Reforming arts and culture higher education in Portugal: report of an international panel of experts

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1   *Introduction*

1.1   Mandate of the Panel

1.1.1   The Panel's mandate was to review key issues in Portugal's provision of higher education in arts and culture in the light of developments in other, mainly European, countries with a view to assess the need for reforms. Though Portugal may be geographically small in comparison to other nations it is culturally immense. With long traditions in the arts, architecture, theatre, cinema and design Portugal is rich in artistic and creative resources with a long history of cultural influence across the globe. Portuguese higher education in arts and culture, though small in scale, has the great potential to lead development of a vibrant cultural economy within Portugal—drawing from the wealth of its creative and cultural resources as appropriate to life in the 21st century. Portugal's creative and cultural assets provide the bedrock on which to build an artistic culture of international distinctiveness and standing that could greatly add to the nation's social, economic and cultural wellbeing.

1.1.2   Many issues of Portuguese arts and culture are shared, in common, with other nations so are not exclusive to Portugal. This is largely because the history of art and design academic institutions within Europe is very short in comparison to other more established academic disciplines. As the higher education (HE) sector has grown and evolved in recent years some of the pedagogies associated with practice-based study in the creative disciplines of arts and culture are still evolving and maturing to find their place within the mainstream HE sector.

1.1.3   In the above context the Panel was invited to consider and recommend reforms that could help accelerate this process of development, including any legislative changes that might be needed. Because the Portuguese Ministry of Culture is responsible for arts and culture policy the Panel's work was largely circumscribed by their definition of Higher Education in Arts & Culture (A&C). This said the Panel was also sensitive to the fact that A&C does not function in isolation from the broader needs of society and so took account of such interactions where they were essential to the full and proper role of A&C higher education within the evolving context of life in the 21st century. In this respect the panel formed three broad views that helped to frame this report.

1.2 Framework of Analysis

1.2.1 Though the HE arts and culture sector in Portugal has shown impressive growth over the last decade it remains small in scale. This may inhibit its ability to serve emerging needs and make a fuller contribution to arts and culture within the international arena as well as to the development of vibrant creative and cultural economy within Portugal. This in turn seems to have left the arts and culture sector with low visibility and esteem within the HE sector in particular and Portuguese society more generally.

1.2.2 These broad views led the Panel to explore ways that could help to build capacity and the infrastructure of HE arts and culture and what could be done to enhance the provision, not only in the current context but also within shifting global trends brought by digital technologies, the growth of cultural and creative economies internationally and the need for systems of lifelong learning. The potential actions and interventions that could help to improve quality and enhance impact have been considered in the following eight areas:

- Size and capacity of the sector;
- Research degrees in arts and culture;
- The appointment and development of teachers;
- Quality assurance and excellence in research;
- Structure of the provision and collaboration;
- The links with economy and society in a globalising context;
- Developing strategic orientations for the arts and culture sector.

1.2.3 These issues were examined within the broader context of Portuguese higher education and the historical evolution of HE in other countries with which Portugal wished to compare itself. In doing this the Panel solicited opinions from stakeholders through written and oral communication, interviews and data collection. A questionnaire was circulated to obtain written responses, which were received from a number of institutions (Appendix A). A number of key providers were visited (Appendix B). Discussions were held with staff and students. Not every institution could be visited nor every programme of arts and culture examined. Nevertheless the Panel was confident that a representative sample had been visited — public and private, Universities and Polytechnics.

1.2.4 It should be noted that given the tight fiscal conditions of all governments, at this moment in time, the Panel's approach to assess the growth and development of Portuguese arts and culture higher education was not premised on throwing more resources at the

problem in the belief that, even should they be available, such action would necessarily stimulate reform. Rather, the Panel has focused on the institutional and infrastructural obstacles that constrain the growth and development of capacity in Portugal's higher education in arts and culture. Nonetheless, removing these obstacles does have financial implications, which are also noted.

1.2.5 In adopting this approach, it will become evident that many of the Panel's recommendations tended to focus on institutional and private sector actors rather than Government. It should also be noted that limitations of available data precluded analysis of several issues and limited the degree of robustness in some of the Panel's conclusions. For example, two issues not examined by the Panel were the level of labour market demand for A&C studies in Portugal and the merits of regional dispersion of study places in relation to the level of demand. Generally speaking the Panel's evidence was largely qualitative in nature, but drew upon available data developed by the statistics office of the Ministry of Science, Technology and Higher Education (MCTES)-GPEARI-MCTES, the Directorate-General for Higher Education (DGES), the National Science and technology Foundation (FCT) and the Eurostat.

1.3 Structure of the report

1.3.1 This report has been structured to address the eight issues in the framework identified above. Following the introductory Section 1, the historical and international trends are discussed in Section 2 together with a brief description of the A&C higher education sector in Portugal. Section 3 takes up the areas of policy concern in turn. The opportunities and challenges presented here are reviewed in the context of relevant international experience, and options for policy are discussed. These policy recommendations are then summarised in Section 4.

2   *Context: the role of A&C in Portuguese society*

2.1   International: historical evolution and recent trends

2.1.1   A review of the prospects of A&C higher education in Portugal can benefit greatly when located within the historical development of the arts within recent international trends. Such a perspective is extremely useful in highlighting the particular issues faced by arts and culture higher education in Portugal and their roots in the recent past.

2.1.2   Europe's arts institutions have a short history in comparison to the traditional universities. The first European academies of art emerged only in the middle of the 16th century nearly 500 years after the founding of the first European University in 1088 (the University of Bologna). The University of Coimbra (dating from 1290) is one of the oldest universities in continuous operation in Europe and the world and the oldest in Portugal. The first art academies were established by the Medici in Florence – the Academia Belle Arti Firenze in 1563 and from the middle of the 17th century onwards arts academies began to emerge across the nations of Europe — in France, Germany, Denmark, Austria, Portugal and Spain amongst others — and by the end of the 18th century there were just 100 academies of art spread across Europe. So the arts institutions have a short and complex history and are still in the process of evolving teaching and research pedagogies appropriate to the practice-based disciplines of A&C at undergraduate, postgraduate, doctoral, post-doctoral as well as staff levels.

2.1.3   The first publicly funded arts academies were established in the 19th century in direct response to the needs of trade and industry being sponsored by governments to improve the competitiveness of national products abroad. They focussed on the production and consumption of goods (objects) and not other forms of cultural production such as performance or composition. In 1725 the Vienna academy was organised "in recognition of art and to support trade". In 1763, in Dresden, it was observed that "it does honour to the country to produce excellent artists, but it is no less useful to increase the demand that the overseas trade has for products". In Copenhagen the government decreed "those who had achieved a point of excellence in the arts had a responsibility to engage with industry". In Porto, in 1779, the Aula de Debuxo e Desenho was created alongside the Aula de Náutica to be concerned with the growing importance of manufacturing industries in Portugal. In 1803 the success of these classes created the Academia Real de Marinha e Comércio that, with

other institutions, introduced Portugal as a global leader in the export of goods and culture.

2.1.4 The industrial revolution started to separate the education of artists from the training of artisans. In the late 18th century a social and intellectual hierarchy emerged between art and craft, between scholars and artisans, between ideal art and applied art. And, as the industrial revolution gathered force, this gulf widened with handicraft and mechanisation coming into opposition. In response to it the German architect Gottfried Semper (1803-1879) perceived a decline in the quality of craftsmanship and an increase in poorly designed, machine-made, products. So he called for "a general development of the peoples' taste" and called upon the academies to help enhance the competitiveness of national products by "improving the taste of artisans".

2.1.5 In response to this the first Academies, attempting to unite art and industry, came into being around the 1850's — in 1837 the Lisbon Academia de Belas-Artes and the Academia Portuense de Belas-Artes. Then further afield UK Art Schools were created with a mission to "instruct working people to do their work better by turning it out of hand neatly and handsomely as well as usefully, and thus enable them to command the best price for their labour". This international divide between the artist and the artisan began a separation between education and training that influences still our university and polytechnic systems today.

2.1.6 The 20th century saw a growth of specialisation as well as a fragmentation of disciplines. In 1919 the Weimar Bauhaus (the very first of the modern art schools as we know them today) was created to reunite art, craft and design within a newly industrialised world. With the start of the 20th century, design had begun to emerge as an activity separate from the making of things through handicraft. Instead, the new design processes were often more like "plans to make artefacts" with the designer becoming an increasingly powerful public figure. Architecture too was revived as the mother of all the creative and performing arts and design — being central to the new spirit of 20th century modernity. As this century unfolded the fine arts, design and performing arts maintained an uneasy balance with each other. Greater specialisation and separation began to emerge in, for example, furniture, jewellery, graphics, textiles, glass and ceramics. Also new media (such as photography and film) were discovered and gained status as legitimate means of expression for artists. Today the field of A&C is a complex network of disciplines and specialisations with various epistemologies that cannot easily be reduced to a "one

size fits all" approach though greater coherence between the disciplines is now needed.

2.1.7 "Learning through doing" became the dominant pedagogy for arts education. In the early 20th century education through the practice-based disciplines (of the creative and performing arts and design) was almost entirely based upon knowledge generated through the making of things. Joseph Albers created the first systematic programme of "learning through doing" at the Bauhaus in the 1930's. He determined that, for the arts, *learning was more important than teaching and experimenting more effective than studying*. This pioneering approach reversed the traditional models of education that were so typical of the more ancient universities where teachers transmitted their knowledge into the supposedly empty heads of eagerly waiting students. Arts education was now firmly based upon knowledge construction (through learning) rather than knowledge transmission (through teaching) and the primary method was to make things. Here the role of teacher became more like that of a mentor than a master. This pioneering approach is central to the evolution 21st century education in the creative and performing arts and much of design.

2.1.8 The education system gradually began to separate critical-thinking from skilled-making. The 20th century's alignment of "learning through making" with attempts to develop "the artistic trades" provoked the emergence of a tiered education system in which critical-thinkers (scholars) and skilled-makers (artisans) began to separate education from training and theory from practice. This separation in the practice-based disciplines of arts and culture happened as the publicly-funded arts schools emerged in mid 19th century as a response to the needs of trade and industry. Accordingly, and up until the late 1990's, educational systems across Europe and the USA began to stratify into three broad types though their nomenclature varied from nation to nation:

i) Traditional universities — multidisciplinary institutions rooted in scholarly knowledge, research and theory. In all cases they awarded degrees from BA through to PhD with few examples of practice-based courses in the arts and culture historically located in this type of institution until the 1990's.

ii) Polytechnics (also known as universities of applied science in some countries) — multidisciplinary institutions primarily concerned with professional formation through the acquisition of skills closely linked to the requirements of a professional world. They offered BA and MA degrees and sometimes—but not in all countries—PhD programmes.

iii) Colleges and "monotechnics" — specialist (often private) institutions in the practice-based arts and culture that sometimes, but not always, included a wider array of vocational subjects. They mostly delivered technical vocational training in preparation for the professions.

2.1.9 Digital technologies have transformed the workplace and learning. In 1984 the first commercially available desk-top computer with graphical applications (Apple Mac) heralded the emergence of a new, post-industrial, world. As the old order of industrial society began to collapse many conventions associated with it were overthrown. Production cycles no longer were the provenance of an elite few but democratised. The capacity to edit films, make animations, produce magazines, build soundtracks have all come within the means of every citizen — everyone is a cultural producer as well as a consumer of culture.

2.1.10 In this context the older notions of craft have changed and we all now are craftsmen and women. In education learning habits have changed too — students are now more nomadic, being permanently connected to a world-wide-web and able to choose where and when they study. If the period up to the late 20th century saw a fragmentation of disciplines, greater specialisation of labour and separation of education from training then the digital technologies of our post-industrial 21st century are provoking a re-unification of the disciplines and so a greater need for general skills and a re-integration of critical thinking with intelligent making.

2.1.11 These trends suggest that education in the 21st century will be radically different from that of the 20th century — requiring a paradigm shift. The last twenty-five years have witnessed more profound changes to the nature of work, education and society than the previous two hundred and fifty e.g. in terms of digital technologies. In the post-industrial world — in which everyone will be connected to everyone else and where everyone will be both a producer and a consumer — learning through doing becomes more essential than book learning. Knowledge construction takes precedence over knowledge transmission.

2.1.12 In a volatile world of unstable knowledge and transient skills learning how to learn is now the primary goal of education. Current students will only be in their mid-careers by the year 2030 and the world, by then, will be a different place. This has caused international higher education to fundamentally re-examine its pedagogic principles, curricula designs and staff development programmes in preparation for the paradigm shifts accompanying education in the 21st century.

2.1.13 Ideas such as these have stimulated a policy shift towards the concept of lifelong learning that is serving as an umbrella framework for guiding the education policy of modern societies. Modern day concepts of lifelong learning took root in the 1970s then gathered momentum as a guiding framework towards the end of the 20th century. This paradigm is based on three key features: (i) learning is truly lifelong — from cradle to grave, which requires continuous and seamless learning; (ii) learning takes place in many settings, formal and informal, universities, museums and galleries; real and virtual worlds; and (iii) the focus has shifted from teaching to learning, from knowledge transmission to knowledge construction—from supply driven offers to demand-led provision.

2.1.14 In this policy paradigm, learning how to learn has become the primary skill underpinning a knowledge society. The concept of lifelong learning, with its focus on human creativity and knowledge, has also influenced perceptions of education's role. The opportunity for citizens (of all ages and aptitudes) and sectors of the community (from business and welfare services) to enter and exit the spectrum of educational opportunity, both formal and non-formal and at all levels from vocational courses through BA/MA to MPhil/PhD, has gained importance.

2.1.15 This is particularly so in A&C where conventional academic qualifications are not always on a par with artistic creative talent (and vice-versa), where career breaks have interfered with study or where the schools sector has not always given A&C subjects significance within the curriculum. This in turn has stimulated Universities, Polytechnics and Colleges to remove barriers to educational opportunity, maintain their quality levels through internal assurance processes and build stronger networks and consortia between institutions so to bring the whole spectrum of academic provision to society at large.

2.2   A&C Higher Education in Portugal

Structure and features of arts and culture provision

2.2.1 Portugal's new Legal Framework of Higher Education Institutions (RJIES, 2007) regulates the character and shape of all its higher education provision. It sets out separate, and distinct, academic missions for the Universities and the Polytechnics. A&C is taught in both types of institution with distinctive features between them. The Universities offer the three cycles of the Bologna framework, i.e. BA, MA, Ph D. These are mainly based on historical, theoretical and critical

pedagogies with little, if no, evidence of learning by doing through practice-based assignments. The Polytechnics mostly offer the first cycle of Bologna i.e. BA, with the recent appearance of some professionally orientated Masters courses but no doctoral programmes. In these courses learning through doing and practice-based assignments are the norm with an emphasis on professional and vocational formation.

High diversity of provision

2.2.2   A&C programmes in Portugal embrace a wide range of disciplines: Creative Arts (art, art history, art studies), Fine Arts (fine arts, plastics, paintings), Theatrical Arts (history of theatre, theatre, dance), Music (with a division into (i) performance, music, instruments, orchestra (ii) science of music, musicology, ethnomusicology), Design (design, graphic design, industrial design, fashion design, communication design), Architecture (Urban Planning, Landscape architecture) Cultural Studies, Film/TV/Photography, New media and Restorations.

2.2.3   At present 51 HE institutions offer 319 courses that register a total of 19,459 students (see Figure 1a,b, and c in Appendix D). The distribution of students across the disciplines (see FIGURE 2) reflects the changing needs of a post-industrial knowledge society where significant growth in the media and digital economies is followed by design then music and performance.

FIGURE 2. Students enrolled in arts by discipline in 2007/2008
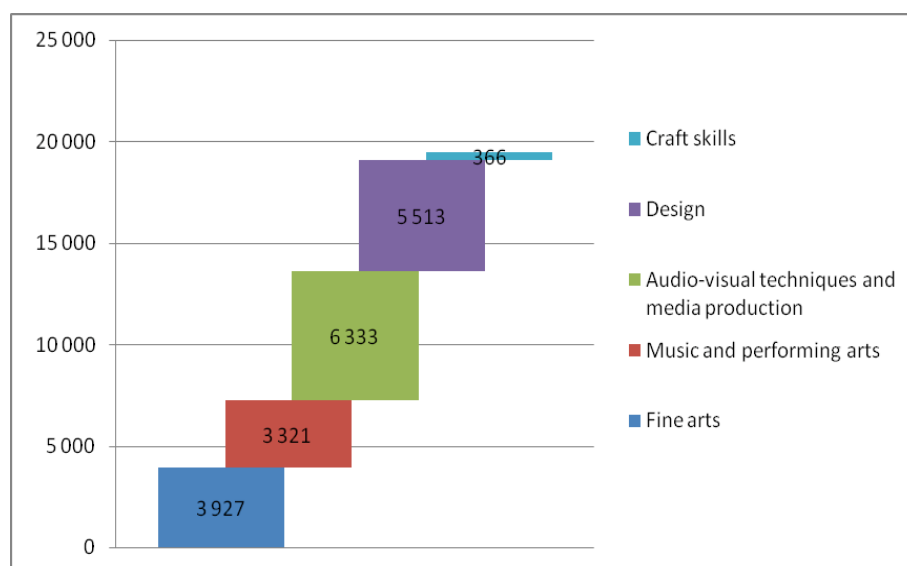
(Source: GPEARI/MCTES, Statistical survey on graduates and students enrolled in Higher Education [DIMAS])

Geographical profile: concentration and dispersion

2.2.4 Until recently provision was concentrated within the two major urban conurbations of Lisbon and Porto. Throughout the last decade, however, there has been a growing regionalisation of this provision (FIGURE 3 on the following page). As A&C continues to spread into the smaller regional centres across Portugal their growing academic maturity will need the help of supporting strategies. These may include the building of academic networks both at home and abroad or the development of distinctive research and business agendas geared to local circumstances and communities.

