *Unistats* Web site developed in the United Kingdom which publishes the results of an annual survey of final-year students' satisfaction (see Box 3.2). Australia, Finland, Korea, Mexico and the Netherlands have similar online portals aimed at prospective students while a number of countries taking part in the review have launched graduate destination surveys (see Chapters 6 and 10 and OECD, 2004). With respect to cooperation between upper secondary and tertiary institutions, many Australian universities have developed initiatives to bring school students onto university campuses, highlight the value of higher education, and link school students with university student role models. Likewise, some TEIs have established links with upper secondary schools and deliver lectures or seminars in China and Poland, although those initiatives remain limited. In Finland and Sweden, such cooperation is established by law as a way to reduce the socio-economic bias in recruitment.

Articulation of secondary and tertiary curricula

Another policy lever available to governments to increase students' survival rates in tertiary education consists in enhancing the alignment of upper secondary and tertiary curricula, so that upper secondary graduates are well-equipped to thrive in their tertiary studies. Indeed, Adelman (1999) has found in the United States context that the strongest predictor of bachelor's degree completion was the intensity and quality of students' high school curriculum. Countries have adopted two main mechanisms to better articulate upper secondary and tertiary curricula. The first approach relies upon tertiary entrance

examinations to steer upper secondary curricula towards tertiary requirements while a range of other approaches target the upper secondary curriculum directly.

In countries where a national examination confers eligibility to enrol in tertiary studies, the subject content being assessed can have a wide-ranging impact on the curriculum being taught in upper secondary schools. In China for instance, the *Gaokao* – the national entrance examination for tertiary education – is a crucial step in the life of every student as well as an important event in the family. In practice, the success rate of students has become a benchmark in assessing the quality of their school by society and as a result schools tend to shift the course content of the final year of upper secondary education in the direction of the test requirements in an attempt to prepare students as well as possible. This pattern – which may be seen as disruptive if the assessment requirements diverge from desired knowledge and skills – also has great potential for steering upper secondary curricula in those countries where government authorities have a say on minimum admission requirements (see Table 6.2 and Chapter 6). Portugal illustrates this strategy. In the face of persistent questions about the quality of entering students, the government reintroduced national examinations at the end of upper secondary education in the late 1990s and established minimum marks to gain eligibility for tertiary education in 2003 in order to raise entrance standards. This policy move is expected to foster co-ordination and improve linkages between upper secondary and tertiary education. Likewise, Wojcicka (2004) reports that in Poland those linkages have been enhanced through the replacement of the *matura* and university entrance examinations by a single exam (*new matura*) based on transparent standards developed as a collaborative effort between upper secondary schools and TEIs.

Using tertiary entry examinations as a way to steer upper secondary curricula towards desired content may also be an option in systems with no formal national upper secondary leaving examination. Indeed, Orr (1999) found evidence in the United States context that the policy of some community colleges to report applicants' scores on entrance examinations to their high school of origin had caused great surprise among high school teachers who were surprised to learn how poorly their students had performed on the tests. These results suggest interesting avenues for policy, as TEIs may be encouraged to communicate the results of their entrance selection processes to upper secondary schools as a way to stimulate dialogue on curriculum content and requirements.

The second channel used to enhance curriculum alignment between upper secondary and tertiary education consists in direct intervention on the upper secondary school curriculum. In countries where a national or State upper secondary curriculum exists, involving tertiary academics in curriculum design or reform is an obvious option. This approach is used in Australia and Croatia where university academics are involved in advising on school curriculum and assessment processes. Likewise, changes in the United Kingdom's upper secondary school curriculum are discussed with both schools and TEIs.

A third approach has been to revise upper secondary curricula to better prepare upper secondary graduates for tertiary studies. In the Netherlands for instance, policy measures have focused on shifting teaching methods from passive to active learning, as a way to build information gathering skills among future tertiary students.[43] In Norway and Sweden the general education content of upper secondary vocational curricula has been

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43.   There is substantial debate going on in the Netherlands as regards the pros and cons of this shift. Indeed, information gathering skills seem to dominate at the expense of discipline-related content.

expanded, while in New Zealand, the government supports a national *Curriculum Alignment Project*.

Some countries have also introduced extension programmes offered by TEIs to upper secondary students. According to Figgis and Parker (2002), this increased interest of TEIs and upper secondary schools for such arrangements partly reflects the worldwide trend towards framing all education in terms of lifelong learning with a concomitant blurring on boundaries between sectors. Dual enrolment programmes allow high-school students to enrol in a tertiary course prior to graduation, giving them first-hand exposure to the requirements of tertiary-level work while gaining tertiary credits. Traditionally, these programmes have been reserved for high-achieving students, but some educators encourage their spread to middle and low-achieving students given the potential impact of advanced coursework on student motivation and future success in tertiary education (Rogers and Kimpston, 1992; Adelman, 1999; Figgis and Parker, 2002; Bailey *et al.*, 2002). Extension programmes are found – albeit not on a systematic basis[44] – in Australia, China, the Netherlands, Norway and Sweden where upper secondary students may complete their final project or participate in research projects at a TEI.

Finally, other countries have developed programmes to facilitate extra-curricular acquaintances with tertiary education. For instance, the programme "*Ciência Viva*" in Portugal aims at developing interest in science and technology among upper secondary students (*www.cienciaviva.pt*).

Introduction of bridging and remedial programmes

Linkages between upper secondary and tertiary education also exist through the provision by TEIs of foundation, preparatory, bridging, repair and remedial programmes – depending on local terminology – for some groups of upper secondary graduates. Bridging education programmes are designed to assist students in developing the skills necessary for success in tertiary study. These programmes have been advocated by a number of educators as a way to enhance the preparation of tertiary entrants for tertiary studies and improve their performance (King and Kyle, 1993; Ramsay *et al.*, 1998; Högskoleverket, 2005). They have become increasingly popular and common in countries such as Australia, Belgium, Chile, the Czech Republic, Estonia, the Netherlands, New Zealand, the Russian Federation, Spain and Sweden.

In several countries these bridging programmes are part of the broader equity agenda, and aim at broadening recruitment to tertiary education, and at reducing dropout of students at risk, by virtue of their previous educational pathway, socio-economic background, minority membership *etc.* (see Chapter 6). In Sweden for instance, TEIs have been allowed to offer bridging programmes since 2002. They are typically offered in partnership between a TEI and an adult education or a folk high school, and intend to provide students with eligibility for enrolment as well as allow them to familiarise with tertiary education. Participants study at the upper secondary level for 20 weeks in order to acquire eligibility. For the remaining 20 weeks students are given the opportunity to try out advanced study. Likewise, Chile concentrates State support for remedial initiatives on institutions and study programmes attended by students with the greatest academic deficiencies. Equity considerations are prominent in Australia and New Zealand, while first steps on this issue have also been taken in the Czech Republic in recent years.

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44. In Australia, 23 of the 37 universities that took part in Figgis and Parker's study had put in place one such programme in 2002 (Figgis and Parker, 2002).

Bridging programmes have often emerged at the initiative of individual TEIs – as is the case in the Russian Federation – but are increasingly integrated in government tertiary education policy through financial support. In Belgium for instance, a 2004 decree on study financing entitles every student who qualifies for study financing to be supported financially for a bridging and a preparation programme. Bridging programme initiatives also receive public support in Chile, Estonia and Sweden.

Promoting tracks from vocational secondary education to tertiary education

Several countries have taken steps to eliminate educational dead-ends in upper secondary vocational education since the 1990s, as a way to lay a better foundation for lifelong learning. This has involved tackling the barrier of study progression beyond upper secondary vocational education, and making it easier to progress from these programmes to tertiary studies (OECD, 2000). Indeed, improving the transition from vocational secondary education to tertiary studies is not only important for building up human capital throughout the population, it also has great potential to raise the profile of vocational education, better respond to the needs of industry and businesses, and expand participation rates of under-represented groups.

In Norway and Sweden the general education content of upper secondary vocational curricula was expanded, with the aim of giving students wider general and conceptual knowledge and skills. In Norway, a standardised qualifying 1-year course was developed for all upper secondary school leavers from vocational programmes who do not meet the general admission criteria to tertiary education. In Sweden, this was done by adding one extra year of study load to 2-year vocational programmes (Ekström, 2003). This approach proved effective, since Swedish students from nearly all vocational areas are now following through to further studies, although the importance of this track varies between secondary programmes (OECD, 2001a).

In other countries, tracks between vocational secondary education and tertiary education were created by relaxing tertiary education eligibility criteria. In Switzerland, the introduction of the professional baccalaureate in the early 1990s provided successful candidates with the capacity to enrol in Universities of Applied Sciences. With almost 20% of apprentices now taking the professional baccalaureate, this policy has considerably enhanced the permeability of educational pathways. But the decisive breakthrough came with the introduction of a bridge between upper secondary vocational education and the university system, whereby holders of a professional baccalaureate can pass a supplementary general education exam that grants them access to university. Yet in another fashion, current reforms in the Estonian vocational education system provide for tertiary education attendance on the basis of competencies. This latter approach can be especially important to raise the participation of adults in tertiary education. Developments in Spain and Sweden go in the same direction (Perotti, 2007).

Finally, extension programmes – discussed above – are another instrument available to policy makers to build pathways from vocational secondary to tertiary education. Offering tertiary-level studies in vocational upper secondary schools may indeed acquaint students early with the teaching and learning methods found at tertiary level, and raise their study aspirations by de-sacralising tertiary study.

Adapting to changing demands of the economy

The transition of most OECD countries to knowledge economies has wide-ranging implications for tertiary education provision. Indeed, the increased speed of change characteristic of the new economy increases uncertainty, and requires the constant renewal of skills. To adapt and maintain competitiveness, companies need appropriate organisational structures, a skilled workforce and able management. The type of labour required is thus changing, with the rising educational level of the OECD workforces as its most obvious manifestation. But while academic knowledge and cognitive competencies are important, they are also becoming insufficient. From a labour market perspective, there is also a new and distinct demand for a certain set of complementary skills in light of the introduction of new work practices. These include the ability to use ICT, to solve problems, to work in teams, to supervise and lead and to undertake continuous learning (OECD, 2001b). A key challenge for tertiary education systems is thus to identify and adjust to these changing demands from the economic world. This entails building stronger linkages with labour markets. This Section briefly sketches the key issues in this respect, but a more detailed analysis is found in Chapter 9.

The advent of multidisciplinarity, multiple careers and growing importance of lifelong learning

A first aspect relates to the growing need for interdisciplinarity. As Jacobs and van der Ploeg (2006) rightly point, "in the complex society in which we live there is a growing demand for people who can combine different disciplines and points of view. Much technological and economic progress in contemporary society occurs in the twilight zone between different disciplines." This new pattern has implications for tertiary education which has to respond flexibly either by offering combined degrees, or allowing students to select courses from different disciplines towards graduation based on their own perceived career needs. In Australia for instance, under-graduate programmes combining Law/Arts, Engineering/Law or Science/Engineering are now common and usually involve selective admissions.

Another key feature of knowledge economies is the advent of multiple careers (Cheng, 2006, 2007). As a result there is pressure on tertiary education systems to prepare students for a life world of much greater uncertainty and complexity involving frequent occupational, job and contract status change, greater probability of self employment, global mobility, adaptation to different cultures and working in a world of fluid organisational structures (Gibb and Hanon, 2007). As future labour market needs are difficult to predict, lifelong learning comes to the forefront as a way for individuals to upgrade their skills throughout their life (European Commission, 1996; Perotti, 2007). In this scenario, tertiary degrees are no longer regarded as a voucher for life-long employability but merely an entry ticket into the world of work.

In a lifelong learning perspective, employers draw on graduates with a broad base of skills that, with in-house professional development, can be adapted to rapidly changing work contexts. This calls for tertiary programmes' content putting emphasis on the development of a broad set of skills among graduates. As a matter of fact, Wojcicka (2004) notes that the reform of vocational post-secondary education in Poland was founded on the principle of a broadly-profiled education, which is intended to support flexibility and vocational mobility throughout the career.

Promoting flexibility of provision to adjust to the needs of new clients of tertiary education

But meanwhile, the increasing need for lifelong learning and job-specific training also entails that tertiary education providers have to devise offerings suited to the needs of new clients, developing targeted and more individualised training opportunities in parallel to broad-based competencies. Two issues are critical in this respect. The first relates to diversifying provision to reach adult learners through continuing education and lifelong learning offerings. In addition, there is also a need for industry-based types of provision whereby employers can get their workers' skills upgraded. And indeed, it has been shown in the Swedish context that the strategic role of education became much more important as a tool for meeting unforeseen demands in the labour market from the early 1990s (Askling and Foss-Fridlizius, 2000; Bladh, 1999). Likewise, sectoral industry organisations spend 3 billion euros per year on education and training provided by TEIs (see Chapter 9).

With respect to participation of adults, a first policy lever focuses on opening up tertiary education access criteria. Given that one-third of working-age adults in the OECD countries have low skills, up-skilling the workforce and lifelong learning are particular challenges, and require specific measures to allow adults to gain access to tertiary-level studies. In several countries, this has been achieved by setting up a special examination for adults to gain eligibility for tertiary studies. Another approach consists in allowing access on the basis of non-formal and informal learning. The French *Non-formal Experience Validation* (VAE) is an interesting initiative in this respect. Elsewhere in Europe, Belgium, Finland, the Netherlands, Norway, Sweden and the United Kingdom have like initiatives (Colardyn and Bjornavold, 2004). The development of flexible credit transfer schemes is another option to facilitate participation of adults, who often cannot invest the same time and effort in tertiary studies as traditional students (see below).

In terms of framework conditions, one critical issue relates to the degree of flexibility that the quality assurance framework gives TEIs in establishing new programmes (see Chapter 5). A related consideration is the degree of autonomy that TEIs have in hiring staff when setting up a new programme (see Chapter 8). Allowing TEIs to raise private funds from such activities as industry training can also constitute a powerful incentive (see Chapter 4). Finally, institutional behaviour can be shaped towards the development of flexible and diversified programmes through various steering mechanisms, ranging from the specification of this goal in TEIs performance agreements to various financial incentives and rewards (see Chapter 4). In Chile for instance, the project *Chilecalifica* – a joint initiative of the Ministries of Economy, Education and Labour initiated in 2002 – aims at encouraging TEIs to offer technical training to adults and young people within the framework of lifelong learning, by financing project networks to design and implement modular training proposals.

Involving employers

Another strategy to enhance linkages with the economic world is to involve employers and professional associations in tertiary education policy design, curricula, and even delivery. With respect to policy design, some countries have created formal structures to enhance communication and collaboration between the business, industry and tertiary education sectors. This is for instance the case of Australia, where the then Minister for Education, Science and Training established a *Business, Industry and Higher Education Collaboration Council* (BIHECC) in 2004. The *Business and Higher*

Education Round Table (B-HERT) also provides a forum for business, research, professional and academic leaders to exchange and pursue initiatives to improve the performance of both business and tertiary education.

Employers may also be involved in the design of tertiary curricula. Such involvement is more common in vocational programmes leading to professions where a license is needed to work than in more academic fields of study. Professional associations often monitor the extent to which TEIs are meeting the needs of their profession and set standards for professional registration. As a result, many of these bodies have a direct influence on course design – as is the case in Australia. Finally, employers may be involved in the actual delivery of tertiary education programmes, either through work placement and traineeships as part of tertiary curricula, or the recruitment of industry employees as adjunct professors by TEIs. This approach is more common in vocational programmes – especially those in the medical and scientific fields (see Chapter 9).

3.5.2 Linkages with surrounding regions and communities

Most TEIs strive towards teaching and research activities of national and international significance. At the same time, however, most of them play a role in supporting regional development, through the provision of human capital to sustain local social infrastructure and meet the needs of local industry, collaborations with local and regional business and industry, and contributions to the regional/local cultural scene, social communities and environment.

This regional contribution of tertiary education has grown in importance in recent years. National policies are now explicitly trying to identify how to make TEIs contribute more to regional development and skill enhancement, and devise strategies to actively support the regional engagement of TEIs. At the same time, institutions themselves see increasing benefits to collaboration with regional actors. A thriving local environment brings business to TEIs in the form of student enrolments, research consultancy, training needs of local industry, and helps institutions attract and retain staff and students (OECD, 2007b).

