

REFORMING DISTANCE LEARNING HIGHER EDUCATION IN PORTUGAL

PANEL REPORT

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The Panel would like to dedicate this report to the memory of Late Robin Mason, a member of the Panel, at her untimely death during her work on this Report.

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REFORMING DISTANCE LEARNING HIGHER EDUCATION IN PORTUGAL

I. INTRODUCTION

I.1 Mandate of the Panel

In the new legal framework of higher education institutions of 2007 (RJIES), which introduced far-reaching reforms for higher education, the Portuguese Government made a commitment to develop new legislation for distance learning higher education. A Panel of external experts was constituted to advise the Government on the nature of reforms needed for the distance learning sector for it to play its rightful role in Portuguese higher education system. An important motivation for establishing the international panel was the Government's view that distance learning can play a crucial role in broadening the recruitment base for higher education. The objective of the Government was to assess the need for expanding the distance learning sector and the potential requirements for new legislation in pursuit of this objective. Hence, the Panel's mandate covers all aspects of distance learning related to its role in Portuguese higher education system. It is an independent Panel of international experts speaking in its own name. While the Panel is mandated to offer recommendations on reforms, it is outside the scope of the Panel's mandate to make specific legislative proposals. The Panel's report is intended to serve as a basis for consultation with the stakeholders before the Government comes to a decision on the nature and shape of the needed reforms.

I.2 Meaning of Distance Learning

The term "distance learning" (DL) is used throughout in this report and both components of the term need to be clarified at the outset. The report has preferred to use Distance "Learning" as opposed to Distance "Education" in order to emphasise the centrality of learners in the teaching and learning process.

The "Distance" component of DL is a continuum that ranges from a largely face-to-face (FTF) or "presential" mode of delivery to a largely distance delivery mode. The qualifier "largely" is important. It highlights the point that there are no modes of delivery that are entirely, or one-hundred per cent, FTF: there is always some distance component to all classroom based learning in that students may conduct their own learning some of the time at a distance from the classroom. Similarly, there is no mode of delivery that is one hundred per cent delivered at distance, as there is always some FTF element in DL. For example, distance learning students interact with tutors in face to face situations or undergo assessments under supervision. Hence, the use of on-line systems does not mean that it is a full DL system of provision because the on-line systems could be used simply to support FTF mode of provision.

In view of this, the report uses the term DL to signify teaching and learning processes that are conducted *largely* at distance. If the term “full” distance learning mode of delivery is used, it is to be understood in its connotation of being largely in that mode.

With this in mind, the report uses the term DL in two contexts: First, when examining DL in its institutional and structure of provision aspects, the report uses it to mean that “distance” is the dominant mode of delivery and is not being used only in a secondary and supportive role. This use of the term would include both the classical mode of DL delivery and the new online approaches.

Second, when examining the impact of DL technology on the pedagogy of learning, or on the human and financial requirements of using the DL mode, it will define DL in its broader context where the distance element could be playing a secondary role to FTF methods of teaching but still using the new pedagogy of online instruction. The term “Blended” learning or “Mixed-Models” are used to describe a situation where distance learning technology is being used in primarily face to face instructional situations used by the conventional HEIs.

I.3 Approach adopted by the Panel

Apart from a review of literature in the area, the Panel has benefited from consultations with several higher education institutions (HEIs) and their staff and, in some cases, students. A report, prepared by Universidade Aberta (UAb) for MCTES and publicly available, was also made available to the Panel. The Panel also solicited written information from interested stakeholders on the basis of a set of questions. The Panel received submissions from five HEIs, which are listed in Appendix 1. The same set of questions also served as a basis for face to face meetings with provider institutions, including their staff and, in some cases, their students. Several institutions provided additional documentation. Appendix 2 provides a list of institutions visited by the Panel.

Quantitative information on Portuguese DL profile was provided by the statistical services of MCTES (GPEARI/MCTES) and by the Directorate General of Higher Education (DGES). The Panel is acutely aware of the data limitations. There are sometimes differences in data on participants and programmes from the Ministry and the institutional sources. The Panel is in no position to verify the accuracy of these data and, where appropriate, reports alternative sets of information. The Panel feels that strengthened capacity, perhaps as a dedicated unit to deal with distance learning within the DGES would be useful to develop the necessary information and knowledge base to support DL policy making.

In assessing policy approaches and options, the Panel draws upon the experience of other countries, especially the experience of countries from where the Panel is drawn. The Panel uses examples of “good practice” from these countries but takes account of the particular Portuguese context and historical experience in assessing their relevance.

The Panel’s approach to drawing up recommendation is to identify the general directions for reform and the reasons in its support. It does not consider it within its province or

competence to develop recommendations in specific form, especially whether or not they should be pursued through a specific legislative form.

I.4 Structure of the Report

Section II of the report gives a brief review of the international experience and recent trends in distance learning to provide the context for outlining the Portuguese DL situation. Section III describes the main challenges facing the distance learning sector in Portugal and makes a case for expanding Portugal's capacity to provide distance learning. It lays out a framework for examining the policy approaches to pursue this objective and identifies four broad sets of policy questions that need to be addressed by the DL reform pertaining to: the structure of provision (Section IV); DL quality (Section V); Financing of DL (Section VI); and legislative and institutional framework within which DL operates (Section VII) Section VIII summarises the Panel's recommendations and offers overall conclusions regarding the need for legislative action.

II. CONTEXT AND TRENDS

II.1 International trends in Distance Learning

Distance education in Europe emerged on a large scale in the 1960s and the 70s with the creation of largely autonomous universities such as the British Open University, the Spanish UNED, the Dutch Open Universiteit and the FernUniversity in Germany. The main medium of delivery was the printed course unit, which was supplemented by some face to face tutorials at regional study centres and occasional residential seminars. In the years that followed, the media role was enlarged by video and TV, radio and audiocassettes. At the end of the 1980s computer aided learning started and videoconferences came up as a simultaneous communication tool.

The 90s were marked by the increasing use of computer software in developing teaching material as well as in the administrative processes. The first platforms for network based learning management systems were developed. Traditional DL shifted dramatically when fully online DL universities appeared, such as the UOC and many others ("The Virtual University: Models and Messages" IIEP, UNESCO 2004). The new era of online or virtual universities modernised DL and in recent years most of the traditional DL universities have embraced this "e-learning" paradigm, which is often referred to simply as the "new" DL pedagogy.

A key development to be noted is that the use of a new learning management system spread rapidly to conventional universities and started to break the monopoly of the large distance learning universities. The traditional way of content production supplemented with some tutorial support was questioned as being the delivery of "canned content" that neglected the potential of students' collaborative contribution to enhance their learning. The development of network supported teaching environments was a tool to exploit this potential as it was accompanied by a shift from the behaviouristic and cognitive learning

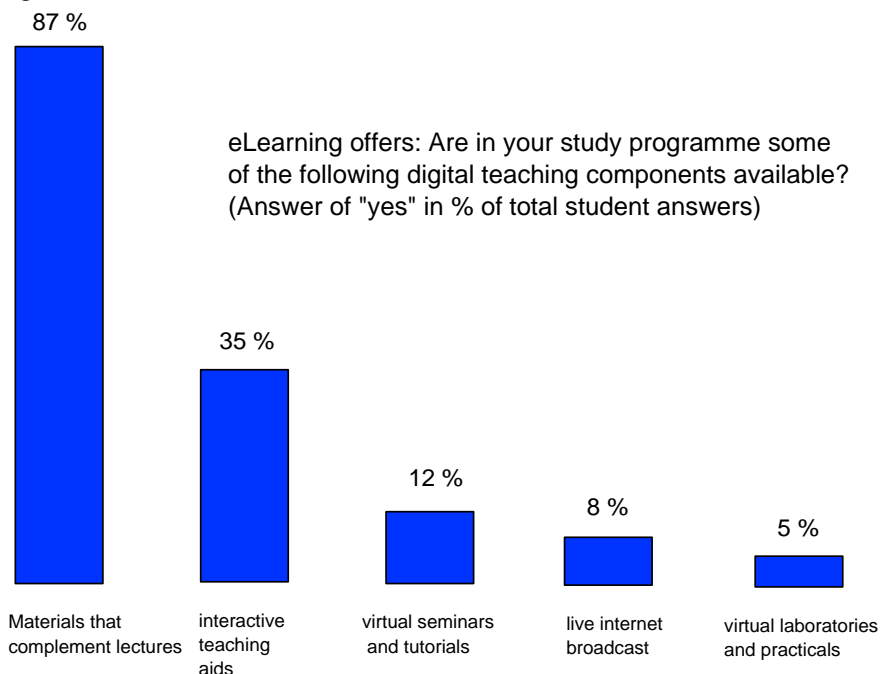
theories and approaches to constructivist and more collaborative oriented learning paradigms.

These developments emerged in the form of “blended” pedagogical approaches that offered increased opportunities for simultaneous and collaborative interaction with peers as well as with faculty -- forums, chat rooms, online tutoring and course content on a web site. Tutoring online replaced, at least in part, tutorials in FTF fixed locations. Highly specialised tutors could tutor students wherever the tutors were.

The growing use of blended models in traditional HEIs was supported by other developments on the side of student circumstances and needs. More and more students worked as much as 20 hours a week for a variety of reasons, including to pay their fees, and needed greater flexibility in class schedules to accommodate their work requirements. With the new developments students had the benefit of a choice between the two options, the blended model and the virtual.

An example of the spread of the DL pedagogy is offered by a recent survey conducted in Germany and reported in Figure 1. It shows that that 87 % of the students in Germany use digital teaching material in support of classroom lectures; 35 % used interactive teaching modules; 12% participated in virtual seminars; 8% received live internet broadcasts; and 5 % used virtual practicals and laboratory activities.

Figure 1



Source: B. Kleimann et al. (2008), Studieren im Web 2.0, HISBUS Kurzbericht 21, Hannover

The foregoing brief review of international trends in distance learning provides a useful perspective for reviewing the state of distance learning in Portugal. It highlights two important trends that are worth bearing in mind. First, there is a dramatic shift in DL pedagogy with a shift of emphasis from the dimension of “space” in distance learning towards the dimension of “time”. Second, the use of the blended models by traditional HEIs has spread rapidly and represents the wave of the future.

II.2 Distance learning in Portugal

Traditionally, Portuguese education culture is rooted in the face-to-face model of instruction. While Portuguese HEIs have a national character, they are by tradition more configured as regional/local entities that do not emphasise coverage of several regions or the nation as a whole in their activities. It is up to the students to reach out to the institution of their choice wherever it is located. The DL paradigm, on the other hand, works differently: it is for the institution to reach the student wherever they are located.

Portugal started an autonomous distance teaching university, the Universidade Aberta (UAb), in 1988. This was at least a decade late start compared to the development in the leading European countries, though arguably not later than some Southern European countries (e.g. Italy).

In recent years, contextual changes that have shaped the development of DL in Portugal include demographic changes (massive migration towards the coastal belt), growth of higher education in general; increased accessibility to HEIs through improved roads and transport networks; changes in DL pedagogy and on-site education methodologies and technologies. The growth in demand for DL has come from massive increases in access to basic education, shifting demand for skills and qualifications in the labour market and the personal development needs triggered especially by the onset of the information society.

Size and diversity of provision

Currently, DL in Portugal covers only a small proportion of HE enrolment, roughly less than 3 per cent. Approximately 90% of these students are enrolled with the Universidade Aberta (UAb), while small offerings come from other Universities and Polytechnics.

The UAb has a student body of approximately 10,000 students, though the number has fluctuated around this number in recent years. Its programme offering remains narrowly focused on a few disciplines (see table 4 and table 5 in Appendix 3) and a significant proportion of its programmes, approximately 30 per cent, is directed at Portuguese speaking students in former colonies.

Other conventional universities and Polytechnics are starting to offer DL programmes and courses. This includes most of the engineering schools, as well schools of medicine for example, the new programmes at University of Minho, UBI, and the Universities of

Lisbon and Porto. University of Aveiro has been actively promoting the use of ICT to improve teaching and learning conditions in all the courses, and University of Coimbra also offers DL courses in selected departments. Among the Polytechnics, Leiria, and Instituto Superior de Gestao Bancaria (ISBG) are particularly active in offering DL programmes. Most Universities and Polytechnics do not consider DL as a major activity. Their main interest in DL is on enriching classroom lecturing, that is, using modern DL pedagogy as a supplement to face-to face learning in blended models. There is the beginning of a trend where eLearning pedagogy being applied on an institution-wide basis.