Financing of the A&C sector

2.2.5 In common with other nations the core block grant to individual Universities and Polytechnics in Portuguese HE is calculated against weighted student numbers and disciplines. The grants are then delivered to the institutions free of any requirement on how they might themselves choose to distribute funding across disciplines and activities. This preserves and protects the autonomy of institutional managers to determine their own strategies and priorities for teaching and research (as well as links with, for example, the business and community sectors) as they are relevant to each institutional mission and its objectives — so allowing institutions to fund their own priorities accordingly.

2.2.6 As evidenced by the *Indices de Custo 2009 por Áreas de Formação* provided by provided by GPEARI-MCTES the relative weightings for the plastic arts and design seem broadly in line with those of other nations where similar indices are used to drive the block grants to institutions. The funding levels between Universities and Polytechnics vary with the "cost factors" for Polytechnics being lower in recognition of "the older faculty structure in the older universities" where the indices are higher.

2.2.7 Unlike the core block grant for teaching (which is driven by weighted student numbers) the research grant is determined on a competitive basis against quality assessments that are constructed through a system of peer review which has been in place since 1996. These are managed through the FCT against research support in three strands: doctoral and post-doctoral fellowships (scholarships or grants); I&D projects; and research centres. In each of these areas, FCT's support has expanded significantly for studies in the Arts, Architecture and Design over the last decade.

Figure 3: Geographical distribution of institutions
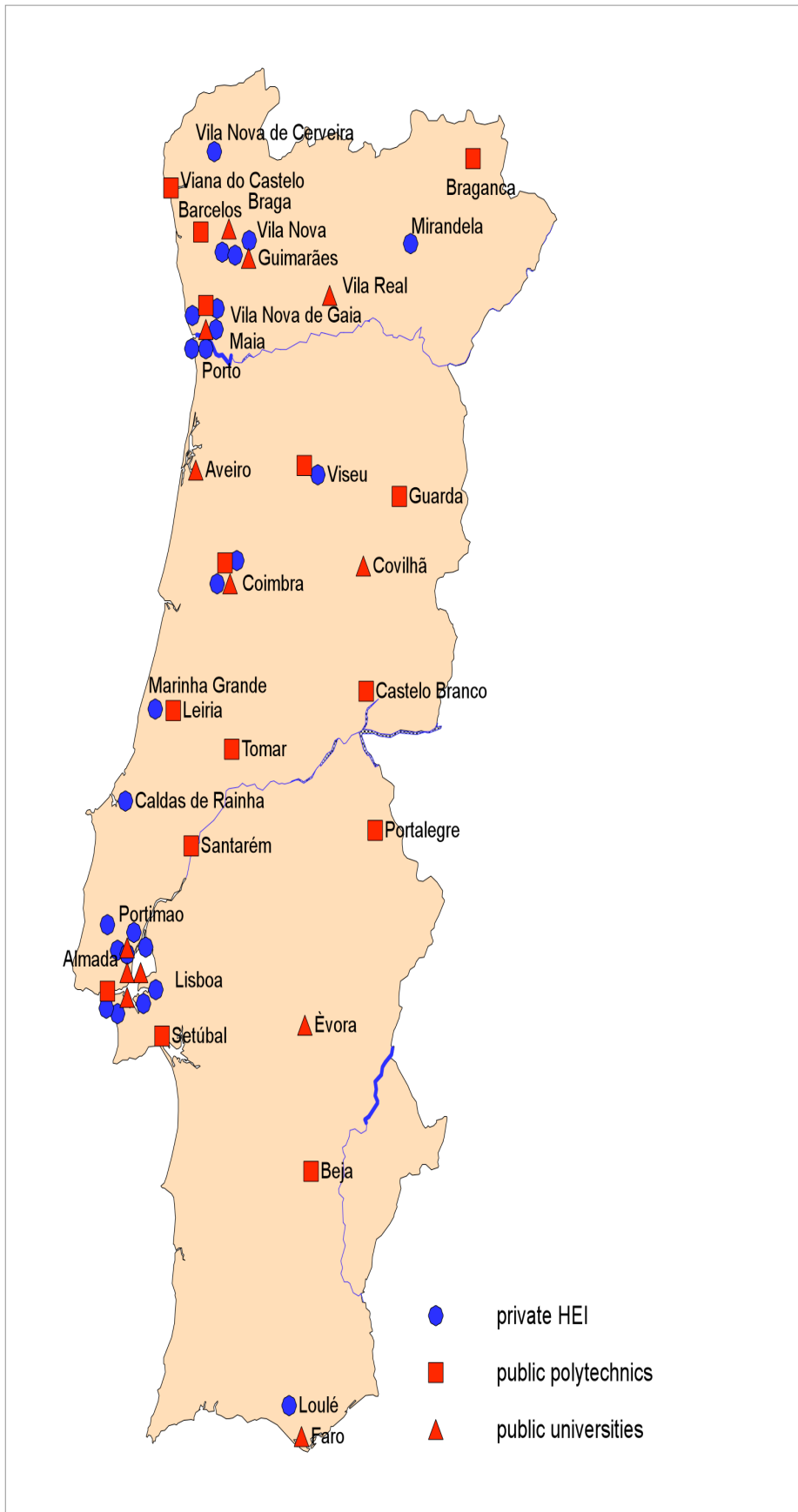
Support for doctoral studies and research

2.2.8 Support for doctoral and post-doctoral fellowships in Arts and Architectural Studies has expanded sharply in recent years: from 1% of such scholarships in all domains financed by FCT, it rose to an estimated 7% in 2008. The growth was stronger over 1995–2000 than over 2000–2008 (Table 1 and Figure 4, Appendix D). The total expenditure on such scholarships for doctoral candidates for the Humanities as a whole was 12.6%, while Arts Studies and Architecture and Design made up 5.3% (the remainder was for Other Humanities, Table 2, Appendix D). In comparison, post-doc candidates made up only 2.4% of all post-doc financing of scholarships (Table 3, Appendix D). In terms of numbers of doctoral scholarships, Humanities accounted for 13.1% of all scholarships, 5.5% being in the field of Architecture, Design and Arts Studies (Table 3, Appendix D). The corresponding figures for post-doc support are much lower: 2.4% compared to the 5.5% just quoted (Table 3, Appendix D).

2.2.9 Applications for doctoral and post-doc studies in the Arts have a significantly high success rate in comparison with other fields funded by FCT, though these were largely within the traditional university disciplines i.e. art history, cultural studies, architecture and design. In 2008, 74% of applications for doctoral studies in the Arts were successful as compared with 41% for Architecture and Design Studies and 49% for all scientific domains (Table 4, Appendix D). For post-doc, the comparative advantage of Arts Studies was even higher: 81% compared with 52% for all scientific domains.

2.2.10 FCT expenditure in support for Research Units or Centres in Arts and Culture Studies (Unidades de I&D Estudos Artisticos) have expanded sharply, reaching an estimated 679 thousand Euros in 2008 (Table 5), a more than ten-fold increase from the 2003 (47,037 Euros, Table 5, and Figure 5, Appendix D). Although expenditures on these Centres still account for a tiny percentage of FCT expenditures on all Research Centres, their share increased from 0.5% in 2000-2002 of all Centre supported by FCT to 1.7% in 2008.

2.2.11 The number of Centres in Arts Studies made up 3.3% of all Centres (numbering 334). They increased from six in 2000 to 11 in 2008 and are expected to increase to 17 in 2009 (Table 7a and b, Appendix D) as a result of new Government guidelines. In terms of quality, these Centres have performed better than all other research centres supported by FCT. In 2007, two Centres rated as Excellent, and 12 were rated as Very Good (Figure 6, Appendix D). None rated as Very Poor or Fair; in comparison 18% of Other Centres rated in these categories.

2.2.12 In regard to I&D Projects in the field of Architecture and Arts Studies, the success rate was 21% in 2006 (Table 8, Appendix D). The number of applications almost doubled over the 2006-2008 period. However, in financial terms they still make up only 1.4% of all Projects financed by FCT in 2008, which is itself a considerable change from 2000 when no such projects were financed by FCT (Figure 7, Appendix D)..

2.2.13 Outside the public funding for A&C research other sources of funding from charities/foundations and business/industry are very limited. In Portugal there are two important independent foundations that finance research in the artistic field. The Gulbenkian Foundation makes available the greater part of external grant funding with the foundation connected to the Berardo Collection also playing an important role. There is limited funding, or none, from collaboration with the private sector.

Numbers of enrolled students, new entrances, graduates, higher education institutions and programmes

2.2.14 Though the numbers in A&C are relatively small, Portugal has made rapid progress during the last decade in developing higher education in these disciplines. Growth has been widespread both in the numbers of students, programmes, levels of studies, and provider institutions.

2.2.15 The total number of student enrolment was close to 19,500 in 2007-2008, rising from less than 8,000 in 1995-96 (FIGURE 8 below). Student enrolments increased at ISCED level 5A (theoretical or university programmes) and 5B (polytechnic or vocational) studies, as well as for the PhD level (ISCED level 6).

FIGURE 8: Total students enrolled in arts: from 1995/1996 to 2007/2008
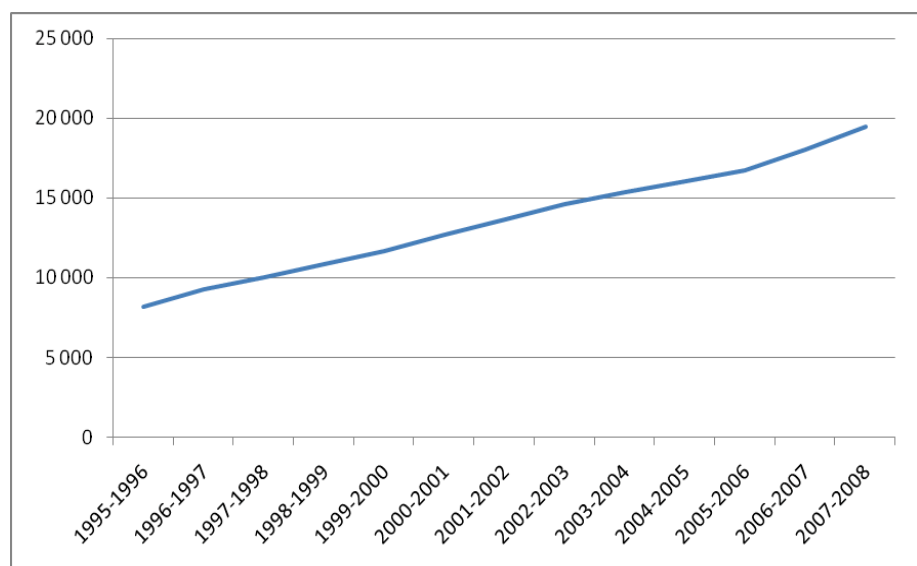
2.2.16   As can be seen from FIGURE 9, there was growth in all subject areas, especially in audio-visual techniques, excepting craft skills that maintained relatively low increase. Again, these growth patterns reflect the changing needs of a post-industrial knowledge economy and the growth of digital economies.

2.2.17 These growth patterns are also evident in several other dimensions: the number of graduates and new entrances as well as in the number of provider institutions and the number of programmes. The number of programmes offered increased from 142 programmes in 1997-08 to 319 programmes in 2007-2008. The largest growth occurred in public universities (from 45 to 134 programmes), followed by public polytechnics (from 57 to 103) and private HEIs (from 40 to 82). Growth in A&C student numbers was, likewise, shared across the main types of providers. The largest percentage growth occurred in public Polytechnics (310%), followed by public Universities (226%), and private HEIs (143%).

FIGURE 9: Students enrolled in arts by discipline, 1995-96 to 2007-2008
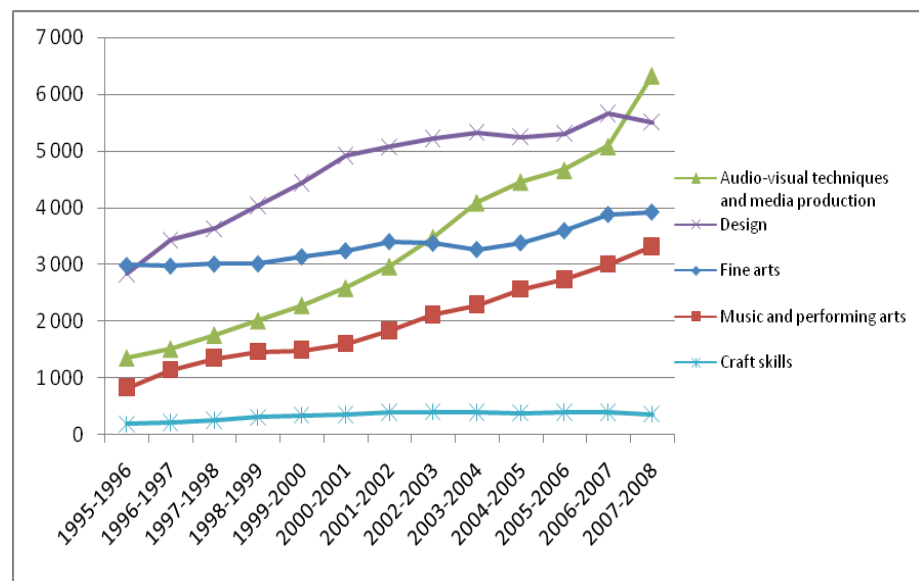
(Source: GPEARI/MCTES, Statistical survey on graduates and students enrolled in Higher Education [DIMAS])

2.2.18 As shown in Figure 10 (following page) the number of new enrolments into A&C higher education has been rising steadily since 1996-97, almost doubling over the decade (from 2,955 to 5,588). At the same time, A&C has increased its share of secondary school graduates, from 3.76 to 7.56 over the same period (Figure 10 and Table 9: following page). In terms of the proportion of secondary school graduates who go to tertiary type A (all higher education, not just A&C), Portugal's average is close to the EU-19 average. It is nearly equal to Italy, UK and the Netherlands and much higher than for Germany. It should be

borne in mind, however, that the percentage of the relevant cohort that graduates from secondary school, that is source base for tertiary education, is much lower in Portugal than in the comparison countries.

FIGURE 10: New Enrolments in the Art and Rates of New Enrolments from Secondary Education, 1996-97 to 2006-2007

Rate of new entrance at A&C from graduates of secondar education in percentage
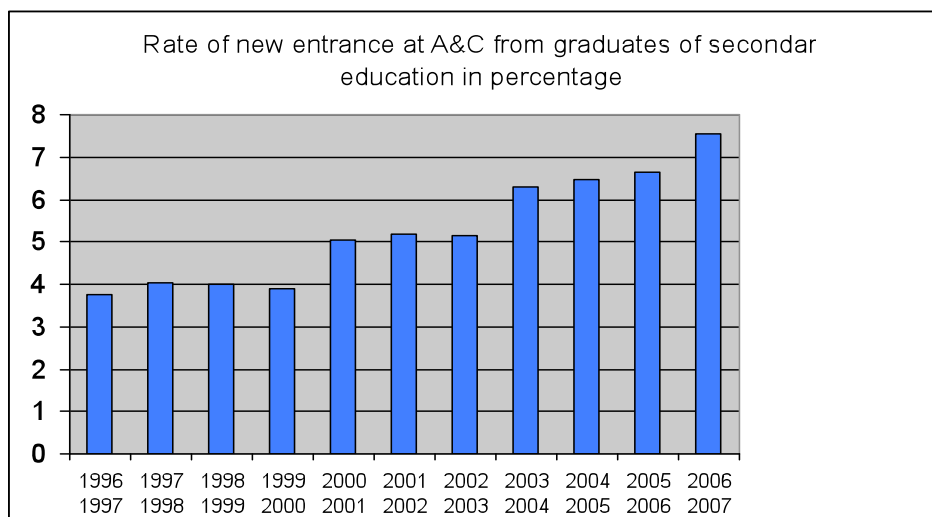
(Source: GPEARI/MCTES, Statistical survey on graduates and students enrolled in Higher Education [DIMAS])

TABLE 9: New Enrolments in the Art and Rates of New Enrolments from Secondary Education, 1996-97 to 2006-2007

	1996 1997	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	2005 2006	2006 2007
A	78547	75307	72844	74457	65395	66477	75085	65125	64559	66317	73951
B	2955	3030	2917	2892	3287	3440	3873	4095	4186	4398	5588
C	3,76	4,02	4,00	3,88	5,03	5,17	5,16	6,29	6,48	6,63	7,56

Key to rows **A** = Graduates at Secondary Education   *(Source data from the Ministry)*
              B = New entrance to A&C at Third Education
              C = Rate of new entrance at A&C from graduates at Secondary Education

Arts & Culture compared to other higher education in Portugal

2.2.19 The growth of student numbers in A&C has been greater than the growth of enrolment in all higher education. Enrolment in A&C rose as a percentage of all HE enrolments from 1.96 to 4.58, at ISCED 5A level, during the period 1998 to 2006. There was increase at ISCED 5B level as well, rising from 4.9 in 1998 to 7.04 in 2006. These growth patterns are also mirrored in the number of graduating students (FIGURE 11, below). At the PhD level, too, the percentage of PhD in the Arts to all PhDs granted rose from 1.8% in 2005 to 2.29 in 2006.