This Section therefore reviews national strategies designed to enhance linkages of TEIs with their surrounding regions and communities, *i.e.* the overall regional role as one of the missions of TEIs. Given the national stance of the Thematic Review and the focus of this Chapter on governance issues, greater emphasis is placed on strategies at national level to encourage the engagement of TEIs with their surrounding environment, relative to their actual contribution. This important aspect has however been comprehensively explored in a recent OECD study of TEIs' contribution to regional development that draws upon the experiences of 14 regions spread across 12 countries (OECD, 2007b). In addition, some more specific aspects of regional engagement are covered in the other Chapters of this report, in relation to financial incentives for regional engagement (Chapter 4), TEIs' role in reducing regional disparities in provision (Chapter 6), their role in regional innovation (Chapter 7) and in responding to local labour market needs (Chapter 9).

Impact on regions and local communities

There are several ways in which TEIs impact on their surrounding regions and communities. Firstly, TEIs are often large employers and consumers of goods and services within their local area, and they also stimulate local demand through the daily

expenses of their staff and students. But in addition to this direct impact on the local economy, TEIs also induce a number of indirect knowledge spillover effects on their environment. These indirect contributions lie in their role in the formation of human capital and upgrading of skills within the region, the promotion of entrepreneurship among graduates, the provision of technology and research services to local firms, and a number of other contributions to the social, cultural and environmental advance of the region.

Direct economic impact on local demand and employment

The first and most obvious effect of TEIs on their regions and communities derives from their impact on the local economy, as employers, customers and suppliers of goods and services to local firms. TEIs are often large employers within their local labour market, requiring not only teaching and research professionals but also significant numbers of administrative staff, technicians and maintenance personnel. As an illustration, the University of Otago (New Zealand) employed more than 3 000 full-time equivalent (FTE) staff to teach some 17 500 FTE students in 2004, making it one of the largest employers of the South Island. As such, TEIs can make a unique contribution to urban or rural regeneration in peripheral economically distressed regions (Cumpston *et al.*, 2001).

In addition to the jobs generated directly, by the TEIs themselves, significant regional job creation results from the consumption of TEIs on infrastructure, repairs, equipment and utilities as well as their contracting out catering, cleaning, financial or other services. The expenditure of the lively communities of staff and students on and around campus, for housing, living expenses, social and leisure services can also make an impact at local level.

Indirect impact and knowledge effects

In addition to these expenditure-related backward linkages, Felsenstein (1996) distinguishes forward linkages – or contributions of TEIs to their surrounding regions through the diffusion of knowledge and expertise. These knowledge effects take several forms. Firstly, TEIs usually constitute the main vehicle at regional level for the transfer of knowledge and high-level skills which local businesses critically need for innovation and commercial success in the knowledge economy. This human capital contribution of TEIs consists not only in satisfying the local demand for high-level skills, but also in stimulating and developing entrepreneurship and innovativeness among graduates, and hence retaining them in the region. Secondly TEIs, and especially those with a medium or high research profile, can engage in various types of collaboration with local industry in research, or conduct research which is useful for the region. In doing so, they contribute to the region's comparative advantage in knowledge-based industries. But regional development is not only about economic growth, and the third knowledge effect lies in the contribution of TEIs to the social, cultural and environmental advance of their region.

Supply of human capital to the regional labour market

The importance of human capital for innovation and the significance of threshold effects in this respect are supported by a wide strand of literature on endogenous growth (Aghion and Howitt, 1998). These models of economic development often stress the crucial importance of pooled knowledge and innovation clusters to induce positive

externalities and sustained economic growth. In this perspective, the availability of highly-skilled workers in the regions is decisive to stimulate innovation and the development of value-added industries. In this respect, TEIs contribute to building a critical mass of human capital in surrounding regions through their traditional education role, but not only. TEIs also play a role in building regional human capital through widening access to tertiary education to larger segments of the population, providing industry training and lifelong learning opportunities to adult workers, developing entrepreneurship among graduates and hence helping retain talent and over time, build up the attractiveness of the region to knowledge-intensive industries and workers (OECD, 2006b).

Provision of technology and research outputs

The second strand of indirect knowledge effects of TEIs on surrounding regions and communities derives from the conduct of region-specific or region-relevant research as well as various types of research collaboration between TEIs and local businesses and industries. This provision of technology and research outputs to the surrounding community builds up the region's comparative advantage in knowledge-based industries, and hence contributes to the development of innovation clusters. For instance, over 1 000 high-tech and IT companies have clustered in the area around Cambridge University which has been dubbed "Silicon Fen". There is also evidence of TEIs engaging in region-specific or region-relevant research. For instance, the University of the Sunshine Coast in Australia has built a critical mass in subjects of regional relevance for which the local environment provides an interesting laboratory – coastal studies, marine tourism, and plant/marine biotechnology, while medical research in North-England TEIs is geared at addressing region-specific health issues (OECD, 2007b).

Porter (1998) highlights the colossal economic opportunities stemming from enhanced relationships between TEIs and industry through the development of innovation clusters, *i.e.* the agglomeration of research and economic actors around a shared technology to capitalise on their critical mass. While the Silicon Valley and Hollywood are the best-known examples of such innovation clusters, countries participating in the Review also display similar agglomerations of industries around a university or research institute. This is for instance the case of the Food Valley in the Netherlands, which regroups some 70 agro and food companies around Wageningen University. Likewise, the University Jaume I in Spain helps the Valencia region transform its traditional SME-based ceramic tile industry into a global leader (OECD, 2007b).

Other contributions to socio-cultural and policy development

But regional development is not only about economic growth, and the third knowledge effect lies in the contribution of TEIs to the social, cultural and environmental advance of their region. TEIs' impact on surrounding communities also lies in their contribution to health and social care provision, the development of cultural facilities such as museums and libraries, the revitalisation of social capital through staff and student involvement in community associations as well as environmental development (OECD, 2007b).

The presence of TEIs may improve healthcare and social services in the region. For example, tertiary education activities may enhance health and social infrastructure and their quality, *e.g.* medical schools investing in the latest state-of-the-art pre and peri-natal care technology to provide students with up-to-date training (Cumpston *et al.*, 2001).

Box 3.6. Multiple facets of TEIs' regional engagement: Australia, Korea, Mexico, the Netherlands, Spain and the United Kingdom

Contribution to regional human capital formation

In **Korea**, the *Family Firm System* implemented at Dongseo University since 2004 is one example of how TEIs can provide targeted programmes that address specific regional development needs and also link students and graduates with local employers. A senior academic mentor is designated to 5 companies which offer students and graduates internship and job opportunities. The system has attracted 556 companies which have benefited from the close cooperation through reduced recruitment and induction costs. The system is supported by the State through the NURI project (see Box 4.2).

In the **Netherlands**, the University of Twente's *Temporary Entrepreneurship Position* (TOP) programme showcases how TEIs can contribute to the development of entrepreneurship in the regions. It was launched in 1984 to assist university graduates, staff and people from trade and business to start their own companies. TOP participants must a) have a concrete idea of a knowledge-intensive or technology-oriented company that can be linked to the fields of expertise of the university; b) be available for a minimum of 40 hours a week; and c) have a business plan that meets a number of requirements. During the one-year support period the TOP entrepreneur receives office space and facilities, access to networks, a scientific and a business manager, and an interest-free loan of EUR 14 500. The loan has to be repaid within 4 years starting in the year after leaving the programme. Although the programme was initiated at the University, it receives financial support from the Dutch Ministry of Economic Affairs and the European Social Fund.

Contribution to regional innovation

In the **United Kingdom**, the collaborative actions of the five universities of the North-East of England (Durham, Newcastle, Northumbria, Sunderland and Teesside) through the higher education regional association (Unis4NE) provide a remarkable example of how TEIs can work together to address shared problems in the region ranging from low skills to low R&D base of local companies. They jointly established the Knowledge House in 1995 – along with the Open University in the North – a one-stop-shop which helps companies access the combined skills, expertise and specialist resources. The Knowledge House receives over 1000 enquiries from client companies and delivers around 200 client contracts on an annual basis. It receives funding from HEFCE.

In **Spain**, the University Jaume I in the Valencia region showcases how partnerships between TEIs and local industry can help upgrade entire sectors of the regional economy. The University has established links to the traditional tile and ceramic industry which comprises 500 businesses, mostly SMEs employing 36 000 people in the region. The links have been mediated by the Institute for Ceramic Technology, a not-for-profit association formed by an agreement between the University Institute for Ceramic Technology and the Ceramic Industry Research Association. They jointly use the facilities, equipment, materials and staff that make up the research infrastructure. The partnership has been supported by national and regional governments and enabled the region to become a global leader in the industry.

Contribution to local communities, culture and environment

In **Mexico**, the University of Monterrey's collaborative programmes with low income communities and social work institutions over the past 20 years provides an illustration of how TEIs can play a role in community development. This effort towards social commitment and responsibility is facilitated by the federal government's requirement of mandatory student social service as a graduation requirement. Social service lasts between 6 and 12 months but the duration is in no case less than 480 hours. While there are some concerns about the way social service is operationalised, it has potential for much impact on Mexican society and has generated good results in mainstreaming community service activities into the core business of TEIs.

In **Australia**, the University of the Sunshine Coast showcases how TEIs can build critical mass on research of local relevance or for which the local environment provides an interesting "laboratory" or case study – *i.e.* coastal studies, marine tourism, and plant/marine biotechnology. A regional advisory board brings community, business leaders and researchers together to engage in identifying priorities. The Institute for Sustainability, Health and Regional Engagement (iSHARE) has provided an institutional framework for this, thanks to several research grants from the public sector and significant private sector support from *the Kingfisher Bay Resort*.

Source: OECD (2007b).

Community service by students is another example. In Mexico, this contribution of students to their region or community is even institutionalised through a compulsory requirement of 480 hours of community service (OECD, 2007b). TEIs can also revitalise the cultural life at local level. This contribution to cultural development takes place through opening to the wider public a range of cultural facilities such as museums, libraries, orchestras, auditoriums, parks and sporting facilities *etc*. Staff and student communities also provide content and audience for cultural programmes and hence strengthen local cultural provision.

Box 3.6 above provides examples of contributions to regional development by TEIs.

Developing a strategy to enhance the regional engagement of TEIs

There seems to be a high level of awareness of the potential benefits of closer partnerships between national, regional, institutional and business spheres, but limited initiatives on the ground. As noted by McAllister (1997), because an establishment provides services within a regional setting does not mean its priorities are necessarily shaped by the needs of the region or of the communities in it. Most countries are still at early stages of partnerships between TEIs and regional public and private sectors, with isolated small scale and short term initiatives promoted by key individuals with limited support from central governments. And indeed, the OECD study of TEIs' contribution to regional development has identified a number of obstacles to a more active engagement of TEIs with their surrounding regions and communities (OECD, 2007b). This raises the question of how can national policy support the development of stronger linkages between TEIs and their surrounding regions and communities. Country approaches suggest several directions to enhance the regional engagement of TEIs.

Current barriers to regional engagement

According to the OECD study on TEIs' contribution to regional development, the active engagement of TEIs with their regions is often constrained by the lack of explicit orientation of public policy towards that goal, inadequate incentive structures for regional engagement, limits to autonomy and leadership within TEIs, and the limited capacity of local and regional actors to have a say in TEIs' strategic directions (OECD, 2007b).

Inadequate incentive structures in terms of funding and quality assurance are common impediments to a deeper engagement of TEIs with their surrounding regions. The strong focus on research excellence in research budget allocations and academics' promotion criteria fuels the search for world-standard academic excellence. Likewise, insufficient regard to regional impact in funding formulas and quality evaluation criteria inhibit tertiary education systems' ability to resist and counteract these academic drift forces (see Chapters 4, 5, 7 and 8). In such circumstances, regional engagement depends on TEIs' initiatives, but in some countries, regulations reduce the capacity of TEIs to engage regionally, *e.g.* due to legal constraints preventing them from diversifying their funding sources and turning to private external funds. Administrative-based tertiary education systems in particular leave little scope for institutional autonomy and flexibility. Inadequate strategic leardership can be another limitation.

The framework conditions in which TEIs operate are not always supportive of regional engagement. Institutional governance structures are in many instances ill-suited to furthering the regional agenda of TEIs. This is especially so when local governments and stakeholders have limited capacity to take part in TEIs' strategic governance. Insufficient interaction with local stakeholders also impedes knowledge spillover effects,

as firms may lack sufficient information to track down the appropriate expertise within the TEIs.

In this context, how can national policy provide the framework conditions and appropriate incentives to enhance linkages between TEIs and their regions and communities? The experiences of countries participating in the Review provide useful insight into the factors that affect the degree and depth of regional engagement, and provide directions on possible strategies to overcome current barriers.

Country approaches to enhance the regional engagement of TEIs

There is a marked difference between countries in how tertiary education systems are steered at the national level and what weight is given to the regional dimension. In the more market-driven systems there is an increasing tendency to expect TEIs to be entrepreneurial and create partnerships to raise funds from the private sector. This may encourage them to work closely with regional actors, but may also hinder their regional engagement in non-profit activities. In more centralised systems by contrast, the lack of autonomy of TEIs may disconnect them from local partners and policy makers need to devise appropriate incentives for TEIs to engage in regional activities. Overall, countries taking part in the Review have adopted various legislative, steering and incentive schemes to foster the regional engagement of TEIs.

Formal requirement for regional engagement in legislation or TEIs' missions

If policy makers count on TEIs to play an active role in their regions, making this regional role explicit can be a driving force, by providing a clear signal of expectations. Several countries have thus included a formal requirement for TEIs' regional engagement in the national legislation governing tertiary education, or alternatively encouraged TEIs to adopt this third role in their mission statements.

In Sweden for instance, the parliament amended the law governing TEIs in 1997 and universities are now instructed to undertake – in addition to teaching and research – an additional role of "cooperation with the outside world and promotion and development of the society at large". This third role obliges them to interact more closely with their environment (OECD, 1999). Likewise, the Higher Education Act of the Czech Republic stipulates that TEIs "contribute to development on both the national and regional levels while cooperating with various levels of the state administration and municipalities as well as in the areas of industry and culture". Similar formal requirements for TEIs' role in regions exist in the legislations governing TEIs in Finland, the Netherlands and Norway for university colleges (see Box 3.7 for the case of Finland; and OECD, 2007b).

In another group of countries, regional and community engagement is left to the discretion of TEIs themselves. However the expression of TEIs' regional engagement in their mission statements sets expectations about such role which is likely to improve commitment. For example, many universities in regional areas of Australia have missions that are closely linked to their regions and this link is enshrined within the legislative acts under which they operate. Another type of formal requirement can be found in Mexico, where a unique scheme of mandatory social service has been introduced in graduation requirements for all students in public (and some private) TEIs.

Box 3.7. Formal requirement for tertiary institutions' regional engagement in Finland

In Finland, the regional and societal missions of TEIs are stipulated in the legislation. The Universities Act of 2004 stipulates that "In carrying out their mission, the universities shall interact with the surrounding society and promote the social impact of research findings and artistic activities". Similar provisions are found in the Polytechnics Act which states that "one of the missions of polytechnics is to conduct research and development which supports regional development and is geared to the industrial structure of the region". The Act further specifies that "in executing its mission, the polytechnic must cooperate with industry and working life especially within its own region, with Finnish and foreign universities and other educational institutions".

In addition, legislative texts also include provisions on the composition of tertiary institutions' governing board and the representation of regional stakeholders. The Universities Act provides that at least one member of the university senate and up to one third of the members must be selected amongst persons who are neither personnel nor students of the university. The Polytechnics Act similarly stipulates that at most one third of the members of the board of the polytechnic may be representatives of business, industry and other working life.

Differentiation of institutions

Another way in which some tertiary education systems have anchored the regional role of TEIs has been the establishment of distinct types of TEIs with explicitly differentiated roles. This strategy has often taken place as part of the expansion wave, through the creation of new TEIs to accommodate new demands from the economy and society. In the establishment of these new TEIs geographic location was an important aspect considered (see Section 3.4).