Pedagogical developments

Until very recently, the Portuguese approach to DL can be viewed more in the dimension of “distance” that is, overcoming the difficulty of having a “place” close to the student to “attend”. As noted above, the growing international trend, on the other hand, has emphasised the parameter of “time”, which is to overcome the time constraint by helping to provide simultaneous student and teacher availability

It is to this more pedagogically modern approach to which the UAb has recently switched with its strategic plan in 2006, where a new constructivist pedagogical model has been introduced and a modern eLearning environment with a network of regional learning centres was established. In the academic year 2008/2009 all courses offered by UAb are taught in eLearning regime.

Among the HEI institutions visited by the Panel, practically all have adopted learning management systems like Moodle and Blackboard and use other solutions including videoconferencing, blogs, wikis, social bookmarking, and podcasting. Some institutions created efficient support units (Polytechnico de Leiria and the University of Aveiro) while others have left introduction of online programme to the initiative of individual departments (University of Coimbra). In some cases proprietary solutions have been developed, such as at the Banking institute, ISGB. A considerable amount of expertise has been gained so far. Preferred areas for such activities have been short courses for professional upgrading, specialisation courses and courses for foreign students abroad.

Funding arrangements and cost of DL

The existing framework to allocate funding to public institutions is based on the 1997 Law for HE funding. This Law does not provide any specific treatment for financing DL students. Hence, there is no special treatment (formulas) for funding DL programmes in traditional HEIs.

UAb is treated as a special case in this Law in which the UAb is viewed as being outside the HE system. Its funding is a lump sum (that is not based on any formula) allocated on an yearly basis after the approval of the public budget for higher education by the Parliament. Although the decision is taken annually by the Government, the public funds allocated to UAb each year has been constant percentage of 1.1% of the overall public funding for the full HE system. In 2008, the annual expenditure of UAb was around 18

million Euros, out of which 63% came from the public sources. In regard to support for DL developmental costs, there is little experience to date of such support from the Portuguese Science and Technology Foundation (FCT) through competitive bidding.

III. POLICY CHALLENGES AND APPROACHES

When viewed in the perspective of international experience, the preceding brief sketch of Portuguese distance learning indicates three related deficiencies: its relatively small size; its very limited range of offerings; and its very recent adoption of new DL pedagogies. In addressing these deficiencies, policy makers need to take account of the context of Portuguese higher education and society's expectations regarding the role DL should be playing in the higher education area.

III.1 Policy challenges

Small size, low volume

Enrolment in distance learning programmes makes up around 3 % of all higher education enrolment in Portugal, which is rather small compared to some European countries. Two arguments are usually advanced to explain Portugal's small DL sector: its small population base and low ICT use by its population. Neither of these arguments is very persuasive.

Table 1 below gives data on DL institutions for selected number of countries. All of the institutions reported have larger enrolments than UAb. Their larger size is not explained by the size of country's population. Catalonia, for example, has a smaller population than Portugal (7M people), but its distance learning university, UOC, has a student body more than four times as large as the Portuguese counterpart, UAb. Hence the small Portuguese population does not explain the relatively low small size of the DL sector in Portugal.

Table 1. DL enrolment by institution – selected international comparison

DL Institutions	Year of establishment	Student number
UOU	1969	190.000
UNED	1972	180.000
FernUniversität in Hagen	1975	55.000
Open Universiteit	1984	30.000
UAb	1988	10.000
Universitat Oberta de Catalunya	1995	45.000

Similarly, the relative lack of digital literacy in the adult Portuguese population is also not a convincing explanation. On the one hand, there has been a significant improvement in ICT usage in Portugal in recent years. In fact, among with those with higher education qualifications, Portugal's penetration rate of ICT is above the European average. It is true that ICT usage among the Portuguese with only basic qualifications remains very low. However, this need not be a challenge specific to Portugal as it is shared by other Southern European countries as Greece, Italy or Spain. In this last case, the setting up of a fully online university (UOC) has definitely helped to bridge the gap by providing the university and ICT skills to a body of population that had shied away from the traditional university for a variety of reasons.

Limited diversity of offer

A second feature and a major limitation of Portuguese distance learning is its limited range of offerings. Only a few areas are covered and many of the natural, health and environmental science fields offer few DL courses and degrees. Until very recently, the DL student body was concentrated among teachers. A high number of students even now come from the public administration, from people seeking career advancement in these services. Small beginnings have been made in medicine and engineering but these are miniscule. DL offers are limited for such groups as nurses, teachers of maths, or for handicapped people and for immigrants. Close to one-third of enrolment comes from overseas and those offerings are also rather limited, principally in the field of language training.

Quality issues

As already noted, DL learning in Portugal has only recently made transition to e-learning pedagogy. The reliance until recently was largely in the classical DL mode based on paper. The transition phase of UAb is now completed. Other HEIs offering or contemplating to offer DL programmes are using the new DL pedagogy. The research base supporting innovation in DL, however, is relatively under-developed, though some progress has been made in recent years at UAb.

The relatively low range of DL offerings and the large reliance on classical pedagogy until recently has created a rather weak image of the quality of DL, particularly in the eyes of the traditional universities. This image problem holds not only for Portugal; but judging from the Panel's interviews with the Universities it is particularly acute in Portugal.

III.2 The case for expanding DL

The relatively small size of Portugal's DL sector indicates that it is lagging behind other European countries it wishes to emulate. There is, therefore, some catching up to be done. An additional reason for DL expansion is its effectiveness in raising access to higher education. While Portugal has reached high levels of higher education participation by

younger cohorts such is not the case for the adult population. Expanding DL offers an effective and efficient means for raising its population's participation rate in HE.

Hence, distance learning could be playing a more potent role in Portuguese higher education, and that there is potential that could be exploited: (i) there is large unmet demand for HE that can be better satisfied through DL, and this demand is likely to grow; (ii) DL can be efficient and cost-effective in catering for the unmet demand, taking account of quality of provision; (iii) DL is particularly suitable for Portugal because of its lingering regional insularity and lack of student mobility across regions; and (iv) modern DL pedagogy has a much larger role in that it can contribute to the quality of the FTF learning process in traditional higher education.

Large unmet demand

As technological change more broadly, and ICT in particular, spawn structural change in the Portuguese economy, the need for lifelong learning can only expand. Skill needs of the labour market demands more frequent upgrading and refreshing of skills, which can be provided more conveniently through DL because it can provide more flexible scheduling and study system. Demand for courses for adults comes, however, not only for meeting labour market skills but also for personal development and social and cultural activities.

Potentially, there are some 1.5 million Portuguese adults with upper secondary qualification who could benefit from lifelong learning opportunities. In addition there is an additional approximately one million population that has higher education qualification and could potentially benefit from qualification upgrading using the DL approach. Existing supply of places barely scratches this potential. Moreover, the scope of DL is not limited to non-traditional students. With the use of new technologies in DL, the scope can reach the wider group of traditional students, who can benefit from blended or mixed-model approaches that combines distance with face to face learning.

Lower marginal cost

As demand for tertiary education expands, governments struggling to meet their budget constraints look for ways of efficiency in study costs. Compared with FTF, distance learning can be provided at a lower marginal cost for comparable quality. The fact that DL implies a high amount of autonomous self study on the part of the student cuts the fixed costs of FTF mode of provision. Provision of good quality DL involves large up-front investment but the marginal cost can be low if there is good student uptake. The large up-front investment come from preparation of teaching material for self study, and technological and pedagogical infrastructure, including teacher training and tutoring costs.

Providing access to regionally bound demand

High degrees of regional insularity and lack of student mobility across institutions of higher education are well-known features of the Portuguese higher education landscape.

This has led to proliferation of regionally dispersed provision that is often inefficient given the small volume. DL can bring higher education to the home. It provides an attractive option to pool scattered but small scale local demand into larger a larger scale that can be met more efficiently through lower marginal costs of DL.

New technologies for spill-over effect

One potent argument for greater use of DL pedagogy has received less public attention but deserves wider consideration. Paradoxically, the new online DL pedagogy caters better to the learner-centred approach than the classical FTF approach of the conventional HEIs. There is much evidence to show that DL approaches can improve learning performance of students in the FTF and blended learning models. This is because online contact has proven to be more interactive and just-in-time than the student-teacher interaction of the FTF instructional mode. Today, distance leaning offers not only one-way content with tutorial support but considerable opportunities for interaction and simultaneous communication across networks using means such as live broadcasts of tutorials, chats, forums, blogs and wikis. DL offers greater opportunities for using student-centred approaches to learning and can, therefore, contribute to achieving one of the Bologna targets related to student centred instruction.

III.3 How much expansion?

Accepting the argument that expanding DL is a desirable objective for Portugal raises the question of the size of expansion. The Panel has not explored this question in any depth, as it was not a part of its mandate. However, taking note of some of the targets mentioned during the Panel's visit, the Panel offers three observations.

First, the Panel has heard talk of setting targets, ranging from a 5 to 10-fold expansion to be achieved over a five year period. It is evident that the targets cannot be set by fiat; rather they depend on the interplay of the existing forces of demand and supply and the degree to which they can be changed. These realities can, indeed, be altered through greater efforts and investment -- technical and human -- and through efforts to activate latent demand. However, it is important to recognise the limits to such efforts in both these areas in setting the targets.

Second, one approach that could be considered is to develop the targets on the basis of what has been achieved in the countries with which Portugal wishes to compare itself. For example, some estimates can be obtained by taking the per cent of enrolment in distance learning higher education to total higher education enrolment [(DL/HE) %] that has been attained in the advanced countries. This can give an indication of what has proven to be attainable in practice. The difficulty here, however, is that there is a large variation of this percentage across countries (and regions) and this can give different estimates. The case of Catalunya, as mentioned above, shows that its distance learning university has attained a percentage of DL enrolment that is four-fold larger than the Portuguese (UAb) experience. This example would suggest enrolment in DL programmes of the order of 40,000, roughly four-times the level of UAb student body. Although we do not have firm data from other countries, a proportion of distance learning enrolment

around 10 per cent of higher education may not be unreasonable. Moreover, the percentages are rising, for example in Brazil. Applying the 10% ratio to the peak higher education enrolment achieved in Portugal (400,000) would suggest a possible target of around 40,000 for the next few years. As demand and supply conditions change, what appears as a large increase at the moment may begin to look as too small over time. The Panel suggests a closer look at what has been attained in other European countries and adjust them to the Portuguese situation as way of arriving at realistic targets for its DL sector for the near term.

Third, in addition to other reforms, any significant expansion of the DL sector would require significant levels of additional investment. In other words, the existing capacity does not have enormous slack to accommodate major expansion in DL offers.

III.4 Approaches to expanding the DL sector

Sustainable expansion of the DL sector would require a range of actions, both on the part of higher education institutions and the Government. It is helpful to use the prism of demand and supply to understand the nature of the action required.

Activating demand

The pool of the large unexploited potential demand has been commented upon earlier. A variety of factors may be causing the potential demand to remain dormant. One factor may be the inefficiency of match between learner needs and what is available on offer. A better understanding of learner demand would be needed for designing DL programmes. Another constraint could be the inadequacy of information to participants on what is on offer. A third factor may be that what is available is not valued, either by the labour market or as a basis for furthering qualifications. Another factor may be that potential applicants may have difficulty in meeting eligibility requirements for access to DL courses, whether in terms of subject area or the ICT requirements for on-line interactive study. Available courses may be too expensive in terms of the value they bring. Finally, there may be institutional hurdles, such as age-limits, that limit access to some programmes or funding.

These constraints can be addressed through a variety of approaches. The demand base can be expanded by measures such as the provision of foundation training in ICT and in bridging courses to improve eligibility for DL programmes. The admission requirements need not lower standards but can be designed to take account of elements of eligibility not considered for FTF students. For example, DL students may already have some form of qualifications that should be taken into account. Massive marketing campaigns have been used in many countries to raise awareness of the programmes that are available and the value they can offer. Information about the progression routes through the qualifications structure can help potential distance learners in assessing the value of DL programmes. Market research can be helpful in determining the types of programmes desired by learners. Contacts with professional organisations and institutes can be

extremely helpful in this regard and UAb is beginning to explore this avenue more aggressively.

The experience with the Decree-Law of 2006 (64/2006, March) that facilitated entry of adults age 23 and over into higher education (commonly known as M23) is that of positive expansion, but so far the DL share has been limited. This may be due to the limited DL offers or because of their more stringent eligibility criteria in DL programmes. Consideration should be given to expanding eligibility to the group below age 23. Development of bridging courses (such as those developed by polytechnic of Leiria) could be provided on a national basis. Online curricula to acquire the necessary qualification to enter HE for those who missed secondary school certificate could be very helpful in expanding the potential pool of DL applicants. Programme of prior learning assessment can assist potential applicants in assessing their eligibility requirements.

