

# REVIEWS OF NATIONAL POLICIES FOR EDUCATION - TERTIARY EDUCATION IN PORTUGAL

## CHAPTER 7: A PACKAGE OF REFORM PROPOSALS

7.7 Addressing the nature and severity of the problems outlined above requires fundamental reforms of the system -- in its structure, orientation, and functioning. They would need to address the two fundamental problems identified above: the problems of system management and of governance of higher education institutions (HEIs). They would also need to address the closely related issues of financing arrangements and resources for tertiary education. Measures will be needed to improve the quality of tertiary provision, the equity of access, and to develop and improve the performance of the research and innovation system. Finally, the weak outward orientation of the system and stakeholder involvement call for remedial action.

7.8 Clearly these are not marginal or piecemeal changes. The many dimensions of the complex problems call for a package of measures, not only one or two selective interventions. Some of the problems require taking a long term perspective, while others require immediate attention. Some action will be needed on the part of the Government, others by the HEIs, both public and private, universities and polytechnics. Some of the tertiary sector problems are linked to performance of the secondary school system. Hence, reforms of the tertiary education sector are also linked to reforms of the secondary system. Taking the long term view, there is also a need for attitudinal change on the part of all stakeholders.

7.9 The Review considered it useful to structure the reform package around these six themes: (1) System steering and management; (2) The governance and legal status of higher education institutions; (3) Financing, system efficiency and student support; (4) Quality and excellence; (5) The Science and technology system; and (6) Outward orientation and external stakeholder involvement.

### *System steering and management*

7.10 Any national system of tertiary education management must tackle questions such as: what should be the overall growth and expansion of the system and how should demand and supply of tertiary provision (the inetwork issues) be matched; what should be the appropriate role and the relative contributions of different components of the system, such as the universities, the polytechnics, the public and the private sector? The role of system management is to set national goals, the rules of the game and the regulatory framework within which different stakeholders can perform most effectively. The success of the system is to be judged in terms of how well the national goals are met, and with what effectiveness and efficiency. The management and steering system must also possess the tools with which the management can be carried out. The question in this regard is whether the tools are adequate for the purposes envisaged.

7.11 The Review Team believes that an appropriate vehicle has to be found to clearly articulate system-wide goals in a manner that has authority and credibility. It believes that Portugal is ready for a fundamental shift from state level control and direction to national steering and institutional level autonomy. At both levels, there is a need for a more professional approach to management driven by goals and outcomes, based on data. In important respects the existing regulatory mechanisms constitute a mixture of under-regulation (new programmes, heightened institutional competition for students and mission drift) and over-regulation (human resource management, curriculum changes and financial controls).

### *Setting up goals and the strategic framework*

7.12 A number of key goals for Portuguese higher education in 2010 are clear and ambitious. How they will be achieved and what they mean for the shape and size of the higher education system is less clear. The Review Team does not believe in detailed blueprint planning of higher education systems and understands the reservations of institutions that see the introduction of a planning framework and process as just one further bureaucratic demand on their time and resources. Nevertheless, we strongly recommend that the various goals and policy objectives that impinge on higher education be integrated into a single policy planning framework that is translated into a broad picture of what this may mean for the system in terms of changes in student enrolments in different sectors, fields and programmes over the next five years, and how

this will be resourced. This broad system-level picture of the future size and shape of the system, updated on a regular basis, is a pre-requisite for effective institutional level strategy and system steering.

7.13 The integration of these various goals and objectives into a single planning framework is a task of fundamental importance to Portuguese higher education: it entails cross-portfolio co-ordination between different Ministries, and provides an opportunity to involve external stakeholders at the highest level of higher education policy development. The need to integrate policy across different policy areas is clear: a vibrant Portuguese higher education sector needs reform in upper secondary education; it must be well-articulated with the science and technology system; and it needs to be linked to developments in the labour market and to Portugal's ambitious plans flowing from the Lisbon strategy. Higher education is of central importance to Portugal's economic strategy and its development of a knowledge economy; this implies that high-level strategy for the sector must involve high-level input from the Government, the private sector and tertiary institutions. What is needed is a structural way of ensuring that this happens.