In this logic, extensive and flexible diversification among TEIs may provide countries with a wider capacity to address varied national and regional needs, and the regional role of institutions serves to differentiate among various types of TEIs. In Portugal for instance, universities are generally considered to have a national role while polytechnics are assumed to have a more regional role, taking regional demand and needs of local industries into account. Similarly, TEIs in Poland may be divided into two groups, the first one comprising large and prestigious university-type institutions whose influence is national or international while the second group includes all other TEIs which operate mainly at regional level.

Incentive structures: funding, initiatives and rewards for regional engagement

Fostering the regional engagement of TEIs in general implies to devise appropriate incentive structures for TEIs to respond by deepening linkages with their regions and surrounding communities. In this respect, several mechanisms interplay, in terms of funding, quality assurance and overall governance of the tertiary education system.

Funding schemes are a first instrument by which central governments may support the regional engagement of TEIs, and hence persuade some or all them to make regional development an attractive part of their central business. Some countries have thus introduced a regional loading in funding formulas. This is for instance the case in Australia, where regional loadings were introduced in funding formulas in 2004, in recognition that regional universities incur additional costs because of their location, find it more difficult to maintain economies of scale, and are remote from industry support and funding. Regional loadings are also found in Finland, Japan, the Russian Federation and indirectly in Spain through consideration to income received from non-public sources (see Table 4.3).

Another way in which the allocation of funds may anchor the regional mission of some types of TEIs is to explicitly demarcate the system into separate sectors with diversified funding regimes, as a way to avoid the establishment of a formal or informal

single hierarchy between institutions. Indeed, competition between TEIs for research and teaching funds allocated on uniform criteria inevitably leads to greater attention to meeting international standards to the detriment of regional activities. Finally, targeted funding mechanisms can be used to reward regional engagement of TEIs, as is the case in Korea with the *New University for Regional Innovation* (NURI) project (see Box 4.2 and Clark, 1998). Australia has similar mechanisms in place through the *Higher Education Equity Support Programme* and the *Diversity and Structural Adjustment Fund*.

There are similar arguments in favour of a modulated incentives scheme – *i.e.* sensitive to activities and initiatives beyond those defined simply in terms of academic output and scholarship – in quality assurance and academic career evaluation criteria. Without denying the paramount importance of scholarly excellence and meeting minimum quality standards in TEIs and staff evaluations, those criteria are not sufficient in the case of TEIs with a regional remit. As put by regional partners in the Icelandic Review undertaken within the project "Farmers do not read peer-reviewed journals". The use of differentiated criteria in quality assurance and staff evaluation procedures may provide incentives for TEIs and their staff to stick to their regional mandate.

Finally, the overall governance and steering of the tertiary education sector may also provide incentives for regional engagement, notably by setting up barriers to inhibit – or even prohibit – movements of TEIs from one sector to another as a way to discourage academic drift. Meanwhile, incentive schemes may be put in place to encourage inter-institutional cooperation, so that TEIs – and especially the smaller ones – engage with larger institutions and reach critical mass. And indeed, governments often encourage the cooperation between institutions located in remote areas with institutions based in the main population agglomerates. This can be achieved for example through joint-degrees, common research projects, exchange of students and staff, or the joint involvement in the establishment of the broader strategies for regional development.

Level of autonomy and institutional leadership

The characteristics of the central system significantly influence the ability of TEIs to respond to growing demand and to engage in regional development. Some TEIs operate within a national system that grants them much institutional autonomy in terms of the orientation of teaching and research activities, while for others the regulatory framework exerts a strong influence on their orientation. In recent years, several governments have implemented reforms to grant more autonomy to TEIs and stimulate competition among them in order to raise the quality of tertiary education (see Section 3.3). This direction of policy also has the potential to stimulate regional engagement of TEIs because in such a competitive environment many institutions would choose the direction towards more local contribution to become indispensable organisations in their communities. This is one of the aims of the *Quality Reform* in Norway, where competition among TEIs to attract and retain students is deemed to serve regional development through programmes more tailored to regional needs.

Supportive framework conditions

Regional engagement can be strengthened by reinforcing the framework conditions in which TEIs operate, and making them more supportive of the regional mission. This can be achieved in several ways. A first consideration relates to the level of government with oversight and responsibility for TEIs. Decentralisation policies – as the ones experienced in Spain between 1985 and 1997 and in Japan in 2000 – naturally enhance the regionalist focus. Such reforms may be influential in systems where TEIs have limited autonomy.

A common strategy is also the inclusion of regional stakeholders in the governance structure of institutions. Indeed, the understanding of regional problems by the institutions' Governing Boards fosters their growing attention. In Portugal for instance, the new legislation promotes the role of regional authorities in the governance bodies of public polytechnics, while both polytechnics and universities include external stakeholders in their governance bodies.

Promoting interactions between TEIs and regional policy makers is another approach to enhance mutual understanding between them and promote dialogue on regional issues and what role TEIs can play to address them. Several initiatives can be mentioned in this respect. In England for instance, regional development agencies have been established in each of the 9 regions, and they are increasingly seeking to mobilise TEIs in support of economic development, in particular in shaping regional development strategies (OECD, 2007b). In Mexico, *State Commissions for Higher Education Planning* (COEPES) have been set up to manage tertiary education planning at the regional level so that the institutions can reflect on community needs and those of the local productive sector effectively. Likewise, the promotion of interactions between TEIs and regional business and communities can have a like impact on mutual understanding and enhanced cooperation.

3.5.3 Linkages within the tertiary system

The one-size-fits-all model is no longer relevant, and this feature makes it increasingly challenging for TEIs to operate in isolation. As a result, many governments seek to encourage TEIs to collaborate and co-operate with each other to successfully address this challenge. Meanwhile, they also want to encourage student mobility as a way to stimulate quality and responsiveness within the system, and to allow students to grasp the full benefits of flexible and diversified learning pathways.

Co-operation between TEIs

There are mainly three broad rationales for governments' willingness to foster inter-institutional co-operation. The first rationale encompasses a number of motivations related to enhancing the contribution of tertiary education to the knowledge economy. Greater co-operation between TEIs is sought to allow TEIs to reinforce their areas of strength, build-up critical mass and develop world class research, enhance teaching quality, and develop research networks and centres of excellence in areas of national priority. Another justification for TEIs' co-operation is to achieve some rationalisation and improvements in the cost-effectiveness of tertiary provision in the context of struggling public budgets. In this logic, emphasis is put on issues of sharing infrastructure, avoiding unnecessary duplication of offerings and rationalising the allocation of academics across programmes. Finally, a third rationale for enhancing co-operation between TEIs is to better serve their regions and diversify the range of programmes offered at regional level.

Co-operation towards the knowledge economy

Co-operation between TEIs has great potential to enhance the contribution of the tertiary education system to the knowledge economy – in which a nation's comparative advantage results from its ability to carry out leading-edge research and innovation in a number of key sectors (see Chapter 7). Co-operation between TEIs can support this goal by achieving critical mass in research, and contributing to the development of centres of

excellence drawing on the best experts from a range of different TEIs. In New Zealand for instance, the government established *Centres of Research Excellence* (CoREs) in 2002 to incentivise universities to collaborate with each other and with other research organisations. In Australia, the CSIRO *National Flagships Initiative* equally supports infrastructure and networks necessary for world-class research. Policy initiatives have also focused on encouraging the development of research networks – both inter-institutional and inter-disciplinary – especially in areas of national research priority. In Australia, the national competitive grants programme of the Australian Research Council was restructured into two key elements – *discovery* and *linkage*. Both support collaboration with researchers in other universities while the second additionally encourages cooperation with partners in business and industry, government, and/or the NGO and community sectors. But financial incentives are only one option for policy makers. Research networks can also be stimulated by improving academic staff mobility. The creation of centres of excellence, the development of joint degrees between TEIs, the easing of staff regulations to facilitate mobility with industry and adequate incentives for co-publications are important policy levers in this respect.

Co-operation between TEIs may be equally important as a way to improve teaching quality. Here, the underlying principles are that co-operation may help TEIs concentrate on their areas of strength – this is a prominent rationale in the case of Sweden – as well as allow them to generate economies of scale – as evidenced by the *Tertiary Accord of New Zealand* (TANZ) grouping. TANZ was launched in 2000 and links Christchurch Polytechnic Institute of Technology, Manukau Institute of Technology, Otago Polytechnic, and the multi-campus Universal College of Learning. These various TEIs collaborate on such projects as course material design, qualification design and development and online programme delivery.

Finally, inter-institutional co-operation may contribute to the knowledge economy by facilitating flexible learning pathways, and hence helping individuals regularly upgrade their skills. A noteworthy policy initiative in this respect is the creation of *associations* between TEIs in Belgium (Flemish Community). These new legal bodies were established in 2003 as not-for-profit institutions in which at least one university college (*hogeschool*) and no more than one research-intensive university share some responsibilities, including guidance for students and the co-ordination of transfer opportunities between bachelor's degrees offered in university colleges (*hogescholen*) and master's courses offered by the research-intensive university. TEIs are encouraged to enter in such co-operative agreements through provisions that prevent university colleges to organise master's degrees outside of an association.

Co-operation towards rationalisation and efficiency

A number of systems are also seeking to enhance co-operation between TEIs as a way towards the rationalisation of provision and hence a more efficient operation of the system. This second rationale for inter-institutional co-operation has been particularly prominent in New Zealand, where the government set up a *Collaborating for Efficiency* project in 2001 (TEC, 2003).

A key aspect of this approach has relied on sharing educational infrastructure. There are many examples in Australia, New Zealand and Poland of TEIs – especially in regional areas – sharing educational facilities and/or developing educational precincts to create a tertiary education presence that might not have been sustainable through stand-alone

facilities (Shoemaker *et al.*, 2002). Likewise, regional TEIs in Poland increasingly conclude agreements to share library resources or laboratories.

Co-operation is also often sought as a way to rationalise tertiary education offerings by avoiding duplication of programmes within regions, and enhancing the scope for multi-disciplinarity. In this logic, co-operation and co-ordination between TEIs are viewed as a means to develop synergies and improve the offer of services for regional clients. Where there are similar TEIs within one region, co-ordination allows specialisation between them, sharing of best practice and avoidance of harmful competition. The rationalisation of provision has been a significant underlying motivation for the constitution of associations between universities and *hogescholen* in Belgium (Flemish Community).

Co-operation towards regional contribution

Yet, the rationalisation argument has to be balanced against considerations of equity, as the closure of duplicate programmes may weaken access to tertiary education in remote regions (see Chapter 6). And indeed, the regional contribution of tertiary education is another area where co-operation between TEIs can make a difference. In the United Kingdom, groups of universities and colleges are being formed on a regional basis with the aim of making a maximum contribution to the local and regional economy. In Australia, this was encouraged since 2005 by the *Collaboration and Structural Reform Fund* (CASR) which supported collaboration of TEIs with their regional or local communities and local governments such as the University of Tasmania with local government in the Cradle Coast region to establish an Institute for Enterprise and Regional Development. From 2008, on-going CASR projects and new initiatives promoting regional collaboration, structural reform and diversity in the tertiary education sector, are supported by the *Diversity and Structural Adjustment Fund*.

Student mobility towards system quality and responsiveness

Interestingly, while the above discussion has shown how the governments of many countries taking part in the Review seek to encourage co-operation of TEIs, a number of countries also seek to enhance market-type mechanisms at the same time. In this logic, competition between TEIs is viewed as a way towards quality improvements and greater responsiveness as greater reliance on market signals brings a shift in decision making power from TEIs – and especially from the faculty – to the consumer or client, whether student, business, or the general public (Johnstone *et al.*, 1998; Kaiser *et al.*, 1999). A key dimension in this respect relates to student mobility between TEIs. Indeed, as put by Jacobs and van der Ploeg (2006), "if students can vote with their feet, this will discipline TEIs".

At the same time, student mobility between sectors can also contribute to the creation of more flexible learning pathways. Vocational TEIs can provide flexible entry points, offer remedial and foundation programmes for those lacking entry prerequisites, and provide programmes at several levels to allow individual students to meet a range of learning needs within a single institution (OECD, 2001a).

Yet, the extent of these benefits in terms of responsiveness of TEIs and flexibility of learning pathways critically depends on the existence and smooth functioning of credit transfer mechanisms whereby students can move between TEIs – within or across sectors – while keeping the benefits of study credits obtained. Consequently, credit transfer mechanisms constitute a key instrument to encourage student mobility.

Credit transfer schemes between TEIs

Evidence from the countries taking part in the Review confirms results of previous OECD work on this theme *i.e.* that credit transfer arrangements between sectors of tertiary education have not been easy to negotiate and their translation into actual student flows has generally proven problematic (OECD, 2001a).

Their impact is generally difficult to assess insofar as most countries report data gaps in this area. Nevertheless, the limited evidence which is available suggests that the extent of credit transfers is generally limited, with between 2 and 4% of vocational tertiary students eventually moving to a university course in Australia, China, the Netherlands and Portugal. Moreover, evidence from Australia suggests that pathways from vocational tertiary education to university have been less common towards the elite institutions from the "Group of Eight" than to other universities. Norway and Sweden are exceptions to these low levels of mobility. In Norway, between 10 and 20% of students change TEIs during the course of their studies, mostly from universities to university colleges during the first three years while the flows reverse afterwards (Roedelé and Aamodt, 2001). In Sweden, student mobility concerns about one quarter of students, who graduate from a different TEI than the one they first enrolled in (Högskoleverket, 2001).

Country approaches to enhance credit transfer mechanisms

The national country experiences of participants in the Review also pinpoint a number of factors likely to facilitate the establishment or functioning of credit transfer schemes. The most common policy lever used by countries participating in the Review to enhance credit transfer mechanisms and hence student mobility has been through explicit reference in the legislation. Finland, Iceland, Korea, New Zealand, Norway, Poland, the Russian Federation and Sweden have adopted formal legislative requirements for TEIs to facilitate credit transfers. In Norway for instance, there has been mandatory recognition of credits between TEIs since 1981. In Iceland, the Universities Act includes provisions for TEIs to set regulations on mutual recognition of parts of study programmes. Consequently, public universities entered into a formal agreement in April 2003. Nevertheless, transfer from one course of study to another or from one institution to another is always subject to the approval of the academic authorities of the receiving faculty or institution, and often involves some loss of credit earned.

In order to improve TEIs' commitment to student mobility beyond rhetoric, enforcement mechanisms can be effective, as illustrated by the Swedish experience. In 2001, student entitlement to transfer was increased when a new provision required a substantial difference between programmes for credit transfer to be denied. The provision was enforced by ascribing the burden of proof for denial to the crediting TEI.

Quality assurance requirements have proved to be another effective enforcement tool. Institutional credit transfer systems and practices have been included in the quality monitoring criteria in Australia, Korea and New Zealand. In Korea, evidence suggests that the introduction of the student credit transfer system in the list of review criteria contributed to the active promotion of the *Credit Bank* system by TEIs. Policy intervention has also focused on establishing supportive framework conditions for credit transfers. In Korea, New Zealand, Scotland and Sweden, the approach followed has consisted in establishing a national credit transfer scheme. In Korea, the credit bank system was designed to link the traditional forms of tertiary education with the various alternative education and training programmes, as well as lifelong education programmes.

It is an all-inclusive, open system that even recognises credits earned at previously attended universities (Baek, 2003).

The implementation of National Qualification Frameworks (NQF) – which describe qualifications in tertiary and post-secondary non-tertiary education as well as the relationships among them – is another strategy to facilitate and guide pathways and credit transfer. Australia is well advanced in this respect. So is Norway in Europe, where the implementation of NQFs was initiated by the Bologna Process. Belgium (Flemish Community) and the Czech Republic are developing plans to develop NQFs as a way to improve the regularity and predictability of credit transfers between TEIs. Other supportive framework conditions include the development of guidelines or codes of practice for credit transfer, such as the *Credit Recognition and Transfer Policy* principles in New Zealand and the *Good Practice Principles for Credit Transfer and Articulation from VET to Higher Education* in Australia (NZQA, 2002; MCEETYA, 2005).

Some policy initiatives have also put emphasis on information to students. For example, *Universities Australia* operates a credit transfer scheme on its Web site that attempts to provide relatively simple information to prospective students on the credit they will be granted at any one of the participating universities. Other facilitating factors include the organisation of studies in clearly defined course modules which proved effective in supporting the mobility of students in Sweden as well as the broader international environment. For instance, the Croatian experience highlights how the Bologna declaration – which stipulates the need to facilitate student mobility through the *European Credit Transfer System* (ECTS) – has had a profound impact on the way new curricula are designed.