An important step in improving the demand for DL relates to the value of distance education, which depends on its quality and value in the labour market and in the progression it offers on learning ladder. In regard to the first, support could be generated through working with employer groups and unions. Marketing campaigns that promote flexible learning “any time at any place”, directed at potential applicants, can be very helpful. In regard to offering the opportunities of progressing on the learning ladder, credible programmes of quality assurance, assessment and certification are necessary. A qualifications framework that embeds the DL qualifications in it is a very important requirement. Involvement of prestigious universities in providing DL can also change the public perception of the quality and value of distance education.

Relaxing supply constraints

A first priority for the DL sector is to expand significantly the offer base, as significant expansion in enrolment cannot be achieved within the spectrum of current offers. Potentially, new programmes can be established in knowledge-based services and access to training in every walk of life. But this requires the institutions to be more proactive in seeking new students. They can develop relationships with a whole range of professional groups. Post-graduate courses can be designed specifically for certain companies, such as in the areas of management and marketing. Special attention needs to be given to the potential for “short cycles” (i.e., “Technology Specialization Courses”, CETs, as particularly offered through the polytechnics). The experience over the past years has been very positive, particularly in the Polytechnic sector, which has added about 5000 new students per year. The Polytechnics can play a particularly important role in promoting demand for such “vocationally-oriented” programmes given through DL.

III.5 Four key areas for action

The foregoing analysis points to a large range of action that could be pursued for expanding the DL sector. Some of the actions needed fall in the province of higher education institutions and some with the Government. Some deal with behavioural changes and some with financing of the system. Some deal with action by individual stakeholders and some relate to the system as a whole that necessitates considerations of

framework conditions for channelling stakeholder behaviour. These considerations raise four sets of generic issues.

A first question relates to who should have the responsibility for providing the expanded offers, which institutions and which types, acting singly or in co-operation. Most Universities in Portugal so far have taken a cautious approach to promoting distance learning, especially as there is some reluctance on the part of the teachers to embrace the online methodology. This attitude is gradually changing as the potential benefits of the eLearning approach become better appreciated in the context of blended options for their regular students. Universities need to take account of DL's positive impact on student performance, and the option it offers for a more learner-centred delivery of education. They can benefit from using learning platforms and administrative campus management software, and these can be good incentives for the traditional universities to increase their provision of online delivery to their FTF students.

A second set of questions centres on improvements in the quality of DL. The development and assessment of quality of DL programmes have features that differ from FTF provision, in both input and output dimensions. The research and innovation base for distance learning, likewise, has evolved differently from FTF provision. These differences have to be taken into consideration in both institutional behaviour and system-wide arrangements.

Third, expanding DL supply raises the question of its financing. The financing requirements and patterns for developing DL programmes are significantly different from that of FTF programmes. DL programmes involve high development costs. These come from the cost of developing ICT infrastructures, from the production of quality teaching material, and teacher and tutor training. The evolution of network based distance education also requires it to be embedded into a general redesign of the institutions of HE in the sense that the establishment of eLearning platforms is just a first step on a general road towards the eCampus. This implies integrated IT-supported reorganisation of all functions of the university from first enrolment to graduate alumni. Funding arrangements have to be tailored to take these factors into account.

Finally, there is the issue of general legislative and institutional frameworks within which DL operates: are these frameworks supportive or do they need to be modified for supporting expanded DL provision?

These four questions are taken up, in turn, in the following four sections.

IV. CHOOSING THE RIGHT STRUCTURE OF PROVISION

What roles different types of DL providers -- Universities and Polytechnics, UAb and other institutions -- should play in expanding Portugal's DL sector? The Panel came to the conclusion that the size of expansion being contemplated can only be achieved by following a *two-pronged* approach. It would require, in the first instance, a significantly

expanded range of offers from UAb, the one dedicated DL institution the country has. But this would not be sufficient by itself; this effort would need to be combined with a range of collaborative efforts among a number of HEIs institutions. Both the Universities and the Polytechnics need to make their contributions through separate and specialised collaborative efforts.

IV.1 The current structure of provision

As described in Section II, the currently existing structure of provision features one dominant provider, UAb, with approximately 90% of enrolment, combined with several very small suppliers of DL programmes. In addition, most other HEIs are exploring the DL option to varying degrees, though they are principally interested in using this approach in the blended mode. UAb's DL offers are concentrated in a small number of fields, as are the offers of the smaller providers.

Under these conditions, where online methodology is being widely used across all types of higher education institutions, the option of concentrating all DL offer into a monopoly institution is neither realistic nor prudent. Such an approach will not offer the diversity of offers demanded by the learners; it will strain the capacity of a single institution; and it will militate against the autonomy of pedagogical choice that HEIs enjoy. At the same time, the scale and type of DL offer required by Portugal cannot alone be met through co-operative ventures of a large number of institutions without any dedicated institution to spearhead and champion the country's DL effort.

Hence a strong concentration of efforts is needed at the same time as growth of DL has to be fostered on a broad range of courses through a number of providers to meet the scale and diversity of learner needs. However, the large unregulated growth of DL pedagogy, for use in a blended model or otherwise, raises the question of the cost of development, of duplication and inefficiency, and of sufficiency of scale in research and innovation. Since the up-front cost of developing DL programmes is relatively large, the scope for inefficiency through duplication can be extensive. The same factor can also limit developmental work on programmes, research and innovation, if the scale of demand for individual provider institution is insufficient. Collaborative work is essential to avoid inefficiencies by pooling the resources and demand and spreading costs.

IV.2 Expanded programme offers by UAb

As noted already, the level of DL expansion being contemplated will not be attainable through one approach alone. The subject offers being contemplated by various HEIs is likely to remain narrow and inadequate to tap into the large potential pool of adult learners that form the Government's focus. An extensive expansion the UAb offer of programmes would remain a large part of the strategy to achieve significant expansion of the DL sector. The UAb is not only the main DL institution by far of the country, it is the only institution with credible expertise in the new DL pedagogy.

Over the last two years UAb has become a fully virtual university. It is the only institution in the country with substantial DL expertise. But its offerings are concentrated in only a few areas. In fact, new entrants in such fields as business administration and law have declined at UAb in recent years. Although data are sketchy, the per student cost at UAb, estimated very roughly to be about 2000 Euros, may be higher than in universities in other countries, where they often are in order of 1500 Euros (such as at FernUniversity). This may be due to the relatively smaller size of the UAb's student body, but it may also indicate a capacity for further expansion.

Nonetheless, further expansion would need to come from a substantially diversified offering of courses by the University. UAb can specialise in selected offer areas and build capacity in new ones. In particular, it can offer lifelong learning opportunities to a wider population. Areas reserved for UAb could include those that are more difficult to implement by traditional HEIs, and that need specific financial support, such as DL programmes delivered to socially disadvantaged students, disabled students, programmes that provide opportunities to those who cannot be "traditional" students. It can offer more courses in law, some elements of medical and health studies, economics and business administration, and technical education. It can further expand its programmes in Portuguese speaking countries and steps are being taken currently to go beyond the traditional field of language training.

Clearly these efforts by the University would require new funding. The current financing arrangement where the Government's contribution is more or less fixed percentage of HE expenditure (1.1%) would need to be removed. The tool of performance contracts can be used to achieve programme expansion against specified quality and performance targets. UAb should retain its University status but should be treated as any other university and legislation should be amended, if necessary, to allow the use of performance contracts.

IV.3 The need for institutional collaboration

Theoretical considerations and experience from various countries offer a number of models of collaborative arrangements. There is a so-called brokerage model, where an institution plays the role of a broker and supplies DL courses to institutions that demand such courses to be developed. A project management model offers another approach, where an institution develops and offers courses while local HEIs are responsible for tutoring and examinations. A third model envisages an institution to provide didactic and technical services to other member institutions, including research and advice on organisational reform. In practice, country experiences combine elements of these simplified stylised approaches including the joint offer of DL courses and joint tutoring and sharing of the research effort.

The consortium approach has been applied successfully in many countries. Two examples may be cited from Germany. The Multimedia Kontor Hamburg is a publicly financed institute to support cooperation among seven universities of the city of Hamburg, catering for around 70,000 students. The institute is a mixture of service provider and project management. Its tasks include project management, offering expertise and counselling, marketing and training.

Another example is the “Virtuelle Hochschule Bayern”, the Bavarian Virtual University, is an institution founded in 2000 by all nine state universities and all 17 state universities of applied sciences in Bavaria. A further ten universities in Bavaria outside the jurisdiction of the Bavarian Ministry of Higher Education have also joined the consortium. The aim of the VHB is to complement the programmes of the traditional universities, not to replace them. With the help of the VHB, students can earn credit points in individual courses. They cannot obtain degrees, as the VHB does not offer complete courses of study. The total number of course enrolments is around 50,000. Basic financing for the University comes from public state budget with the yearly amount of 3,6 Million Euros. Some additional resources are provided by member universities.

In Brazil, co-operation between HE Institutions offering DL has been successfully attained in two programmes: Universidade Aberta do Brasil (UAB) and CEDERJ (both described more fully below). UAB, is a publicly funded joint programme of Brazil’s Ministry of Education with the State and Municipalities, with a co-operative offer by 70 public HE Institutions, now has about 100,000 students in undergraduate and graduate programmes. These HE Institutions share the 550 learning centers distributed all over Brazil and several other facilities like materials production and delivery, internet facilities, training in DL for the professors, tutors and technical staff, among others. The learning centers and the infrastructure are partially provided by the State and Municipal governments.

Centro de Educação a Distância do Estado do Rio de Janeiro (CEDERJ), is a consortium composed of six public universities, offering nine programmes for 24000 students, with 33 learning centres distributed in the State of Rio de Janeiro. The disciplines in one particular programme are shared among the universities, for example, the subject of Administration is shared among four different universities. All the academic activities are the responsibility of the individual university, with the DL courses being offered by the same professors as the FTF ones. To support these activities a State Foundation, CECIERJ, was created with a specific budget, which produces the materials with the professors of the universities, administers the DL process, the learning centres, the platform, the FTF teaching and the DL tutorial systems.

A consortium approach has many advantages to offer. It allows the sharing of common administrative services, some basic infrastructure like server hosting and joint marketing and research, sharing of development cost and tutorial support. An additional advantage of the consortium approach is that can help to create an online community of experts and users; it may also stimulate general reengineering of the HE institutions with regard to IT infrastructure budgeting and reorganisation of business processes.

While there have been successes with such consortia, there also have been failed experiments. A case in point is Finland, Finish Virtual University network, which flourished for while but has become whittled down to a department in a ministry. The Finnish National Virtual University was created as a consortium participated by all the Finnish universities and the Ministry at the Department level. It failed for the same

reason that most of the consortia fail, that is, the participants did not share the same strategic aims. Consortia are often created because some participants consider it as a tool for controlling certain decisions. They fail when this objective is not realised.

The examples just reviewed suggest that some conditions must be met for consortia to be successful. There needs to be a strong the mutuality of interest in the co-operation: it is essential that participants are able to bring complementary expertise to the consortium and that each participating institution can expect to share in the benefits. Participating institutions must not risk losing autonomy, specialisation or students. Finally, in the cases mentioned above, a key success factor was the availability of public funding to sustain the consortium.

IV.4 The scope for collaboration

The Panel had extensive discussion of this question with the stakeholders, both through invited written comments and during the Panel's visit. The responses fall into three categories. There was straightforward support for the consortia approach from the University of Minho and the Council of Polytechnics. Among another group, the support for collaborative effort was more qualified. For example, Universidade Nova de Lisboa (Nova) supported the idea of collaboration, and noted the benefits it can bring, on the conditions that such arrangements were voluntary and based on equal partnership, and guaranteed pedagogical autonomy of the institutions. Nova made the observation that co-operative arrangements are best entered into at the Department level and the UAb rather than at the level of University. In a third category of responses, a negative view about collaborative effort was based on their view that the UAb did not have the necessary expertise in areas of their interest; the examples cited were of mechanical engineering and medicine.

The Panel's overall conclusion is that collaborative arrangements could work provided they are formed through voluntary effort among the institutions and not by Government directive, and they are operated on an equal partnership basis where decision-making and control is shared. Different consortia would be needed for specific purposes and the UAb need not be a participant in each one of them. Finally, an essential condition for consortia's success would be the availability of significant new public funding.