7.14 The Review Team proposes the establishment of a new national council charged with the responsibility for overall higher education strategy in Portugal. It has noted the new organic law of the Ministry of Science, Technology and Higher Education (Decree-Law 214/2006 of 27 October 2006) that makes provision for such a council: the *Conselho Coordenador do Ensino Superior (CCES)*. The Review Team proposes that CCES should have the highest level of authority, a statutory committee charged with developing proposals for the overall strategy for the higher education system. It should not be a Council for pure consultation or debate but should be charged with strategic decision making. The terms of reference of CCES should be clearly focussed on higher education strategy within clearly articulated national goals and priorities for the sector and not on the co-ordination of the system within this strategic framework, which should be the responsibility of the Ministry (MCTES). The review team suggests that the composition of CCES might be based on the following indicative lines: that the Chair be the Prime Minister while the Deputy Chair be the Minister of Science and Technology and Higher Education; the Secretary to CCES should be the Director of the office responsible for HE Policy within MCTES (GPEAR as outlined in the new organic law). The total membership should be small enough to facilitate strategic decisions. However, the membership must include the State Secretary of MCTES, senior representatives of cognate government Ministries/Agencies, members drawn from business, industry and civil society and senior representatives of higher education institutions. International experts should be invited to participate.

7.15 In order not to deflect CCES from its strategic role, it should not be encumbered with its own staff to carry out research but should be supported by a new Office of Higher Education Policy in the Ministry (as indicated in the new organic law) with new staff members with high-level policy and information-gathering and analytical skills. The lack of an appropriate knowledge base to support tertiary education policy making is one of the more serious deficiencies of system management in Portugal. The new office should have a substantial budget to commission research and policy papers, and to employ international experts. The latter suggestions are intended to give Government the capacity to benefit from independent advice, and the advantages this brings in developing arguments for reform.

7.16 The establishment of CCES will facilitate a system-wide view from a national perspective. There is still a need to establish a mechanism whereby institutions and other substantive public and private bodies can come together at a local or regional level to discuss issues of mutual interest and to propose joint or coordinated action for the advancement of the region. We recommend that a regional council be formed in each region comprising all of the higher education and other educational and training providers together with a broad representation of stakeholders e.g. from business, trades unions, voluntary groups etc. The intention would be that these would not be statutory bodies or have decision-making powers but they would be a vehicle for local joint initiatives. Its character and function is, therefore, very significantly different from CCES, even in its regional context. It is suggested that each regional council should report to and recommend proposals for action to the bodies represented on the council and to others; they should also report on their deliberations on a regular basis to CCES, thereby making an input into the policy discussions at national level within that body.

#### *The growth and expansion of the tertiary sector*

7.17 The issue related to the size and growth of Portugal's tertiary education sector should be a key question for the CCES. The question needs to be viewed in the long term perspective. In this context, the capacity of

the tertiary system would need to expand to meet the demands of the economy. If Portugal has to raise the per capita income of its population, it must raise its labour force productivity and compete in the international arena. The level of educational attainment of the population must be raised, to bring it up to the European levels. The long term growth in capacity must be achieved progressively over time and it must begin with the fuller use of the present capacity. But growth over the long term would require action now to stimulate the demand for tertiary provision. Several steps can be undertaken in this long term perspective. One such step would be to raise the proportion of young cohorts of tertiary entrance age that graduate out of secondary school and qualify for admission to higher education. This would require major reforms in the secondary system, especially in the fields of sciences and maths. These actions would need to be taken now for garnering the benefit in the longer term. A second approach would be to raise the proportion of adults seeking tertiary education. A third approach to stimulate demand for tertiary education would be through the labour market. Accelerated technical change in the production sector can generate a wage premium for skills that are provided by the graduates of the tertiary sector.

7.18 Raising tertiary level capacity, in the longer term, would require greater resources out of GDP than is spent at present. The current excess capacity in the system would need to be fully used first and inefficiencies rooted out but, because the gap with Europe is large, still more capacity would be needed in the future. The capacity cannot be expanded solely through better use of current resources.

7.19 The Review Team recommends that the CCES develop a comprehensive long term strategy to shape future growth of the country's tertiary education system, including plans to raise revenues, both public and private, to meet the investment demand that cannot be met through increased efficiencies. The issue of new sources of financing is taken up below, under in the section on Financing.