FIGURE 11: Percentage increase in number of providing institutions, programmes, students, new entrants and graduates, 1997/98 to 2007/08
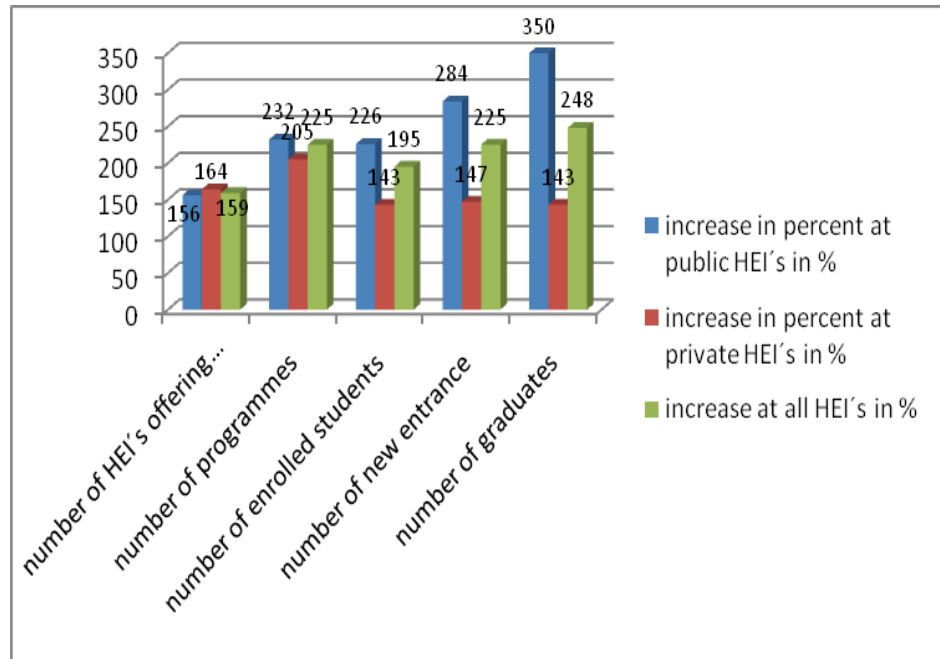
(Source: Estimated by the authors based on the material by Gabonese de Planeamento, Strategic, Avaliacao e Relacoes Internationals / Ministry of Science, Technology and Higher Education handed out to the Panel at the 18 of January. These figures do not include the branch of architecture.)

Arts & Culture HE in Portugal compared to Europe

2.2.20 The volume of A&C HE in Portugal, in general, is underdeveloped compared to the European average. The total student population is relatively small and the number of PhDs in A&C in Portugal, as a whole, for example, was 156 in 2006. Nonetheless, relative to other higher education studies Portuguese A&C is not disadvantaged within the sector, compared to the situation in Europe. Thus, in 2006, the percentage of enrolment in A&C to total enrolment in the HEI´s (ISCED 5A) in Portugal was 4.58% compared to the EU27 average of 3.98. Portugal's percentage is higher than for Germany and the Netherlands (4.16 and 4.37, respectively), though lower than for Italy (5.09) and the UK (7.62, see Table 10 a, b and c in Appendix D) The data for ISCED 5B in 2006 paint a similar picture. Nor are A&C students at the PhD level at a relative disadvantage in Portugal, compared to doctoral studies in other fields: in 2006 they made up 2.20% of all doctoral studies in Portugal compared to the EU2007 average of 1.59%, UK (1.94) and Germany (1.24). . In regard to the number of graduates in 5A, Portugal performs relatively poorly, but not in the case of 5B studies, when comparisons are made with other European countries (Table 11 a, b and c in Appendix D). In regard to Ph D's in the arts, Portugal performs quite well compared with the benchmark countries (Table 12, Appendix D).

3   *Policy Challenges and the Way Forward*

3.1   Policy challenges

3.1.1   In light of the brief review described in Section II, an observer may be tempted to conclude that all is well with the Portuguese A&C higher education sector and that major reforms are not needed. The Panel's discussion with the stakeholders, however, reveals that there are several problems and deficiencies in the system that make one wonder whether the Portuguese A&C sector is well prepared to grow and develop to meet the emerging national and international requirements of the 21st century and make its rightful contribution to Portuguese economy and society. Essentially, there are two problem areas, which are interrelated, that need addressing.

3.1.2   One is the relatively small size and overall capacity of the sector to serve emerging needs, despite the high growth rates of recent years. The second, and overarching problem, relates to the low general estimation of A&C within the higher education sector and in the Portuguese society more generally. The status problem is related to the sector's quality, where quality is defined broadly to include relevance of the sector in meeting the needs of learners, and in terms of its impact on the economy and society. The two problems are linked: the growth of the sector depends on the quality of the sector, defined (as we have done) in the broad terms of relevance and impact.

3.1.3   This analysis has led the Panel to explore various dimensions of quality and what can be done to improve it, not only in the current context but also by taking into account the emerging global trends in technology, A&C pedagogy and research. The analysis suggests that action should be taken in eight key areas:

(i)   Expanding arts and culture higher education capacity;
(ii)   Rationalising A&C higher education qualifications;
(iii)   Attracting and developing effective teachers;
(iv)   Improving teaching and learning processes;
(v)   Supporting quality of research;
(vi)   Promoting efficient provision;
(vii)   Linking arts and culture education to economy and society within the context of globalisation; and
(viii) Providing strategic orientation for the sector.

3.1.4   As the report makes clear, some of the actions required are structural in nature while others imply a behavioural change. They involve action not only by the Government but more importantly by the higher education establishment itself. These eight areas are taken up in turn below.

3.2   Expanding Capacity in the Arts and Culture Higher Education Sector

3.2.3   In recent years the importance of creativity and culture to European prosperity and well being in a post-industrial world has been given high priority. In 2004, the European Commission published its first comprehensive Study on the Economy of Culture in Europe. It reported that the study helped to "break the conventional wisdom on...the culture and creative Sector…the culture sector is the engine of creativity, and creativity is the basis for social and economic innovations." Accordingly, the EC has designated 2009 as the European Year of Creativity and Innovation. World governments now focus on the creative arts and design. There is growing world interest in the contribution that arts and culture make to national prosperity, cultural identity, economic regeneration and social and environmental well-being. This has resulted in systematic national programmes aimed at stimulating the creative and cultural economies.

3.2.4   Higher Education is the seed-bed for a creative and cultural economy. A vibrant cultural economy needs both producers and consumers. On the one hand education trains the nation's cultural producers. On the other hand it educates a discerning community that will go on to be its cultural consumers of the future. Beyond their mission to educate, the arts and culture HEIs are major employers and make a significant contribution to the economy of the local and regional community around them. The institutions of art, design and performing arts are also essential catalysts in the regeneration of local communities. They form "cultural quarters" that energise local communities, build civic pride and stimulate business. They can also help to sustain and innovate local skills and industries.

3.2.5   In Portugal the arts and culture higher education sector remains small in actual numbers despite its rapid growth over the last decade. This in itself is a reflection of the small higher education sector in the country. The biggest constraint on the growth of the sector remains the small size of the cohort with the highest level of qualification. The number of new PhD enrolments is very small. The research centres even though they are performing well are extremely small. Removing

this constraint is the key for building greater capacity for arts and culture education at lower levels.

3.2.6 Growth of the sector can be examined in terms of its input flows (enrolment, funding), and its output (volume, quality including relevance and impact). The Panel has not investigated the nature and extent of the source flow from the secondary school to the tertiary sector (although some information on this has been provided above) largely because the issue was outside the scope of the Panel's review. Nonetheless, it would be important for policy makers in Portugal to review how students at the secondary level are introduced to A&C studies and whether there is sufficient encouragement for them to pursue such studies later in life. A particular issue is the availability and qualifications of A&C teachers at the secondary levels. One issue that is worth exploring is the degree requirement for teachers of A&C at the secondary level and whether there is sufficient capacity in the system to produce such degrees. Anecdotal evidence from stakeholder meetings suggested to the Panel that (i) secondary school curricula do not provide students with adequate exposure to arts and culture studies, and (ii) constraints on the supply of quality teachers in this area is a concern. In the latter case the supply of quality teachers could be assisted if graduates from the polytechnics were allowed/stimulated to qualify for teaching at primary and secondary schools.

3.2.7 As these issues lay outside the Panel's mandate, it has focused instead on the capacity at the HE level and its quality as a determinant of the sector's attractiveness to students, teachers, researchers and A&C practitioners. The factors that can determine attractiveness of arts and culture studies to students include, among others, the diversity of choice open to them; the quality of offerings; and the marketability of their acquired learning and skills.

3.2.8 The Panel did not find much data in regard to marketability of the HE degrees. Our interviews provided scattered information (i) that most A&C study programmes are oversubscribed and applicants have to be turned away, and (ii) unemployment does not seem to be a particular problem for A&C graduates of the first cycle degree – these individuals are believed to be entrepreneurial in general; (iii) there are few opportunities in industry and research for holders of higher level A&C degrees – but little concrete data were available to the Panel on this. Data development in this area would be important, a task that could be undertaken by the professional association we recommend later in this report to be established.

3.2.9 One issue of particular interest is the attractiveness of short courses to potential students and this instrument's use for expanding the sector. The issue did not come up strongly in Panel's meetings with the stakeholders. Fragmentary evidence from other countries suggests that this can be a promising area for expanding enrolment. Some evidence for Portugal presented above (tertiary type 5b) suggests this to be the case but more information is needed, for example on ISCED 4 to confirm its significance. Some countries are taking steps to make short courses available as a way of inducing greater enrolment. In the Netherlands, for example, some 'hogescholen' (or polytechnics) for the performing arts (theatre, music, dance) and for the plastic arts provide the so-called 'vooropleidingen' (or pre-schools). These are special courses/programmes that are geared towards (talented) students that can not be admitted directly to the hogeschool but need additional training. They are mostly selective. They can take different lengths and forms: for example: a whole year of (weekend-)classes for students in their last high school year, a full time course that lasts about five months etc. The goal is to inform the students about the nature of the profession (and the polytechnic), to help in assessing their talent and to make them ready for the often quite tough selection procedure of the polytechnic in question. These pre-school programmes seem to be rather effective because they provide additional training, they bring in extra money for the polytechnics and they can be seen as a kind of prolonged selection procedure that is able to pick out the most gifted students.

3.3 Rationalising Arts and Culture Qualifications

3.3.1 Though PhD degrees contribute many positive aspects to HE, Portugal has difficulties in the area of A&C higher degree qualifications with the volume of registrations and completions for research degrees still being very small. We have argued above that relaxing the constraint at the highest level of qualifications is key to expanding arts and culture capacity in Portugal. Provision of these qualifications contributes in many ways.

3.3.2 Research students make a significant contribution to the body of knowledge within their discipline as well as being an important element in helping to build and sustain the research culture within institutions. Research degrees also offer the opportunity for teaching staff to engage in personal and staff development programmes that are fulfilling in themselves and serve to increase the intellectual and creative capital of an organisation. Significant opportunities have also evolved in some countries for employees in business or industry to

undertake research degrees as part of their employment so helping to build links between education and industry.

3.3.3 As described earlier in this report there has been an historical separation in A&C of the artist from the artisan, of critical thinking from intelligent making that has been counter-productive to the disciplines' development and the growth of research programmes within A&C. This tends to keep the professional artist/designer/performer outside the university's walls and locks the academic within its battlements. If the only point of entry to this privileged space of HE were to be through a textually-based PhD then it would discourage the participation of a range of high-level intellectual skills acquired through the practice-based methods typical of A&C.

3.3.4 In A&C there is a close relationship between *critical thinking* and *learning through doing* and any crude distinction between them creates a divided system that either trains technicians or educates thinkers. Between these extremes lies the important middle ground for A&C where professional and vocational skills will be combined with forms of intellectual engagement that develop critical thinking. Because the historical development of A&C education since the mid-nineteenth century has tended to divide artists from artisans, practical art from ideal art, these extreme divisions remain a legacy in the system that needs to be overcome. This condition is not unique to Portugal and is something that other nations also have encountered as part of their collective historical development in A&C.

3.3.5 Universities around the world are embedded in traditional paradigms not always sympathetic to the emerging methodologies of practice-based research in A&C. For example the new legislation put in place in Portugal presents no formal restrictions to the pursuit of practice or evidence based PhD's but the reality is that there are still significant cultural barriers to be overcome. As with other nations the conventions and habits that dominate Portuguese universities may still regard practice-based methods in the creative and performing arts as inappropriate or unsuitable for advanced academic research.

3.3.6 In most universities PhD methodologies are largely based upon textual sources and scientific paradigms whereas those in A&C are still evolving through the development of practice-based methods and object scholarship. In this case artefacts (whether paintings, performances, objects or compositions) will be the containers of knowledge and their making will be the process of enquiry.

3.3.7 In recent years practice-based regulations have emerged for PhD programmes in many nations with models of good practice now well established. In particular, the relationship of a written exegesis to the submission of an artefact, composition or performance, has been well argued as has the supervisory framework needed for such work. Also the opportunity for established artists, designers or performers to use an existing body of creative work as part fulfilment of a "PhD by Publication" is now standard practice in some nations. In this model a past body of work (whether exhibitions, performances or musical compositions) can be assembled for examination with an accompanying text that articulates and provides evidence for:

- The research questions or imperatives underlying the work;
- The methods used to explore these research questions/imperatives;
- The means employed to test preliminary conclusions;
- The research answers and conclusions;
- The means used to disseminate the research outcomes;
- The intellectual and creative coherence of the body of practice-based work;
- The intellectual and creative development evidenced through the body of work.

3.3.8 In some countries recognition is given to the different career trajectories of practitioners in the creative arts through the award of a PhD by publication. This takes account of a body of existing creative work where it demonstrates a coherent line of enquiry that has led to original conclusions of significance and where the methods of enquiry have embodied intellectual rigour.

3.3.9 Internal university regulations for PhD registration and examination in Portugal are largely based on the traditional tenets of literary investigation and scientific empiricism. This condition is not restricted to Portugal with most of the nations of Europe (and in fact: all over the world) investigating the question of how to acknowledge artistic, practice based research on a PhD level within a university context.

3.3.10 It transpires that there are not so much legislative prohibitions or restrictions against this, although the wording of regulations often is unintentionally biased towards the submission of written work. For example, in Portugal there are in fact no formal restrictions to the submission of practice-based research though the requirements nevertheless say 'that PhD degrees are given on the basis of a "thesis" to be evaluated by a committee nominated by the competent council in each University.' (see Decree-Law 74/2006). By way of example

such a regulation could be rephrased to more specifically embrace practice-based outcomes in performance, composition or exhibition.

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Recommendation

- It has been noted above that there are few formal restrictions to the conduct of practice-based PhD's within the legislation but its interpretation in practice is biased towards traditional pedagogies. The Panel recommends that the legislation could play a more proactive role in facilitating practice-based research, and the wording of the current legislation needs to be re-examined with this objective in mind. While not suggesting definitive wording for this purpose, words such as the following could be considered: "PhD degrees are given on the basis of a body of work (either through publication, exhibition, composition or performance) that displays the originality and rigour expected of a research degree in any field".

- It is also recommended that consideration be given to the creation of a PhD by Publication. Here artists, designers or performers are able to use an existing body of published creative work as part fulfilment of a PhD. This is now a standard practice in some nations where a past body of research (whether exhibitions, performances or musical compositions) can be assembled for examination with an accompanying text that articulates and provides the evidence for a range of research questions and methodologies, as described above.

- Further, it is recommended to the higher education institutions that the above developments are accompanied by much clearer definitions for identifying and assessing the quality of practice-based research outcomes in A&C. As mentioned in other sections of this report it is recommended that such developmental work is undertaken through a national centre for practice-based research in arts and culture and that this feeds into the development of supervisory and examination requirements for PhD's. In this latter respect universities may not yet have sufficient knowledge of practice-based methods to have the 'competent council' that will identify the appropriate assessment committee for a practice-based PhD.

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3.4 Attracting and Developing Effective Teachers

3.4.1 Teacher quality is central to the quality of learning and providing a sufficient pool of effective teachers is an important element for expanding the capacity of arts and culture education. This means that the system has to (i) attract good teachers (ii) provide the prospect of careers in teaching and research (iii) ensure the continued professional and personal development of staff. It is through the nourishment of intellectual and creative capital that the quality of higher education in A&C will be assured.