Potential areas of co-operation

It is not in the mandate of the Panel to specify the exact form and number of possible consortia arrangements, which must be up to the potential participants to define. In this regard, the examples from other countries included above can be of some assistance. The Bates report (with the interesting title of Tony's Chocolate Box) proposed a specific form of consortium, that of small regional universities for offering joint blended learning programmes across Portugal, which is one approach among others to consider. The Panel notes that there is potential for institutional collaboration in several areas: research in DL; training of DL teachers; development of course material; purchase of technology;

marketing of courses; sharing of regional centres for monitoring, tutoring and assessment facilities and joint course offerings.

The new framework Law of 2007 (Art. 17) allows the formation of consortia either on a voluntary basis or on the initiative of the Government. Some isolated initiatives have emerged in recent years. Examples include the joint doctoral programme between Aveiro and Porto; training of Technical University of Lisbon staff by UAb in using the learning platform; joint MBA of the Banking Institute and Universidade Catolica; and shared degree programmes offered by some northern Polytechnics. There are also some examples of offering joint degrees with European or US universities or online courses.

A variety of co-operative arrangements is feasible

The forms co-operative arrangements can take are also many. They can involve UAb and other Universities, or may not include the UAb. They can involve only the Universities or only the Polytechnics, with co-operative arrangement between two or three institutions in either case.

In the situation where the UAb is aiming to expand its offers in new subject areas, it can benefit by co-operating with Universities that have subject knowledge, even if the latter are not planning to offer DL in these subject areas. The UAb can benefit from the subject knowledge it may be lacking and the Universities can benefit through using the material developed in their blended format for their FTF students. Thus there can be consortium arrangements for joint programme development but the programme itself need not be offered jointly.

In the situation where some Universities are planning to offer DL programmes that are not offered (or planned to be offered) by UAb, co-operative arrangements would be beneficial if the UAb can contribute didactic advice, technical assistance with programme development, and training of DL teachers and tutors.

The situation of joint programme development and joint offer between the UAb and other HEIs may be less promising because it raises issues of student sharing or of losing institutional brand name. However, sharing arrangements where some parties could concentrate on the domestic market while UAb could deliver programmes in the international market because of its advantage in having regional infrastructure to deliver programmes. The Bates proposal of a consortium between UAb and small regional universities is also promising because it can avoid the risk of student poaching by allowing local specialisation among partner institutions.

The area of DL research and innovation offers an opportunity of wide collaboration across many institutions as the need to adopt new DL pedagogy is felt by all institutions. A centre based on co-operation among many partners is more likely to win FCT funding through competitive procedures than a single institution's application.

Finally, the consortium approach may be better suited for the Polytechnics, where the UAb could be playing a smaller role. Polytechnics do not have the broad scope of subject matter disciplines compared to the big universities in the larger cities of the country.

Their enrolment levels for courses can be relatively small and their focus is more on teaching than research. Local educational offers can help to reduce migration to larger cities. Although there is already some cooperation among polytechnics e.g. five northern polytechnics offer joint degree programmes, this process can benefit considerably from government support.

While details of consortium arrangements are for the participants to decide, a possible scenario that may be attractive to polytechnics could be as follows. It could combine some aspects of project management with the provision of complementary services. It could be based on voluntary participation but supported by government funding, which is to be channelled through the consortium.

Its focus could be on developing on line courses and on administration of the courses, with the aim of supplementing actual degree courses mainly at BA level as well as providing bridging courses to prepare 23+ students for entrance qualification. It was reported to the panel that with respect to preparatory courses there are difficulties to make such offers as they are not incorporated into the regular BA curriculum. However these offers are urgently needed and may, if no other solution is possible, be offered on an extra curriculum basis. Another promising area is the sharing of online laboratory access.

A small technical and pedagogical support unit would be needed to streamline design, plan and coordinate applications for funding, do marketing and organize a quality control. This organisational unit could be responsible for server hosting and for operating the web portal of the consortium. Hosting of the central support unit could be with one of the polytechnics.

Course enrolment could be with the local Polytechnics to avoid the risk of institutions losing students to a centralised organisation. They would also be responsible for tutoring. If course development is funded no parallel face to face courses should be offered. To reduce the need for local premises, most FTF tutoring should be provided on line. Assessment can be taken in written form in a supervised environment supplemented by oral examinations via conferencing facilities at the local institution.

In conclusion, the Panel feels that a collaborative approach among HEIs is an essential component of the strategy for significantly expanding Portugal's DL capacity. Several conditions would need to be met for this approach to be successful. While the effort has to be voluntary and established on an equal basis among the partners, public financial support would be essential in bringing the parties together and ensuring benefits for all participants. The financing can be made available through competitive call so that all HEIs are eligible. There would need to be different types of consortia pursued simultaneously to accommodate the diversity of interests among different HEIs and their different points of convergence. Any HEI can be a part of a particular collaborative effort through participation in a competitive bidding process. The UAb need not participate in each of these efforts, nor it need to assume a lead role. At the same time, given its experience and history, UAb should be playing the important role of initiating the effort to bring partners together in many of the collaborative ventures. The participation of lead universities in this venture, including the most acknowledged ones,

such as: the Universities of Porto, Coimbra, Lisbon, and Minho, would be important to enhance the image of DL in the country.

Recommendations

To achieve a significant expansion in the size of the distance learning provision, the Panel recommends a two-pronged approach. Efforts directed at widening the number of HEIs offering a greater variety of DL courses should be combined with a larger effort to expand the variety of programme and course offerings by the UAb.

- UAb is the country's sole specialist DL institution and the most significant repository of DL expertise. It must play an important role in expansion of the country's DL sector. But to achieve this, UAb's course and programme offerings must be expanded substantially, both nationally and internationally, without it being given a monopoly position. Performance and development contract tools should be used for this purpose and the current ad hoc year by year financial support regime for the institutions should be scrapped.
- DL offers by many institutions in the same subject areas can be inefficient and duplicative. It is important that institutions collaborate to avoid these inefficiencies. International experience offers many successful examples of the consortium approach to development and delivery of DL programmes. Many areas offer the potential of fruitful co-operation in Portugal. Their successful use would depend upon if such efforts are developed voluntarily among HEIs with equal partnership and institutional autonomy. They are unlikely to expand significantly unless they are supported by public funds.
- The consortia can assume a variety of forms but given the diversity of areas of interest among HEIs and the desired scale of DL expansion, several specialist consortia should be contemplated. These could be dedicated to developing subject areas, delivery aspects or research and innovation. These could involve UAb and other institutions or be established among institutions without the involvement of the UAb.
- Collaborative effort among Polytechnics could be especially promising and some forms it can take have been noted above.
- A particular collaborative effort is needed to establish a research centre for DL research in the country. While UAb should be an important partner in this venture its credibility would be enhanced by the participation of a broader base of institutions.
- While the Government should not be involved directly, it can play a critical role to encourage collaboration by offering selective and substantive incentives for forming a consortium. Performance contracts can be offered to UAb and other

HEIs for developing collaborative efforts for achieving various specified targets such as developing on line course in various subject areas or research capability.

V. IMPROVING THE QUALITY OF DL PROVISION

The quality of distance learning programmes is one of the important determinants of learner demand. The term quality needs to be considered in its broader meaning to include relevance and impact of the programmes. Learner demand is conditioned by how relevant DL qualifications are in meeting their needs. Similarly, the quality of DL qualifications for learners is dependent on the added value they bring for learner in the labour market and in facilitating progression through the qualifications structure. These outcome measures of quality are dependent on the specificities of input parameters. In general, assuring the quality of DL programmes is different in many respects from the traditional higher education programmes and requires differential treatment.

As documented by the Bates report, the UAb has made major progress in adopting the new DL pedagogy in recent years, and all its offers are now fully on-line. Almost all academic staff has Ph D degrees. UAb staff has received awards in research and is developing a good publications record. All other higher education institutions engaged in developing DL programmes have adopted advanced platforms such as Blackboard or Moodle.

The quality of DL programmes is also highly dependent on the quality of DL teachers, which requires specialised training and specialised tutors. The capacity to train DL teachers and tutors has been expanded at the UAb but there is a critical need for its expansion in other HEIs planning to offer DL programmes. The quality of DL is also dependent on the quality of research and innovation. This area is relatively underdeveloped in Portugal and requires much attention.

V.1 Strengthening research and innovation

The central role of research and development cannot be overemphasised. Research is needed to develop new instructional design and course material, teacher training programmes, student assessment approaches and quality systems, and DL infrastructures. To explore the potential of mobile learning, game based learning, remote laboratories and the adoption of IT supported business processes in universities are important issues that will shape the future of network based learning. Another area of research that is especially important for Portugal is on different cultural contexts in using and implementing eLearning. Here the experience with Portuguese-speaking countries can be a valuable asset.

Some progress has been made in the last few years in initiating DL research. The UAb has allocated a specific team to this end, and University of Porto, Nova and I.P. Leiria also have units for DL research. Despite this, research in the field of DL in Portugal is still far from the levels of other European countries. Most research activities have taken place in the framework of European funding schemes. DL or e-learning is not considered

proper research field and there is no specific funded research in this area. Anecdotal evidence reported to the Panel was an example of a Ph.D. student who was not funded because the research topic was e-Learning.

In contrast, Technology-enhanced higher education is a very vibrant research area in some other countries. The latest Research Assessment Exercise had over 500 papers submitted in this area alone. The evaluation of initiatives is a major activity and success of initiatives is measured by several factors: uptake by students, sustainability of the initiative, learning gains and ease of use by students and teachers. Funding is largely integrated with HE funding generally in the UK, although there are some special calls for research on topics such as digital repositories, open educational resources and institutional infrastructure. These tend to be funded by the Joint Information Systems Committee or the Higher Education Academy, both government funded organisations. In Germany funding programmes for DL exist on the basis of tenders for special developmental programs or research grants.

The Panel believes that the Portuguese HEIs should collaborate together to set up a centre dedicated to promote DL research and its use in distance learning programme development and delivery. Several Universities that have significant developmental activity in DL (i.e.: Porto, Nova) and the UAb can work together to establish such a centre, which should be open to other interested participants.

This centre should have two separate functions comprising the conceptual as well as the implementation process, the one reinforcing the other. It can develop significant research and knowledge on DL and e-Learning to improve its practice and quality; to help HEIs to develop teaching materials; and to train teachers and tutors. The centre can also co-ordinate collaborative work with European institutions, which are now being done individually by various Portuguese institutions. For example, it can be the focal point for participation in the EU eLearning Action Plan. Another objective of the centre could be to foster conditions for the development of R&D and partnerships with companies, both at the national and the international level, and to reinforce the connection with the Municipal Authorities and the Civil Society. Support for the Centre could come from FCT through a research programme in DL and/or e-learning. It should encourage DL providers to create partnerships with research institutions (namely foreign institutions), in the field of DL, complementing them through the research that is carried out by individual institutions.

The Panel understands that efforts to establish such a centre have already been initiated through the process of applications under competitive bidding. Government funding to support such application and its launch would be very valuable and timely.

V. 2 Ensuring quality assurance

Ensuring high quality of distance learning is essential for establishing credibility of DL and also for mobilising its demand Universities and Polytechnics that are now entering the DL area need to pay considerable attention to ensuring the quality of DL programmes. As the Bates report documents for the UAb case, the transition to new DL

pedagogy is not an easy matter and requires considerable investment in many fields, particularly for developing course material, training of teacher and tutorial resources, and integration of new pedagogy in administrative processes. While UAb has achieved the transition with much success, the transition is time and resource consuming.

DL programmes have specific requirements of quality control that differ from FTF provision and call for a differentiated approach to the accreditation of programmes, delivery of provision, handling of technical infrastructure, assessment of input and output quality, and processes of student assessment.

Although some experts question whether distance learning needs special accreditation criteria compared to traditional teaching, there are specific DL features that require differential treatment. These concern the special features of DL students (usually part time), the use of electronic communication and study materials and the different ratio of staff to students. Distance learning provision needs to be assessed on such special features as coherence of media application and learning outcomes; usability and design of the software; media competencies; tutorial practices; and guarantee of constant access to technology. Quality assurance agencies have already started to develop more specific concepts to rate distance learning. Specific guidelines for e-learning have been developed under the label eBologna, and ENQA offers training workshops on this issue. EADTU has announced that it will be developing a framework for quality assurance in eLearning in co-operation with UNESCO.