#### *System consolidation and rationalisation*

7.20 While this long term perspective must be kept in focus, in the immediate term, the issue in Portugal is not about expansion as such but about better use of the existing capacity. The declining enrolment levels in recent years, the appearance, in some cases, of institutional level excess capacity and system-level mismatches between demand and supply of places, by programmes and regions, and the unhealthy competition among institutions for lucrative programmes prompted a key question for the Examiners: is there a need to downsize, or consolidate the institutional landscape?

7.21 As a fundamental point of departure the Review Team believes that - in a context of planned growth, broadened access and limited resources - existing higher education capacity should not be lost, and that while existing institutions may need to be down-sized, amalgamated or linked with others they should not be closed, though individual departments or schools may be closed because they are not viable. We wish to make it clear that there is much scope at local and regional levels for institutional reconfiguration. The Review Team cautions against a major national reconfiguration of the institutional landscape via forced mergers, and recommends a case-by-case approach within a strengthened binary framework and through the mechanisms of institutional performance contracts, a policy tool that is discussed below.

7.22 This does not imply that the functioning of the network of institutions cannot be improved in other ways. Subsequent to the review visit in May 2006, a number of voluntary initiatives involving institutional co-operation have been drawn to the Review Team's attention. These initiatives may have something to offer, though they have yet to prove their worth in tangible ways. Similar initiatives could be encouraged in North-Eastern, Central-Eastern and Central Portugal, provided they engage in real, rather than theoretical or cosmetic initiatives. Their progress should feature in the discussions of the institutional performance contracts. The proposal for regional co-ordinating structures, proposed above, would be wellplaced to encourage this co-operation. International experience suggests that participating institutions and their students and staff can benefit by co-ordinated programme offerings, joint programmes, structured arrangements for student transfer, the sharing of infrastructure and capacity etc. Nevertheless, the Panel urges that these initiatives be supported only where there is a clear emphasis on strengthening regional capacity while respecting the distinct missions of universities and polytechnics. Our recommendations, below, stress the importance of maintaining the binary system; changing polytechnic schools into university schools via co-operation initiatives should not be countenanced or permitted.

#### *The structure of higher education: the binary divide*

7.23 The contribution of institutions to the achievement of national strategic goals for the higher education sector will vary according to their particular niches. The challenge in co-ordinating a diverse higher education system is how to steer the system in such a way that this differential contribution is realised.

7.24 The Review Team recommends that the binary framework should be maintained and strengthened. The mechanisms for resource allocation, levels of institutional autonomy, programme accreditation procedures and human resource management policies all need to be reformed to create a policy environment in which professionally orientated polytechnic institutions can create a sustainable future that is distinct from universities. It is recommended that the government should introduce comprehensive university and polytechnic legislation in which the autonomy of institutions is clearly defined and the different roles of universities and polytechnics are specified. Equally important is the corollary of the creation of this new policy environment: universities should be specifically and unambiguously excluded from entering programme areas and levels of award that are outside their core area of business, and which properly reside within the polytechnic sector. Polytechnics should be specifically tasked to develop employable graduates with advanced technical skills and practical knowhow, underpinned by analytical, problem-solving and communication abilities of a high order. They should also participate in the New Opportunities Programme. They should be resourced specifically to develop new delivery modes and services to meet the diverse learning needs of an enlarged student body. The major mechanisms for doing this should be the negotiated performance contracts, as outlined below, as well as the significant changes in institutional autonomy and governance proposed for both universities and polytechnics.

7.25 A variety of new pathways will need to be opened for learners, including post-secondary and further education diploma courses and short-cycle degrees. For each level of award, the qualifications of university graduates and polytechnic graduates should be defined separately and distinctively. The different roles of universities and polytechnics should be clarified in terms of the different capabilities and attributes expected of graduates who successfully complete a programme of studies leading to the award of a Portuguese qualification. The CCES should have a central role in that regard.

7.26 Within the broad binary framework confirmed in Decree-Law 74/2006 the primary institutional location of first- and short-cycle professional programmes should be the polytechnic sector. Yet the aspirations of many in this sector are in the opposite direction: the further development of Master programmes, an increase in the proportions of staff holding PhDs, an attempt to secure the right to offer PhD programmes, the expansion of research programmes and eventually the achievement of university status. To some extent these aspirations reflect traditional academic values (that drive academic drift in many countries), but they are also strategic responses to the inadequacies of the current policy environment within which the polytechnic sector works.