Finally, some countries have thought to enhance student mobility through the establishment of dual sector TEIs which include both vocational and university components. This approach has notably been followed in Australia, where a number of *Technical and Further Education* (TAFE) institutes offer bachelor's degrees approved through higher education accreditation processes.

3.6 Implications of system steering models for institutional governance

To meet their missions, TEIs need to be able to identify areas of high priority and move resources there. TEIs cannot be strong and successful if it is impossible for them to determine strategy, set priorities, identify teaching and research portfolios, and adapt their organisational structure to adjust to a changing environment. Institutional governance structures are therefore of paramount importance.

Institutional governance can be defined as "the formal and informal arrangements that allow TEIs to make decisions and take action" (World Bank, 2000). It includes both an external dimension – conditioning the relations between individual TEIs and their supervisors – and an internal dimension in reference to the devolution of authority within TEIs. While the discussion so far has focused on the external dimension – in terms of the level of autonomy granted to TEIs as well as the steering and accountability mechanisms set up to manoeuvre their behaviour in desired directions – this Section now turns to the internal arrangements administering institutional behaviour.

However, internal institutional governance is viewed from a limited perspective, *i.e.* in relation to the implications of new forms of steering at the system level for the internal governance of TEIs. Indeed, what matters from a national policy perspective is

that the governance arrangements within TEIs allow external/national policy impulses – in the form of regulations, incentives or control mechanisms – to trigger adequate responses by TEIs. As a result, the emphasis is placed on the definition and implementation of TEIs' strategy rather than their internal management and organisation.

As discussed earlier, the trend has been for a reduction of direct State control of tertiary education in most OECD countries, less involvement in the running of TEIs on a day-to-day basis, and the introduction of new forms of supervision and influence through accountability mechanisms. These trends have had three main effects on internal institutional governance:

– A strengthening of the power of executive authorities within TEIs, increasingly being appointed for their leadership and managerial qualities in addition to the traditional academic leadership skills;

– A concomitant loss of power and influence by existing collegial bodies; and

– An increase in participation on governing bodies by individuals external to the institution, which has strengthened the leadership of TEIs.

3.6.1 Conceptual models of institutional governance

By way of a background, it is worth noting that although the literature offers a number of conceptual models of institutional governance, it provides little practical guidance on how the governance of TEIs should optimally be organised (Jacobs and van der Ploeg, 2006). Overall, the various traditional conceptual models of institutional governance can be grouped around three main approaches reflecting Clark's triangle of co-ordination at the system level (see Section 3.2):

– *Academic oligarchy* (Clark, 1979), conceptually close to the adhocracy[45] (Mintzberg, 1979) and collegium (McNay, 1999).

This corresponds to the traditional academic model of collective collegial decision-making, illustrated by the classic concept of the English university, *i.e.* the college-based frameworks of Oxford and Cambridge. In this approach, emphasis is placed on protecting professional autonomy and control over academic work and standards in the hands of those permanently involved and most intimately acquainted with it. According to Berdahl (1999), a possible drawback of this model is to put too much emphasis on the protection of autonomy to the detriment of responsiveness to the public interest.

– *Market co-ordination* (Clark, 1979), conceptually close to the enterprise model (McNay, 1999).

This corresponds to a model of co-ordination emphasising freedom of choice for personnel, clientele, and institutions, and thereby indirectly promoting flexibility and adaptability. Management is delegated to executive groups, but within a corporate policy context set by the rectorate or other central bodies. In this approach, emphasis is placed on responsiveness to social demands and accountability. According to Berdahl (1999), a possible drawback of this model is

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45. The adhocracy model can be illustrated by organisations with a flat structure controlled by professionals and experts, namely professors within TEIs.

to suppress public control over which TEIs and programmes may survive during periods of increased competition.

– *Bureaucratic co-ordination* (Clark, 1979), conceptually close to the bureaucracy (McNay, 1999).

This corresponds to a model of co-ordination providing for the administration of fragmented parts, with a hierarchy of decision-making bodies but common regulations and procedures. In this approach, emphasis is placed on accountability. According to Berdahl (1999), a possible drawback of this model is to be insufficiently receptive to the needs of academics for creativity and flexibility.

In recent years, the ever more targeted nature of public funding as well as increased institutional autonomy and accountability have required TEIs to publicly demonstrate their efficiency and effectiveness. This context has put acute pressure on them to revise their traditional models of institutional governance. There has been abundant literature since the mid-1990s on the new competitive environment faced by TEIs throughout the world, and its implications for their internal governance structure. A number of authors argue that the traditional collegial authority structures and decision-making are too slow to respond to new challenges, and not flexible enough to face the changing environment of tertiary education. As put by Askling *et al.* (1999), "universities can no longer afford amateurish leadership in accordance with the traditional collegial model".

– *Entrepreneurial university* (Clark, 1998), conceptually close to the adaptive university (Sporn, 1999), the service university (Cummings, 1998; Tjeldvoll and Holtet, 1998) and the enterprise university (Marginson and Considine, 2000).

This corresponds to an intermediate mode of co-ordination between State and market. In this approach, conceptual models share an emphasis on the need for adjustments to the traditional academic model of collective collegial decision-making in the new environment of TEIs, and for stronger institutional leadership. But although these models involve strong leadership, "it does not mean that the collegial spirit is suppressed" (Clark, 2001).

Overall, Sporn (2001) argues that shared governance between the students, faculty and administration is necessary to make strategies more successful. At the same time, Jacobs and van der Ploeg (2006) stress the need to adapt institutional governance to the system-level governance structures: "democratisation of universities appears less useful in competitive higher education sectors. Students vote with their feet and thereby discipline boards of governors. In monopolistic markets, students cannot vote with their feet, so it makes more sense to let them exert influence through university democracy."

The next two Sections explore how countries taking part in the Review have responded to the challenge of adapting their institutional governance structures to system-wide steering mechanisms.

3.6.2 Enhanced institutional strategic leadership within TEIs

Rise of the managerial approach in contemporary tertiary education

The context in which TEIs operate has changed dramatically over the past decades. Many countries have embraced New Public Management (NPM) approaches to public

services provision (see Chapter 5; Parker and Gould, 1999; Trowler, 2002). In tertiary education, this translates in increased institutional autonomy – with a transfer of the State's decision-making power to the leadership of TEIs – in exchange for greater accountability and steering at a distance – *i.e.* enforcement through funding and quality assurance mechanisms.

As TEIs increasingly need to demonstrate their effectiveness at meeting societal expectations, the need for strong institutional leadership emerges (Lapworth, 2004; Stamoulas, 2006). Indeed, responding to the multiple and intricate demands of tertiary education – teaching and research quality, flexibility, responsiveness to economic needs, as well as regional and international engagement – requires strategic vision, mainstreaming the institutional agenda and scaling up the institutional capacity from individual good practice cases to a well-developed system. This entails having senior management teams able to deliver the response expected by various stakeholders. Likewise, the effectiveness of distant steering mechanisms critically depends on the ability of TEIs' rectors and central administrators to exercise strategic direction over the allocation of funds among various faculties.

Several authors have thus advocated strengthening institutional management so that it can better act on behalf of the public interest (Johnstone *et al.*, 1998; Sporn, 2003). According to Kezar and Eckel (2004), many governments have begun to establish coordinating and governing boards as both buffers and bridges to coordinate governance and institutional management, while McMaster (2007) supports strong institutional management due to the "huge amount of additional administrative work at all levels within the university, and the requirement for a wide range of specialist skills in areas such as marketing, human resource management, management accounting, Web development and instructional design".

Roles of governing boards

The rise of the managerial approach in contemporary education has implications for the way TEIs are operated. In this respect, Kezar and Eckel (2004) underline the multi-level nature of internal institutional governance, which usually involves several different bodies and processes with different decision-making functions. Typically, internal governance structures include a governing board (board of regents, board of directors), the TEI president (executive head, CEO) with a team of administrative chancellors, faculty senates, academic deans, department chairs, and usually some form of student representative organisation.

Within this complex structure, the governing board plays a crucial role. Typically, it has responsibility for setting the mission and goals of the institution, the approval of its policies and procedures, the appointment, review and support of its president, the oversight of its resources, as well as an informed understanding of its programmes and activities. In setting the strategy and direction of the institution, it is a key actor in translating public policies and orientations in actual institutional practice and policy implementation. It is thus important, in fulfilling its mission, that the governing board be in a position to have regard to the public interest. The effectiveness of TEIs is indeed based on an understanding whereby society provides support and allows substantial levels of autonomy to TEIs in exchange for governing boards exercising a trustee and oversight role on behalf of the public (Rhodes, 2001).

Yet, the governing board's ability to achieve this complex mandate critically depends on its composition, its role, and the level of independence it has relative to the institution's constituencies, in particular staff and students. Illustrating potential tensions, Jacobs and van der Ploeg (2006) warn against the risk that students and incumbent professors form a grand coalition to derail decisions in democratic TEIs. Conversely, internal criticisms and critiques may be more difficult to express in externally-led TEIs due to managers' discretion in appointing academics. It is however usually accepted that the complex mandate of governing boards requires effective bodies with an experienced and broadly based membership, and because of their external trusteeship role, a small majority of external members. It is also important that the number of members be sufficiently large to reflect a sufficiently broad number of perspectives, skills and interests but small enough to carry out its business effectively. The optimal size for the governing boards is usually believed to range between 12 and 25 members (Hoare *et al.*, 1995; Dearing Committee, 1997).

Another issue relates to the distinction between governance on the one hand, and leadership and management on the other. Effective management includes providing leadership, including the articulation of vision and goals. It is also concerned with implementation, within the framework of policies and strategies which have been approved at the governance level. Where these functions become confused the consequences include reduced effectiveness, diminished capacity to deal successfully with changing circumstances and increased tension and conflict. The most common and damaging manifestations of confusion arise where the governance function becomes involved in the micro-management of implementation issues. Not only does this work against effective leadership and management. It is also generally at the cost of neglecting the policy formulation and approval, monitoring, review and appraisal functions which are vital characteristics of effective governance. The principle of subsidiarity is useful for considering the appropriate distribution of functions between governing boards and executive bodies within TEIs. Subsidiarity means that matters ought to be handled by the lowest level of competent authority. In line with this principle, it is usually accepted that the separation of the strategic leadership and management functions at institutional level is to be encouraged.

The new governance structures of TEIs in Australia illustrate how governing boards have embraced this more strategic leadership role, leaving daily management to executive teams. Each governing body meets approximately six times a year to consider matters of strategic importance and to monitor the university's management and performance. The governing body is usually supported by a number of committees with defined roles, for example, a nominations committee which considers future membership, and an audit committee, which oversees the university's finances. Responsibility for operational matters and the day-to-day running of the university is vested in the Vice-Chancellor.

Strengthening of institutional leadership

Within the tertiary education community there remain traces of an attachment to traditional models of governance – TEIs seen as self-governing communities of scholars with a governing body where representatives of these scholars together with external members preside over the more formal responsibilities of the institution (Theisens, 2004). The collegial model however leaves a weak role for institutional leadership as illustrated by instances in which the ability of rectors and deans to lead effectively is constrained by

democratic academic self-governance and by their being elected by internal bodies.[46] High levels of faculty autonomy result in a structural tendency to adopt a path of least resistance rather than to take strategic decisions that involve making choices between faculties or giving different priorities to their plans. It also limits central university resources in favour of maximising faculty allocations.

In practice, the collegial model of institutional governance is found in a number of systems. The process for selecting the head or chair person of TEIs' governing boards provides indications on the internal or external locus of control of institutional governance. The head of the governing board is selected by bodies internal to the institutions – thereby reflecting a collegial model – in the Flemish Community of Belgium (for universities), China, Finland (for universities), Greece, Mexico, Poland, Spain and Scotland for pre-1992 universities. In Mexico for instance, the governance of federal and some state universities is collegiate and internal bodies appoint the rector as well as other leadership positions responsible for policy execution and institutional administration. In Chile, Iceland and Norway, internal bodies also elect the head of the governing board although the appointment is made by government authorities in Chile and Iceland, or institutions may opt for a chairperson nominated by government authorities in Norway (Table 3.1).

But whilst the collegial model is still prevalent in many countries, it is in decreasing numbers as many governments have sought to empower institutional leadership by moving from elections to nominations of TEI leaders by their governing boards (Sporn, 2003). Indeed, a number of countries have adopted internal institutional governance structures in which the head of the governing board is selected by external parties. In Japan and Sweden, government authorities nominate the head of public TEIs' governing boards albeit on the basis of selection made by internal bodies. In other countries, the head of the governing board is selected by its members – thereby entailing a stronger role for external stakeholders provided they are a majority. This approach is found in Australia, Belgium (Flemish Community, for university colleges), Croatia, the Czech Republic (for the board of trustees), Finland (for polytechnics), Mexico (for technological, polytechnic and intercultural TEIs), New Zealand, Portugal, the Russian Federation and Switzerland. This is also the case in Scotland (for post-1992 institutions) where governing boards normally comprise a majority of external members from whom the chairman is elected (Table 3.1).

The Netherlands provides the example of an innovative approach. The *Supervisory Board* consists of a range of personnel with professional, industry, governmental and academic expertise, in order to mobilise a range of constituencies as constructive contributors to institutional governance, while anchoring the institution more firmly to industry and community. In addition, the *Executive Board* is based on three key executive personnel and constitutes a structure of distributed leadership with less dependence on and pressure from a single pivotal authority. It allows part of the institutional executive to be appointed from outside the TEI while balancing this with leaders drawn from faculty ranks, and is capable of a broad range of variations in the internal/external balance of responsibilities and the division of portfolios around the particular strengths of the individuals concerned or the strategic needs of the institution at a particular time.

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46. In a number of countries, rectors and deans are elected by Academic Senates – made up of representatives of staff and students.