Quality assurance systems for DL should be based not only on the basis of traditional DL, but also on the standards of new online distance education models. In this sense, some guidelines and procedures have been elaborated and tested, and could be used as benchmarks for creating a Portuguese system, such as: Guidelines for the Evaluation of Electronically Offered Degree and Certificate Programs (www.msache.org); quality assurance and quality assessment of new forms of delivery, ENQA (www.enqa.net); Quality on the Line: Benchmarks for Success in Internet-Based Distance Education (www.ihep.com/quality.pdf); Agencia per a la Qualitat del Sistema Universitari de Catalunya (http://www.aqu.cat/activitats/centres/virtual_centres.html).

It should be noted that very few countries in Europe have developed dedicated distance learning quality systems aside from the United Kingdom that has established the Quality Assurance Agency for Higher Education (QAA) and the Open and Distance Learning Quality Council (ODLQC). It is not essential, therefore, for Portugal to have such a dedicated agency. Instead, the newly established Portuguese higher education evaluation and accreditation agency could include specific quality criteria to be applied to distance learning programmes. Such a programme should cover the cases where DL may have no FTF requirements as well as situations where blended models are used. The existence of such a programme can provide the legitimacy that has been missing until now. As experience with evaluating quality of distance learning is a new field and Portugal too will have difficulty in finding domestic experts. It would be reasonable for the new agency to draw upon the experience of established European accreditation agencies.

Recommendations

Research in DL is underdeveloped in Portugal and, it was reported to the Panel that most of the research funds have come from European funds. Major effort is needed to strengthen DL research to ensure that Portugal's transition to new pedagogies is on the frontier of research. Taking account of the experience from other countries:

- Provision should be made to develop specially funded research area for DL. This could be done by the FCT through calls for research projects and doctoral and post-doctoral fellowships.
- Institutions should collaborate to establish a research centre or a research network that could serve all HEIs interested in DL. The purpose of the centre would be to conduct research in both pedagogy and implementation processes and one of its aims would be to promote interest in DL research from other stakeholders, both nationally and internationally. Financial support for the centre should be obtained under the FCT processes.
- There should be special incentives for developing co-operation with internationally acknowledged research institutions.

Portugal needs to make special efforts to assure the quality of its DL programmes. These programmes have only recently adopted modern DL pedagogies. The Panel came to the following conclusions:

- The standards for programme approval, certification and accreditation differ for DL programmes compared to traditional higher education programmes. These should form the basis of differential criteria for evaluating and accrediting DL programmes.
- These criteria should pay full attention to all aspects of developing and implementing fully on-line programmes, including the requirements of tutoring and assessment at distance.
- The newly established evaluation and accreditation agency should be responsible for DL programmes by developing criteria suited specifically for the accreditation and evaluation needs of the DL sector that often differ from face to face provision.
- The criteria for DL programmes should be the same whether they are offered by a University or a Polytechnic.

VI. FINANCING DISTANCE LEARNING

A major argument for DL as a tool for promoting higher education is its lower marginal cost per student compared with face-to-face instruction. On this logic, expansion of DL

could be achieved with comparatively smaller investment. Nonetheless, setting up DL programmes requires large initial investment, which can pay-off in lower marginal costs per student only after several years and with high levels of student intake.

VI.1 Orders of magnitude for cost of major expansion

The scale of DL expansion that is being contemplated in Portugal would require significantly large additional investment. The resource cost depends both on the scale involved but also on the specificities of DL provision. It was not in the mandate of the Panel to develop estimates of the investment required and the Panel was not able to obtain detailed data on various cost components of DL provision in Portugal. It can at best make some extremely rough and rudimentary indicative judgements about the orders of magnitude involved.

Based on the annual expenditure and the student enrolment, the per student cost of providing DL at UAb would appear to be 2000 Euros, though this could vary from year to year with changes in enrolment. Also, this is a very rough estimate as all UAb students may not be considered as "DL students". In comparison, a similar rough estimate for the rest of the HE sector suggests the annual figures between 3500 to 5500 Euros per student in the traditional Polytechnic and University systems. This rough comparison suggests comparatively lower per student cost of DL, as is commonly believed.

These simple average cost figures could be used to arrive at a rough global figure for new investment by multiplying it with the desired increase in the DL student body. An alternative approach could be to use the per student cost figures from other countries that have achieved a higher scale. Adjustment to these figures could be made by allowing for a lowering of the marginal cost as student enrolment rise. Allowance could also be made for the use of any excess capacity currently in the system. A more sophisticated analysis would require development of cost figure by type of DL provision, since these costs differ by type of programmes, or to estimate it by ECTS rather than on per-programme or per-student basis. Adjustments could be made for the economies that could be achieved for those programmes where the developmental and infrastructure costs have already been met.

Judging from extremely rough and ready figures from other countries, one could use a figure of 1500 Euros as a basis for scaling up estimates. For an increase up to a student body of 30000, roughly three times the current UAb student body, the cost would run into 45 million Euros. For scaling up to the level of 50 thousands, it would be 75 million. While these are extremely rough orders of magnitude and need to be adjusted downwards to allow for scale economies, existing capacity and other factors, it is clear that the required investment for a three, five or ten-fold increase in DL provision – orders of magnitude mentioned to the Panel to be achieved over various periods of time – would require large increases in DL resources. To put this in perspective, the current budget of UAb is approximately 18 million Euros. While it is true that distance learning offers a cost effective approach to expanding higher education, it is not to be seen as a cheap educational solution, but rather as a special educational solution, which responds better to particular learner needs.

VI.2 The scope for cost-sharing

Currently, approximately 63% of the UAb budget comes from the public sector. Can this public-private sharing change substantially with the scaling up of DL provision?

One reason to expect a larger private share would be the possible higher contribution from adults through fees, or through industry sponsorships, especially for the lifelong learning programmes linked to the job market. At the same time, it is also evident that the types of programme expansion discussed earlier – UAb programme offers and establishment of various types of consortia – are premised on expanded public contribution, at least in the initial phases. Looking beyond the initial set up cost, private contribution can be expected to kick in with larger enrolments.

The Panel did not have the time to gather solid information on the public-private share from the more mature systems of other European countries. The scraps of information that are available, such as from Germany and Brazil, suggest that most of the expansion of the DL sector has been funded by the public sector. Students at the public German Distance Teaching University, for example, contribute approximately 15% of the total budget, while another 13 % comes from external contributions. The contribution of the state is more than 70%, which is higher than the case of UAb. Private institutions in Germany and elsewhere are financed almost entirely through study fees and private grants, which is also the case in Portugal, but the share of the private DL provision is unlikely to grow very significantly.

One approach to mobilising greater private sector contribution to DL expansion in Portugal can be through the use of development contracts with providers of DL programmes. These can stipulate greater contribution from industry sponsorships and fees as a condition for putting forward Government's contributions. The Panel heard positive assessments from various institutions about the possibility of raising greater private funding if the public sector was forthcoming with its contribution. The performance contract tool can also be used for fostering collaborative behaviour between different institutions.

VI.3 Reforming funding arrangements

The existing framework to allocate resources to public institutions is based on the 1997 Law for HE funding. This Law does not provide any specific treatment for financing DL students. Hence, there is no special provision for funding DL programmes in traditional HEIs and it is up to the institution to use its internal allocation processes for developing DL.

Funding for the UAb is treated as a special case in this Law in which the UAb is viewed as being outside the HE system, where a funding formula is used to distribute the overall budget allocated on a yearly basis. In the case of UAb, a lump sum fund is allocated annually after the approval of the public budget for higher education by the Parliament each year. In 2008, the annual expenditure of UAb was around 18 million Euros, out of which 63% came from the public sources. Although the decision is taken annually by the Parliament, the public funds allocated to UAb each year has been a constant percentage

of 1.1% of the overall public funding for the full HE system. In regard to support for developmental costs, there is little experience of such support to date from FCT through competitive bidding.

It is clear that current funding arrangements do not pay any attention to the specific cost features of providing distance learning. Among the factors that distinguish DL from face to face instruction, the following need particular attention: (i) the cost of developing the content material; (ii) technological infrastructure; (iii) tutoring both face to face and distance (iii) staff time to develop instructional material; (iv) the evaluation system of students; (v) the need for regional support systems; and (vi) the longer time taken by students in completing degrees.

Recommendations

Although no deep analysis has been done for this report, it is evident that given the scale of DL expansion being contemplated – five to ten times the current enrolment over a five year period -- the required investment will be very large. The order of magnitude will be several multiple of what is currently being spent on DL, and the ballpark figures are unlikely to be significantly modified by detailed and more refined cost analysis.

Even though there can be greater sharing of costs by the private sector, the share of the public sector will continue to form the bulk of the required new investment. The expectations of dramatic increases in the contribution of the private sector are not supported by experience from other countries.

Currently, public funding of DL programmes does not follow any explicit formula or policy. This needs to be altered in major respects.

- The ad hoc yearly allocation to UAb, which maintains UAb allocation to a constant percentage of the overall allocation for the HE sector, should be scrapped and replaced by an allocation criteria takes account of the specifics of DL provision, including the developmental cost of programmes. This could be done through establishing performance and development contracts.
- Allocation for DL programmes to other HEIs offering DL programmes should also take account of the specific features of DL provision.
- Funding of DL should be organised on a competitive basis through the usual FCT bidding process but a separate line should be established by the FCT for such research.

VII. FACILITATIVE LEGISLATIVE FRAMEWORK AND INSTITUTIONAL PRACTICES

A number of proposals and recommendations have been made in the preceding sections of this report. Their implications related to the structure of provision, quality and financing have been explored in the preceding sections. This section considers the overall

legislative framework within which DL operates and the impact on DL provision of some selected institutional behaviour and practices.

VII.1 Legislative and regulatory framework

Provision of distance learning, like FTF learning, needs to operate within an enabling legislative framework. Judging from other country's experience, distance learning at the higher education level does not necessarily require specific legislation of its own but could be part of the general legislation for higher education. In Spain, for example, there is no specific law for distance education and universities offering distance teaching are generally under the Spanish University law. However, the two public or non profit universities, the biggest ones, were created through special laws. At the same time, specific quality standards for online teaching and learning have been developed by both the Spanish and the Catalan Quality Agencies for Higher Education.

In regard to legislation for the specific profile of DL students, existing Portuguese legislation accommodates the cases of student workers (Basic Law on the Education System, Law 49/2005, art.12º 7) and part-time students (RJIES art. 22º). Article 24º of the RJIES, identifies measures to support the insertion of students in a working life. These measures are framed as part of the social responsibility of the HEIs. Item nº1.a) of that article imposes on them the duty to help students that want to opt for a working and study life, while b) specifies that it is aimed at part-time work, implying that studies must also be pursued part-time.

The Panel believes that current laws are quite adequate as a facilitative framework for distance learning. The legislation does not enforce any particular *special regimen* and it does not define which *organization and attendance forms* are more suited to support student-workers. In practice, many HEIs provide FTF learning post-work classes for student-workers. There is no preferred pedagogic method to reach these students either in law or in practice, so that there is scope for DL, FTF and blended learning models. It is left to the HEIs and the students to find the arrangement that better fulfils the institutional offer and the individual capability to study. With the new part-time student ("estudante em regime de tempo parcial") introduced in DL-107/2008 the Panel thinks that further arrangements need not be considered.

VII.2 Institutional regulations and practices

Under current legislation, HEIs have pedagogic autonomy and can adopt DL methodology should they so wish, and this autonomy needs to be continued. It is not for legislation to impose on HEIs a direction on pedagogic approaches, either in terms of DL or FTF instruction. However, the definition of when a programme becomes a fully DL programme or a blended programme needs to be clarified, especially if funding and other administrative procedures have to be adjusted, for example to quantify contact hours or decide on the quality assurance guidelines to follow.

Teaching practices

One issue for institutions to consider relates to distance teaching, which differs from face to face instruction in several respects. For example, compared with FTF teaching, more

DL teachers are part-time, they need to work in teams, and their contact hours are difficult to define.

DL teachers often complain that their work does not receive due acknowledgement in the universities and in tenure processes. They have to put in extra amount of time in developing and implementing DL, such as for content creation, tutoring and supervision but there is no financial incentive to those who want to teach DL courses. Institutional regulations need to be modified to take account of this extra workload and the additional duties should be considered by tenure committees. Arrangements could be made, for example, to offer compensation through reduced contact-hour requirements. For example, teaching career at UAb should be “normalised” to give UAb’s faculty the same opportunities to demonstrate their excellence that the colleagues from other universities have. However, the Panel does not believe that a separate career for distance education teachers should be established because this would create the risk of professional differentiation, which would be harmful for DL.