3.4.2 Increasingly, it is accepted that the links between teaching, learning and research are fundamental to the health and vibrancy of HE education in A&C alongside other disciplines. It is not just the cutting edge knowledge of research that refreshes the curriculum but the spirit of enquiry that accompanies all good research and so binds teachers and students together as co-enquirers in a culture of discovery learning. In this sense all A&C students are proto-researchers from year one of their studies and all staff need to be experienced in the spirit of enquiry accompanying research if they are to guide this process of learning through doing.

3.4.3 Though the practice based methods of A&C do present specific challenges to the development of appropriate pedagogies they nevertheless are at the forefront of learning through doing and of action research. Together these approaches bring students and their teachers together in a process that is more directed at knowledge construction than it is at the more conventional methods of knowledge transmission as pursued in the universities and polytechnics. This opportunity to help build critically reflective practitioners well equipped for the uncertainties of 21st century life is a major opportunity for the A&C sector and it is distinctive within the HE sector overall.

3.4.4 These challenges and opportunities of HE in A&C are not unique to Portugal but are being confronted and addressed in other nations as the world continues to change and HE expands and reshapes itself in response to this emerging environment. Attracting and developing suitably qualified teachers is a major challenge that will be critical to the future success of HE in A&C. Not only will teachers and practitioners be attracted to HE because of the knowledge they can impart but also, and perhaps more centrally, for the opportunities it will offer them for personal development and growth in the course of this work. Here the relationship between research, learning and teaching in the development of increasingly reflective practitioners will be an important element in this equation. Moreover the quality of places, spaces, services and social relationships (as underlined in

several researches about urban creativity) could increase the attractiveness of university institution.

3.4.5 In their discussion with the staff in institutions the Panel heard of many good practices and opportunities as well as perceived barriers to the development of careers in A&C HE. Though it was at times difficult for the Panel to deduce whether these barriers were perceived or real a number of them were repeated consistently in the various discussions. Specifically it was said that there were too many barriers inhibiting movement between the private sector and education, between university and industry, between cultural practitioners and university professors.

3.4.6 This and other views were put to the Panel in the context that Portugal has excellences in A&C equal to the best internationally — in architecture and urban design, in cultural heritage, sacred music, national and regional music, research in the theatrical and marionette field, the ethnographic study of Arts in relation with colonies; research and education in the field of Landscape Architecture — and more.

3.4.7 Second only to the role of A&C higher education in the Portuguese society, this issue of staff careers was perhaps the most sensitive encountered by the Review Panel. It is central not only for staff development but also for A&C quality, student enrolment and mobility, and credibility of research in arts and culture, more generally. It is sensitive because it is rooted in historical precedents in A&C education that have evolved from deeply ingrained traditions and stereotypes.

3.4.8 In the universities career progression usually follows three stages, from Assistant Professor to Associate Professor and to Professorship. The attainment of a PhD is the requirement for the latter two positions while an Assistant Professor should at least have a Master's degree (although it is becoming more common to require a PhD degree for this level as well). In the Polytechnics, staff careers in general progress from Assistant Lecturer through Adjunct Lecturer to a Coordinator position with a Masters degree being the required qualification. Career paths are open to university staff with encouragement to engage in PhD programmes—either at their own university or elsewhere. The number of early career teachers that are currently engaged in PhD research is above expectations and will no doubt result in a marked increase in the percentage of staff members with a doctoral degree in coming years. There remain, however significant disadvantages and disincentives in the present situation.

3.4.9 Criteria for the appointment and promotion of staff in A&C are, by and large, much the same as for any other discipline, as is proper in order

to ensure consistency of practices and equality of treatment across the HE sector. This said, it is also generally accepted that the types of evidence that scholars and practitioners in A&C may present for academic promotion or appointment are broader than just formal qualifications such as the achievement of a PhD (indeed, there are many countries where the evidence of a PhD, where it does exist, is given less weight than, for example, international peer esteem through exhibitions or performances).

3.4.10 A number of factors may be influencing this situation. For example, teachers and practitioners who were born in the years 1950-80 experienced an educational system in which A&C PhD's virtually did not exist. This generation (many of whom are essential to the quality of the current HE system) developed professional practices that produced other forms of evidence demonstrating original enquiry, significance and rigour that would be expected of a PhD in any discipline. In many other cases the schools system does not always embrace A&C within the curriculum and many young people of high creativity often fall foul of the system without gaining the academic qualifications normally required for entry to HE.

3.4.11 In such instances many countries have been explicit in describing the broad body of evidence that A&C scholars and practitioners may present as evidence for appointment and promotion as being equal to all other types of formal academic qualification. Although, as was mentioned, the present number of Portuguese early career teachers engaged in PhD research will lead to a marked increase staff members with a doctoral degree, this alone will not change the prevailing culture. Explicit actions to recognise a range of A&C outputs as evidence for professional standing would go a long way in acknowledging the distinctiveness of practices in A&C and so would help to advance the culture.

3.4.12 Alongside the opportunity to present a wider body of evidence there is also need to ensure that appropriately experienced individuals are available to assess such evidence and that consistent criteria are clearly spelt out for such judgments to be made. There is also a need to ensure that such judgments are located within robust processes that ensure consistency across the system and a continuous improvement of practices.

3.4.13 In Italy, for example, there exists a recruitment process called "per chiara fame" that specifically recognises professional standing in A&C. Here artists and designers, even non graduates, can be called to teach and do research within universities and polytechnics as full professors and can actively participate in the strategic development of each study

course and in the research activities. Such appointments are proposed by a Faculty Council and must be voted by a two-thirds majority of the Faculty's full professors, accompanied by a report describing the qualities and the scientific personality of the scholar/practitioner, with an analytic reference to his/her scientific contributions, to the results achieved and to their acknowledgement at an international level through evidence of peer esteem. Such recommendations are then submitted to the Ministry which consults the CUN (National university Council) then gives approval, or not, for the conferment.

3.4.14 In Portugal the current legislation/regulation is not a constraint on hiring in A&C education — but some local institutional cultures may be. In Portugal professional practitioners in A&C can be recruited into higher education. This said, the Panel were told by the teachers they met in institutions that this helpful opportunity still did not treat such recruits on an equal footing. For example, the panel heard that: such 'Experts' or invited teachers were sometimes paid less than people with a degree doing comparable teaching work; they could not participate fully in administrative and policy making bodies of the HE institution; they could not compete on an equal basis for scholarships and research grants; in research teams/centres the staff members without a PhD were excluded from the boards that decided on research policies and financing. On the basis of these comments it was difficult for the Panel to what degree these concerns were general or limited to the local practices of individual institutions. In any event, addressing these concerns requires action to change the practices and culture at an institutional level.

Recommendation

The recommendation made in the previous section of this report for practice-based PhD's and a PhD by Publication will do much to help in changing the culture.

- It is recommended that steps be taken to broaden the appointment and promotion procedures/criteria within institutions so that a range of evidence, beyond a graduate or research degree, can be called upon to demonstrate academic and professional standing. Also, that the criteria for evaluating such evidence in the practice-based areas are more clearly articulated. Such measures should ensure that all scholars and practitioners in A&C have equal opportunity to establish and develop their careers in higher education with or without a PhD.

- As recommended elsewhere in this report, a national professional association for HE in A&C should be created by the institutions and such a body could do much to help articulate those issues that will work to reshape institutional cultures.

3.5 Providing Quality Teaching and Learning

3.5.1 In the A&C disciplines there can be no guaranteeing that either a qualified PhD or a first-class artist will automatically make a good teacher. Nor can it be presumed that experienced teachers will automatically, or easily, adapt to the changing landscape of HE as it unfolds into the 21st century and a new generation of students born into the digital age demands different patterns for learning and study. Though the Panel did not visit all institutions it did however encounter views that the feedback mechanisms to students on assessment and course aims were not always prompt or transparent.

3.5.2 For these reasons, amongst others, many nations now provide infrastructures to help support the professional development of teachers. This has also been done to enhance the professional standing of academics within the broader professional landscape. For example, the Australian Learning and Teaching Council[1] provides a range of resources and events in support of teachers' professional development. This includes papers on, for example, research-led teaching[2] and a range of awards designed to recognise excellence. The Carnegie Foundation for the Advancement of Teaching[3] provides a likewise infrastructure in the USA. The UK's Higher Education Academy offers a similar range of supporting resources[4] with the addition of twenty-four disciplinary specific Subject Centres. One of these is specifically geared to the A&C disciplines (ADM-HEA)[5] offering training and accreditation schemes along with other resources that include professional development workshops for staff new to teaching and professional practitioners such as, for example:

- integrating writing into the design curriculum;
- the problem of projects: using problem-based learning in practice-led education;
- teaching without talking through role play;
- thinking tools for creative learners; and
- developing students' communication and self-knowledge skills in a design critique.

In the Netherlands the universities have recently established the BKO-certificate (Basic Qualification for tertiary education) as a teaching license for university staff members. The certificate is not a prerequisite to be hired but acquiring it is mandatory for new teachers at the universities. All universities therefore provide similar programmes to get the certificate and they have agreed on the basic

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[1] http://www.altc.edu.au/carrick/go
[2] http://www.altc.edu.au/carrick/go/home/pid/744
[3] http://www.carnegiefoundation.org/
[4] http://www.heacademy.ac.uk/
[5] http://www.adm.heacademy.ac.uk/

educational knowledge and skills in which these programmes provide training. As a result all universities acknowledge each other's BKO programmes (and the BKO certificate) nationwide.

3.5.3 Though not entirely consistent across all institutions the prevalence of classroom-based transmission teaching still seems a dominant element in Portuguese education. In view of this learning-through-doing, as a process of knowledge construction with a direct link to research, may benefit from further academic recognition, research investigation and opportunities for professional development.

3.5.4 The Panel — bearing in mind its overview of international developments and being aware of rapid growth within Portugal over the last decade — takes the view that universities and other HE institutions would benefit from national networks that help to develop, disseminate and embed practices best suited to the challenges of an education fit for the 21st century.

3.5.5 Given the rapid changes taking place to knowledge transmission and information management, industrial production and the emergence of digital economies, patterns for learning and teaching in a connected world (where students will increasingly decide when and where they study) all nations now face a paradigm shift with regard to the culture of learning, teaching and research. In facing this challenge teachers do need support for their professional development and the realignment of pedagogic approaches to the needs of a post-industrial knowledge economy. Similarly, the high-level skills and competencies now expected of teachers in A&C HE not only need professional accreditation but the public recognition of excellence and standing within the profession, so helping to raise its status and attract the best talents into teaching.

3.5.6 Given the significant growth of A&C programmes in Portugal over the last decade alongside the modernisation of teaching and learning practices internationally, the Panel feels that existing national infrastructures could be further developed and enhanced to support the professional development and accreditation of teachers in line with developments in other nations.

3.5.7 In this context the recently formed Higher Education Evaluation and Accreditation Agency (A3ES) could extend the Evaluation aspect of its remit. This could ensure that, alongside its accreditation responsibilities for the approval of new course provision, measures are put in place to ensure the ongoing quality enhancement of that provision so that standards are sustained.

3.5.8 As described more fully elsewhere in this report the Panel also is recommending the creation of a National Professional Association for A&C that includes all HE institutions in A&C HE. Such a national association, working on behalf of the institutions to develop good practices, could both advise government and the A3ES on the needs of the A&C sector as well as the practices best-suited to it in terms of professional development. It may, too, collaborate with the A3ES in the delivery of expert workshops and seminars to increase national capacity and advice on the criteria for Practice-based PhD's, PhD's by publication and the methods and criteria for assessing practice-based research in A&C.

> ### *Recommendation*
>
> The Panel's recommendations in this area are directed mainly at the recently formed Higher Education Evaluation and Accreditation Agency (A3ES). It is likely that many of the suggestions made here are already taken into account by the agency. Keeping this in mind, the Panel recommends that A3ES strengthens the Evaluation aspect of its remit with particular reference to arts and culture providers to include, for example:
>
> - periodic assessment of the local quality assurance processes within institutions;
> - furthering the engagement these institutions demonstrate with quality enhancement through staff development schemes;
> - the provision of accreditation frameworks for (new) teachers in HE (e.g. the Netherlands BKO-system and the UK Higher education Academy); and
> - providing accreditation frameworks and implementation models for teachers at lower levels (i.e. students with an MA can get a license to teach provided they have some courses in professional educational development).

3.6   Supporting Quality Research

3.6.1 In preceding chapters the intrinsic link between research, learning and teaching has been referred to. In this sense the development of quality research is not only a benefit in itself but also an essential ingredient to the quality of HE provision across teaching and learning — they are intrinsically linked and so will benefit from each other.

3.6.2 It is also being recognised internationally that research and innovation are the critical factors in a nation's competitiveness abroad as well as being key drivers of its social, cultural and economic wellbeing internally. Research in A&C stimulates the creative and cultural economies that, in nations such as the UK, Australia and Korea, are evidencing high annual growth rates in GDP and, in the current economic recession, the creative and cultural industries are seen to be a major player in economic resurgence.

3.6.3 For this latter reason many national governments are seeking to stimulate the highest standards of innovation and research through HE. In the UK Research Assessment Exercise (RAE), for example, there has been much effort to ensure that areas of applied research, bridging with industry, are treated equally to areas of pure research more aligned with work in the older universities. In this context research and innovation are seen to be major stimulants to the economy — to cultural and social life. Similar systems for research assessment are emerging across the globe as governments seek to harness the intellectual capital produced within universities and polytechnics as a major national asset. Here Portugal is rich in cultural assets and an historic leader in their export across the globe

3.6.4 In recent years Portugal has made considerable strides in supporting A&C research, but deficiencies remain.

- As described in Section II above, support for doctoral and post-doctoral fellowships in Arts and Architectural Studies has expanded sharply in recent years: from 1% of scholarships in all domains financed by FCT, it rose to 5.3% in 2008. In comparison, post-doc candidates made up only 2.4% of all post-doc financing of scholarships. It is important to note that applications for doctoral and post-doc studies in the Arts have a significantly high success rate in comparison with other fields funded by FCT.

- FCT expenditure in support for Research Units or Centres in Arts and Culture Studies (Unidades de I&D Estudos Artisticos) have expanded sharply, reaching an estimated 1.17m Euros in 2009, a more than five-fold increase from 2003. However, expenditures on these Centres still accounts for a tiny percentage of FCT expenditures on all Research Centres (0.8% in 2008).

- In regard to I&D Projects in the field of Architecture and Arts Studies, the number of applications almost doubled over the 2006-2008 period. However, in financial terms they still make up only 1.4% of all Projects financed by FCT in 2008.

- It is important to note that FCT does not have a Panel to review and assess practice-based research.

3.6.5 In the Panel's meetings with academic staff it was clear that funding from foundations and charities, though limited, often made an essential contribution to A&C research alongside public funding. Foundations and Charities such as Gulbenkian and Berardo have an important role to play in providing non-public funds in support of research and may still have greater potential than presently realised. "Incentive schemes" through matched funding initiatives between HE and Foundation/Charity sometimes help to stimulate the growth of reciprocal advantages.

3.6.6 In some funding systems for research the respective Funding Council will allocate a matched percentage for every grant won from a charity or foundation. This is calculated on the basis that the charity/foundation work will not pay for the full economic cost that the institution must bear in doing the research i.e. facilities, services and resources as well as time. It may be assumed, for example, that of the 100% full economic cost of doing the research the grant from a foundation/charity will account for, say, 80% of that cost. In this event the funding council will then match this grant with a 20% contribution. In this system the grant holder then receives the 100% cost of undertaking the research and the charity/foundation is incentivised by the knowledge that every Euro they give will attract additional cash through being match funded. In such a system the matched funds are streamed to a research centre or department annually against audited accounts of the grants received.

3.6.7 Within the overall context of this growing capacity for research within A&C, and the tremendous indigenous cultural resources of Portugal, it is nevertheless the case that the overall scale of research (both in terms of activity and funding base) in the sector still remains small in comparison to other activities and both research production and research assessment in A&C are still maturing as in other nations.

3.6.8 In all nations of the world practice-based research in A&C, as conducted within HE, is in the early stages of maturing and needs help to build capacity during this early phase of its growth cycle. Unlike the physical sciences and humanities, where scholarly traditions are well established, the intellectual infrastructures for research in A&C are still emerging. In this context scholarship is understood to encompass the processes of building an intellectual infrastructure in which high quality research will be produced. Such infrastructures may include, for example, the building of scholarly archives related to, say, 20th century design or live performance, the production of specialist

reference materials or methods to network like-minds through time and space in order to build communities of scholars.

3.6.9 A particular issue in A&C has been the involvement of creative practitioners (artists, designers, performers) in research where their time may be divided between studio and HE institution. In most cases such people will confuse their independent practice with academic research — as if they were automatically interchangeable. They are not, and some practice will be research, whilst other practice will not be research. In this sense research as conducted within HE institutions is a professional commitment overlapping with, but distinct from, independent creative practice. Here the researcher in A&C must be willing to accept the role of public intellectual, funded through the public purse, with a duty to return the knowledge gained from research back into the social, cultural and economic wellbeing.