#### *The structure of higher education: the role of the private sector*

7.27 The Review Team recognises that the right to the private provision of education is guaranteed by the Portuguese constitution. Consequently, private universities and polytechnics are an integral and longterm part of higher education in Portugal. The future vision outlined in Chapter 2 is of a more diversified and larger higher education system catering for a broader range of students with a mix of programmes more focused on professional programmes and with a close link to the labour market. Private institutions may be well placed to respond to this challenge.

7.28 It is important to ensure that the private sector offers quality education. The new accreditation agency and its programme accreditation procedures should ensure to terminate any programmes that do not meet acceptable quality standards. It must also ensure that private institutions are not subject to more rigorous procedures than public institutions

7.29 The private sector can play a particularly important role where there is insufficient capacity in the system. The Review Team believes that a possible approach in such cases would be for the Ministry to periodically issue tenders for the provision of study programmes for which both private and public institutions could submit proposals. This would avoid adding additional public capacity where it is not needed and would help preserve the valuable private capacity that Portugal has and should continue to profit from. While the Review Team is not proposing that private institutions be included in the planning/contract system such selective funding of programmes might also create the space for negotiations on other issues

that might help ameliorate some of the harmful effects of the current intensive competition between institutions.

#### *Tools for steering the system*

7.30 One policy approach to address the challenges noted above, proposed by the Review Team, is *performance agreements or contracts* negotiated between the Ministry and individual institutions. Such agreements offer a way of translating the national objectives differentially into institutional plans. The Review Team recognises that constructing such performance agreements is a complex task and proper expertise has to be developed within the Ministry to conduct these negotiations successfully. It also recognises that the experience with these performance contracts in other countries has not in all cases been fully satisfactory. The difficulty in most cases has arisen from the limited application of this tool rather than the effectiveness of the tool itself. More importantly, other options of funding formulae, general policies and accreditation procedures do not offer the same benefits of tailoring incentives to shape institutional plans in harmony with national goals.

#### ***The governance and the legal status of the higher education institutions***

7.31 The major focus in Chapter 3 has been on governance systems that link the national level to the institutional level and the governance of the institutions themselves. At the institutional level, the Review Team encountered frequent examples of inertia and inflexibility. There was evidence of lack of leadership, the unwillingness to take direct action -- for example, on attrition rates, on teaching performance, on engagement with the wider community among others -- at both polytechnic and university levels. Apart from a few notable examples, the Team was disappointed in the attitudes displayed by both sets of rectors when we met them in plenary session: their attitudes were to lay all of the blame at the feet of Government, conveying to us little sense of their own personal responsibility to generate institutional momentum and to take the difficult decisions. There is a clear need for attitudinal change. While this change is largely the responsibility of institutional leadership, it can be facilitated by the regulatory regime that defines the roles of government with respect to the institutions and the regulations that define the governance system of the institutions.

7.32 The Review Team acknowledges that Government has a legitimate interest in the operation of the system of institutions and must have a special regard for the proper and effective use of public funding. Nonetheless it is clear to the Examiners that successive governments over the years have taken an excessively interventionist approach to exercise that proper overview. Its effects are both direct and indirect; direct, in that it imposes bureaucratic requirements without any obvious positive outcome and it slows local initiative and responsiveness; indirect, in that it disempowers local leadership and does not encourage strong decision-taking at local level. We believe that Government must disengage from the detailed control of the system and must give the institutions greater freedom to regulate themselves and innovate. The guiding principle should be to provide greater scope for autonomy and room for manoeuvre for innovation at the institutional level while reserving the steering role for the Government. The Review Team believes that Portugal is well positioned to evolve towards greater differentiation of governance, with the national Government more squarely focused on policy, and institutions given wide latitude for accomplishing public priorities consistent with their missions. This significant increase in institutional autonomy should be introduced differentially and progressively depending on the capacities of the institutions (including internal governance and management reform), and the extent of the challenges they face. The shift in steering philosophy would be supported by the system of *institutional performance agreements* or contracts negotiated between the Ministry and individual institutions, as proposed above.

7.33 These considerations and the thrust of many of the remarks and instances articulated to the Review Team indicate an urgent need for new legislation governing the higher education institutions. The new legislation should establish institutions as self governing foundations. While clearly continuing to be supported financially by Government, for instance, they would operate and be seen as belonging more to the private sector. For instance, managerial freedom would be the norm, finances would be separately accounted for outside of the state system and it should include the removal of the civil service designation from all employees of the higher education institutions. The objective is to empower the institutions to manage themselves, to diversify, to take initiative and to innovate. The institutions must satisfy Government that they

are prepared to accept the freedom which this change implies but that they are willing to confront the difficult leadership and managerial decisions which are an inherent part of any such new arrangement.