Another issue needing attention by DL institutions relates to the intellectual property rights. Materials and resources developed by the staff should be published under some form of copyright licences (e.g. Creative Commons Licence) in order to foster wide sharing and use among all stakeholders (public in general, students and other higher education institutions). Such policy would create incentives and legitimise payments to staff for the development of digital resources.

Student selection and enrolment

One of the difficulties DL providers face relates to the application of enrolment limits at the level of institutions. Distance learning institutions draw their students from three sources: young candidates coming from secondary schools; candidates older than 23 years; transfer or change from course to course. Current regulations impose an enrolment limit for each of these paths. HEIs contend that they cannot freely re-assign vacancies from one path to another to meet their changing demand conditions. Relaxing these rigid constraints would promote greater enrolment. The Ministry, however, disputes this interpretation and insists that the rigidities do not exist in the regulations.

Another constraint on enrolments is that the vacancy limits do not distinguish between resident and non-resident candidates and there is no set of vacancies for the latter. HEIs would like the flexibility to enrol foreign or non-resident students without including these in the quotas for national/resident students.

One specific need of distance learning concerns more flexible approach to assessment of student eligibility for programmes. DL can attract a number of adults with some previous professional experience and knowledge. To facilitate their decision to enter a DL programme, arrangements should be available to assess prior experience and learning and to take account of them in determining admission eligibility. Programmes of this type allow greater flexibility to the institutions in selecting their students. Establishment of APEL (Accreditation of Prior Experience and Learning) programmes could be organised through independent agencies.

Recommendations

The Panel believes that no change is needed in overall enabling framework that defines the distant learner profile and institutional autonomy in regard to DL provision. Institutions supplying distance learning are subject to the same rules and regulations as has been recently granted to HE institutions, both Universities and Polytechnics and there is no need to create a separate education sub-system based on DL. Within this broad framework, however, distance learning has special features that ought to be taken into account by the institutions and in some cases through Government intervention.

- Institutions need to recognise the extra workload carried by DL teachers through granting of financial incentives, adjustment of contact hours, and recognition of DL teaching experience in tenure considerations. Separate careers are not needed for distance teachers.
- DL vacancies by programmes that are allocated to institutions should not be rigidly assigned among types of applicants. Institutions should have the right to share approved vacancies across DL fields.
- Institutions should develop copyright arrangements for DL course material authors. Institutions can include creative commons licensing as a condition in developing funding contracts.
- Programmes of accreditation of prior learning and experience should be available to promote student eligibility for DL programmes.
- Institutions should organise bridging courses with financial incentives from the Government for establishing such programmes.

VIII. CONCLUSION

The international experience with Distance Learning shows two dominant trends. First, from the paper-based classical pedagogy, DL has moved to virtual and interactive teaching and learning processes which represent a dramatic shift from the dimension of “space” in distance learning to the dimension of “time”. Second, the use of the blended models by traditional HEIs, which uses the new DL pedagogy in support of classical face to face instruction has spread rapidly and represents the wave of the future.

Compared to other advanced nations of Europe, Portugal started late in developing Distance Learning. Its adoption of fully virtual pedagogy is very recent. As it stands now, DL accounts for around 3% of all higher education enrolment. More than 90% of this comes from UAb, which now has fully on-line programmes and courses. The two international trends noted above are now catching on in Portugal and more HEIs are beginning to offer selected DL courses and planning to use DL methodology more extensively in blended models.

The DL sector in Portugal is small relative to its population compared with other advanced nations of Europe. The sector is not contributing its share to the national higher education system up to its potential.

There are persuasive reasons for the sector to be expanded, not least to help broaden the base of participation in the higher education system. Given its relatively lower per student cost, its suitability for meeting emerging lifelong learning needs, and the large pool of adults who could potentially benefit from DL, the sector needs to be expanded significantly. To reach the standards of other advanced European benchmarks, the sector's size would need to be expanded several-fold. The Panel heard about setting ambitious targets of five to ten-fold scaling up over a five year period.

It was not within the mandate of the Panel to examine and recommend precise target for expansion. It is evident that the realism of the targets would depend on the scale of human, technical and financial resources that can realistically be mobilised in its support. Judging from what has been achieved by some other nations, a four-fold increase could be used as an indicative target over the next few years. It would be essential to study the possibilities closely before the Government chooses to set actionable targets.

Regardless of the precise targets, the sector does need to be expanded significantly. Extensive investment would be needed, on a scale matched by the scale increase in student population. A four-fold increase in enrolments is likely to come at close to four-fold increase in current resources for the sector. In other words, scale economies and existing slack in the system is unlikely to change this equation substantially. The current division between public and private sector, though moving in the direction of a larger contribution from the latter, cannot be expected to change dramatically in the light of the experience from other countries. However, the scope of private sector's contribution, which lay outside the scope of the Panel's mandate, would need thorough examination.

A large range of action and reforms would be needed, both on the demand and supply side, if a major expansion in DL size is to be achieved. Action will be needed primarily by the institutions and providers, but also by the Government, not least in making available more resources for the sector. Section III of the report outlines a range of actions and supporting reforms on the supply and demand side and need not be repeated here. Through Section IV to VII the report offers specific recommendations in the areas of structure of provision, quality improvement, financing and the overall legislative and institutional framework.

Structure of provision

To achieve a significant expansion in the size of the distance learning provision, the Panel recommends a two-pronged approach. Efforts directed at widening the number of HEIs offering a greater variety of DL courses should be combined with a larger effort to expand the variety of programme and course offerings by the UAb.

- UAb is the country's sole specialist DL institution and the most significant repository of DL expertise. It must play a lead role in expansion of the country's DL sector. But to achieve this, UAb's course and programme offerings must be

expanded substantially, both nationally and internationally, without it being given a monopoly position. Performance and development contract tools should be used for this purpose and the current ad hoc year by year financial support regime for the institutions should be scrapped.

- DL offers by many institutions in the same subject areas can be inefficient and duplicative. It is important that institutions collaborate to avoid these inefficiencies. International experience offers many successful examples of the consortium approach to development and delivery of DL programmes. Many areas offer the potential of fruitful co-operation in Portugal. Their successful use would depend upon if such efforts are developed voluntarily among HEIs with equal partnership and institutional autonomy. They are unlikely to expand significantly unless they are supported by public funds.
- The consortia can assume a variety of forms but given the diversity of areas of interest among HEIs and the desired scale of DL expansion, several specialist consortia should be contemplated. These could be dedicated to developing subject areas, delivery aspects or research and innovation. These could involve UAb and other institutions or be established among institutions without the involvement of the UAb.
- Collaborative effort among Polytechnics could be especially promising and some forms it can take have been noted above.
- A particular collaborative effort is needed to establish a research centre for DL research in the country. While UAb should be an important partner in this venture its credibility would be enhanced by the participation of a broader base of institutions.
- While the Government should not be involved directly, it can play a critical role to encourage collaboration by offering selective and substantive incentives for forming a consortium. Performance contracts can be offered to UAb and other HEIs for developing collaborative efforts for achieving various specified targets such as developing on line course in various subject areas or research capability.

Quality

Research in DL is underdeveloped in Portugal and most of the funds available for research have come from European funds. Major effort is needed to strengthen DL research to ensure that Portugal's transition to new pedagogies is on the frontier of research. Taking account of the experience from other countries:

- Provision should be made to develop specially funded research area for DL. This could be done by the FCT through calls for research projects and doctoral and post-doctoral fellowships.

- Institutions should collaborate to establish a research centre that could serve all HEIs interested in DL. The purpose of the centre would be to conduct research in both pedagogy and implementation processes and one of its aims would be to promote interest in DL research from other stakeholders, both nationally and internationally. Financial support for the centre should be obtained under the FCT processes.
- There should be special incentives for developing co-operation with internationally acknowledged research institutions.

Portugal needs to make special efforts to assure the quality of its DL programmes. These programmes have only recently adopted modern DL pedagogies. The Panel came to the following conclusions:

- The standards for programme approval, certification and accreditation differ for DL programmes compared to traditional higher education programmes. These should form the basis of differential criteria for evaluating and accrediting DL programmes.
- These criteria should pay full attention to all aspects of developing and implementing fully on-line programmes, including the requirements of tutoring and assessment at distance.
- The newly established evaluation and accreditation agency should be responsible for DL programmes by developing criteria suited specifically for the accreditation and evaluation needs of the DL sector that often differ from face to face provision.
- The criteria for DL programmes should be the same whether they are offered by a University or a Polytechnic.

Financing

Although no deep analysis has been done for this report, it is evident that given the scale of DL expansion being contemplated – five to ten times the current enrolment over a five year period -- the required investment will be very large. The order of magnitude will be several multiple of what is currently being spent on DL, and the ballpark figures are unlikely to be significantly modified by detailed and more refined cost analysis.

Even though there can be greater sharing of costs by the private sector, the share of the public sector will continue to form the bulk of the required new investment. The expectations of dramatic increases in the contribution of the private sector are not supported by experience from other countries.

Currently, public funding of DL programmes does not follow any explicit formula or policy. This needs to be altered in major respects.

- The ad hoc yearly allocation to UAb, which maintains UAb allocation to a constant percentage of the overall allocation for the HE sector, should be scrapped and replaced by an allocation criteria takes account of the specifics of DL provision, including the developmental cost of programmes. This could be done through establishing performance and development contracts.
- Allocation for DL programmes for other HEIs offering DL programmes should also take account of the specific features of DL provision.
- Funding of DL should be organised on a competitive basis through the usual FCT bidding process but a separate line should be established by the FCT for such research.

Framework

- The Panel believes that no change is needed in the overall legislative framework within which DL learning operates in Portugal. The Law and regulations defining the profile of DL students – part-time students and working students – are satisfactory as they stand.
- Higher education institutional have pedagogical autonomy to choose DL methodology if they so wish and this autonomy should be maintained. In general, institutions supplying distance learning should be subject to the same rules and regulations as has been recently granted to HE institutions, both Universities and Polytechnics and there is no need to create a separate education sub-system based on DL.
- Within this broad framework, however, some institutions complained of rigidities in the allocation of vacancies that constrains student enrolment -- an interpretation that is disputed by the Ministry -- and should be reviewed. Institutions and sub-institutional units should have greater freedom in deciding on their student selection and recruitment procedures. Institutions should have the freedom to share approved vacancies across DL fields.
- Teaching careers in DL should provide special incentives to allow for team-work, course development time, and on-line tutoring of students. Contact hours should be interpreted in a differential manner to take account of this extra teaching workload. These issues could be considered in regulation. However, provision for separate teaching career for DL teachers from other HE teachers is neither required nor desirable.
- Institutions should consider developing special copyright arrangements to acknowledge and promote development of DL course material. Creating common licences can be part of funding conditions for publicly funded course development.