3.6.10 Another issue in the development of A&C research has been a tendency to adopt models of practice from the natural and physical sciences. This has often led to either text-based and/or quasi-scientific outputs that do not advance the specific nature of practice-based research in many A&C disciplines. This may be largely due to the single criteria that all research is the production of new knowledge. Whilst this may be the only research truth in the natural and physical sciences it is not so for A&C that may pursue, for example, a range of aims that include:

- The production of new knowledge;
- The testing of existing knowledge to determine its limitations;
- The reconstruction of lost knowledge;
- The public understanding of A&C research.

3.6.11 The most difficult aspect of determining quality in A&C research is the establishment of commonly agreed criteria against which to form quality judgments. There are a number of models that have been developed to assist this process in Australia, New Zealand, UK and Scandinavia. In the UK's RAE system, Significance, Originality and Rigour are considered to be the criteria that will help determine the quality of research outputs. For example, in the case of Significance the question to be asked by assessors is the degree to which the research "is an essential point of reference for researchers in the field". Criteria such as these illustrate two points (i) practice-based research in A&C does not require criteria radically different to any other discipline (ii) the exercise of peer judgment is a critical element.

3.6.12 The process through which such peer judgments are exercised, and the methods employed, are also important within the context of A&C.

Indeed, Portugal has made very good use of its Peer Review system for determining quality and driving funding to research. This said, there may yet be improvements to be made to the system as part of the process of continuous improvement.

3.6.13 Though the A&C sector in Portugal is relatively small it nevertheless comprises a very wide range of disciplines and it is not homogenous. As a consequence this places significant demands upon the peer review process where a limited number of reviewers may be required to cover such a spectrum of disciplines. This situation may be exacerbated because the methods, criteria and tools for exercising peer judgment in A&C are not sufficiently well defined (though this is an issue in all countries and not confined to Portugal). Together these conditions place considerable pressure on the FCT reviewers and their capacity to undertake a thorough study of all the data and information made available to them.

3.6.14 Generally speaking, the ranking criteria used by FCT for their peer reviews of research (productivity, relevance, feasibility, training) are shareable and generalisable, though criteria such as productivity and relevance show problems when related to A&C, for example: productivity — inappropriate items, unable to measure some A&C scientific production; relevance — which needs to be contextualized both in relation to each discipline and the specific research goals.

3.6.15 In response to these observations the Panel considers that HE institutions would benefit from annual processes of peer review of their research that were organised locally within their institutions or collaboratively between institutions. Peer reviews should take account of the diversity of the A&C sector and divide the process into three sub-disciplinary fields each with its own peer review panel including international experts (as they presently do) in the areas of (i) historic and cultural studies (ii) fine arts and design (iii) performance, theatre and music disciplines. The criteria for assessing research across the sub-disciplines of A&C should be redefined through consultation with the sector and reference to international exemplars so to take specific account of the non-text forms that such research outputs mostly have.

3.6.16 Issues, such as these, still need to be debated and evolved through Portugal's community of scholars in A&C — drawing upon the best of practices from international exemplars. Where there needs to be an acceleration of such developments in the most cost effective way across the sector, many nations have created fixed-term projects to help guide such work on behalf of all institutions and to network internationally where such matters are concerned. In this sense the Panel's view is, that for a limited period of say three to five years, the

creation of a national centre for practice-based research would help to build good practices in the most cost efficient manner and raise the visibility of A&C research both at home and abroad. This is included in the following recommendation as an important element for the future development of research.

> ### *Recommendation*
>
> Practice-based research in the creative and performing arts and design has the potential to stimulate the creative and cultural economies nationally but is still evolving capacity and infrastructure. To help stimulate this development and evolve the best of international standards in practice-based research it is recommended that the Ministry works with the FCT and institutions to implement a number of actions and initiatives — some of those that follow will be instrumental in driving developments and others will be symbolic in raising the visibility of A&C research.
>
> - It is likely that the next five years will require concentrated efforts to build capacity in practice-based research within Portugal's arts and culture sector and that short-term initiatives will help to accelerate these developments and to stimulate activity. Here the FCT could identify initiatives within its own funded programmes that are specifically intended to stimulate and guide the development of practice-based research in arts and culture. In this respect, and within its existing and future activities, it is recommended that the FCT consider identifying a peer review panel specifically convened to assess all such proposals in arts and culture practice-based research and that it is made up of experts in this field. Consideration could also be given to the FCT's important leadership role in raising the visibility of arts and culture research through the symbolic act of recognising this area of work in its title i.e. *The Fundação para a Arte, a Ciência e a Tecnologia*.
>
> - It is recommended that the Ministry consider ring-fencing some of its HE grant to institutions to initiate a 3-5 year project for a National Centre for Practice-based Research in Arts and Culture. Rather than each institution undertaking the same developmental work and so duplicating the costs of such efforts a National Centre could undertake capacity building activities on behalf of the sector with the greatest dissemination of good practices. Generally, such a Centre could:
>
>   o   be a project initiative delivered through FCT for an initial period of 3-5 years against ring-fenced funding;
>   o   work on behalf of all the universities and polytechnics;
>   o   be hosted in one institution with the task of networking with all institutions;

- be located in a host institution through an open invitation for all institutions to compete for the tender;
- be required through its contract to build capacity in practice based-research on behalf of the A&C sector overall;
- advise the FCT and other national agencies of strategic developments in practice-based research methods and peer review;
- survey international practices in developing criteria and methods for assessing practice-based research in arts and culture and advise the FCT on the application of such criteria;
- work with FCT to develop criteria and methods to assess the quality of practice-based research undertaken in Portuguese universities and polytechnics;
- develop frameworks and methods for the supervision and examination of practice-based PhD's;
- develop and offer training courses and accreditation schemes for the approval of research degree supervisors and maintain a register of such;
- organise and give expert seminars and workshops for the sector;
- create and maintain a resource database on practice-based research methods for access by all institutions;
- deliver regular newsletters to the sector on developments;
- network with the best of international practices and raise the visibility of practice-based research in Portugal;
- be required to provide FCT with an annual report of activities and outcomes for review and recommendations for future action.

- It is recommended that the FCT and Ministry consider a system for the matched-funding of research grants won from Charities and Foundations and so help to stimulate the leverage of more grant income from these sources. In some funding systems the respective Funding Council will allocate a matched percentage for every research grant won from a charity or foundation. This is sometimes calculated on the basis that the charity/foundation will not pay for the full economic cost that the institution must bear in doing the research i.e. facilities, services and resources as well as time. It may be assumed, for example, that of the 100% full economic cost of doing the research that the grant from a foundation/charity will account for, say, 80% of that cost. In this event the funding council will then match the grant with a 20% contribution. In this system the grant holder then receives the 100% cost of undertaking the research and the charity/foundation is stimulated to give in the knowledge that every Euro they allocate will attract further cash through matched funding. In such a system the matched funds are streamed to a research centre or department annually against audited accounts of the grants received from charities/foundations.

3.7 Facilitating Choice and Promoting Efficiency: Structure of Provision

3.7.1 As noted in Section II above, Portuguese A&C higher education offers considerable diversity of programmes and institutions. This diversity has expanded significantly in recent years. This has raised the question of the appropriate balance between competition and collaboration among institutions, whether there is inefficiency in the system of provision. A second issue that was raised in meetings with the Panel concerned the institutional structure of provision: whether a dedicated type of institution outside the binary divide was needed for arts and culture higher education, and how the present binary divide could work better for the particular requirements of A&C education.

Structure of provision

3.7.2 As noted previously, in A&C there is a close relationship between critical thinking and learning by doing. Higher education in Portugal follows a clear binary divide where the missions of the polytechnics and the universities are sharply maintained. The new Legal Framework of Higher education Institutions (RJIES, 2007) reinforces the distinct missions of Universities and Polytechnics for HE in Portugal. In meetings with stakeholders the Panel heard two types of concerns with the system. One related to the creation of a different type of institution that caters to specific features of arts and culture education. Specifically, there was a request for creating a dedicated University of the Arts, at the university level, and an Art Institute at the Polytechnic level. The other concerned the problems of mobility of students through the binary divide.

3.7.3 The Panel reviewed the institutional structure for arts and culture education in different countries. Because the historical development of A&C education since the mid-nineteenth century has tended to divide artists from artisans, practical art from ideal art, these extreme divisions are mirrored in the respective systems.

3.7.4 The structure of provision in Germany is tripartite consisting of Universities, Polytechnics and High Schools of Arts and Music. This division is largely due to historical developments. The distinctiveness of the colleges/high schools for art and music to other HEI´s is that they: (i) focus only on A&C (ii) enjoy a good international reputation (iii) lower total student numbers at each HEI (iv) maintain lower staff-student-ratios (v) are exceptions within the Bologna process (vi) have a different composition of third party funds. The most important difference, however, is legislation in North Rhine Westphalia colleges of art and music having their own Act with special governances for A&C.

3.7.5 Italy has a similar system to Germany but with greater differentiation where the A&C disciplines are divided into at least three homogeneous areas (scientific; humanistic; and the Artistic, Musical and professional Higher Education (AFAM). In the scientific area, some A&C disciplines are present within Universities and Polytechnics, such as: Architecture, Preservation and Restoration of Cultural Property, Industrial Design, Town and Territorial Planning. In the humanistic area, some other A&C disciplines are present within Universities such as: Arts (historical critical or philological specialisation.); Philosophy (specialisation in semiotics, art criticism, aesthetics, etc.), Sciences of Cultural Heritage, Sciences and Technologies of figurative arts, music, entertainment and fashion. The AFAM area also includes more traditional artistic disciplines in Institutes such as: Academies of Fine Arts, ISIA (Istituto Superiore per le Industrie Artistiche), Academies of Music, the only National Dance Academy and the only National Academy of Dramatic Arts.

3.7.6 The picture in the Netherlands more closely resembles that of the Portuguese structure, perhaps even more sharply differentiated. There are two kinds of public HEI's for the A&C disciplines. The Universities run A&C programmes primarily within the Humanities Faculties (with sometimes courses also to be found in Social Sciences, Economics and Law faculties). They are exclusively geared towards theoretical and historical approaches and do not provide practitioners training (with very few exceptions e.g. 'dramaturgy' or 'preservation and conservation' a programme that trains professional restorers). The Schools for Higher Professional Education (HBO's) — also called 'universities of professional education', 'universities of applied science', 'hogescholen', 'academies' or 'HBO's' — are the equivalents of the polytechnics in Portugal. They provide practical training in the artistic disciplines (including design, city planning, architecture, etc.). As in Portugal these institutions cannot provide PhD's. While the universities provide almost exclusively theoretical training in A&C. In contrast the HBO's provide vocational and practical schooling. Here the separation between the two is quite severe. Students in universities will go on to have, for example, academic careers (research), become art-critics, policy makers or administrators in A&C, (educational) staff/programmers in theatres, concert halls and museums, etc. Only in very rare cases will universities train students for a more or less 'artistic' profession (e.g. dramaturgy). HBO-students will become practicing artists in the performing and plastic arts; the will also get jobs in arts management and art-teaching.

3.7.6 The UK system was, until recently, similarly tripartite to Germany and Italy having Universities, Polytechnics and Technical Colleges. The polytechnic sector also included free standing art colleges generally

referred to as either "monotechnics" or "specialist institutions". Both the polytechnics' and monotechnics' focused on undergraduate teaching and professional/vocational skills with little activity at postgraduate level or in research. In 1992 legislation changed so that all Polytechnics became "new" Universities. As all of the A&C provision had been in the previous Polytechnic sector it brought a fundamental change in that all A&C departments could now compete for research funding alongside the universities and offer their own doctoral programmes. At the same time the Arts and Humanities Research Council was created to specifically serve the needs of A&C in the "old" and "new" universities. The present UK system is therefore binary with "new" universities combining critical and practical education and the technical colleges primarily offering technical skills.

3.7.7 It is clear from the above review that countries have adopted different institutional structures and that there is no one ideal model. Taking account of the international experience, it is not the Panel's view that structural changes are needed to alter the "shape" of the current system in Portugal or that new institutional types need to be created in order to address the particular concern of arts and culture education with regard to combining the theoretical and the practical. These can be adequately provided through institutional collaboration. The Panel does not see sufficient benefits or cost advantages in the creation of a new institute of the arts standing free from the Universities and Polytechnics that cannot be achieved through cooperation and collaboration between institutions. The Panel does not recommend such a step.

3.7.8 Rather, efforts should be directed to bring a greater clarity and subtlety of differentiation to the respective missions of universities and polytechnics along with the networks and collaboration that need to be built between them. In other nations of Europe considerable efforts have been made to develop inter-institutional collaborations and consortia that harness the strengths of different institutions and their distinctive missions as well as building bridges through the educational ladder.

3.7.9 These steps could be directed particularly to avoid overlap and duplication and to develop programmes for student progression between them. The Panel heard many views concerning these problems. Examples were cited where students wanting to move from Polytechnics to Universities faced significant "cultural differentiation" between the two types of institutions. It was claimed that these often resulted in a slower pace of study for these students since they have to 'catch up' with university practices. Another problem that equally arises from the historically based differences between the Universities

and the Polytechnics lies in the underrated position of the practice-based PhD at the former. Students who complete their postgraduate studies at a Polytechnic and wish to undertake doctoral work in a University are said to be disadvantaged through the absence of an appropriate critical and supervisory framework for practice-based methodologies in A&C disciplines. In other words: for these students it is often very hard to find supervisors.

3.7.10 These difficulties are not structural or legislative in origin but stem from the cultural differences between the two types of institutions. Such problems are not unique to Portugal. They can be addressed through changes in institutional behaviour rather than through legislative action. For example, provision could be made for supervisory staff to facilitate transfer of students wishing to go from one system to another. The professional association recommended below can contribute to addressing such sector-wide issues.

Efficiency of provision

3.7.11 In the discussions with stakeholders the Panel heard, in virtually all meetings, strong concerns over the perceived growth of similar programme offerings across institutions along with competition and overlaps created between institutions. The general increase in the numbers of programmes during the last decade has already been highlighted in Section II. It is especially so in design and music. Looking at these two disciplines (based on figures for Arts Higher Education in Portugal prepared by GPEARI-MCTES) the following broad patterns are evident. Programmes in design are offered at 30 of the 52 HEI´s. The 7,187 enrolments in Design are 37% of the total student population (19,459) in A&C programmes across Portugal. Music programmes in Portugal contain performance, historiography, music therapy, instruments, orchestras or special music styles, composition. These programmes are spread widely across Portugal containing 7% of all A&C students.

3.7.12 The Panel's encounters with stakeholders suggested that robust growth over the last decade has created an increasingly competitive environment with the collaborative infrastructures between institutions needing further development. At various HEI´s the Panel heard it said repeatedly that, in Portugal, there was little if no culture of collaboration. Concepts like "doing my own business" were repeatedly voiced in one form or another.

3.7.13 At the same time, more than half of the HEI´s the Panel visited expressed a strong need for collaboration and networking regarding different levels, particularly among different HEI´s—for instance for

programmes and for developing a national voice. The need for other forms of collaboration among the different schools within one HEI, or collaboration with the cultural community, cultural industry and society, were frequently expressed. One meeting with the Panel expressed this in the following words — "Maybe we need more coordination and less negative competition for establishing new programmes…we need a framework: how many students, how many hours, how many programmes—with responsibility concerning the labour market…the growth can not go on forever"

3.7.14 Competition and collaboration are both necessary elements in a healthy educational sector but in proper balance. Accordingly, the RJIES 2007 offers new possibilities regarding joint degrees, programmes and projects. Several HEI´s are already pursuing the opportunities this offers. For example: the University of Lisbon now offers a doctorate in music and dance together with the Polytechnic of Lisbon and ESAD is realising workshops with other schools; the Observatory of Fine Art is a network in which the universities of Lisbon, Porto, Évora and Coimbra are collaborating; the University of Aveiro provides joint research units based in at least two universities (in design at the University of Aveiro and the University of Porto — in music at the New University of Lisbon and the Technical University of Lisbon); the Faculty of Fine Arts at the University of Lisbon has arranged a variety of cooperation protocols with other faculties of Art in other HEI´s, and other Escolas Superiores; and the University of Algarve is collaborating with other HEI´s (universities and polytechnics) in order to "complement each other".

3.7.15 The balance between inter-institutional competition and collaboration is being widely discussed across Europe. For example, the topic of more collaboration between institutions is discussed in Germany with the result that some programmes are now offered by at least two HEI´s. Such programmes do not replace existing programmes but constitute additional ones with advantages for all involved HEI´s. One example is the Centre of International Arts Management CIAM, a joint institution of the Academy of Art Düsseldorf, the Robert Schumann High school Düsseldorf, and the High school for Music Köln and the High school for Art Köln. The main task of CIAM is the provision of a programme "arts management" (Master degree), but more importantly to establish a network centre for research and knowledge transfer through joint projects, publications and conferences. The four HEI´s reached cooperation agreement on legal arrangements, governance, staff, funding, programme offers and publications. The general management of CIAM (including contract competences) is placed at one of the HEI´s, but all four High Schools are participating in funding, staff and board. These four HEI´s joined their existing

competencies, funding and staff with advantages for all of them while keeping their own original profiles in the arts.