7.34 Chapters 2 and 3 note examples of deficiencies in existing arrangements for institutional management and the exercise of institutional leadership and offer a range of recommendations to address them: the establishment of governing authorities with a chair and the majority of members drawn from external stakeholders; the appointment rather than the election of the rector; the appointment of deans and heads of department by the governing authority on the recommendation of the rector; the establishment of a statutory academic council with overall responsibility for the academic affairs of the institution; the establishment of an executive committee to take decisions on resource related matters; and the introduction of transparent appointments processes in accordance with best international practice.

7.35 The Review Team recommends that similar governance structures and legal requirements, obligations and freedom should apply across the binary divide. It emphasises that whereas the Government has a key role in facilitating the changes proposed, the staff and faculty have a huge responsibility in giving effect to and exploiting those changes in a creative and dynamic response to them.

### ***Financing, system efficiency and student support***

7.36 Chapter 6 on finance reviews current patterns of finance for tertiary education, science and technology, and discusses ways for them to be improved, and aligned to support the recommendations for systemic change proposed in the earlier chapters.

#### *The need for resources*

7.37 One of the key questions on financing tertiary education is linked to the size of the system and the quality of provision. We have noted above the reasons why Portugal's tertiary education system needs to expand over the long term. The need for additional resources for the sector, in this context, comes from both qualitative and quantitative improvements in the system.

7.38 Enrolment numbers, tapering off as a result of the demographic developments, need to expand because Portugal lags behind other European nations in tertiary attainment levels. This expansion can come from raising the proportion of the young cohorts and adult learners to enrol in the tertiary sector. Education quality needs improvement, both in secondary and tertiary levels. An improvement in quality of instruction at the upper secondary level can underpin an increase in the proportion of the young cohorts who successfully complete upper secondary education by lowering the drop-out rate and enabling a greater proportion of the graduating students to pass the entrance examinations with grades above the qualifying criteria. A third factor requiring additional resources is the research, development and innovation system of the country, which, despite its progress in recent years, is weak in comparison to the countries Portugal wishes to compare itself with. A fourth issue is that greater investment would be needed to provide student support and improve the tertiary sector participation of students from low socio-economic background.

#### *Better use of resources: Inefficiencies in the system*

7.39 With enrolments declining, there is little need for extra resources arising from a quantitative expansion of the system in the immediate term. Should there be a marginal upturn in enrolments in the near term, it can possibly be accommodated through more efficient use of the existing capacity. The Team's attention has been drawn to the existence of inefficiencies throughout the higher education system. These include high student attrition rates, very favourable and generous student staff ratios (SSRs) and administrative staffing numbers, according to the data, have not reflected the decline in student numbers; indeed, it seems that the numbers of such staff have expanded rather than contracted in many institutions. There are other inefficiencies in the system, in programme duplication and under-enrolment, and insufficient use of cross-campus collaboration or encouragement of student mobility.

7.40 To address improvements in the research and development system, the Government has managed to allocate substantial additional funding in the current budgetary year to support the further development of science and technology. Some of these resources will undoubtedly find their way to the universities, through grants and competitive bidding. The Review Team believes the National Technological Plan provides an exemplary model of a policy-based vehicle for funding policies and accountability structures. We recommend that a similar approach be developed for the distribution of operating resources for the

institutions of higher education, based on the negotiated contracts between the institutions and the Ministry - which we recommend elsewhere in this report - differentiated appropriately for each institution. Examples of the types of priorities that might be embedded in such contracts are provided. We recommend that capital outlay (investment) funding be allocated through a separate process, although also more strongly related to policies and plans than we believe is now the case.

7.41 The Review Team has not paid detailed attention to the question of the envisaged new accreditation structure and process, given that this is the subject of a separate review by ENQA. Nevertheless it is important that the planning/relevance/fit with the national programme network dimensions of programme accreditation are not overlooked. Programme accreditation by the new agency should not carry any right to public funding whereas failure to achieve accreditation would mean that funding for such programmes would not be forthcoming. These latter issues will be determined in the process of negotiating institutional contracts where criteria of relevance and quality will be key considerations.