APPENDIX 1

LIST OF WRITTEN SUBMISSIONS RECEIVED FROM INSTITUTIONS

Instituto Superior de Gestão Bancaria (ISGB)

ISCTE – Instituto Superior de Ciências do Trabalho e da Empresa

New University of Lisbon (Nova)

Politecnico of Leiria

Portuguese Catholic University

University Aberta

University of Aveiro

University of Lisbon

University of Porto

APPENDIX 2

International Assessment of DISTANCE LEARNING in Portugal

International panel visit to Portugal: 11 to 16 January 2009

MONDAY - 12 January: *Lisbon*

9.30am – Meeting at the Ministry of Science, Technology and Higher Education (MCTES)

11.00am – Meeting (with Lunch) at Universidade Aberta (Portuguese “Open University”)

5.30pm – Visit to a “Regional Distance Learning Centre”, from Universidade Aberta,
at Coruche (1 hour from Lisbon)

6.30pm – Return to Hotel

TUESDAY - 13 January: *Leiria, Aveiro, Porto*

Trip to Leiria (1 hour from Lisbon)

9.30am – Meeting at Polytechnic of Leiria (with Lunch)

1.00 p.m. – Trip to Aveiro (1,5 hours from Leiria)

2.30pm – University of Aveiro

4.30pm - Trip to Porto

5.30pm – Check Inn at Hotel, Porto

6.00pm – Meeting with University of Minho, at the hotel

WEDNESDAY – 14 January: *Porto, Lisbon*

9.00am - Meeting with University of Porto

Trip to Lisbon by plane: Departure at 12.40pm from Oporto Airport, arrival at 13.35pm in Lisbon

3.00pm - Meeting with University of Coimbra, at the Hotel in Lisbon

4.30pm - Meeting with New University of Lisbon, at the Hotel in Lisbon

6.00pm – Meeting at Catholic University, Lisbon

7.30pm – Meeting with CCISP, at the hotel in Lisbon

THURSDAY – 15 January: *Lisbon*

9.00am – Meeting with the President of UMIC - Knowledge Society Agency, at the Hotel

10:30am - Meeting at Instituto Superior de Gestão Bancária (Institute of Bank Management)

12.30pm – Working lunch with Director General for Higher Education, DGES

Meetings at the Hotel in Lisbon:

2.30pm – Meeting with ISCTE

4.00pm – Meeting with University of Lisbon

5.30pm – Meeting with Technical University of Lisbon

7.00pm - Panel working meeting – preparation of the report

FRIDAY – 16 January: *Lisbon*

9.00am – Meeting at Universidade Aberta

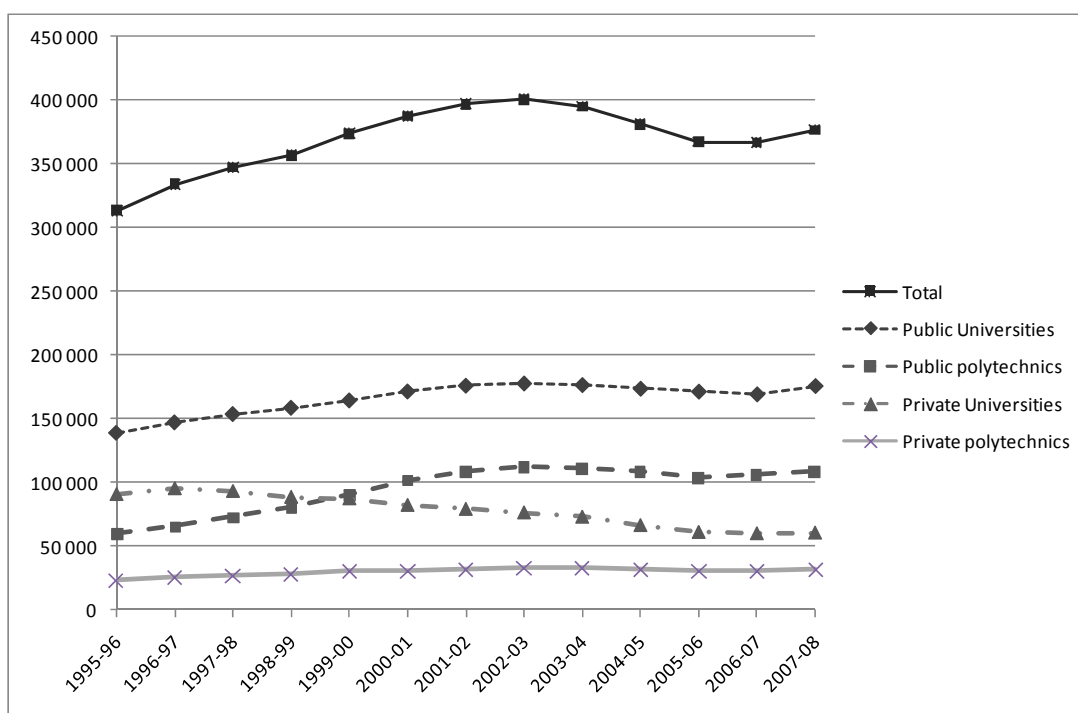
11.00am - Meeting at the Ministry of Science, Technology and Higher Education (MCTES)

12.00pm - Panel working meeting – preparation of the report (cont.) - Closing

APPENDIX 3 DATA AND GRAPHS

Table 1 - Total enrolments in Higher Education in Portugal, all education cycles (public and private sub-systems)

Academic Years	Public Tertiary Education	Private Tertiary Education	Total
2004-2005	282 273	98 664	380 937
2005-2006	275 521	91 791	367 312
2006-2007	275 321	91 408	366 729
2007-2008	284 333	92 584	376 917



Note: Technological Specialization Courses (CET) are not included.

Source: GPEARI – Gabinete de Planeamento, Estratégia, Avaliação e Relações Internacionais, MCTES.

Table 2 - Technological Specialization Courses (CET) in Higher Education Institutions – total enrolments

Tertiary Education Sub-systems	2004-05	2005-06	2006-07	2007-08
Public	277	1 017	1 913	4 359
Universities	217	546	118	59
Polytechnics	60	471	1 795	4 300
Private	17	242	340	452
Universities	0	211	326	430
Polytechnics	17	31	14	22
TOTAL	294	1 259	2 253	4 811

Note: Technological Specialization Courses (CET) are post-secondary programs.

Source: GPEARl – Gabinete de Planeamento, Estratégia, Avaliação e Relações Internacionais, MCTES.

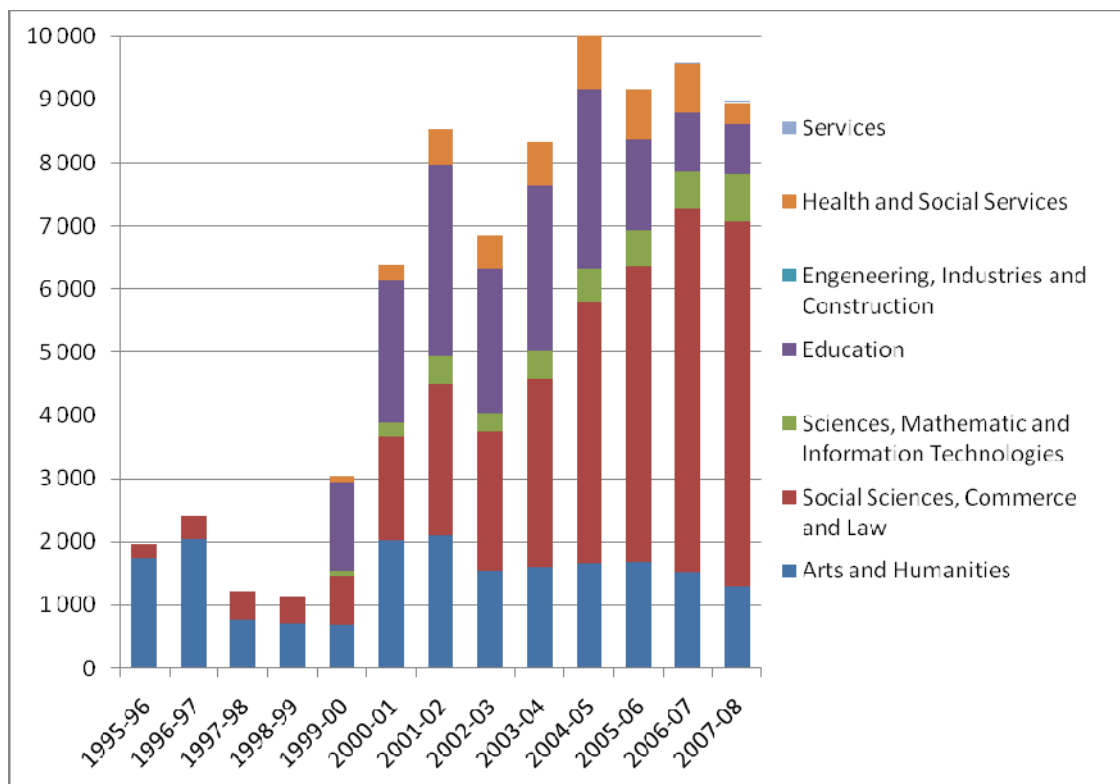
Table 3 – Budget data on University Aberta

	2005		2006		2007	
	Euros	%	Euros	%	Euros	%
Total Annual Income	17.031.201	100%	18.116.630	100%	17.047.264	100%
Public State Budget	12.329.184	72%	12.093.024	67%	12.289.957	72%
Others Incomes:	4.702.017	28%	6.023.606	33%	4.757.307	28%
European Funds	142.170	1%	553.433	3%	145.398	1%
Private Income	4.559.847	27%	5.470.173	30%	4.611.909	27%
Student fees	2.172.982	13%	3.554.464	20%	2.683.530	16%
% UAberta/ Total HEI's	1,1%	-	1,1%	-	1,1%	-

Source: GPEARl – Gabinete de Planeamento, Estratégia, Avaliação e Relações Internacionais, MCTES.

Table 4 – Total enrolments and enrolments by education area at University Aberta

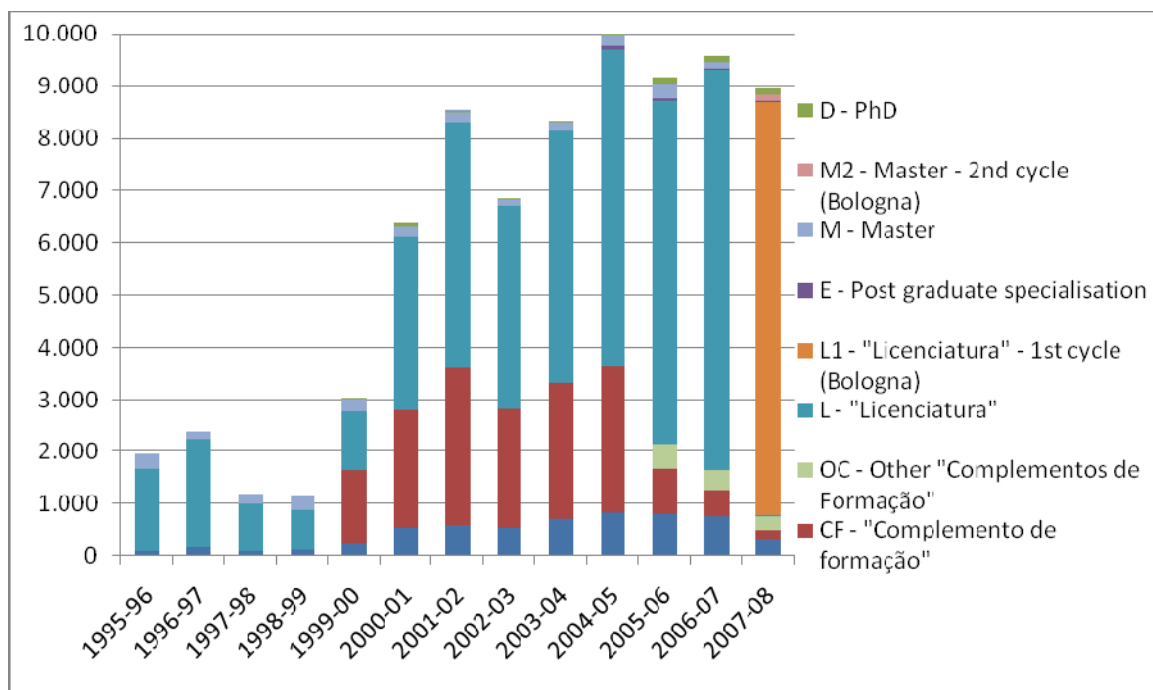
Enrolments by education areas	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Arts and Humanities	1 736	2 039	772	684	675	2 008	2 094	1 532	1 586	1 646	1 677	1 508	1 280
Social Sciences, Commerce and Law	219	359	429	445	762	1 649	2 396	2 220	2 984	4 144	4 681	5 773	5 786
Sciences, Mathematic and Information Technologies	-	-	-	-	89	211	448	282	439	521	568	570	747
Education	-	-	-	12	1 424	2 280	3 036	2 287	2 632	2 848	1 445	952	789
Engeneering, Industries and Construction	-	-	-	-	-	-	-	-	-	13	0	8	12
Health and Social Services	-	-	-	-	79	234	566	530	708	841	800	760	323
Services	-	-	-	-	-	-	-	-	-	-	0	8	20
Total	1 955	2 398	1 201	1 141	3 029	6 382	8 540	6 851	8 349	10 013	9 171	9 579	8 957



Source: GPEARI – Gabinete de Planeamento, Estratégia, Avaliação e Relações Internacionais, MCTES.