3.7.16 Networks are essential for the emergence of meaningful collaborations such as these. In this context no national network yet seems to exist in Portugal for A&C higher education as is normal in most other countries. One stakeholder commented "the missing organisation of the sector is a strong weakness." The Panel was struck by an apparent absence of a professional association to address sector-level problems for A&C HE and, for example, to broker collaborations between institutions and offer advice to Government.

3.7.17 Such professional and academic associations for the arts and culture sector are quite common in many countries. For example in Italy, there are academic associations such as CUN (Consiglio Universitario Nazionale), and CNAM (Consilgio Nazionale per l'altaeducazione Artistica e Musicale www.cnam.it) that are associations of universities who also advise the Government. There is a new association in Italy, funded by the deans of architecture and design called CPD (Conferenza dei Presidi di Design Conference of Deans of Design Schools). Another interesting example may be drawn from the European Association of Conservatoires (AEC) — a European cultural and educational network with more than 263 member institutions for professional music training in 55 countries. Its objectives and aims are: stimulating and supporting international collaboration between member institutions, realising various international projects about relevant subjects in professional music training, organising an Annual Congress and various specific seminars for its members, representing the interests of the professional music training sector on national, European and international level. One of its projects (*Accreditation in European Professional Music Training: 2005-2007*) was supported by the ERASMUS Programme and studied the European dimension of external quality assurance and accreditation in the field of music.

Recommendation

The Panel noted that while there are some academic and professional associations in Portugal there is as yet no professional subject association representing the A&C sector as whole. Not only are such associations advantageous for the HEI´s (achieving joint opinions, establishing joint decision making, representing joint concerns, developing shared good practices, becoming "more visible and heard") but the Government also gets to deal with a very competent partner having one voice. There is an important case for promoting collaboration and there are many sector-wide issues where it could be very effective.

- The higher educations institutions providing arts and culture education in the country should, with start-up support from Government, establish a national professional association with multiple objectives. The association would be an independent organisation, owned and operated by the institutions under their own rules, representing the interests of the sector as a whole.

- An important objective of the association would be strategic planning of the A&C programmes at HEI´s, in order to avoid duplication and promote specialisation and joint programmes. In particular, the professional association can promote consortium arrangements among interested provider associations in areas of excessive duplication or of limited student interest for any one provider but with a wider interest when seen from a collective perspective. Some examples of consortia are mentioned above, in the case of Germany, and are further detailed in Appendix D (for Italy). Such consortia would require financial support from government for an initial start-up period and the professional association could be the initiator of negotiations between interested institutions and the Government.

- Other objectives of the association could include:
  o Promoting practice-based research, in particular instigating the establishment of a panel for supporting such research by FCT;
  o helping to manage national or EU projects;
  o disseminating good practices;
  o brokering collaborations among institutions;
  o creating networks with associations for culture;
  o creating networks with associations for industries;
  o offering information for potential students;
  o representing Portugal internationally in the area;
  o networking with arts and culture organisations world-wide;
  o and offering advice to Government.

3.8 Arts and Culture Education in a Globalising Context

3.8.1 Internationalisation and student mobility are becoming increasingly important in Higher Education across Europe (and the rest of the world). More and more students will have to acquire the necessary skills and experience in order to function and be competitive in an ever more globalizing labour market. In the recent conference of European Ministers Responsible for Higher Education (Leuven and Louvain-la-Neuve, April 2009) student mobility was a very important issue and the closing communiqué stated "We believe that mobility of students, early stage researchers and staff enhances the quality of programmes and excellence in research; (…) Therefore, mobility shall be the hallmark of the European Higher Education Area. (…) In 2020, at least 20% of those graduating in the European Higher Education Area should have had a study or training period abroad. (…) Mobility should also lead to a more balanced flow of incoming and outgoing students across the European Higher Education Area".

3.8.2 The world of art and culture is no exception in this respect. On the contrary, because of it's reliance on practice based pedagogies that foster learning by doing the arts and culture sector seems to be in an advantaged position for student exchanges over disciplines that rely solely on textual communication and traditional learning methodologies. After all in this area of higher education the traditional language based means of communication are complemented by various other means. Also: while local traditions are keeping their importance international exchanges providing inspiration and artistic renewal are becoming more and more a trademark of the art scene itself. Stimulating foreign study experiences for both students as well as staff in the sector is therefore a good policy for future developments and might have the added effect of raising visibility and standing of art and culture within Portugal itself. However: it's an illusion to think that all students in HE will travel abroad to do part of their studies. So the challenge is also to give non-mobile students an international classroom experience; or as it is sometimes called 'Internationalisation at Home'. Policies that can enhance this international classroom experience are: explicit attention to international developments in the curriculum; stimulating incoming mobility (students and staff); courses in English; international cooperation (joint courses); the use of IT (video-conferencing, virtual classrooms, etc); stimulating outgoing mobility.

3.8.3 One deficiency noted by many stakeholders was the failure of the arts and culture sector to attract many foreign students. While Portugal's experience in sending its students abroad matches that of other countries, (around 2.8%), its percentage of incoming students clearly

falls below average (4.5% in Portugal compared with 7.6% EU average,

3.8.4   see also Figure 12, Appendix D). During its visits the Panel found that while there were some instances of collaboration with foreign universities (less so on the level of polytechnics), and participation in Erasmus and Erasmus Mundus programmes was quite frequent, the percentage of students from abroad receiving (part of) their education in Portugal was relatively low. This while experience from other countries clearly suggests that the A&C sector could be at the forefront of internationalisation in higher education and has potentially great opportunities to attract students from foreign countries. One of the causes for the low number of foreign students is no doubt the relatively few English courses and foreign members of staff.

3.8.5   The collaboration with Portuguese former colonies, given the shared language, history and cultural heritage, would be expected to be greater. Historic architecture and artefacts are found overseas while (most of) the archival material rests in Portugal. This shared cultural heritage could be the starting point of fruitful cooperation whereby foreign students from these former colonies could be trained to do research in Portugal and/or to cater for restoration/preservation of the historic monuments and artefacts.

Recommendation

Raising the international profile of Portuguese HE in A&C will not happen overnight and may be a slow process that — again — should mainly take place at an institutional level (with supportive backing from the Government). In line with the Panel's recommendation for a multi-purpose professional association in the previous paragraph it was already mentioned that parts of its objective could be to further internationalisation in the area. Such actions may include:

- Removing the cap on the numbers of international students that institutions may recruit leaving them free to make this decision.
- Actively seek cooperation with Portuguese speaking countries (former colonies/trading posts) in order to make HE one of the corner stones of a policy for dealing with the common cultural heritage.
- Providing incentives and support for developing (consortium) courses taught in English — including the exchange of best practices in this respect.
- Jointly promoting Portuguese arts and culture higher education abroad - where possible through the already existing channels and programmes (such as Bologna's academic framework).

3.9 Providing Strategic Direction

3.9.1 Among the issues discussed in the preceding sections, several recurrent themes emerged during the Panel's meetings with the stakeholders. A common feeling put to the Panel was the disappointment that arts and culture higher education in Portugal is not making as much contribution to the cultural, economic and social wellbeing of the Portuguese society. Many stakeholders the Panel met felt that Portugal has yet to develop a "culture of culture" for the 21st century. Because the percentage of Portuguese population participating in higher education is relatively low, this has restricted the growth of a wide public base for cultural resources, services and facilities. A&C's contribution to both industry and society is weak. There were too many barriers inhibiting movement between the private sector and education, between university and industry, between cultural practitioners and professors. Innovation is lagging as the contribution of new technologies is not being exploited. Portugal's arts and culture education is not attracting as many foreign students.

3.9.2 Many of these difficulties and problems are related to institutional behaviour and culture which need to be addressed by the institutions at the sector level whereas some relate to the Government and the broader society.

3.9.3 Higher Education is the seed-bed of a creative and cultural economy. A vibrant cultural economy needs both producers and consumers. On the one hand education trains the nation's cultural producers. On the other hand it educates a discerning community that will go on to be its cultural consumers of the future. Beyond their mission to educate, the arts and culture higher education institutions are major employers and so make a significant contribution to the economy of the local and regional community around them. The institutions of art, design and performing arts are also essential catalysts in the regeneration of local communities. They create "cultural quarters" that energise local communities, build civic pride and stimulate business. They can also help to sustain and promote local skills and industries.

3.9.4 Development of A&C higher education within the institutions cannot be disconnected from its contribution to the broader needs of society and industry. In this respect the two-way link between arts and culture in society and the private sector with its development within higher education needs to be recognised. Some governments have explicitly raised the profile of arts and culture within the context of their national objectives. Examples from other nations include the UK's Department for Culture, Media and Sport setting out to help "the creative industries thrive by raising their profile and supporting their

development" by saying "our vision is that the UK becomes the world's creative hub". In Germany legislation has been put in place to ensure that the construction of publicly owned buildings includes a percentage for art. An interesting Dutch initiative to stimulate future A&C consumerism across society is the mandatory programme at the secondary educational level called CKV (Culturele en Kunstzinnige Vorming—Cultural and Artistic Formation). This requires students to devote some time to participation in cultural activities (going to museums, theatre, concerts etc) and to reflect upon their experiences. The programme is also complemented by a system of vouchers enabling the students to participate in cultural activities of their choice.

3.9.5 The promotion of arts and culture in society in Portugal is the responsibility of another Ministry and not the MCTES. These issues are outside the scope of this Panel's terms of reference. Suffice to note here that there is a two-way link between the development of arts and culture higher education and the growth of culture in the country. The arts and culture policies of the country therefore need to be developed in coherence with policies for arts and culture higher education.

3.9.6 In regard to higher education, many nations have followed a policy of aiming for higher participation rates in higher education. In Portugal the Panel was told that demand for places in the creative arts and design outstrips the number of places available. Institutions the Panel spoke to claimed they had more high quality applicants than they had available places. This would suggest that more offers could be accommodated. There were other cases where the duplication of courses showed up in very small student enrolment in smaller centres of the country, notwithstanding high scale of demand globally. As noted earlier, these situations call for consolidation of demand to reach critical mass.

3.9.7 In the area of research, the Panel has noted the capacity constraint. That A&C sector achieves a significantly higher level of success rates in application for research grants and that a greater proportion of research centres reach high rating than centres in other disciplines, suggest that the limited scale of research support is not because of a lack of quality of research but more due to the limited number of applications for support. This report has suggested ways in which the support can be expanded.

3.9.8 The report has argued that while expanding the scale of arts and culture higher education in Portugal would require additional funding, many of the problems identified by the stakeholders require addressing institutional culture and behavioural patterns. These need

to be addressed at the sector level through co-operative institutional behaviour. The Panel believes that a critical weakness in developing an understanding of these problems, and of ways of addressing them, is the lack of mechanisms for developing sector-wide thinking. With its weak tradition of collaboration among institutions comes an absence of a collective voice at the institutional level to promote the sector. Portugal sorely lacks mechanisms for developing strategic direction for its arts and culture sector. Without such a concerted voice, the sector will be able to make a significant contribution to the development of national policy in arts and culture.

Recommendation

It is in view of these considerations that the Panel recommended in the preceding section that provider institutions should form a multi-purpose professional association. The many important objectives this association can pursue have been listed above. They amount to serving as a catalyst for improving the institutional culture as well the perception of arts and culture higher education by the Government and the public at large in support of higher scale and quality of arts and culture higher education. Towards this end, one of its main objectives would be to develop strategic directions for the arts and culture sector. In particular, the association should take the responsibility for identifying ways of advancing the role of arts and culture in the Portuguese society and for strengthening the links with the private sector. It should also assist member institutions in developing strategies for forming consortia to strengthening specialised education offer and a wider research base. They should strengthen international linkages arrangements strengthening international links in arts and culture education.

4   *Conclusions*

4.1   Retrospect and prospects: Framing the questions

4.1.1   Three lessons drawn from the history of A&C education in Europe and its recent trends have informed the Panel's work in its assessment of the current state and future prospects A&C higher education in Portugal.

4.1.2   First, in its modern history, A&C education developed out of strong links with trades, with making of goods, and with craftsmanship in the service of the nation, especially in contributing to international trade. Over the course of the last two centuries, the idea has come full circle, where A&C education is now valued not only for its own sake but also as a valuable resource for its contribution to innovation and growth in the economy and to the richness and the wellbeing of societies and nations. Europe has taken this idea in stride as reflected, for example, in the European Commission's study which came to the conclusion that "the culture sector is the engine of creativity and creativity is the basis for social and economic innovations". One of the criteria to assess the current Portuguese A&C situation would be to examine whether the potential of A&C is being harnessed and the sector is making its full contribution to the economic and cultural richness of the nation.

4.1.3   As a second historical factor of note, there is a long-standing pedagogical tension between A&C higher education and other higher education more generally, which has had pervasive effect in defining the role of A&C higher education, its content and structure, up to the present day, both internationally and in Portugal. Arts and culture education pioneered the pedagogical approach of learning by doing, which became the dominant paradigm in the early 20th century education in the practice-based disciplines (of the creative and performing arts and design). It was pedagogy of co-constructing knowledge, almost entirely based upon knowledge generated through the making of things. Pitted against this was the dominant pedagogical paradigm in much of higher education, fostered by the gathering momentum of industrialisation, which increasingly separated critical-thinking from skilled-making. With this emerged a tiered education system in which critical-thinkers (scholars) and skilled-makers (artisans) began to separate education from training, and theory from practice. This tension has had major implications for the structure of A&C provision, its content and status, and the resources devoted to it. A&C HE has suffered from a relatively lower status,

which is steeped in culture and practices of higher education institutions. The question to investigate is the degree to which the deleterious effects of this lingering tension still constrain A&C in Portugal and what can be done to overcome them.

4.1.4 The third major trend is a product of the post-industrial society, spurred on by the ICT revolution and the growing importance of the knowledge society, which has put the learner in the centre of the learning experience. The pedagogy of co-construction of learning, the emphasis placed on learning and not on the settings or the methods through which learning is acquired is taking the centre stage — knowledge construction takes precedence over knowledge transmission. This development is captured in the paradigm of lifelong learning and the learner-centred approach of the Bologna process is its one expression. These developments have caused international higher education to fundamentally re-examine its pedagogic principles, curricula designs and staff development programmes in preparation for the paradigm shifts that will accompany education in the 21st century. Is the Portuguese A&C education sector poised for seizing on these developments?

4.2 Features of the current A&C system and policy challenges

4.2.1 A brief overview of the A&C higher education reveals the following profile. The sector comprises approximately 19,500 students, in programmes that suggest a high level of diversity and a wide range of disciplines. Some 51 institutions – universities and polytechnics, public and private – offer 319 courses. The Universities offer the three cycles of the Bologna framework, i.e. BA, MA, Ph D, while the Polytechnics offer the first two cycles. Until recently, provision was concentrated in the two major urban centres, but the geographical spread has improved significantly in recent years. In regard to the financing of A&C education, while the allocation from the Government takes account of the cost factors it is not clear how close these are to being realistic, or whether the allocation decisions within the institutions follow the cost parameters. Funding of A&C research is rather limited, even though the number of research fellowships, projects and centres has expanded significantly in recent years. Moreover, there is no provision for funding practice-based research.

4.2.2 These features point to four problem areas, which have formed the focus of the Panel's exploration. First, the overall size of the sector is small and needs expansion. It is small comfort that relative to the size of the Portuguese HE system, the percentage share of A&C is not that small, when compared with other European nations; and that its relative share has expanded in recent years. But in terms of actual

numbers, the capacity of the A&C HE sector is small, especially at the PhD level. If the overarching consideration is not whether the size of the sector has grown in recent years but whether the capacity of the sector is well-poised to harness the opportunities offered by technological and knowledge society developments, then the sector has some ways to go. The limited capacity of the A&C sector does not equip the sector well to serve emerging needs and grasp the opportunity to make a fuller contribution to the development of a vibrant creative and cultural economy of the country. Its small size has left the arts and culture sector with low visibility and esteem within the HE sector in particular and the Portuguese society more generally. Second, a number of factors have combined to weaken the quality of teaching and learning in the A&C education, which is a critical factor in attracting new enrolments. Third, the A&C programme offers from the Universities are mainly based on historical, theoretical and critical pedagogies with little, if no, evidence of learning by doing through practice-based assignments. Finally, the research base in A&C education is tiny, even though of good quality, and support for practice-based research is close to being non-existent.

4.2.1 The Panel has explored ways of addressing these issues. The recommendations and their rationale have been described in greater detail in Section 3.1 through to Section 3.9. What follows is brief summary of the main points.

4.3 Expanding arts and culture education

4.3.1 The A&C sector has been expanding in recent years and this trend needs to be reinforced. Action is needed not only for expanding the supply of places but also of stimulating demand.

4.3.2 Two major concerns in regard to the demand for A&C higher education centre on the perception held by society of such education, and how young people are exposed to the benefits of such education. These issues have not been explored by the Panel as they lie outside its mandate, being the remit of other ministries. From what the Panel heard in regard to exposure to A&C education in the secondary school, it would seem that a review of how students at the secondary level are introduced to A&C studies and whether there is sufficient encouragement for them to pursue such studies later in life could be fruitful. A particular issue is the availability and qualifications of A&C teachers at the secondary levels. What is of relevance to the A&C higher education sector is the degree requirement for teachers of A&C at the secondary level and whether the HE sector has the required capacity to produce these qualifications in the required number.