Table 3.1. Governing boards in public tertiary education institutions, 2007

	Legal provisions regarding the presence of external stakeholders in public TEIs' governing boards	Mode of selection for the chairperson/president/head/leader of public TEIs' governing boards	Actors typically members of public TEIs' governing boards
Australia[1]	At the discretion of TEIs (the majority have external stakeholders[2])	Universities: Elected by governing board	Academic staff, non-acad. staff, students, external stakeholders[3]
Belgium (Flemish Community)	Stipulated by law (must not be a majority)	Universities: Elected by internal bodies University Colleges: Appointed by governing board	Academic staff, non-acad. staff, students, external stakeholders
Chile	Stipulated by law (no provisions that they must be a majority)	Elected by internal bodies and appointed by government authorities[4]	In most cases: academic staff, external stakeholders In some cases: non-acad. staff, students
China	At the discretion of TEIs	Elected by internal bodies	Academic staff, non-acad. staff, external stakeholders
Croatia	Stipulated by law (must be 50%)	Elected by governing board	Academic staff, non-acad. staff, students
Czech Republic[5]	Academic senate: Not allowed by law	Elected by governing board	Academic staff, students
	Scientific board: Stipulated by law (must be at least one third)	Chairperson is the rector of TEI	Academic staff, external scientists
	Board of trustees: Stipulated by law (must be 100%)	Elected by governing board	External stakeholders
Estonia	At the discretion of TEIs (few have external stakeholders[6])	Professional TEIs: Appointed by an election body[7] Other TEIs: Elected by a special election body (approved by governing board)	Rector, vice-rectors, academic staff, students
Finland	Universities: Stipulated by law (must be one person min. up to one third)	Elected by internal bodies	Academic staff, non-acad. staff, students, external stakeholders
	Polytechnics: Stipulated by law (must be one third max.)	Appointed by governing board	Academic staff, non-acad. staff, students, external stakeholders
Greece	Not allowed by law	Elected by internal bodies	Academic staff, non-acad. staff, students
Iceland	Stipulated by law (no provisions that they must be a majority)	Elected by internal bodies and appointed by government authorities[8]	Academic staff, non-acad. staff, students, external stakeholders
Japan	National universities: Stipulated by law (number not stipulated)	Appointed by government authorities (selection is made within the president selection committee with the participation of external people)	Academic staff, non-acad. staff, external stakeholders (membership varies between TEIs)
	Public university corporations: At the discretion of TEIs (most have external stakeholders)	Appointed by local government authorities (based on the selection made by the public university corporations; first selection is made by an internal body)	Academic staff, non-acad. staff, external stakeholders (membership varies between TEIs)
	Public universities: At the discretion of local governments (few have external stakeholders)	Appointed by local government authorities (selection is made through election by governing board)	Academic staff, non-acad. staff, external stakeholders (membership varies between TEIs)
Korea	Not allowed by law	a[9]	a[9]
Mexico	At the discretion of TEIs	Elected by internal bodies	Academic staff, non-acad. staff, students
	Technological, polytechnic and intercultural TEIs: Stipulated by law (must be a majority)	Appointed by governing board	Academic staff, non-acad. staff, students, external stakeholders
Netherlands[10]	At the discretion of TEIs	At the discretion of TEIs	Research-intensive Universities: academic staff, external stakeholders Universities of applied science: external stakeholders
New Zealand	Stipulated by law (in practice they are a majority, but the number is not stipulated by law)	Elected by governing board	Academic staff, non-acad. staff, students, external stakeholders, chief executive
Norway	Stipulated by law (4 out of 11 members)	Elected by internal bodies or appointed by government authorities[11]	Academic staff, non-acad. staff, students, external stakeholders
Poland	At the discretion of TEIs (few have external sakeholders)	Elected by internal bodies	Academic staff, non-acad. staff, students, doctoral students
Portugal	Stipulated by law	Appointed by governing board	Academic staff, non-acad. staff, students
Russian Federation	At the discretion of TEIs (most have external stakeholders[12])	At the discretion of TEIs (usually elected by governing board)	Academic staff, non-acad. staff, students, doctoral students, external stakeholders
Spain[13]	At the discretion of TEIs (max. of 3 out of 50 members)	Elected by internal bodies (senate, direct vote of staff and students or at the discretion of TEIs)	Academic staff, non-acad. staff, students
Sweden	Stipulated by law (most have a majority of external stakeholders, but the number is not stipulated by law)	Appointed by government authorities (following proposal from the vice-chancellor)	Academic staff[14], students, external stakeholders
Switzerland	At the discretion of TEIs (most have external stakeholders)	Appointed by governing board	Academic staff, students, external stakeholders[15]
United Kingdom (Eng./N.Irl./Wal.)[16]	Higher education corporations: Stipulated by law (no provisions that they must be a majority)	Elected by governing board	Academic staff, non-acad. staff, students, external stakeholders
	Other institutions: At the discretion of TEIs[17] (most have external stakeholders)	Elected by governing board	Academic staff, non-acad. staff, students, external stakeholders
United Kingdom (Scot.)[16]	Most post-1992 higher education institutions: Stipulated by law (must be a majority)	Most-post-1992 TEIs: Appointed by governing board	Academic staff, non-acad. staff, students, external stakeholders
	Other institutions: At the discretion of TEIs[17] (most have external stakeholders)	Ancient universities of Scotland: Elected by internal bodies[18] Charter universities: Elected by governing board	Academic staff, non-acad. staff, students, external stakeholders

Definition: *Governing board* refers to a group of people who steer the strategic orientation and oversee the affairs of a tertiary education institution. The governing board may have different names depending on the institutional governance structure of each country (*e.g.* board of trustees, board of governors, university council, administrative council, supervisory board, *etc.*). The term external stakeholders refers to people external to the tertiary education institution such as representatives of industry, the business community or regional/local authorities.

Notes: *a*: Information not applicable because the category does not apply; *TEI*: Tertiary education institution.
1. Information concerns universities only and does not account for the non-university sector.
2. The national framework requires that there must be a majority of external independent members (not defined as "stakeholders") who are neither enrolled as students nor employed as staff. This is a condition to be eligible to certain funding under the Act.
3. The national framework requires that members cannot be current members of State or Commonwealth parliament or legislative assembly unless specifically selected by the governing body itself.
4. The President of the Republic must ratify the selection although this is merely formal.
5. Public higher education institutions (ISCED levels 5A and 6) have three types of governing boards with different competencies. Tertiary professional schools (ISCED level 5B) do not have governing boards.
6. In agreement with university status, external stakeholders can be involved.
7. Election procedures are set by the Ministry.
8. The law stipulates that the rector is automatically the head of the governing board. However, the rector is elected by bodies internal to the TEI and appointed by government authorities.
9. There are no governing boards in public TEIs, but the President of a TEI is appointed by government authorities.
10. A supervisory board oversees the affairs of the governing board. Only in the case of publicly-subsidised universities (most of the research-intensive universities) members of the supervisory board are appointed by the government. All universities of applied science have independent legal status and the mode of selection is at the discretion of TEIs.
11. TEIs are free to choose between an elected Rector as chairperson of the board or an appointed Rector and an external member to chair.
12. The creation of Boards of Trustees is allowed by the national framework, but it is not mandatory. The major responsibility of these boards is to provide advice and recommendations on different issues.
13. Information concerns universities only and does not account for vocationally-oriented institutions.
14. Academic staff have the right to be full members of the board. Representatives of TEI employees have the right to be present and to speak at board meetings but may not participate in decisions.
15. Members of public TEIs' governing boards vary by canton and by type of institution.
16. Issues covered in this table refer to publicly-subsidised private TEIs. All higher education institutions in the United Kingdom are legally private independent bodies with a charitable status, most of which are publicly funded.
17. The presence of stakeholders is subject to charters, statutes, instruments and articles at the institution level.
18. Students elect a Rector to chair (except in the University of Edinburgh where he is elected by students and staff).

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Redefinition of academics' and students' roles in institutional governance

The corollary of the trend towards strengthened leadership within TEIs has been a relative weakening of the governance role of academic communities within TEIs. Sporn (2003) notes that in Europe, reforms tended to divide strategic and operational issues between different governance bodies, mainly the senate and leadership positions. The resulting trend has been for faculty senates to lose power, the extreme case being the Netherlands where their role has been cut to advisory. Likewise, Coaldrake *et al.* (2003) observe in Anglo-Saxon systems a discernible shift away from the notion of a parliament of representatives towards a governing body whose members possess the expertise to exercise trusteeship of the institution: "Everywhere there is increased emphasis on the importance of external Council members who have specific expertise or competence and the involvement of internal stakeholders, staff and students who act in the institutional interest rather than representing constituencies."

Yet, this is not to say that academics ought to be excluded from institutional governance. There is consensus in the literature on the importance of academic participation in institutional governance, in light of their access to information that is essential for important decisions and as a way to build consensus and facilitate policy implementation. As noted by de Boer and Goedegebuure (2001), insufficient participation of academics "may affect the input of policy-making (lack of information) and the realisation of the policy decisions (resistance during implementation)". Likewise, a recent OECD review of changing patterns of governance in higher education concludes that effective leadership must involve the TEI community: "university leadership will fail if it leaves 'academic' interests behind. The governance of higher education in the 21st century needs to develop a fusion of academic mission and executive capacity, rather than substitute one for the other" (OECD, 2003).

As a result, most authors emphasise the need to redefine academics' participation in institutional governance. According to Dearlove (2002), TEIs need to go beyond the dichotomy between collegiality and managerialism and "academics must be involved and prepared to lead, but they must also work in partnership with administrators, in institutions that will be strong to the extent that there is a shared vision that makes the institution rather more than just the sum of warring departments". Increasingly, this redefinition of roles is believed to be best achieved by adjusting the level of faculty participation to the type of decision being considered (Norbäck, 2000; Brown, 2001). In this perspective – which is in line with the principle of subsidiarity – faculty control over academic affairs is encouraged while general administration and financial decisions appear to be best dealt with by executive teams.

The Netherlands illustrate this approach. Both research-intensive universities and universities of applied science (*hogescholen*) provide staff and students with an advisory voice in governance and management. In addition, the Faculty Deanship – at the discipline level – operates in research universities in a similar way as academic bodies in other countries, through collegial decision-making over academic issues.

Students have also been increasingly involved in institutional governance. The justification for their involvement in institutional decision-making is twofold. Firstly, as direct users of TEIs' services, students and their representatives constitute key stakeholders from an accountability perspective. But in addition to this role, the drive of many tertiary education systems towards market-type mechanisms entails greater input from users as TEIs need to be familiar with their needs and expectations to respond and provide the right type of services. As a matter of fact, the practice of including members

of the student community in governing boards has been particularly common in Anglo-Saxon systems, where the market dimension tends to be more developed (Coaldrake *et al.*, 2003).

Yet, the involvement of students in institutional governance is less consensual among researchers than is the case for academics. A number of arguments have been advanced to support students' participation in TEIs' governing boards: as an expression of the ideal of democracy, on accountability grounds, to contribute to their personal development, as a right since tertiary education will impact on them, due to their privileged position to assess curricula and teaching practices, and as a way to promote a positive organisational climate of openness, communication, solidarity and trust (McGrath, 1970; Lee, 1987; Wood, 1993). At the same time, it has been argued that students are not necessarily in a position to represent the interest of their group, their involvement can lead to conflict of interest as they do not have the responsibility of serving the public (which is the trustees' responsibility) and they have limited knowledge and experience (Wood, 1993). Moreover, Zuo and Ratsoy (1999) detect a lack of interest of students in academic issues and express concerns with the potential adverse impact governance duties could have on their educational progress.

In any case, just like academics, it has been argued that the level of involvement of students in institutional governance ought to vary depending on the issue at stake. Indeed, the decisive role of students in decision-making can be problematic in the election of leadership, and in the determination of priorities and budgets between issues of immediate relevance to them (teaching, social services) and those with less direct impact (research and innovation). It has therefore been argued that students should have a greater role in issues of quality assurance and student services than in other areas such as strategy, priority-setting and the appointment of institution's leadership.

In practice, the involvement of academic staff in the governing boards of their institution is more or less universal (Table 3.1). Members of non-academic staff are also typically included in the governing board, with the exceptions of Chile (in most cases), the Czech Republic, Estonia, the Netherlands and Sweden. As to students, they are typically represented in their institution's governing board in all countries taking part in the Review but Chile (in most cases), China, Japan and Korea.[47] The governing boards of TEIs also include doctoral students in Poland and the Russian Federation. However, a study of actual practices of 15 European universities and 15 American colleges and universities reports that the participation of students in governance is limited or even weak (Council of Europe, 2000).

Training towards leadership

At the same time as institutional leadership has been empowered, the need for professional skills in management has been heightened. In Australia, a 1995 national review of university management recommended changes to governing boards' appointment procedures to ensure that members have the necessary skills (Hoare *et al.*, 1995). This claim was reiterated during the Higher Education at the Crossroads Review in 2002. Similar concerns exist in the United Kingdom, as evidenced by the 2003 White Paper (DfES, 2003):

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47.   Public TEIs do not have governing boards in Korea but a President appointed by government authorities.

"Universities are multi-million pound organisations with a vast array of different functions and components. They must split their resources between providing the capital infrastructure for both teaching and research, compete for the best staff, and often act as both landlord and major social centre for a large body of students. They have a key role within their communities and in their contribution to community leadership. In such a complicated environment, management poses exceptional challenges (…) Universities need the full range of professional skills among their managers and administrators."

And indeed, several studies discern insufficiently-developed managerial skills among TEIs' leaders. As put by Askling and Stensaker (2002), "when faced with the new public management rhetoric emphasising strong leadership in academe, expectations may exceed the real capacity of many current leaders." Bargh *et al.* (2000) attribute this to the fact that governing bodies largely continue to hold the view that universities have to be run by academics or those with academic backgrounds. As a result, managerial expertise is seen as additional to a strong academic track record rather than the driving consideration in an appointment. The lack of attractiveness of the profession – in terms of salaries – is also highlighted by Askling (2001) and Sporn (2003). Given the difficulties for many TEIs to compete with the private sector in attracting qualified managers, and the preference for having TEIs led by individuals with an academic background, a key challenge is to train a range of individuals to equip them with adequate skills to successfully embrace their new leadership roles (Portfelt, 2002).

Countries taking part in the Review have addressed this challenge in varied ways. In Australia, a set of *National Governance Protocols* were developed to ensure – among others – that there is an appropriate skill mix among members of the governing boards, including strong financial expertise and ensuring adequate and continuing professional development for members. Prior to 2008, as an incentive to comply with the protocols, the Government made incremental funding increases in the *Commonwealth Grant Scheme* conditional on universities providing evidence of such compliance. From 2008, subject to changes to legislation, compliance will no longer be a condition for funding. In the Netherlands, involvement in the *Supervisory Board* is often viewed as a training ground for some outside personnel who are subsequently appointed to *Executive Board* positions while in the United Kingdom, a *Leadership Foundation* was set up in 2004 to develop and improve the management and leadership skills of existing and future leaders of tertiary education. In the Czech Republic, students – through the Academic Centre of Students' Activities – have developed a training programme to prepare their representatives for their important role in university governance.

3.6.3 Enhanced accountability to external stakeholders

Impetus for involving external stakeholders

At the same time as institutional strategic leadership has been strengthened within TEIs, another major trend has been a push towards a growing openness of TEIs *vis-à-vis* their environment. The two main rationales underlying the involvement of external members in TEIs' governing boards has been to enhance TEIs' responsiveness to the needs of society, and as a way to reinforce institutional leadership and introduce shared governance which is viewed as necessary to make strategies more successful (Sporn, 2001).

As a matter of fact, the above analysis on system linkages has shown how in many countries national policies have encouraged the involvement of stakeholders in the governance structure of TEIs. Bringing in more people with industrial or commercial experience has been viewed as a way to enhance linkages with the economy and improve internal efficiency, while the engagement of representatives from local or regional governments was deemed to reflect regional interests in TEIs' missions, strategies and activities, and hence enhance their contribution to regional development.

In all countries taking part in the review, TEIs have been stimulated to open-up more to industry – be it global multinational industries or regional firms – and to their surrounding communities and regional actors (see Sections 3.5.1, 3.5.2 and Chapter 9). Those linkages with the economy and regional stakeholders have been encouraged through a variety of mechanisms, ranging from funding incentives to regulations and quality assurance monitoring criteria. But another policy-lever lies in the direct involvement of external stakeholders in TEIs' governance.

What is known about external stakeholder participation in institutional governance

Several studies have noted the growing role of external stakeholders in institutional governance during the past 10 to 15 years, be it in European or in Anglo-Saxon systems (de Wit and Verhoeven, 2000; Maassen, 2000; Coaldrake *et al.*, 2003). From a policy making perspective, two issues are relevant with respect to the capacity for individuals external to the TEI to play a role in the steering of its strategic orientation and the supervision of its management. The first one relates to the extent to which the legislative framework includes provisions concerning the involvement of external stakeholders in TEIs' governing boards. Another issue concerns the extent and conditions for external stakeholders' involvement in the governance of TEIs in practice.

With respect to the legislative framework's provisions regarding the involvement of external stakeholders, several patterns can be identified among countries taking part in the Review (Table 3.1). A number of countries impose the involvement of external stakeholders by way of legislative provisions stipulating that external stakeholders must participate in TEIs' governance. This is the case in Belgium (Flemish Community), Chile, Croatia, the Czech Republic (for scientific and trustees' boards), Finland, Iceland, Japan (for national universities), Mexico (for technological, polytechnic and intercultural TEIs), New Zealand, Norway, Portugal, Sweden and the United Kingdom (for higher education corporations). In other cases, the involvement of stakeholders in institutional governance is left at the discretion of the institutions themselves. TEIs in China, Estonia, Korea, the Netherlands, Poland, the Russian Federation, Spain and Switzerland operate under this model. This is also the case in Japan for public university corporations, in Mexico for federal and state universities and in Scotland for pre-1992 TEIs. Greece is the only country taking part in the Review where the involvement of external stakeholders in the governance of TEIs is forbidden by law.

Australia adopted an interesting approach whereby the involvement of external stakeholders is left at the discretion of TEIs, supported by a set of *National Governance Protocols* which recommend that the majority of governing boards' members be external and independent. A recent study of the background of *University Council* members across all Australian universities shows that external stakeholders made up 60% of the councils, with on average 32% of members drawn from business and the professions, 10% from local communities, 7% each of *alumni* and public servants, and 4% of politicians (AVCC, 2003). Internal members include academic staff (17%), students (10%), executive and

support staff (6% each). Another noteworthy practice is the involvement of foreign stakeholders in quite a few Norwegian TEIs' governing boards as a way to exchange experiences on general aspects of governance, management and organisation as well as more specific aspects such as quality assurance or internationalisation.