Table 5 – Total enrolments and enrolments by type of programmes and degrees at University Aberta

Enrolments by type of programmes and degrees	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
B - "Bacharelato"	90	168	103	112	236	542	593	542	717	841	800	760	323
CF - "Complemento de formação"	0	0	0	0	1.403	2.246	3.007	2.284	2.612	2.796	874	501	176
OC - Other "Complementos de Formação"	0	0	0	0	0	0	0	0	0	0	479	396	274
L - "Licenciatura"	1.584	2.084	898	767	1.128	3.324	4.722	3.896	4.809	6.051	6.562	7.655	22
L1 - "Licenciatura" - 1st cycle (Bologna)	0	0	0	0	0	0	0	0	0	0	0	0	7.888
E - Post graduate specialisation	0	0	0	0	0	0	0	0	0	72	57	14	18
M - Master	281	146	200	262	257	201	217	116	186	246	256	142	0
M2 - Master - 2nd cycle (Bologna)	0	0	0	0	0	0	0	0	0	0	0	0	137
D - PhD	0	0	0	0	5	69	1	13	25	7	143	111	119
Total	1.955	2.398	1.201	1.141	3.029	6.382	8.540	6.851	8.349	10.013	9.171	9.579	8.957



Source: GPEARI – Gabinete de Planeamento, Estratégia, Avaliação e Relações Internacionais, MCTES.

APPENDIX 4

PANEL MEMBERS

Abrar Hasan, Former Head, Education and Training Policy Division, OECD, France, Chair of the Panel.

Wolfram Laaser, former Academic Director, Centre of Media and IT, FernUniversität (Open University), Hagen, Germany.

Albert Sangrà Morer, Director of Research, Universitat Oberta de Catalunya (UOC), Spain.

Late Robin Mason, Professor of Educational Technology, The Open University, United Kingdom.

Carlos Bielschowsky, Founding and former Director of CECIERJ, Rio de Janeiro, Brazil. Currently, Secretary of Distance Learning of the Ministry of Education, Brazil.

APPENDIX 5

TERMS OF REFERENCE (MANDATE)

REFORMING DISTANCE LEARNING IN PORTUGAL: Launching the process of preparing legislative proposals

Working Document, November 2008

1. BACKGROUND

In 2007, the Portuguese Parliament approved a far-reaching Act – published as the Law No. 62/2007 of 10 September - implementing the new Legal framework of Tertiary Education Institutions (RJIES), in the context of a thorough reform of the higher education system conducted by the Government after a major independent assessment performed through the OECD. At the time, a commitment was made to introduce new legislation for Distance Learning (DL) higher education within the life of the current legislature, an area that was not covered by the 2007 Act (as announced in its Article no.1).

This Note sets out the actions the Ministry of Science, Technology and Higher Education, MCTES, proposes to develop towards new legislative proposals for Distance Learning higher education, to bring to the Parliament in early 2009.

2. GUIDING PRINCIPLES

Two key principles underline the preparatory process. First, the Government wishes to ensure that the legislative proposals are developed on the basis of a wide-ranging and transparent consultative process that involves all parties with a stake and interest in distance learning. This should ensure a thorough airing and consideration of all relevant issues and points of view. In particular, the process has started with a consultation to the “Universidade Aberta” (i.e., the Portuguese “Open University”), which has been particularly engaged in long distance education in Portugal.

Second, to develop the best possible legislative proposals, the consultative process should benefit from information on the best international experience and practice in the area.

3. LAUNCHING THE LEGISLATIVE REFORM PROCESS

To implement these principles, the Government is taking several actions. In April 2008, the Minister of Science, Technology and Higher Education requested a contribution from Universidade Aberta to the drafting of specific legislation on DL. This resulted in the Report “The Future of Distance Learning in Portugal - Subsidies for its Regulation”, presented by Universidade Aberta to MCTES in the summer of 2008.

Since then, the MCTES has established an independent panel of international experts with the mandate to prepare a policy report, including recommendations for reform, for the distance learning higher education sector. The International Panel will develop its proposals drawing upon the Report of Universidade Aberta and its knowledge of the international experience and after holding discussions with other stakeholder representatives, who will also be invited to make written submissions of their reform proposals. The international panel, its terms of reference and the timeline for preparation of the Panel's report are described below.

Through this Note, the Government is initiating a comprehensive and transparent consultative process. The International Panel's discussion paper will be used as an input for organising stakeholder consultation. Representatives of various stakeholder groups will be invited to comment on the proposals and offer their suggestions. The International Panel will produce a revised set of reform proposals taking account of the outcome of these consultations.

4. THE INTERNATIONAL PANEL

A five-person International Panel has been established, as follows:

Dr. Abrar Hasan, Panel Chair, former Head, Education and Training Policy Division, OECD;

Dr. Wolfram Laaser, former Academic Director, Centre of Media and IT, FernUniversität (Open University), Hagen, Germany;

Professor Albert Sangra Morer, Director of Research, Universidade Oberta de Catalunya, Spain;

Professor Robin Mason, Professor of Educational Technology, The Open University, United Kingdom; and

Professor Carlos Bielschowsky, Founding and former Director of CECIERJ, Rio de Janeiro, Brazil. Currently, Secretary of Distance Learning of the Brazilian Ministry of Education.

5. TERMS OF REFERENCE FOR THE INTERNATIONAL PANEL

The International Panel is commissioned to prepare a report making recommendations for legislative reform of Portuguese Distance Learning (DL) at higher education level. The report will be based on an analysis of the main issues confronting the DL sector that require legislative action, making use of the University Aberta's Report as background material.

In preparing this report, the Panel will draw upon international, especially European, experience and its interviews with the representatives of stakeholders including DL institutions and providers; students and learners; teachers, researchers, and staff associations; technology providers; employer associations; quality assurance officials;

and government officials responsible for the oversight of the sector. Among other initiatives, the Brazilian experience of setting-up multi-institutional consortia for long distance education and the related adequacy to Portugal should be carefully discussed.

The Panel's report will cover the main policy questions confronting DL in Portugal that require legislative action. They include: governance of the sector, including the questions of institutional autonomy, institutional development and network of provision, and financing of DL; access to, and participation in, distance learning, including programme and student diversification, in both the national and international dimensions; and quality of distance learning, new pedagogies, teaching and learning practices, and the research base to support distance learning.

The Panel will prepare a first draft, which will be used as the basis for consulting with the stakeholders, which is to be organised by the MCTES. The second and final draft will take the comments and views from these consultations.

5.1. TIMELINE OF ACTIONS

Preliminary issues and questions (Panel)	10 Dec
Panel's meetings with stakeholders (MCTES/Panel)	12 – 15 Jan 2009
First draft of Team report to Ministry (Panel)	25 Jan
Stakeholder comments and proposals (MCTES)	15 Feb
One-day discussion of stakeholders with the Panel (Panel/MCTES) during (date tbc)	15 - 20 Feb
Final Draft recommendations (Panel)	28 Feb

5.2. ISSUES IN DISTANCE LEARNING AND IMPLICATIONS FOR LEGISLATIVE REFORM

The potential of distance learning at higher education level in Portugal remains under-utilised. The sector faces two major challenges: (i) a range of internal and external obstacles that are limiting the scope, growth and quality of distance learning; and, (ii) an excessive dependence on classical mode of distance learning, which is limiting adoption of new DL pedagogies.

These challenges raise problems to be addressed in three substantive areas: access and participation in distance learning; the quality of teaching and learning processes, and the research base; and governance of DL system, including the network of provision.

While many of the actions needed to address problems in these areas may be at the institutional level, there are also implications for the role of government with respect to the institutions and the public interest. A key objective of the International Panel's report would be to propose recommendations for reforms that the Government needs to propose and legislate.

Access and Participation

Distance Learning (DL) in Portugal has grown only modestly over the recent years. A significant proportion of Portuguese DL, (20-30%), is international, concentrating largely on Portuguese language and culture instruction in former colonies. DL growth that has occurred has been, until recently, along the traditional distance learning path. New pedagogies have made only slow progress. There is much debate internationally about a convergence between traditional higher education and open distance learning, which has given rise to issues of a Mixed-Model DL.

There are both external and internal obstacles limiting the growth of DL. Among the external obstacles are various forms of legislation related to student enrolment and staff recruitment. One issue is whether the procedures for course certification for DL programmes are in line with the treatment given to public universities or whether more facilitative arrangements are needed.

Among the obstacles internal to the institutions are such factors as: institutional inertia and lack of innovation in course offerings and in seeking new sources of student enrolment. Ten years ago, enrolment in DL was mainly made up of teachers. High number of students even now comes from public administration, from people seeking career advancement. These are limited source for DL students. Distance learning's contribution to lifelong learning has also been less than satisfactory.

Potentially, new pedagogies of distance learning can establish knowledge-based services and access to training in every walk of life. But this requires the institutions to be more proactive in seeking new students. For example, they can develop relationships with professional groups, like nurses, teachers of maths, associations for the handicapped and for immigrants. Post-graduate courses can be designed specifically for certain companies, such as in the areas of management and marketing. Part-time students and students in the Mixed Models, that is, where regular HE students are taking DL courses, are also other avenues to explore.

In the international area, rather than sticking to the traditional areas of language and culture, new programme areas can be developed, such as tropical medicine, to better anticipate latent demand in the former colonies.

One issue is whether legislation should provide open access to young adults and at what age. Another issue concerns limits on student enrolments for courses of different duration, degrees and programme cycles. New legislation may be needed to specifically cover Mixed-model students, especially at the undergraduate level.

The Quality of Teaching and Learning Processes and the Research Base

Transition to new DL pedagogies is a major challenge for Portugal. The main difference between the traditional and the new models is that eLearning covers a wide set of application and processes such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via internet, intranet/extranet (LAN/WAN), audio and video-tape, satellite broadcast, interactive TV and CD.

This transition requires new modes of programme and content development, teacher preparation and training, quality assessment approaches and infrastructure development.

How teachers should be counted for DL needs to be different from the treatment of regular HE institutions. The regulations on teaching positions, which are apparently based on contact hours, need to take account of three special features of teaching in distance education. Many DL teachers are part-time, DL teachers need to work in teams, and defining contact hours for DL is difficult. Government regulations also need to take account of the special role Tutors play in DL; their qualifications and role need to be defined in regulation.

Evaluation of DL requires different processes, which need to be taken into account in setting up evaluation procedures. Drop out rates are difficult to calculate for DL because of periodic inactivity of students. There is an issue whether the laws on student assessment take account of the special features of distance learning.

The central role research and development plays in achieving successful transition to the new pedagogies cannot be overemphasised. Research is needed to develop new instructional design and course material, teacher training, student assessment approaches and quality systems, and relationships with infrastructure providers such as the telecom community and association of industries and trade unions. Does Portugal have an adequate capacity of providing the required knowledge base to support distance learning? How should this capacity be developed and who should develop it? Should it be a centralised or decentralised effort?

Governance: Institutional Autonomy, Financing and Structure of Provision

In regard to institutional autonomy, should an institution dedicated to distance learning be accorded the same autonomy as other universities? If some DL is provided by other institutions of higher learning, how should they be governed? What lessons are to be learned from leading international experiences in setting-up multi-institutional consortia for long distance education (see, for example, CECIERJ, in Rio de Janeiro, Brazil)?

A clear case would need to be established if dedicated distance learning university is not to be given the same autonomy as other universities. In regard to distance learning provided within a higher education institution, it is important that government regulations recognise the special features of distance learning that differ from the operations of other higher education institutions. A number of these features, such as contact study periods, student circumstances, part-time and team teaching, meaning of contact hours, student assessment procedures, have been noted above.

Financing of distance learning may also require a funding formula that is different from universities. For example, per capita student funding should take account of the fact that DL degree completions can take longer time than regular degrees and that students may become inactive for periods. Setting up of DL programmes requires large initial investment. Foreign students, who make up a larger proportion of DL,

need to be taken into account: they may require differentiated fee treatment. For some of these reasons, DL institutions are seeking greater autonomy in fee setting.

Portugal provides distance learning through its main public university (UA) but other higher education institutions also offer distance learning. Key questions here are whether this fragmentation leads to duplication or inefficient use of resources; and whether more collaborative networks can be formed to offer more diversified and specialised programmes and courses?

If some aspects of DL provision, such as research support, are to be centralised, what governance mechanisms can achieve efficient sharing of the centralised services? One view is that a main distance learning university can potentially serve as a central, nation-wide, resource, which can be drawn upon by other DL provider institutions. Its value-added can come through sharing research on both new instructional material and delivery systems. Centralised development of pedagogical material is cost-effective: it would be a costly duplication if each provider is to separately develop such material. A national centre could also better handle copyright issues and guarding against plagiarism and it can be in a better position of negotiating with the world-wide monopolies that operate in the DL area. A contrary view is that a centralised capacity can become a closed system. If it does not offer comprehensive services, it may not be able to meet the needs of institutions that offer specialised programmes. Government has to make a decision on whether and to what extent resources should be centralised and what incentives are needed to establish effective co-operation through a network of providers.