4.3.3   Relaxing the supply constraint and building capacity involves action in many areas: capacity at the PhD level; research in A&C; teaching careers; quality of teaching and learning processes; and structure of provision are the factors to consider. These are taken up below.

Restructuring A&C qualifications

4.3.4   The biggest constraint on the growth of the A&C higher education sector remains the small size of the cohort with the highest level of qualification. The number of new PhD enrolments is very small. The research centres even though they are performing well are extremely small. Removing this constraint is the key for building greater capacity for arts and culture education at lower levels.

4.3.5   One area where this constraint can be removed is the practice-based PH D's. Even though Portugal has few formal restrictions on offering practice-based PhD's in the legislation but the interpretation in practice is biased towards traditional view of qualifications and pedagogies.

- The Panel recommends that the legislation could play a more proactive role in facilitating practice-based research. The wording of the current legislation should be re-examined with this objective in mind. While not suggesting definitive wording for this purpose, words such as the following could be considered: "PhD degrees are given on the basis of a body of work (either through publication, exhibition, composition or performance) that displays the originality and rigour expected of a research degree in any field".

- Furthermore, consideration should be given to award a PhD by Publication. Artists, designers or performers should be given the option to use an existing body of published creative work as part fulfilment of a PhD.

4.3.6   At the time of writing, it is understood by the Panel that the Government has introduced a decree law to facilitate the granting of practice-based Ph D's and Ph D's by publication, which is a very welcome development.

- The institutional and pedagogical framework to support the two types of qualifications is lacking in the country. Steps should be taken to develop the requisite knowledge base at the institutional level for identifying and assessing the quality of practice-based research in A&C. As mentioned in other sections of this report it is recommended that such developmental work should be undertaken through a national centre for practice-based research in arts and

culture and that this feeds into the development of supervisory and examination requirements for PhD's.

Attracting and developing effective teachers

4.3.7 Adopting the above recommendations on PhD qualifications should go some way in redressing the problems currently constraining teaching quality. In addition, steps should be taken to:

- Broaden the appointment and promotion procedures, at the institutional level, to admit a range of evidence, beyond a graduate or research degree, for demonstrating academic and professional standing. The criteria for evaluating such evidence in the practice-based areas should be more clearly articulated. Such measures should ensure that all scholars and practitioners in A&C have equal opportunity to establish and develop their careers in higher education with or without a PhD.

- The formation of a national professional association for A&C higher education, recommended elsewhere in this report, should have this additional objective of helping to articulate and foster changes in the institutional culture regarding recruitment and promotion practices for A&C teachers.

Improving teaching and learning processes

4.3.8 The Panel's recommendations in this area are directed mainly at the recently formed Higher Education Evaluation and Accreditation Agency (A3ES). It is recommended that A3ES strengthens the evaluation aspect of its remit in the area of arts and culture education to include procedures such as:

- Periodic assessment of the quality assurance processes within institutions;
- Requirement of establishing quality enhancement through staff development schemes;
- Provision of accreditation frameworks for (new) teachers in HE (such as, for example, the Netherlands BKO-system and the UK Higher education Academy); and
- Provision of accreditation frameworks and implementation models for teachers at lower levels of education (for example, Master's degree holders could obtain a license to teach provided they have some courses in professional educational development).

A3ES has started functioning only as of 1 July 2009. It is possible that its plans already take account of the recommendations made here but the Panel considers it important to articulate them.

Supporting quality research

4.3.9 Practice-based research in the creative and performing arts and design has the potential to stimulate the creative and cultural economy nationally. This capacity is in its early stages of evolution in most countries but it is especially weak in Portugal. To help build capacity and evolve the best of international standards in practice-based research, the Panel recommends that:

- The FCT takes initiatives within its own funded programmes that are specifically intended to stimulate and guide the development of practice-based research in arts and culture by identifying a peer review panel specifically convened to assess all such proposals and that it is made up of experts in this field.

- A National Centre for Practice-based Research in Arts and Culture is established on the initiative of HEI's, funded on a competitive basis by FCT, with the aim of undertaking capacity building activities on behalf of the sector as a whole, with the greatest dissemination of good practices. The objectives of the Centre have been described in some detail in Section 3.6 above.

- That the FCT and Ministry consider a system for the matched-funding of research grants won from Charities and Foundations and so help to stimulate the leveraging of more grant income from these sources.

Promoting effective and efficient provision

4.3.10 The Panel noted that co-operation and collaboration among HEI's providing A&C education is very weak. There is a need for an institutional arrangement to foster such co-operation. While there are many academic and professional associations in Portugal, there is as yet no professional association representing the A&C sector as a whole. Such associations can play a vital role in addressing many sector-wide issues such as achieving joint policy positions, establishing joint decision making on strategic planning, representing joint concerns, developing shared good practices and in making the sector "more visible". The Government also gets to deal with a competent partner having one voice. Section 3.6 above describes a number of objectives the association could pursue.

- The higher educations institutions providing arts and culture education in the country should, with the support of Government, establish a national professional association with multiple objectives. The association would be an independent organisation, owned and operated by the institutions under their own rules, representing the interests of the sector as a whole.

- An important objective of the association would be strategic planning of the A&C programmes at HEI´s, in order to avoid duplication and promote specialisation and joint programmes.

- The sector-wide association can promote consortium arrangements among interested provider institutions for example to avoid unjustified duplication of offers or for pooling demand where student interest is limited for individual institutions but is significant overall. Establishing such consortia would require financial support from Government and the tool of development or performance contracts can be used by Government to direct such support. The professional association could be the initiator of negotiations between interested institutions and the Government.

- A final objective of the proposed association would be to play a role in fostering internationalisation of Portuguese HE in the area of art and culture – especially with regard to raising the influx of foreign students. This could be done by providing incentives and support for developing (consortium) courses taught in English, by jointly promoting Portuguese arts and culture higher education abroad (where possible through the already existing channels and programmes), by removing the cap on the numbers of international students that institutions may recruit and by the exchange of best practices.

Strengthening links with economy and society

4.3.11 A central point made in this report is the importance of recognising A&C HE potential to contribute to the economy and society. There is growing world interest in the contribution that arts and culture make to national prosperity, cultural identity economic regeneration and social and environmental well-being. This has resulted in systematic national programmes aimed at stimulating the creative and cultural economies. Higher Education is the seed-bed of a creative and cultural economy. A vibrant cultural economy needs both producers and consumers. On the one hand education trains the nation's cultural producers. On the other hand it educates a discerning community that will go on to be its cultural consumers of the future. There is, as well, a two-way link between Arts and Culture in society and the private

sector. Universities and polytechnics, beyond their mission to educate, are significant employers and so make a significant contribution to the economy of the local and regional communities that surround them. The institutions of art, design and performing arts are also essential catalysts in the regeneration of local communities. They create "cultural quarters" that energise local communities, build civic pride and stimulate business. They can also help to sustain and innovate local skills and industries. These links can have a cross-border dimension as well.

4.3.12 Although little concrete data are available, a common feeling encountered by the panel was that higher education was not fully contributing to the cultural, economic and social well-being of Portuguese society. In discussions with stakeholders the Panel heard of a number of barriers that limited the fruitful two-way relationship between A&C HE and the economy and society. There were several dimensions to this view: A&C's contribution to both industry and society is weak; enrolment in and access to AC higher education is not high; innovation is lagging as the contribution of new technologies is not being explored; there were too many barriers inhibiting movement between the private sector and education, between university and industry, between cultural practitioners and university professors, with insufficient incentives to stimulate greater cross-over and collaboration. There is limited to no funding deriving from collaboration with the private sector. Even in meeting the demand for places, the A&C sector appears not to be offering adequate supply, as the Panel was told that the demand for places in the creative arts and design routinely outstrips the number of places available.

4.3.13 Many of the steps to promote culture in Portugal and its links with the wider society fall outside the remit of this Panel, and will not be taken up here. A variety of steps have been taken by various governments to strengthen the direct relationship between A&C HE and the industry. These include:

- Setting aside initiative funding to stimulate and reward HE collaborations with private enterprise and promote knowledge transfer;

- Using research in HE institutions to create economic value through several organizational and administrative forms such as mono-thematic university consortiums, university foundations, and spin off companies.

Providing strategic guidance for the sector

4.3.14 One of the constant themes that came up in the Panel's meetings with the stakeholders was the feeling of a sector that was fragmented and directionless. There was marked absence of collaboration among the providers even though there were many sector-wide concerns that all felt. It is in view of these considerations that the Panel recommended in the preceding sections that provider institutions should form a multi-purpose professional association. The many important objectives this association can pursue have been detailed above. They amount to serving as a catalyst for improving the institutional culture as well as the perception and profile of arts and culture higher education by the Government and the public at large. Towards this end, one of the main objectives of the association would be to develop strategic directions for the arts and culture sector. In particular, the association should take the responsibility for identifying ways of advancing the role of arts and culture in the Portuguese society and for strengthening the links with the private sector. It should also assist member institutions in developing strategies for forming consortia to strengthen specialised education offers and a wider research base. It should furthermore promote international links in arts and culture education.

5 *Key References*

Publications

General

Association Européenne des Conservatoires Académies de Musique et Musikhochschulen (AEC) (2007): *Quality Assurance and Accreditation in Higher Music Education: Characteristics, Criteria and Procedures*; 46 p. (http://www.bologna-and-music.org/home.asp?id=1704&lang=en)

KEA European Affairs: (2006): *The Economy of Culture in Europe. Study prepared for the European Commission*, 13 p. (http://www.bologna-and-music.org/home.asp?id=1704&lang=en)

OECD (2007): *Education at a glance,* 2007.

OECD (2008): *Education at a glance,* 2008, 524 p (http://browse.oecdbookshop.org/oecd/pdfs/browseit/9608041E.PDF)

Şuteu, Corina (2006), *Another brick in the wall. A critical review of arts management education in Europe. Boekmanstudies,* Amsterdam, 160 p. (ISBN 90-6650-084-0)

Legislations

Law No. 62/2007, of 10 September, *The Legal Framework of Higher Education Institutions*.

Law No. 74/2006, of 24 March.

Statistics

Fundação para a Ciencia e a Tecnologia (FCT) (2009): *Statistical Information Arts & Humanities*, 29 p. (given to the Panel at 22.1.2009).

Fundação para a Ciencia e a Tecnologia (FCT) (2009): *Indices de Custo 2009 por Áreas de Formação*, 2p. (given to the Panel at 22.1.2009).

Gabinete de Planeamento, Estratégia, Acaliação e Relacoes Internacionais (GPEARI) (2009): *Arts Higher Education in Portugal* – Main figures. (given to the Panel at 19.1.2009)

Others

Hasan, Abrar (2007): *Independent Legal Status and Universities as Foundations.* A paper prepared for Ministry of Science, Technology and Higher Education, Government of Portugal.

OECD (2007): *Reviews of National Policies for Education. Tertiary Education in Portugal*, 168 p.

OECD (2008): *Reviews of National Policies for Education. Follow-up to the Review of Tertiary Education in Portugal*: Progress Report, EDU/EDPC(2008) 38, prepared by the Portuguese Ministry of Science, Technology and Higher Education, 20 p.+75 P. Appendix

Useful Links

General   Australian Learning and Teaching Council. www.altc.edu.au/carrick/go

-    Carnegie Foundation for the Advancement of Teaching. http://www.carnegiefoundation.org/

CUMULUS International Association of University and Colleges of Art, Design and Media. www.cumulusassociation.org/

-    Martin Prosperity Institute at the University of Toronto. www.martinprosperity.org/research-and-publications

-    Eurybase—The database on education systems in Europe (with separate chapters on tertiary education in the European countries (specifically used by the committee: Germany, Italy, Netherlands, Portugal, UK). http://eacea.ec.europa.eu/portal/page/portal/Eurydice/EuryPresentation

Government of Portugal, Legal Framework of Higher Education Institutions 2007 (RJIES).

-    **Statistics**   Eurostat: Online Databases

Tertiary Education Participation: http://nui.epp.eurostat.ec.europa.eu/nui/show.do?dataset=educ_itertp&lang=en

Tertiary Education graduates: http://nui.epp.eurostat.ec.europa.eu/nui/show.do?dataset=educ_itertc&lang=en

Expenditure on Education as % of GDP or public expenditure http://nui.epp.eurostat.ec.europa.eu/nui/show.do?dataset=educ_figdp&lang=en

Funding of Education http://nui.epp.eurostat.ec.europa.eu/nui/show.do?dataset=educ_fifunds&lang=en

Statistics OECD: Online Education Databases

www.oecd.org/document/54/0,3343,en_2649_39263238_38082166_1_1_1_37455,00.html

www.oecd.org/document/54/0,3343,en_2649_39263238_38082166_1_1_1_1,00.html

www.oecd.org/education/database

Germany Statistisches Bundesamt / Destatis, www.destatis.de (only german available).

\- Standing Conference of Ministers of Education and Cultural Affairs of the States in the Federal Republic of Germany (KMK), www.kmk.org (english available).

Germans Rectors Conference (HRK), www.hrk.de (english available).

German Research Foundation (DFG), www.dfg.de (english available).

Accreditation Council (Akkreditierungsrat), www.akkreditierungsrat.de (english available).

Internet portal: 23 Higher Education Institutions of Music in Germany with their profiles. www.academics.com/science/universities_of_music_32855.html;jsessionid=fdc-eqsodpq7ov1

Italy Conferenza dei Presidi di Design. http://www.web.ing.unipi.it/docenti/conferenza_presidi/conferenza_presidi

Consilgio Nazionale per l'altaeducazione Artistica e Musicale www.cnam.it

Consiglio Universitario Nazionale www.cun.it

Ministero dell'Università e della Ricerca (MiUR) http://www.miur.it/DefaultDesktop.aspx

The Netherlands	Accreditation Organization of the Netherlands and Flanders. www.nvao.nl
	Association of Universities in the Netherlands http://english.vsnu.nl/web/show/id=87838/langid=42
	Boekman Foundation www.boekman.nl/EN/index.html
	Ministry of Education, Culture and Science http://www.minocw.nl/english/index.html
	Netherlands Association of Universities of Applied Sciences www.hbo-raad.nl/english
	NUFFIC Netherlands organisation for international cooperation in higher education (NUFFIC)
	The Netherlands Organisation for Scientific Research (NWO) http://www.nwo.nl/nwohome.nsf/pages/SPPD_5R2QE7_Eng
United Kingdom	The Arts and Humanities Research Council. www.ahrc.ac.uk
-	CHEAD: The Council for Higher Education in Art and Design. http://www.chead.ac.uk/
	Higher Education Academy www.heacademy.ac.uk/
	Quality Assurance Agency www.qaa.ac.uk/
	National Student Satisfaction Survey (NSSS) http://education.guardian.co.uk/students/tables/0,,1574395,00.html
	Research Assessment Exercise 2008. http://www.rae.ac.uk/
	Subject Centre, Art/Design/Media. http://www.adm.heacademy.ac.uk/

APPENDIX A
PANEL OF EXPERTS

Dr. Abrar Hasan was the Head of Education Policy Division, Directorate for Education, OECD, until 2007. He has worked with the OECD in several capacities including as the Head of Central Policy Analysis in the Directorate of Employment, Labour and Social Affairs. Prior to joining the OECD, Dr. Hasan was Senior Analyst with the Economic Council of Canada. He is currently authoring a book on comparative international education policy for Springer publications and is serving as consultant to several governments and international organisations.

Ulrike Blumenreich is Researcher with Institut fur Kulturpolitik der Kulturpolitischen Gesellschaft in Germany. She has done graduate studies in Applied Cultural Sciences at the Universities of Lüneburg (Germany) and Växjö (Sweden) and has conducted research in the fields of cultural policy. She is currently leading a project on behalf of Federal Ministry for Education and Science Germany on higher education in culture and the academic labour market, and has previously co-ordinated projects on behalf of federal ministries and ministries of the German states. She is the author /editor of several publications on such topics as cultural policy, culture and the labour market, socio cultural centres and cultural volunteering. Previously, she was Scientific Research Assistant at the Institute for Cultural Policy with the Association of Cultural Policy (IfK) in Bonn and has taught at Higher Education Institutions and Academies, including at the University of Music and Theatre in Hamburg.

Professor Bruce Brown – Educated in graphic design at the Royal College of Art (London) Professor Bruce Brown is currently Pro-Vice-Chancellor (Research) at the University of Brighton with responsibility for research in all disciplines across the arts and sciences. For twenty years prior to this he was Dean of the Faculty of Arts and Architecture in Brighton which is regarded as one of the UK's premier research centres. Most recently he was chosen as one of fifteen "distinguished academics" to chair the UK wide 2008 Research Assessment Exercise with responsibility for the arts and humanities. He is currently involved in the Funding Council's expert group developing the future Research Excellence Framework. He was a founding member of the UK Arts and Humanities Research Board's post-graduate panel for Visual Arts and has served on the executive committee of the UK Council for Graduate Education (2000-2004). Since 1991 he has been a member of the Hong Kong Council for Academic Accreditation chairing many events in the territory. Other advisory roles concerned with research in the arts and humanities have included the Qatar National Research Foundation, Riksbanken Jubileumsfond in Stockholm, the Flemish Ministry of Education and individual organisations such as the Canadian Association of Fine Arts Deans, Universität für angewandte Kunst Wien, Artesis Hogeschool Antwerpen and Universiteit Gent. He presently is a member of the governing bodies of the University of Brighton and Shenkar College of Engineering and Design in Tel Aviv, Israel, is an Honorary Fellow of the Royal College of Art and a Fellow of the Royal Society of Arts in London. Also he is an editor of Design Issues research journal published by MIT press. Before joining Higher Education he worked as a designer for the Scottish Film Council, was Art Director of CRAFTS magazine and undertook many other professional commissions. His past research

included work in Peru on the design methods of Pre-Columbian civilisations and, currently, his research on Visual Memory has been presented through papers and keynote lectures in, for example, Bergen, Chicago, Lisbon, Nagoya, Tallin, Toronto, Tel Aviv and Warsaw.