As to the extent of external stakeholders' participation in institutional governance, they are in practice typically represented in TEIs' governing boards, with the exceptions of Croatia, Estonia, Greece, Korea, Mexico (for federal and state universities), Poland and Spain (Table 3.1).

Countries also differ in terms of the power granted to external stakeholders in TEIs' governing boards. Among countries where legislative provisions impose the involvement of stakeholders, Belgium (Flemish Community) and Finland limit their power by indicating that they must represent a minority of the governing board members. This is also the case in Spain where TEIs, whilst free to involve external stakeholders in their governing board, must limit their number to 3 seats out of 50 members. By contrast, legislative provisions stipulate that external stakeholders must make up a majority of TEIs' governing boards in the Czech Republic (where they make up 100% of the membership of boards of trustees), and most post-1992 TEIs in Scotland. In countries without specific legislative provisions, external stakeholders usually constitute a majority in Australia and New Zealand (Table 3.1).

Yet, the involvement of external stakeholders in institutional governance raises a number of challenges. There is evidence that external stakeholders have often entered the tertiary education environment in a superficial way, and proved less effective than expected (Maassen, 2000; Bennett, 2002). De Wit and Verhoeven (2000) note wide fluctuations in the degree of involvement of external stakeholders in Flemish tertiary education.

A common problem derives from the difficulty in finding motivated individuals as external representatives in governing boards. In Portugal for instance, Amaral and Magalhães (2002) found evidence that some new external stakeholders were unwilling to devote the time and energy necessary to play a relevant role in the management of TEIs. According to Perotti (2007), the extent of linkages with the labour market depends on the structure of the economy. She argues, in the Spanish context, that the scant propensity of the industry to innovate (with the exception of certain multinationals) and the weight of traditional sectors such as construction and tourism provide low incentives for economic actors to get involved in tertiary education and to develop synergies with universities.

Another challenge relates to the range of powers assigned to governing boards with external representation. Indeed, some authors have warned against the risk that external membership raises detrimental conflicts of interest. Illustrating such conflicts, granting a strong decision-making power to external stakeholders over scientific and academic issues may create adverse results such as the academic quality of research being only partially attained, or teaching evaluations being manipulated by teaching to the test of giving students an easy pass, thereby undermining the long-run goals of educational quality (Jacobs and van der Ploeg, 2006). As a result, Jacobs and van der Ploeg advocate granting separate responsibilities to stakeholders, and holding them accountable of their actions as much as possible. In general, there is agreement in the literature that decisions where external stakeholders ought to have a say relate to the overall mission and strategy of TEIs as well as financial oversight. A number of authors suggest however to leave academic and scientific matters in the hands of collegial bodies (Norbäck, 2000; Brown, 2001; Dearlove, 2002).

3.7 Development of tertiary education policy

Finally this last Section explores the process of shaping tertiary education policy. The above discussion has shown that a key priority for governments is to provide a clear articulation of the nation's expectations of TEIs (see Section 3.2.3). The focus here is on how this is achieved, *i.e.* the processes by which the goals and strategic aims of tertiary education are established. The process of policy design involves a number of challenges to yield sound policies. Ideally, policy would need to be based upon informed policy diagnosis, drawn on best practice, backed up by adequate research evidence, and consistent – both intrinsically and with policies in other areas of public action. Of equal importance is consensus-building among the various stakeholders involved – or with an interest – in tertiary education.

This Section therefore reviews how tertiary education policy is formed in countries involved in the Review. The first part focuses on more technical aspects, with emphasis on research and evidence-based policy making, peer learning, tradeoffs and issues of policy coherence across governmental departments. The analysis then turns to more political issues, looking at country-specific approaches to policy making, consultative processes and consensus building. A number of these aspects are also relevant to the challenge of policy implementation, covered in Chapter 11.

3.7.1 Policy design

Research and evidence-based policy making

It is often said that "an army marches on its stomach" – and it is equally true that a government department moves on the basis of good information. It gains its policy edge from its capacity to imagine the system in complex sociological and economic terms, to predict outcomes, and to fashion well-understood options for government and TEIs to consider.

The past decade has seen the resurgence of interest in evidence-informed policy in education, defined as "the conscientious and explicit use of current best evidence in making decisions and choosing between policy options" (OECD, 2007c). A significant force behind this trend has been the greater interest shown by treasuries and finance ministries in the effectiveness of educational expenditure as a major component of overall public expenditure – 13.4% in the OECD on average (OECD, 2007a). In this context, there is increasing interest by education policy makers in finding evidence to demonstrate what education actually delivers. A further driving force has been the greater diversity of policy makers as TEIs gained autonomy. These factors have made evidence more important than ever before as a basis for policy decisions.

The strategic importance of tertiary education in knowledge economies means that tertiary education policy can have far-reaching impacts on all members of society, and it is thus crucial that policy decisions be made with the best available evidence. In this respect, Salmi (2003) identifies four uses of information for tertiary education policy development. First, evidence can assist the diagnosis of what is right and what is wrong. It can also provide some accountability to the public and funders of tertiary education. Benchmarking activities are also gaining ground in an increasingly competitive environment – both nationally and internationally. Finally, indicators and research can be

used to take stock of policy implementation and make informed choices for the future, through monitoring and forecasting activities.

Yet, policy makers often face a dilemma, having to make swift decisions based on the information they have, while this information is far from perfect. This may be either because the rigorous data or research relevant to policy needs have not been collected/conducted; due to insufficient policy/research interaction translating in insufficient dissemination of research results or their overlooking by policy makers; or simply because the research that is available is contradictory and so does not suggest a single course of action that could be reflected in policy (OECD, 2007c).

In this respect, a number of gaps in the evidence and research basis supporting policy development have been identified during the Review through country background reports and the detailed analyses of external review teams (see Appendix C). In several countries, these gaps constrain policy diagnosis and analysis, and the ability of policy makers to convincingly support proposed changes and reforms. At the same time, the Review has also identified a number of situations in which rich datasets provide national policy makers with formidable instruments for self-scrutiny and sound policy diagnosis, for gauging and contrasting the impact of alternative policy scenarios, and for assessing the success or otherwise of their policies. A few of them are worth mentioning as an illustration.

In the United Kingdom, the *National Students Survey (NSS)* provides useful information for prospective students on institutional quality as well as for TEIs on ways to enhance the quality of their services (see Box 3.2). Likewise, Australia and Mexico are amongst the few countries in the world where standardised tests exist to assess the skills of graduating students, through the *Graduate Skills Assessment (GSA)* and the *General Degree Graduation Exam (EGEL and EGETSU)* respectively (see Box 5.2). With respect to the labour market relevance of tertiary education, the *Higher Education Graduate Employment Observatory* in Chile as well as the *Labour Market Observatory* in Mexico constitute good models for the development of information systems on the labour market outcomes of tertiary graduates (see Box 9.1). The United States has also a long tradition in developing comprehensive surveys in the area of tertiary education including information about providers (*e.g. Integrated Postsecondary Education Data System* – IPEDS), academics (*e.g. National Study of Postsecondary Faculty* – NSOPF), and students (for example, longitudinal surveys such as the *Beginning Postsecondary Students Longitudinal Study* – BPS).[48]

Research evidence is another tool which is useful to assess the success of policies implemented, in a monitoring perspective, and from a prospective angle, predict the likely outcomes of proposed reforms on the basis of their impact in different regional/national contexts. The Netherlands provides a good illustration of how governments' willingness to make use of disinterested research expertise can constitute a strength for policy making. The *Advisory Council for Science and Technology Policy* – which is independent of both the government and the TEIs – has a mandate to provide government and Parliament with long-term strategic advice. At times, the government also draws on foreign expertise, *e.g.* through the evaluation of policy tools and reviews by OECD external teams.

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48.   See Institute of Education Sciences, National Center for Education Statistics, *www.nces.ed.gov*

Australia and New Zealand provide other good illustrations of extensive use of research evidence as a basis for policy design. In Australia, the Department of Education, Employment and Workplace Relations commissions a broad range of policy-oriented research on virtually all areas of tertiary education policy and publishes those reports on its Web site.[49] Not only is research used in policy design but its easy access for all stakeholders through a unique entry gate can contribute to the dissemination of research findings and consensus-building. Likewise, in New Zealand, information dissemination is a priority. This is illustrated by the creation of a collaborative Web site for the Tertiary Education Sector which was designed not only to disseminate relevant documents but also to collect views of the different actors in the system.[50] In addition, a special unit – *Tertiary Sector Performance Analysis and Reporting* – for monitoring performance in the tertiary education sector is established within the Ministry of Education which, for example, produces a yearly publication on the profile and trends in the tertiary education sector.

Peer-learning: importance of international perspectives

In an increasingly global and competitive environment, peer-learning and international perspectives gain strategic value in the policy making process. Indeed, it is important not to be too inward-looking when considering alternative policy options. It is all too easy, in reviewing a single system, to be over-impressed by its internal logic and to see too many characteristics as over-determined by national history and tradition and by apparently irreversible current trends. Contrasting national practices with those of other countries facing similar situations and constraints can enlighten the national debate by showcasing interesting initiatives in different countries.

A strand of literature discusses cross-border policy diffusion and influences from peers in the policy making process. Policy adoption has been explained using the diffusion of policy innovation framework and its international forms: policy-borrowing, emulation and transfer (Bennett, 1997; Smith *et al.*, 2002). As put by Cohen-Vogel and Ingle (2007), successful policy makers look elsewhere for good ideas. According to these models, conditions are transformed into problems through comparisons with other relevant benchmarking units (*e.g.* cities, states, nations) and new ideas diffuse to neighbouring constituencies through emulation and imitation. Competition is often at the core of cross-border policy diffusion. McLendon *et al.* (2005), for instance, find ample evidence that policies diffuse and spread across states in the United States, a pattern which they largely attribute to interstate competition as well as formal and informal networks that develop between regional policy makers and their agents.

Cohen-Vogel and Ingle (2007) shed light – albeit from an interstate rather than international case study – on the process by which external influences on the policy making process take place. Their findings indicate that peer-learning is most pronounced during the agenda-setting and policy proposal formulation, and least during adoption. In the United States, regional diffusion influences were central to the specification of policy alternatives, both in terms of proposal for new policies as well as in their specifications, which often sought to address problems encountered by early adopters of policy reforms. Peer-learning is therefore important from two perspectives, as a way to bring attention to policies implemented elsewhere, but also from a policy design angle as a way to discuss

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49.   See *www.dest.gov.au/sectors/higher_education/publications_resources/profiles*

50.   It is called *TiWiki* and can be accessed through *http://wiki.tertiary.govt.nz*

alternative specifications and their effectiveness. In countries participating in the Review, international influences and peer-learning on policy design occur in different ways.

A first diffusion channel derives from the influence of supranational inter- and non-governmental organisations. Huisman and van der Wende (2004) note indeed that "the invisible hands of supranational organisations have an impact on the change from greater introspection of governments (focusing on solving domestic problems) towards a more inter- and cross-national perspective on domestic problem solving. It has certainly increased the awareness of 'foreign' or even European solutions to certain policy problems, and in a number of instances has led to policy borrowing and imitation." This influence of supranational organisations takes place through the development of comparative indicators and analyses – like OECD's – as well as the dissemination of best-practice and the development of international guidelines as has been the case in quality assurance (see Chapters 5 and 10). Moreover, these supranational organisations provide a platform for policy makers to discuss policy alternatives in tertiary education and to showcase best-practice and innovative initiatives. As such, they help benchmark national systems against international standards.

The convergence of tertiary education policies has been especially marked in the European area, where many authors observed increased convergence of national policies through, in particular, the Bologna Process. As put by Perotti (2007), "supranational conventions have exerted isomorphic pressure which legislators find difficult to ignore (…) The need for the comparability and mutual recognition of university qualifications among member-countries has fostered, if not entailed, a restructuring of academic programmes which national actors (often hostile to innovations which they themselves have not promoted) would not otherwise have undertaken".

But peer-learning in policy design distils through other channels. Some countries include a small number of non-national members in high level bodies in charge of developing the overall strategy for tertiary education. This ensures that policy making benefits from an international outward-looking perspective. Peer-learning also takes place in less formal ways. In Australia for instance, the framework for choosing national research priorities reflects an analysis of experiences both within Australia and overseas.

Policy coherence

Intrinsic coherence: policy tradeoffs

Policy development inevitably involves tradeoffs. As noted by Cummings and Riddell (1992), there may be conflicts between the interests of political leaders, such as a desire to control patronage, and those of donors and other educational reformers seeking to improve educational outcomes. Even among those seeking to improve education, there may be disagreements about the relative importance of equity, administrative efficiency, and educational effectiveness. The challenge for policy makers is therefore to weight the tradeoffs of different policy initiatives – individually set in a particular context – against each other to develop a coherent package at the system level. In doing so however, there is a degree of subjectivity as to the relative importance to give to the different aspects. As put by Cummings and Riddell, "the decision to opt for one path rather than another will be a matter of politics in the end."

The issue of intrinsic policy coherence is all the more relevant in tertiary education given its bearing, not only on individuals' future labour market performance and socio-economic status, but its simultaneous impact on the nation's human capital, labour market, capacity for innovation, economic performance and the development of regions. These multiple dimensions create tensions between policy initiatives which may end-up being mutually contradictory. The literature describes a legion of such "policy paradoxes" (Cummings and Riddell, 1992; Newby, 1999; Woodrow, 1999; Trowler, 2002; Jacobs and van der Ploeg, 2006; Fuller, 2007).

In order to shed some light on the difficulties involved in designing sound and coherent tertiary education policies, some of these tradeoffs are illustrated below. This list does not aim at exhaustivity nor does it seek to provide definitive answers on how to resolve these tensions. Ultimately, the balance to be struck between the following dimensions is a matter of national debate and consensus-building among national stakeholders and policy makers.

– Tradeoffs efficiency *vs.* equity

In some systems, an emerging trend is to introduce cost-sharing so that a greater proportion of the costs of tertiary education are borne by the students themselves. If meanwhile grants and loan programmes are insufficiently developed a tradeoff arises between improving cost-effectiveness and enhancing equity of access.

This tradeoff is often observed in lifelong learning policies given the greater use of cost-sharing for adult programmes and the fact that mature students are not always eligible to financial aid.

In some systems, financial incentives or penalties are introduced to reduce the length of study duration, and hence improve the efficiency of the system. While such mechanisms may indeed address problems of moral hazard, they also penalise students who face genuine difficulties with their studies – who are more likely to come from more disadvantaged groups.

– Tradeoff efficiency *vs.* transaction costs

In some countries, a broad range of instruments are used to steer the system in the desired direction – *e.g.* through transparent funding formulas, targeted funds *etc.* However the multiplication of such schemes may increase transaction costs, make monitoring more complex, and make strategic direction of the system less clear.

– Tradeoffs access *vs.* quality

In systems which have not yet completed their transition from elite to mass participation in tertiary education, tradeoffs have to be made between the emphasis given to qualitative enhancement and enlargement of access.

Likewise, policies aiming at attracting international students through subsidised tuition to enhance the intercultural skills of domestic students may impose a heavy burden on systems which are still striving to expand participation.

– Tradeoffs quality *vs.* relevance

In systems with input-based funding, TEIs are fully responsible for cost savings that can be made, but they do not have strong incentives to supply quantity and quality of output. Output funding restores incentives to supply the socially desirable level of output but has the unintended disadvantage that it may induce

grade inflation. Devising funding allocation mechanisms therefore involves a tradeoff between providing the socially desirable level of output and keeping incentives to reduce costs and avoid grade inflation.

Likewise, efforts to boost research quality using publication metrics need to be balanced against efforts to increase the involvement of TEI researchers in industrial applications through collaboration with industry.

– Tradeoffs quality *vs.* equity

In some systems, TEIs are allowed to set their own tuition fees so that market forces give them incentives to increase the quality of their services. However, this can have an adverse impact on equity if capital market imperfections exist, as poorer students are not able to pay for high-quality TEIs and stratification along incomes – rather than abilities – develops (See Chapter 4).