*Finding new resources: Private contribution, social support and access*

7.42 Should demand for higher education expand substantially, the required new resources cannot come from the public sector in the short term, but if the public deficit situation improves over the years there may be room for increased contribution. Portugal is currently engaged in attempting to develop its economy to meet EU borrowing requirements under the Stability and Growth Pact up to 2009 and beyond and is making substantial steps in that direction. The rationale for continued, or increased, public contribution for tertiary education comes from the economic and social benefits of this level of education confers on the wider society.

7.43 In the political debate, tuition fees are closely linked to equity and affordability of access to tertiary education. In a modern society, access to higher education should be a function of the proven abilities of the student, however that is assessed. The principle that all of its population can aspire to participation in higher education, without barriers to that participation other than ability and dedication, is shared by all societies. This ambition ranks highly in the priorities of the Government in Portugal. Tuition, social support and access mechanisms are central to the achievement of those ambitions.

7.44 The public sector alone cannot, however, meet the resource requirements for increased investment to any great extent, if the capacity of the sector has to be expanded significantly. The private sector would need to contribute an increased share of tertiary level costs. Philanthropic efforts must be stepped up and other sources of funding - in Portugal and abroad- should be pursued actively. But a more significant contribution would need to come from the students themselves. The rationale for this is based on the large private benefits of tertiary education that are captured by the tertiary graduates. There are both equity and efficiency arguments to support larger private contributions, for example, through increased fees. This economic necessity cannot be ignored indefinitely.

7.45 The Review Team recognises that, under current conditions, tuition fees cannot be raised in Portugal, partly because of political opposition, but also because of the constitutional constraint. Being sensitive to these considerations the Review Team recommends that Portugal retain its current tuition policies which allow tuitions to increase consistent with inflation and minimum wages.

7.46 In the long term, this policy should be revisited if Portugal is successful in reaching its national goal of increasing the proportion of the population completing upper secondary education who successfully transit to tertiary education. Portugal would need to prepare grounds for increased fees through addressing the political opposition and through a constitutional amendment or an enabling ruling of the constitutional provision. The political opposition can be reduced through a well-designed fee contribution scheme that is linked to private benefits to the individual, with a Government-supported income contingent student loan scheme and a more generous student support system. We recommend that this option be explored. In addition, tuition charges for post-graduate students should be deregulated and allowed to increase to rates closer to the full-costs of the programmes.

7.47 Appendix D describes many of the fundamental components of income-contingent loan schemes. Income-contingent loans generally have the major benefits of removing the up-front financial barriers to access that can inhibit or preclude the participation of students from financially disadvantaged backgrounds. Hence, such loans help ensure that the tertiary education system does not exclude talented poor students.

Repayment obligations are triggered after graduation, and not during the period of study, and only when a graduate's earnings exceed a determined threshold level. Income-contingent loans also offer several insurance benefits over bank loans for the purposes of student financing, primarily because repayments are defined by the borrower's capacity to repay debt. As repayments are not required in periods of low income, borrowers are not put in the financial position of being unable to meet repayment obligations, while, as their incomes rise, so do their repayments. These considerations and the need to better support students and to facilitate access across all social classes are uppermost in our minds as we recommend the establishment of an income-contingent loan programme.

7.48 Appendix D also suggests a set of questions that need to be addressed as the particular form of such a loan scheme is being considered. The chosen scheme will - inevitably and desirably - take account of local conditions and, therefore, we do not recommend a particular form of income-contingent loan scheme. In particular, the coverage and efficiency of the income tax system would be a major factor to consider in the case of Portugal. It is our suggestion that Government consider the establishment of an international task force to develop details about how such a programme should be configured and implemented.

7.49 To improve equity of access, the student support system should be reformed also so that a wider group can be reached. Administrative overhead in the student support function is too high. Incentives for institutions to reduce these administrative costs should be included in the proposed approach of performance-based contracts. Current funding practices favour subsidies for students who are relatively advantaged over the improvement of access to previously excluded groups. These practices should be reviewed and corrective measures should be adopted.

### ***Improving quality and building excellence***

7.50 In dealing with these issues the Review Team was conscious of the parallel work undertaken by ENQA. Nonetheless, since the issue of quality underpins all of higher education endeavour, the Review Team believed that it was important that it would focus attention on it in acknowledgement of that significance.