Some governments have signalled their intention to rationalise their tertiary education systems through a process of mergers that will lead to a reduction in the number of independent TEIs. These mergers have as their main objective to develop internationally competitive and stronger TEIs, but the scaling down of the sector may work against widening access in regions.

– Tradeoffs quality *vs.* regional engagement

Systems often face a difficult tradeoff in balancing regional strategies with those aiming at enhancing the quality of teaching and research – which imply a strong emphasis on acute international benchmarking and some degree of concentration to attain critical mass and excellence.

Likewise, tensions exist between the need to meet intensified international competition in research of key national importance, while at the same time widening the scope and quality of research relevant to regional development.

– Tradeoff accountability *vs.* flexibility

As governments have become much more performance-focused, the accountability movement has increased formalised planning, reporting and control through quality assurance mechanisms and performance contract negotiations. The implication is increased bureaucracy. Policy makers therefore need to find a balance between the need for public accountability and the scope for flexibility, as insufficient accountability may lead to abuse and mismanagement but too much of it creates risks of an inefficient and unresponsive system.

– Tradeoff competition *vs.* cooperation / quality *vs.* diversification

Finally, efforts towards enhancing market mechanisms to foster competition between TEIs and stimulate quality improvements may hamper simultaneous efforts towards co-operation between TEIs and diversification of tertiary education offerings.

These few examples illustrate the challenges ahead for policy makers in designing tertiary education policies that have intrinsic coherence. How these tensions are managed and the manner in which they are resolved constitute key decisions that demand imagination, design capacity and skilled application from those responsible for their formulation and implementation.

Policy co-ordination

Policy coherence is not only necessary intrinsically – in resolving tensions and tradeoffs between different lines of intervention – but there is also a need for policy co-ordination across the different areas of public policy that have a bearing on – or may be affected by – tertiary education policy. Indeed, the central role of tertiary education for science and innovation as well as its strategic contribution to building the human capital needed for the knowledge economy underline the close interactions between tertiary education policies and those dealing with science, technology and industry, employment and labour as well as national and regional economic development.

Indeed Gornitzka (1999) observes that in most tertiary education systems, TEIs face many constituents, including different government actors, whose expectations are usually not unitary and coherent. Instead they may find themselves in a jungle of conflicting requirements from different types of government policies and programmes. Turning policy interactions into synergies rather than conflicting signals therefore, is a matter of policy co-ordination. This requires capacity to work across different portfolio areas so as to integrate tertiary education more effectively into national priorities. In particular, the Review identified a number of areas in which a better integration of related policies has potential for creating virtuous synergies:

– With economics and finance authorities

Coordination with economics and finance authorities is critical to ensure that tertiary education finds its place and best serves the national economic strategy, while receiving adequate funding to fulfil its mission and with due regard for its non-economic contribution to the broader society (see Chapters 2, 4 and 6).

– With science and technology authorities

Coordination with science and technology authorities is important to ensure that TEIs' activities fit within the broad national innovation strategy and policy framework, and to warrant that signals sent to TEIs in the form of funding steering incentives are consistent across tertiary education and science policies (see Chapters 4 and 7).

Coordination with science and technology authorities is also critical to make sure that the introduction of research priorities in tertiary education does not result in shortages of highly-skilled workers in non-priority areas – especially given that it can take many years to educate and train new R&D personnel (see Chapter 7).

Coordination with science and technology authorities may also be useful to limit the accountability burden on TEIs, *e.g.* through enhanced coordination and integration of teaching and research quality assurance mechanisms (see Chapters 5 and 7).

Coordination with science and technology authorities may also be necessary so that international research co-operation of TEIs delivers the desired outcomes and effectively contributes to research and innovation at the national level (see Chapters 7 and 10).

– With regional development authorities and regional/local levels of government

Coordination with regional development authorities as well as regional/local levels of government is critical to develop joined up policy interventions for regional engagement instead of having different authorities operate in silos, thereby sending contradictory signals to TEIs (see above).

– With labour authorities

Coordination with labour authorities is critical in systems where responsibility for vocational TEIs rests with labour ministries, so as to ensure the coherence of tertiary education policies across the vocational/academic divide (see above).

Coordination with labour authorities is also important more generally to ensure that tertiary education offerings are geared towards areas of employment need and future labour market demand (see Chapter 9).

Coordination with labour authorities may also be necessary in the areas of lifelong learning and the training of workers so as to grasp the full benefits of system diversification. These areas are indeed often under the oversight of labour ministries (see above and Chapter 9).

– With immigration authorities

Co-ordination with immigration policies is desirable to ensure that immigration provisions create a positive framework for internationalisation and science policies. Indeed, immigration blockages and delays impede the recruitment of international students – with possible implications on TEIs' funding – and put the global competitiveness of the system in jeopardy as a result of difficulties in attracting foreign academics and globally mobile intellectual workers (see Chapters 7, 8 and 10).

– With foreign affairs authorities and international aid agencies

Co-ordination with foreign affairs authorities may help ensure that financial support to incoming international students meets the goals of both labour and immigration authorities – in a future immigration perspective – as well as the objectives of development assistance to developing countries. Engaging international aid agencies may also warrant that the education of nationals from developing countries includes provisions to encourage brain circulation instead of brain drain (see Chapter 10).

Some countries have addressed the challenge of policy co-ordination by institutionalising arrangements for policy consultation within government, developing inter-ministerial bodies or cluster groups that link tertiary education officials to public authorities with responsibility for complementary lines of policy – typically representatives from tertiary education, finance and administration, foreign affairs, foreign aid, immigration, industry, labour, tourism, and trade. Such arrangements warrant a whole-of-government approach.

3.7.2 Consultative processes and consensus building over tertiary education policy

An important aspect of policy development relates to the processes which policy makers put in place to build consensus over policies across a wide range of stakeholders involved – or with an interest – in tertiary education. Indeed, a number of studies stress

the critical importance of consensus-building for the success of policy implementation (Fiske, 1996; Johnstone *et al.*, 1998; Finlay *et al.*, 1998; Corrales, 1999; Lindell, 2004). While these aspects are discussed in greater detail in Chapter 11, this Section briefly outlines the processes put in place during the policy development phase to consult with stakeholders and build consensus over tertiary education reforms.

Development of overarching strategy for tertiary education

It is important for the purpose of building consensus over tertiary education policies and reforms that all relevant parties see the role that they should play within the broader policy framework. In this respect, awareness of the global challenges and understanding of the medium and long-term priorities of the system are crucial. To this aim, Jacobs and van der Ploeg (2006) call for "a clear vision on the goals of higher education, and how these goals can be reached" in order to inform a rational debate on higher education reform with a stronger emphasis on the general interest. Olsen (1989) echoes this claim, arguing that policies are more likely to succeed if their intentions are focused and well defined rather than ambiguous.

The above discussion on the role of the State in tertiary education has underlined the importance of constructing a common vision for the system, so that policy debates can focus on the system direction rather than concentrating solely on resourcing issues – even though any sensible discussion obviously requires an understanding of resources and constraints. It is therefore important to devise a national strategy that all stakeholders can refer to, but the way by which such a strategy is developed is equally important for stakeholders' endorsement.

Collective ownership – and endorsement – of the overall strategy can be achieved by involving all stakeholders in the definition of priorities and policy planning. One option may be to establish a National Council or Forum of Tertiary Education – in the same fashion as the Netherlands' Innovation Platform in Science and Technology – to assist with the integration of strategic leadership, policy planning and co-ordination among the main actors.

System steering and approach to policy making

Such a collective and consensual approach to policy development is already a feature of some countries taking part in the Review, while it is less prevalent in other systems. For instance, Bleiklie (2000) contrasts the tertiary education reform styles of England, Norway and Sweden, arguing that the reform process was comparatively confrontational in England, with reforms fairly centralised, radical and relying more on tougher measures in order to discipline non-compliant institutions. By contrast, reforms in Norway are more incremental, less radical and with a gradual evolution in a value-structure driven process and considerable local variation. The policy making process in Sweden illustrates an adversarial style, with an uneasy tug-of-war between two major political blocs with very different versions of tertiary education.

Gornitzka (1999) sheds light on the underlying explanations for differences in approaches to policy making, arguing that policy development and the interactions between TEIs and the government need to be seen within the overall system of State steering of the tertiary education sector. Building on Olsen's (1988) four State models of national steering and control of tertiary education, she proposes four main models of policy development and implementation. While no country can be said to perfectly reflect any of these theoretical models, differences in modes of steering suggest possible candidates as illustrations:

– Firstly, in the ***sovereign State model*** – or model of State control – tertiary education is seen as an instrument for reaching economic or social goals, through tight control over TEIs and a strong emphasis on accountability to political authorities.

Under this model, decision-making is centralised and operates "top down" from one single centre of control to TEIs. The main arena for policy discussions is within elected assemblies while the civil service acts as a neutral but politically loyal chain of command. Policy changes therefore follow changes in the political leadership.

– In the second model – ***the institutional State*** – TEIs have a special responsibility to protect academic values and traditions against shifting political coalitions and short term interests of stakeholder groups. There are unwritten conventions of State non-interference in tertiary education affairs.

Under this model, decision-making is specialised and traditionalist and the policy arena is dominated by institutional leaders whose authority is derived from the history and traditions of their institutions. The government uses a hands-off approach and policy changes in tertiary education take place through historical and evolutionary processes rather than as a result of reforms.

– The third model – the ***corporate-pluralist State*** – challenges the view that the State has a monopoly over power and control, and relies upon several competing centres of authority and control reflecting the constellation of interests voiced by different stakeholder groups.

Under this model, decision-making is segmented and dominated by clusters of stakeholder groups (the government being one of them) which operate through consultations and negotiations. The arena of policy making consists of a corporate network of public boards, councils and commissions. Government interference depends upon power relationships and policy changes in tertiary education are the result of changes in power, interests and alliances.

– Finally, the fourth model – the **supermarket State** – is characterised by a minimal role of the State and a heavy reliance upon market mechanisms to regulate the sector.

Under this model, there is a strong decentralisation of decision-making in each TEI, and there is no real arena for policy making. The government acts as a night watcher, ensuring that market mechanisms in tertiary education run smoothly. As a result, changes in tertiary education depend on the rate of stability or change in the environment of TEIs.

Importance of consultation processes to build consensus

In fact, no country perfectly fits the theoretical models proposed above, and even in more centralised systems, some mechanisms exist to consult stakeholders and involve them in policy development. This is not only because consultative processes facilitate policy implementation. Consultations are also useful, allowing the government to think through its objectives, to discuss crucial issues with stakeholders and to adjust policy strategies accordingly. Yet, consultative processes are carried out in varied ways across countries participating in the Review.

In some countries, consultative processes are established by law. Indeed, distinctive to the Czech Republic is a statutorily-based system of compulsory and exclusive consultation whereby the Ministry is required to consult with two higher education bodies – the *Czech Rectors' Conference* and the *Council of Higher Education Institutions* – on proposals and measures that have a significant impact on TEIs. This consultative process establishes a policy making process that is strongly oriented towards developing and adopting proposals that result in a consensus among TEIs. In addition, the Students' Chamber of the *Council of Higher Education Institutions* enables students to have an influence on strategy issues at the national level, which is quite unusual in Europe. Over time, these consultations have come to be viewed as a useful necessity rather than a legal obligation. Processes of mandatory consultations also exist in Poland, where wide consultation and participation in decision making by key stakeholders are expected and accepted as part of the policy process (*e.g.* through the *General Council for Higher Education*).

Yet in other countries, consultative processes are part of deeply-rooted cultural arrangements and traditions. In describing the policy making process in Sweden, Lindell (2004) notes that "even though the stakeholders are opponents in appearance, the everyday work in parliamentary commissions and joint working groups is done by a small group of professional elites whose agenda is not always optimised for their members only but for the interest of the nation." Over the years, a system of structured consultations has been developed and as a result tertiary education reforms are *de facto* a joint responsibility of the State and the stakeholders since the late 1930s. The consensual nature of policy making is also a feature of Finland, Iceland and Estonia where there is a well established culture of dialogue with the full range of stakeholders in the development of tertiary education policies. Typically, the conclusions of working groups involving stakeholders are taken as recommendations to the Minister, and these recommendations are taken as a basis for conclusive decisions in the majority of cases.

Some countries also engage in *ad-hoc* national consultations when preparing tertiary education reforms. This was for instance the case of Spain for the regionalisation reform in the 1980s. The Ministry organised a national debate that included well publicised open meetings where parents, teachers, students, and interested citizens could make their views known. According to Fiske (1996), "these efforts toward negotiated national consensus have proven considerably more acceptable to the regions that jealously guard their quasi-autonomy than techniques involving more direct intervention." More recently, the *Higher Education at the Crossroads* review in Australia provides another example of extensive consultative processes impacting on the reform design and adjustments through iterative processes. In March 2002, the Australian government initiated a major review of higher education, following the reforms of the late 1980s that created the unified national system of higher education and introduced a new system of tuition fees and loans. A series of discussion papers were prepared, on which submissions were invited. Subsequently, 49 consultation *fora* were held, involving a total of around 800 participants. Moreover, a reference group comprising a number of eminent Australians, representatives of business, industry, students, the indigenous community and the higher education and vocational education and training sectors provided advice to the Review.

The experience of countries participating in the Review suggests that such mechanisms of regular and institutionalised consultation processes contribute to the development of trust among parties, and help them reach consensus. They establish a policy making process that is strongly oriented towards developing and adopting proposals that result in a consensus among parties involved. However, an important

priority for many countries is now to widen the radius of statutory consultation to include other external stakeholders in addition to TEIs and students, such as employers, regional and local governments and community groups and associations. These groups may indeed offer important perspectives which help shape tertiary education for the better.

3.8 Pointers for future policy development

The challenges of tertiary education governance described in this Chapter point to several areas where the processes for structuring, steering and reforming the tertiary education system could be enhanced in order to help countries meet national goals. The priorities today are to ensure that national tertiary education systems are able to function effectively in an increasingly competitive international higher education area, and that they contribute to national development in the context of the knowledge economy.

The policy suggestions that follow are drawn from the experiences reported in the Country Background Reports, the analyses of external review teams, and the wider research literature. Not all of the policy implications apply equally to all 24 reviewed countries. In a number of cases many or most of the policy suggestions are already in place, while for other countries they may have less relevance because of different social, economic and educational structures and traditions. The implications also need to be treated cautiously because in some instances there is not a strong enough research base across a sufficient number of countries to be confident about successful implementation. Rather, the discussion attempts to distil potentially useful ideas and lessons from the experiences of countries that have been searching for better ways to govern their tertiary education systems. However, some common themes are evident in the country reforms now underway. Policy recommendations are therefore grouped under several headings relating to the development of a coherent strategic vision, the establishment of sound instruments for steering tertiary education, the imperative need to build consensus over tertiary education policy, to ensure the coherence of the tertiary education system within extensive levels of diversification, to build system linkages, and to strengthen the ability of institutions to align with the established tertiary education strategy.

It should be stressed that there is no single model of effective tertiary education governance, or a global best practice that can be proposed to national systems of tertiary education. Rather, governance practices need to be developed drawing on national traditions and models. Nonetheless, successful planning appears to require three major elements: the capacity to articulate a vision for the system, appropriate policy instruments to implement this vision, and a way of monitoring performance.

Develop a coherent strategic vision for tertiary education

Devise a statement of strategic aims for tertiary education

A first priority for countries should be to develop a comprehensive and coherent vision for the future of tertiary education, to guide future policy development over the medium and long term in harmony with national social and economic objectives. Ideally, it should result from a systematic national strategic review of tertiary education and entail a clear statement of the strategic aims. A complementary task is communicating this vision clearly and effectively so that all relevant parties see the role that they should play within the broader policy framework. If this vision is not developed, the risk is that, in its

absence, the strategic direction of medium and long term policies will become the accumulation of short term decisions of different system actors based on little more than the daily demands of their environment and the interests of institutions, public administration and other groups.

Draw on a comprehensive advisory body to establish strategic aims for tertiary education

Establishing a vision and objectives for the tertiary education system requires the need for internal reflection, debate and consensus. This suggests that it could prove useful to create a comprehensive body, such as a National Council or Forum of Tertiary Education, to assist with the integration of strategic leadership, policy planning and co-ordination among the main actors. It should be a wide-ranging body with the participation of the main stakeholders in the system, including: government, institutions, students, teaching staff and scientific community, private sector and civil society.

Indeed, different stakeholder groups with an interest in tertiary education often have diverging interests when it comes to tertiary education policy and reforms. Such a body could thus reconcile these diverging interests and lead various stakeholder groups to work together towards the development of an agreed upon medium and long term strategy for tertiary education, leaving the policy formulation and implementation to educational authorities. Such a body would be complementary to tertiary education authorities – as it would make recommendations, not develop policy.

This body could be further strengthened by involving international experts, whose role could be defined as providing an international perspective on problems faced by tertiary education and share ideas on how these problems have been addressed in different national settings for discussion and consideration in the national context.

Establish sound instruments for steering tertiary education

Ensure that the capabilities of tertiary education authorities keep pace with changing responsibilities

As tertiary education authorities divest some responsibilities such as the direct administration of academic institutions and take on others in terms of policy steering and performance evaluation, they need to change their competencies and organisation. For example, they no longer need staff expert in managing government procurement systems, but they need instead to strengthen their capacities with respect to data collection and analysis, policy experimentation, and policy analysis. This requires the ability to judge whether tertiary education is meeting expectations and the improvement of the formal processes of informing, reporting and follow-up. The objective is to reinforce the steering capacity of tertiary education authorities. An evaluation of their staff expertise and current skill needs may be useful to identify potential mismatches and to develop professional development and training programmes to keep pace with changing demands.

The steering functions relevant for tertiary education authorities include the development and administration of financing instruments and the review and monitoring of outcomes for the system as a whole. This need not (and should not) result in more bureaucracy. Tertiary education authorities might explore, for example, a more systematic association with research centres and evaluation experts; create networks of international and national consultants; use a limited number of performance indicators and draw on information technologies more intensively – all as ways of developing capacity to steer tertiary education without overburdening institutions with reporting requirements.

Develop steering instruments to establish a balance between institutional autonomy and public accountability

Developing instruments for steering has potential to achieve accountability and link institutional performance to national purposes while also permitting a wide scope for institutional autonomy. Possible ways of meeting these two goals may include, for example, instruments such as performance contracts, performance-related funding or targeted funding. Especially important is the way money streams – in particular those dealing with research funding, funding of a strategic nature and the funding of study programmes – may be coordinated to give optimal outcomes in the area of quality, efficiency and system responsiveness.

An objective is to steer the system in such a way that the differential contribution of institutions in the system is realised. A possible approach is multi-year performance contracts negotiated between the tertiary education authorities and individual institutions linked to agreed performance targets (*e.g.* for enrolments and graduates in different subject areas and at different qualification levels) that recognise the distinct contribution of each institution to the goals of the system. However, constructing such performance agreements is a complex task and proper expertise has to be developed within tertiary education authorities. A principle is not to make the contracts, negotiations and assessment too detailed – covering numerous aspects of the institution's core business. The idea is to avoid detailed annual reporting requirements towards tailor-made, more strategic forms of accountability.

Use student choice as a means by which to improve quality and efficiency

Government oversight is not the only means to steer the behaviour of educational institutions – and in some instances may not be the best. Depending upon national circumstances, governments may wish to evaluate how they may strategically use institutional competition and student choice as a means to achieve stronger performance from their tertiary system. This may be achieved by recognising new types of institutions, allowing the portability of institutional subsidies and/or student support, strengthening credit transfer and articulation arrangements to foster mobility between institutions, and improving the availability of information about quality to prospective students.

Ensure the coherence of the tertiary education system with extensive diversification

Grasp the benefits of wider and more flexible diversification among tertiary institutions

Extensive and flexible diversification may provide countries with a wider capacity to address varied national needs – in terms of research and innovation, the development of a skilled workforce, social inclusion and regional development – than a system of limited and fixed diversification. Thus, countries might want to assess how much diversification, of what sort and in which regions is best-suited to meet the strategic goals of the system. The mission and profile of individual institutions would need to be clearly defined in accordance with this diversification strategy. There is no single model or best approach to devising a system of tertiary education with extensive levels of diversification. In particular, a diverse system of tertiary education can be conceived either with distinct institutional sectors or within a single institutional type.

It is of paramount importance to establish a clear and positive vision of professional/vocational tertiary education either as a distinct sector or as a specialisation of some institutions within a unitary system. Raising the profile of vocational tertiary education is not easy. The aim should be to promote quality professional and vocational education and training within a tertiary sector which is strongly employer-oriented and closely integrated with the specific labour market needs of each locality and region. The objective is for tertiary-level vocational qualifications to generate their own high status so that professional/vocational programmes are not seen as second-best. In a number of countries where expansion of tertiary education continues and where academic qualifications have been dominant, expansion should concentrate on professionally-orientated programmes.

Finally, achieving a successfully diversified system requires a set of supporting changes to accreditation, quality assurance, human resource management, and governance structures and policies to reflect the distinct mission of individual institutions. For example, quality assurance arrangements need to be specifically designed to be fit for professional/vocational purposes: while academic quality and rigour are essential, it is not appropriate for vocational courses to be assessed against solely academic standards.

Avoid the fragmentation of the tertiary education system

Tertiary systems with a highly diverse institutional base require co-ordination mechanisms to avoid their fragmentation. The risk is that each sub-system evolves independently of others, diverts from its alignment with the system's objectives, leading the overall system to lose coherence. This reinforces the need for a comprehensive strategic body to establish consensual strategic aims which account for the different parts of the tertiary system, mechanisms to define the role of individual institutions in the system, and incentives to ensure that individual institutions stick to their agreed mission and profile. Improving the ways in which institutions collaborate can help create a more coherent system.

In systems with vocationally-oriented sectors, ensure that mechanisms exist to discourage academic drift

In countries with a distinct vocational tertiary sector, institutions in this sector need to develop and take collective ownership of their own distinctive mission, in which they can take pride – and with which they can compete with each other to excel. The rewards for their excellence have to be substantial enough to discourage academic drift. Also, there needs to be a clear understanding by vocational institutions, backed up by appropriate legislation, that they are expected to stick to their vocational mission. Furthermore, in these institutions, the primary criterion for accreditation to award degrees (in new fields, or at master's level) should be a demonstration of adequacy of education provision with labour market demand.

Limit barriers to entry and assess the contribution of individual institutions through quality assurance arrangements

Tertiary education authorities can encourage the expansion of tertiary education as a means to increase the diversity of programme offerings and to broaden participation. In particular, this might include the growth of private provision, possibly as a way to expand educational opportunity at little or no direct public cost. For this to happen, it is important

to remove burdensome administrative requirements that might discourage entry by either public or private institutions. A possible approach is to design simple licensing procedures that outline minimum infrastructure and educational requirements and review the authorisation to operate through effective quality assurance mechanisms that focus on the outputs of the new institutions.

Build system linkages

Ensure appropriate co-ordination between secondary and tertiary education systems

It is essential to achieve a great degree of co-ordination between the secondary and tertiary education systems. Issues such as whether secondary students receive sufficient guidance to grasp the benefits of tertiary education, whether they have access to adequate information to assess the labour market outcomes of different study options, and the extent to which the secondary curricula provide a sound basis for successful tertiary study are key to make the transition between secondary and tertiary education both efficient and equitable. This provides a strong case for close collaboration between officials and practitioners with responsibilities in both secondary and tertiary education systems.

Linkages also need to be strengthened between vocational secondary education and tertiary education, by developing tracks from vocational pathways to tertiary-level study, and providing those students with adequate support to thrive – in the form of remedial and bridging programmes.

Review whether the tertiary education system is contributing effectively to lifelong learning

Building skilled workforces for the knowledge economy entails taking a growing and increasingly diverse range of individuals to tertiary-level studies. Tertiary institutions are often highly adapted to the needs of traditional students but weakly suited to meet the needs for lifelong learning. Therefore, national policy makers should assess whether the flexibility of the system, the relevance of provision and funding arrangements are suited to lifelong learners.

Of particular importance are issues of entrance criteria (to facilitate access of adults on the basis of experience), the suitability of provision to mature learners (part-time, credit-based, distant and short-cycle offerings) and the relevance of provision to the needs of industry (multidisciplinary offerings and job-specific training). Access of mature students to financial support is also critical in systems where cost-sharing has been introduced.

Build linkages between different types of TEIs

In order to warrant the overall coherence of the tertiary education system, it is necessary to guarantee linkages between its several sub-systems. For instance, opportunities should exist for students to move across the vocational-academic divide (in both directions) with appropriate support, at the end of the bachelor's and master's cycles. This would be part of a strategy to stimulate more vigorously flexible learning paths and the validation of previous learning experiences for students throughout the system. This concerns both the transfer across sectors and between institutions in a particular sector. A national qualifications framework is likely to be instrumental, especially in terms of the

recognition of short-cycle pre-bachelor's qualifications. It might also prove to be the means through which the transfer of credits between institutions will not be dependent upon local and voluntary agreements between groups of institutions.

There is also great potential in strengthening co-operation between institutions, as a mean to rationalise the tertiary education system and improve its internal efficiency, but also to enhance the contribution of the system to both the knowledge economy and regional development. Such co-operation can be achieved by encouraging – or supporting – research networks, centres of excellence, collaborative initiatives towards quality-teaching, the sharing of educational facilities and reducing the duplication of programme offerings at national and regional level.

Foster the engagement of institutions with surrounding regions and communities

A number of initiatives can foster the engagement of institutions with surrounding regions and communities. A possibility is to encourage institutions to include regional engagement in their mission statements. The expression of institutions' regional engagement in their mission statements sets expectations about such role which is likely to improve the commitment of institutions to it. A number of incentive and reward mechanisms can also be used to steer the behaviour of institutions located in regions and encourage them to engage with local industries and communities. Other options include strengthening institutional leadership while including regional stakeholders in the governance structure of institutions.

Strengthen the ability of institutions to align with the national tertiary education strategy

Ensure the outward focus of institutions

An imperative is to ensure the outward focus of institutions. This entails strong educational links to employers, regions and labour markets; effective university-industry links for research and innovation; participation of external stakeholders in system and institutional governance and in quality assurance; a significant share of external funds in institutional budgets; and a broad internationalisation policy portfolio.

Require institutions to establish strategic plans

One simple way to encourage institutions to more deliberately contribute to the goals of the tertiary system would be for the tertiary education authorities to require all institutions in receipt of public funding to prepare, and regularly update, meaningful strategic plans aligned with the national tertiary education strategy. These would be submitted both as a basis for general accountability and to bid for targeted funding. These strategic plans could be disseminated internally and to the general public. As well as their intrinsic value in sharpening institutional missions, setting future directions and highlighting choices that need to be made, the process of preparing strategic plans could be a helpful catalyst in increasing staff and student commitment to their institution and its future – and strengthening their own place in it – and in highlighting issues in governance and management which need to be addressed.

Examine how best to widen the scope of institutional autonomy

It would also be important to review options to widen the scope of institutional autonomy so as to allow for greater responsiveness (to students, stakeholders, regions) and efficiency in operations. Depending upon national traditions and legal codes, this may take the form of: (a) permitting TEIs to be established as legal persons (foundations, not-for-profit corporations) rather than State administrative bodies; or (b) identifying ways of widening institutional autonomy within the framework of State agency, permitting innovations in contracting for services, labour relations, public auditing, and other areas.

The guiding principle should be to grant institutions considerable room for manoeuvre while reserving the steering role for the government. Institutions are to be given wide latitude in managing their own affairs for accomplishing public priorities consistent with their missions. However, the extent of institutional autonomy would need to be differentiated to account for the capacity of individual institutions to exercise such autonomy. It would be desirable to provide institutions with a high degree of autonomy in human resource management and flexible financial regimes to allow them to compete in a range of markets.

Plans for empowering institutions may include legislation permitting institutions to be established as self-governing legal entities, in the form of foundations or not-for-profit corporations. Under this legal status, institutional leadership would have maximum freedom to achieve the institution's mission, finances would be separately accounted for outside of the State system, human resource management would be fully exercised by the institution and, in return, institutional leaders would bear full responsibility for the results achieved. The objective is to enhance institutions' responsiveness to challenges and their ability to diversify, to take initiative and to innovate. Institutions which take this option would need to build capacity to operate under this new arrangement which requires a new set of leadership skills, a given scale of operation and the support of management, staff and students. The transition to the new legal status would also require support structures such as favourable tax treatment, philanthropy laws, advice to assist institutions and credible processes of evaluation.

Create a national policy framework towards institutional governance that allows institutions to effectively manage their wider responsibilities

National policy towards institutional governance needs to allow institutions to make the most of their autonomy and new responsibilities. It would be important to create a legal framework that provides them with the opportunity to establish a governing body which would operate at a strategic (as opposed to scientific) level, would comprise internal and external stakeholders, and would be supported by a senior management group. The features of the governing body could vary from institution to institution, to reflect differences in missions and profiles, within a common general framework.

An influential external membership in institutional governing bodies is likely to bring a range of benefits. External representatives provide useful perspectives and insights, thereby enhancing the relevance of TEIs to their communities. They are also a valuable means of promoting accountability. Granting some specific powers to this governing body – *e.g.* financial oversight, setting the broader strategic plans of the institution, oversight of senior post-holders – could encourage the active participation of external stakeholders.

In order for institutional leadership to determine strategy, set priorities, identify teaching and research portfolios, and adapt their organisational structure to a changing environment, it cannot be constrained by excessively dominant governing structures representing faculty/departmental interests. Furthermore, the full value of including external stakeholders in strategic decision making will not be realised unless institutional leadership has the ability to ensure that strategies are implemented. At the same time, some areas of institutions' activities such as academic affairs are best dealt with by governing structures with professional expertise such as academic senates.

It would also be important to give appropriate voice to students. Students should have a prominent role in areas such as quality assurance processes (both internal and external) and student services. They could also contribute to the development of the institutional strategy and the setting of institutional priorities.

Build consensus over tertiary education policy

Tertiary education authorities often have a difficult task shaping tertiary education policy. There are a number of challenges involved in policy making, some technical – such as strengthening the evidence and research base of policy decision, making full use of peer-learning and international experience, ensuring policy coherence and resolving tradeoffs – other challenges are of a more political nature – whereby policy making is constrained by cultural arrangements and traditions for consensus building and the use made of consultative processes. Consensus-building is indeed critical to overcome obstacles to successful policy implementation.

Develop an evidence basis to inform policy making

Policy development and implementation are likely to be more effective if there is a good basis of information, and should, wherever possible, be evidence-based and associated with an information strategy. It is needed for assessing the performance of the system, costing and planning new developments and monitoring outcomes. Published information is also a necessity in a system that is responsive to stakeholders. A comprehensive information strategy should thus be developed, laying out what is to be collected, how often, the methods for collection, but also what is to be published, to whom, and how information is to be disseminated. It would also be important to monitor and review the success (or otherwise) of national tertiary education policies and their implementation, and to contrast national policy practices with those of other comparator countries in a systematic way to inform policy development.

Widen consultation within government to ensure coherence across policies to support national tertiary goals

The success of tertiary education depends on policies across a range of governmental areas. Inter-ministerial bodies that link education officials to public authorities with responsibility for complementary lines of policy such as immigration, science and technology, and labour market policies can play an important role in widening and regularising policy consultation within government. Such consultation and coordination has been successfully achieved with respect to science policy in many OECD countries, and could beneficially be extended to other dimensions of public action.

Widen consultation with those outside government to ensure that voices other than those of "producers" are heard

At the same time, ministries with responsibility for tertiary education should ensure that discussions with those outside of government are not captured by the providers of tertiary education since the interests of the wider society are also at stake. Ministries should in particular ensure that the stakeholders who develop strategic orientations for tertiary education and debate tradeoffs include graduates, employers, labour organisations, and not-for-profit organisations engaged in analysis and social advocacy.

Private and public enterprises need the opportunity to reflect on and articulate their needs, not just for newly qualified graduates but also for continuing education and training, lifelong learning in the widest sense and the full range of other services – not just research but development and consultancy – which contemporary tertiary institutions can be expected to provide.

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