7.51 As discussed in Chapter 4, the tertiary education system must aim at higher levels of quality and excellence. It should be recognised that there is more than one way to be excellent and that excellence is not the domain of universities and research centres alone. Portugal needs to build real excellence in the polytechnic sector and the private sector as well, through a stronger focus on goals and outcomes. All HEIs must address the high student attrition rates in their institutions, a major source of inefficiency.

7.52 Full use should be made of the unique opportunity provided by the implementation of the iBologna process<sup>1</sup> for the renewal of study programmes in Portugal and for a reconsideration of educational processes with a greater focus on student learning and outcomes, as well as a more explicit concern for the links between study programmes and the labour market.

7.53 The current differential requirements for the approval of new programmes for universities and polytechnics and for public and private institutions should be discontinued, as should detailed control over curriculum changes and steps in this direction have been considered under the new Bologna legislation in the Decree Law 74/2006.

7.54 The accreditation of all new higher education programmes should be based on rigorous evaluation by an independent external authority. The continued provision of higher education programmes should be subject to periodic external review, programme by programme, and at the whole-of-institution level. The frequency and intensity of quality auditing of institutions should reflect their performance records. A consultative process of programme by programme evaluations, involving providers, employers, professional bodies and students, should be undertaken to build a national consensus of expectations about standards of learning outcomes for university and polytechnic awards in particular subject areas. Institutions should track the employment record of their graduates.

7.55 Universities and polytechnics need to take responsibility for the educational success of their students. They should set limits on acceptable rates of student failure, repetition and wastage, monitor the progression of students, and provide additional programmes and specific learning support services as required to increase rates of success. Mechanisms should be introduced for obtaining systematic student feedback on the quality of teaching and a commitment to make the feedback known and to improve performance.

7.56 A national qualifications framework should be developed through wide consultative processes. All higher education providers should be expected to demonstrate acceptable standards, in educational leadership, curriculum and pedagogy, access to learning resources, financial viability, and probity.

7.57 Whereas the terms of reference of this review did not encompass the secondary school system it would be remiss of the review team not to refer to it. It is clear to us through the inspection of data and through statements made to us that the quality of secondary education should be improved with the objective of reducing drop-out rates and making it possible for a larger youth cohort to be sufficiently qualified to be eligible for tertiary level education. It is recommended that that Ministry of Education and Ministry of Science, Technology and Higher Education review the position of science and research in the curricula in secondary education with a view to increasing the interest of youth in careers in science and to emphasise its position in the schools. It is suggested that the CCES might be assigned the additional role of studying these issues with particular reference to the effectiveness of student transfer to higher education; it might also consider that the engagement of the higher education institutions would be helpful to its deliberations.

### ***The science and technology system***

7.58 Building the Portuguese science base and capacity with the targets designed in the Technological Plan and by the measures taken by the Government is recommended on condition that the authorities develop appropriate new steering and management processes, the main objective of which should be to form linkages and networking in the system. As discussed in Chapter 5, the tertiary education and S&T policy makers should develop a stable and coherent S&T policy evaluation structure, which should be based on a more complete database, with the information and knowledge of the working of the whole system. The establishment of the Portuguese graduate school system could be considered to assure the quality of graduate education, to provide systematic education and guidance, to increase efficiency and to network the HEIs.

7.59 A new system of academic careers and clarification of research careers should be designed and implemented in order to eliminate inbreeding and to enhance teacher and researcher mobility. The promotions and recruitment decisions within institutions should be based solely on teaching and research merit. Processes should be competitive, transparent, and open and the evaluations should be performed by external peers supported by international expertise.

7.60 The Ministry and funding agencies should develop a more effective network of research units larger than the present ones. International evaluations should have a stronger influence on a more selective funding policy. The change toward more competitive funding schemes should be continued. The Portuguese Government should review the tax reduction policy for R&D in firms and adopt, in addition, more active instruments in order to encourage firms to have incentives to invest in R&D, to work together with higher education institutions in research and to enhance mobility between firms, universities and polytechnics. As the system of Associated Laboratories is enlarged and higher education institutions are expected to be important actors in science-based innovations, it is recommended that expertise in Intellectual Property Rights be enhanced.

### ***Outward orientation and external stakeholder involvement***

7.61 The universities in many nations have moved substantially from an almost complete disregard for the world outside of the campus to one of real engagement with and support. Portuguese institutions have been slow to engage fully with the external world. There are some distinguished exceptions to this reality, notably those of the Associated Labs within universities, but the general reality is one of disengagement with the community and business.

#### ***Inbreeding***

7.62 The institutions are too academic and inward-looking; there is a high degree of insularity and inbreeding. HEIs need to be more connected to the public, the business and the international community. The higher education system needs to open up by helping to increase the flow of secondary school graduates, opening up adult education, and doing a better job of connecting with national and regional economic, scientific and technological needs.

7.63 The consequences of serious inbreeding can be damaging for the productivity and effectiveness of the system, as it can retard structural changes or new approaches to scientific research and education. The

incentive system for career development in Portugal has had the effect of discouraging mobility. The essential elements of that system encourage graduates to pursue higher degrees in their home university. They are then guaranteed progression into tenured academic positions over a number of years after receiving a Ph.D. degree. A comparison with the US demonstrates that Portuguese practices provide strong incentives for inbreeding. The inbreeding rate at the two largest engineering schools in Portugal is as high as 80-90%. According to one international comparison, the level of inbreeding in Portugal is highest among 14 European countries. One of the steps to combat inbreeding is to base promotions and tenure decisions solely on research and teaching achievement. These processes should be competitive, transparent and open; the evaluation of merit should be performed by outside peers in the field, preferably supported by recommendations from international experts.

7.64 Portugal's tertiary education system needs to provide greater diversity and choice of provision and to be more connected with the wider community, the labour market and the business sector. Universities and polytechnics should consult more broadly and systematically on the development of their educational programmes, including with employers of their graduates. A consultative process of programme by programme evaluations, involving providers, employers, professional bodies and students, should be undertaken to build a national consensus of expectations about standards of learning outcomes for university and polytechnic awards in particular subject areas. Universities and polytechnics need to give greater attention to the destinations of their graduates, to monitor changes in destination patterns, to seek structured feedback from graduates, and to evaluate their programmes in the light of graduate feedback and experience.

#### *External Stakeholder participation*

7.65 The lack of engagement of Portugal's HEIs with their external environment is not altogether surprising given the absence of external stakeholders on governing councils and other bodies within institutions. This lack of external engagement impoverishes the system at a number of levels. It limits the research interaction between business and the institutions; feedback on business needs for graduates and its view of the quality of graduates is incomplete; it reduces the opportunities for fundraising for the institutions; and it isolates the institutions from current developments in the business world.

7.66 The Review Team recommends that each higher education institution should have a majority of external stakeholders as members of its governing authority and this should include the Chair. The proposed *Conselho Coordenador do Ensino Superior (CCES)* should have a substantial external stakeholder presence on its board. Ideally the Chairs of the proposed regional councils should also be from the community external to the higher education institutions.

#### *Internationalisation*

7.67 The internationalisation of tertiary education yields both costs and benefits at the individual and national levels. Internationalisation can be seen also as an opportunity for smaller and/or less developed educational systems to improve the cost efficiency of their education provision. Much needs to be done in Portugal to strengthen the engagement of the wider higher education system with systems in other countries. Government has established schemes and policies to promote it, especially those relating to the mobility of students, teachers and researchers. The research collaborations that have been promoted and funded recently by the Government are examples of steps in the right direction but much more needs to be done.

7.68 It is recommended that the Ministry of Science, Technology and Higher Education take steps to encourage the higher education institutions to take on a more proactive internationalisation role. It could be achieved in various ways, but experiences from other OECD countries show that an effective procedure would be to include a special internationalisation strategy as a part of the annual negotiations on performance contracts between the Ministry and higher education institutions. The strategy of each institution would include, among other things, the development of study programmes in foreign languages – particularly English – the establishment of joint degrees offered in collaboration with foreign partners, the development of international research cooperation and the planned use of EU programmes.

#### ***Concluding remarks***

7.69 The package of recommendations proposed here are for action by government and also, it is emphasised, by the institutions themselves and at all levels in the institutions. Success, while depending on

decisive and innovative Government action, will not be achieved by that alone unless the higher education institutions, their councils, committees, faculty, staff and students mobilise themselves and engage fully and enthusiastically with the reform process. The latter will require leadership at local level and an institutional community committed to fundamental reform, efficiency, transparency and openness; these latter attributes are *sine qua non* for change and success.