Dr. Peter G.F. Eversmann is associate professor at the Department of Theatre Studies of the University of Amsterdam where he teaches and has published on the theory and history of theatre architecture as well as on empirical audience and reception research. Since 2005 he is also director of the School of Art, Religion and Cultural Studies of the University of Amsterdam – comprising the departments of: History of Art, Cultural Studies, Conservation & Restoration, Theatre Studies, Musicology and Religious Studies. Dr. Eversmann has experience in management that include being on the board of the VDO (Dutch association for dance research) and being vice-president of the International Federation for Theatre Research (FIRT-IFTR) from 2003-2007.   He studied a year at Wittenberg University, Ohio, USA and after that completed his studies in History of Art and in Theatre at the University of Amsterdam in 1982. His dissertation *De ruimte van het theater* (The Space of the Theatre) was defended in 1996.

Francesco Zurlo has a Ph D in industrial design and is Associate Professor in Industrial Design at Politecnico di Milano. He is Director of the International Master in Strategic Design of Politecnico di Milano and previously was director of POLI.Design Consortium, a no-profit organisation operating in the applied research and specialised education in the design fields from 2004 to 2009. He is director of the UdRD (research and didactic unit of INDACO department, Politecnico di Milano) Design Strategy. He teaches regularly at International Master of Unisinos (Porto Alegre – Brazil), of Architecture Faculty of Valparaiso (Chile), of Lantao & CIID (Beijing - China). He has worked as design consultant for many global companies. He is author of numerous international publications on strategic design.

International Assessment of Arts Higher Education in Portugal

International panel visit to Portugal

18 to 23 January 2009

SUNDAY - 18 January: *Arrival at Lisbon*

Preparatory meeting of the Panel at the hotel followed by a working dinner

MONDAY - 19 January: *Lisbon*

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

11.30 am – Meeting (with Lunch) at the FCSH/UNL – New University of Lisbon

2.30 pm – Meeting at the School of Fine Arts – University of Lisbon

5.30 pm – Meeting at the IADE – Institute of Visual Arts, Design and Marketing

7.30 pm – Return to Hotel

TUESDAY - 20 January: *Lisbon, Porto*

9.00 am – Meeting at the School of Music - Polytechnic of Lisbon (also with School of Cinema)

12.00 pm – Meeting (with Lunch) at the School of Decorative Arts - RES Foundation

Trip to Oporto by plane: Departure at 15.20pm from Lisbon Airport, arrival at 16.15pm in Oporto)

6.00 pm -– Meeting (with Dinner) at the Faculty of Fine Arts - University of Porto

9.30 pm – "Round Table – Arts Education: Where we are? Where to go?", Porto (with artists, researchers, teachers, students). Coordination by Heitor Alvelos.

11.00 pm – Return to Hotel in Porto

WEDNESDAY – 21 January: *Porto, Aveiro*

9.00 am – Meeting at School of Music and Performing Arts - Polytechnic of Porto

12.30 pm – Meeting (with lunch) at School of Arts (Porto) - Catholic University

3.30 pm – Meeting at Oporto's School of Arts – ESAP (Private)

Trip to Aveiro (45 minutes from Porto)

6.30 pm – Meeting at the University of Aveiro and dinner

Trip to Caldas da Rainha (1,5 hour from Aveiro)
Check-Inn at Hotel (Caldas da Rainha)

THURSDAY – 22 January: *Caldas da Rainha, Lisbon*

9.00 am – Meeting at School of Arts and Design at Caldas da Rainha - Polytechnic of Leiria

11.15 am - Trip to Lisbon

12.00 pm – Meeting (with lunch) at Faculty of Architecture – Technical University of Lisbon

3.00 pm – Meeting with University of Algarve, at the hotel

4.30 pm - Meeting with "CoLAB – Collaboratory of Emerging Technologies" from the UT Austin-Portugal Partnership Program in the area of Digital Media, at the hotel

6.00 pm - Meeting at the School of Dance - Polytechnic of Lisbon

7.30 pm – Working Dinner with Director General for Higher Education, DGES

FRIDAY – 23 January: Lisbon

9.00 am – Panel working meeting at the hotel – preparation of the report

3.00 pm – Meeting at the Ministry of Science, Technology and Higher Education (MCTES)

4.00 pm – Closure

APPENDIX C

SUBMISSIONS RECEIVED FROM HIGHER EDUCATION INSTITUTIONS

1. Escola Superior de Artes Decorativas (ESAD) from Fundação Ricardo do Espírito Santo Silva
2. Escola Superior de Música e das Artes do Espectáculo (ESMAE) from Instituto Politécnico do Porto
3. Escola Superior de Teatro e Cinema (ESTC) from Instituto Politécnico de Lisboa
4. IADE Design School
5. Instituto Politécnico de Leiria
6. Instituto Politécnico de Lisboa
7. Universidade de Lisboa

Table 1:

Evolução das bolsas de doutoramento e pós-doutoramento concedidas nas áreas das Artes e da Arquitectura, 1994-2007					
	Artes e Arquitectura			**Outras áreas científicas**	**% Artes e Arquitectura**
Ano de candidatura	**BD**	**BPD**	**BD e BPD**		
1994	15		15	1002	1%
1995	9		9	587	2%
1996	13	1	14	697	2%
1997	15		15	731	2%
1998	32		32	884	3%
1999	28	2	30	856	3%
2000	35	3	38	1011	4%
2001	29	1	30	1061	3%
2002	29	3	32	1154	3%
2003	30	5	35	951	4%
2004	52	10	62	1763	3%
2005	74	4	78	1419	5%
2006	99	18	117	2341	5%
2007	129	23	152	2526	6%
2008(*)	141	15	156	2050	7%
(*) Em 2008 foram consideradas as candidaturas aprovadas, já que o valor das bolsas concedidas ainda não está consolidado.					

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.
(CFT Table 1):

Table 2:

Bolsas de doutoramento em execução por domínio científico, 2008				
Domínio científico	**Financiamento**		**Nº de bolsas em execução**	
1.a Ciências Exactas	9.870.214 €	10,6%	744	11,0%
1.b Ciências Naturais	18.359.108 €	19,7%	1117	16,6%
2. Ciências da Engenharia e Tecnologias	18.351.032 €	19,7%	1498	22,2%
3. Ciências Médicas e da Saúde	13.517.036 €	14,5%	826	12,3%
4. Ciências Agrárias	3.494.497 €	3,7%	281	4,2%
5. Ciências Sociais	18.021.031 €	19,3%	1385	20,6%
6. Humanidades	11.734.043 €	12,6%	885	13,1%
Total	**93.346.961 €**	100,0%	**6736**	100,0%

Bolsas de doutoramento em execução na área das Humanidades, 2008				
Domínio científico	**Financiamento**		**Nº de bolsas em execução**	
Arquitectura, Urbanismo e Design	**2.318.230 €**	**5,31%**	**172**	**5,5%**
Estudos Artísticos	**2.642.196 €**		**198**	
Outras Humanidades	6.773.616 €	7,3%	515	7,6%
Total	**11.734.043 €**	12,6%	**885**	13,1%

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.
(CFT Table 3)

Table 3:

Bolsas de pós-doutoramento em execução por domínio científico, 2008				
Domínio científico	**Financiamento**		**Nº de bolsas em execução**	
1.a Ciências Exactas	5.189.350 €	18,7%	371	19,3%
1.b Ciências Naturais	7.217.816 €	26,0%	483	25,1%
2. Ciências da Engenharia e Tecnologias	4.021.509 €	14,5%	305	15,8%
3. Ciências Médicas e da Saúde	3.710.016 €	13,4%	252	13,1%
4. Ciências Agrárias	1.509.802 €	5,4%	104	5,4%
5. Ciências Sociais	3.076.007 €	11,1%	210	10,9%
6. Humanidades	3.045.228 €	11,0%	200	10,4%
Total	**27.769.727 €**	100,0%	**1925**	100,0%

Bolsas de pós-doutoramento em execução na área das Humanidades, 2008				
Domínio científico	**Financiamento**		**Nº de bolsas em execução**	
Arquitectura, Urbanismo e Design	**73.983 €**	**2,4%**	**8**	**2,4%**
Estudos Artísticos	**581.788 €**		**39**	
Outras Humanidades	2.389.457 €	8,6%	153	7,9%
Total	**3.045.228 €**	11,0%	**200**	10,4%

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.
(CFT Table 4)

Table 4:

Concursos Bolsas de Doutoramento									
	Submetidas	Concedidas	Taxa de sucesso	Submetidas	Concedidas	Taxa de sucesso	Submetidas	Concedidas	Taxa de sucesso
	2006			2007			2008		
Arquitectura, Urbanismo e Design	95	43	45%	110	53	48%	113	46	41%
Estudos Artísticos	100	63	63%	115	68	59%	129	95	74%
Total	3424	1781	52%	3731	1831	49%	3443	1679	49%

 AP e recursos incluídos em 2006

Concursos Bolsas de Pós-Doutoramento									
	Submetidas	Concedidas	Taxa de sucesso	Submetidas	Concedidas	Taxa de sucesso	Submetidas	Concedidas	Taxa de sucesso
	2006			2007			2008		
Arquitectura, Urbanismo e Design	6	3	50%	9	5	56%	6	2	33%
Estudos Artísticos	15	11	73%	17	16	94%	16	13	81%
Total	1113	737	66%	927	531	57%	1021	527	52%

 AP e recursos incluídos em 2006

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.
(CFT Table 5)

Table 5:

Unidades de I&D, 2008 Estudos Artísticos e Arquitectura		
área científica	**Financiamentos**	**Unidades financiadas**
Estudos Artísticos e Arquitectura	679.803 €	11
Outras áreas científicas	40.005.797 €	323
Total	**40.685.600 €**	

Unidades de I&D, 2003 Estudos Artísticos e Arquitectura		
área científica	**Financiamentos**	**Unidades financiadas**
Estudos Artísticos e Arquitectura	47.037 €	4
Outras áreas científicas	9.813.099 €	270
Total	**9.860.135 €**	

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.

Table 6:

Financiamento às Unidades de I&D por domínio científico, 2008*						
Domínio científico	**Financiamento**			**Nº de Unidades financiadas**		
1.a Ciências Exactas	8.076.615 €	19,9%		53	15,9%	
1.b Ciências Naturais	3.754.065 €	9,2%		30	9,0%	
2. Ciências da Engenharia e Tecnologias	7.246.998 €	17,8%		58	17,4%	
3. Ciências Médicas e da Saúde	3.609.142 €	8,9%		32	9,6%	
4. Ciências Agrárias	2.759.866 €	6,8%		20	6,0%	
5. Ciências Sociais	8.297.732 €	20,4%		74	22,2%	
6. Humanidades · **Estudos Artísticos**	**679.803 €**	1,7%	17,1%	**11**	3,3%	20,1%
Outras Humanidades	6.261.379 €	15,4%		56	16,8%	
Total	**40.685.600 €**	100,0%		**334**	100,0%	

* Excluindo Laboratórios Associados

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.

Table 7a:

	Universo 2000	Código	2000-2002	2003	2004		2005	2006	2007	2008		Código	Universo 2008	
					Unidades de I&D - Estudos Artísticos e Arquitectura Financiamento - 2000-2008									
1	Centro de História da Arte	112	160.757,03 €	22.495,78	80.504,22		50.259,31	28.690,69	119.425,00	91.749,97 €		112	Centro de História da Arte e Investigação Artística	1
2	Centro de Estudos de Arquitectura e Urbanismo	145	83.166,24 €	10.225,35	36.943,62		0,00	0,00	196.843,53	73.912,50 €		145	Centro de Estudos de Arquitectura e Urbanismo	2
3	Centro de Estudos de Teatro	279	108.721,33 €	10.225,36	55.607,97		33.284,72	16.431,95	38.250,00	72.450,00 €		279	Centro de Estudos de Teatro	3
4	Instituto de História da Arte	417	31.812,23 €	0,00	31.910,12		15.339,88	6.997,50	15.592,50	59.977,77 €		417	Instituto de História da Arte	4
5	Instituto de Etnomusicologia	472	16.360,57 €	4.090,15	42.221,36		27.283,56	18.506,25	15.785,30	95.983,45 €		472	Instituto de Etnomusicologia	5
6	Centro de Estudos de Arquitectura	523	47.547,91 €	0,00	9.583,88		11.284,87	3.956,25	5.118,75	4.500,00 €		523	Centro de Estudos de Arquitectura	6
				0,00	16.200,00		10.530,00	8.505,00	24.300,00	63.315,00 €		622	Centro de Investigação em Ciências e Tecnologias das Artes	7
				0,00	18.234,35		10.385,65	5.400,00	9.450,00	17.280,00 €		648	Centro de Estudos de Arquitectura Paisagista - Professor Caldeira Cabral	8
				0,00	32.978,52		33.846,48	29.872,50	58.725,00	122.002,50 €		693	Centro de Estudos de Sociologia e Estética Musical	9
				0,00	11.518,76		18.406,24	4.444,00	20.250,00	34.818,50 €		711	Unidade de Investigação em Design e Comunicação - UNIDCOM/IADE	10
				0,00	14.175,00		9.213,75	11.773,41	26.325,00	43.812,84 €		729	Vidro e Cerâmica para as Artes	11
			448.365,32 €	47.036,64 €	349.877,80 €	b)	219.834,46 €	134.577,55 €	530.065,08 €	679.802,53 €	b)		Total (A)	
			0,5%	0,3%	0,6%		0,4%	0,4%	0,7%	0,8%			Unidades Estudos Artísticos e Arquitectura / Todas as unidades (A/B)	
			94.109.425,14 €	17.582.744,60 €	56.477.627,31 €	b)	56.074.224,54 €	35.946.758,03 €	75.602.217,91 €	89.031.621,67 €	b)		Todas as instituições financiadas pela FCT - incluindo LAs (B)	

a) Valores actualmente em actualização

b) Em 2004 e 2008 foram pagas dívidas consideráveis de, respectivamente, 2003 e 2006.

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.

Table 7b:

		Unidades de I&D Estudos Artísticos e Arquitectura Orçamento 2009				
		Universo 2009	Valores orçamentados para 2009	Avaliação 1999	Avaliação 2003	Avaliação 2007
1	112	Centro de História da Arte e Investigação Artística - CHAIA	80.437,50	Excellent	Excellent	Very Good
2	145	Centro de Estudos de Arquitectura e Urbanismo	61.875,00	Excellent	Very Good	Very Good
3	279	Centro de Estudos de Teatro	45.375,00	Excellent	Excellent	Very Good
4	417	Instituto de História da Arte	57.750,00	Good	Good	Very Good
5	472	Instituto de Etnomusicologia	94.875,00	Very Good	Good	Very Good
	523	(Não se candidatou à avaliação de 2007)		Fair	Fair	
6	622	Centro de Investigação em Ciências e Tecnologias das Artes	86.625,00		Good	Very Good
7	648	Centro de Estudos de Arquitectura Paisagista - Professor Caldeira Cabral	12.375,00		Good	Very Good
8	693	Centro de Estudos de Sociologia e Estética Musical	86.625,00		Very Good	Very Good
9	711	Unidade de Investigação em Design e Comunicação - UNIDCOM/IADE	74.250,00		Fair	Very Good
10	729	Vidro e Cerâmica para as Artes	28.875,00		Very Good	Very Good
11	4026	Centro de Investigação em Território, Arquitectura e Design	119.625,00			Very Good
12	4008	Centro de Investigação em Arquitectura Urbanismo e Design	165.000,00			Excellent
13	4019	Centro de Investigação em Artes e Comunicação - CIAC	82.500,00			Excellent
14	4042	Artistic Studies Research Centre	57.750,00			Good
15	4041	Centro de Estudos Arnaldo Araújo (CEAA)	16.500,00			Good
16	4001	Unidade de Investigação em Música e Musicologia - UnIMeM	41.250,00			Good
17	4057	ID+ (Instituto de Investigação em Design, Media e Cultura)	66.000,00			Very Good
		Total (A)	1.177.687,50 €			
		(A) / (B)	**1,6%**			
		Todas as instituições financiadas pela FCT - incluindo LAs (B)	74.932.185,00 €			

* Valores provisórios (valores usados para o cálculo do financiamento do 1º semestre de 2009)

Table 8:

Candidaturas Projectos
Arquitectura e Estudos Artísticos

	Candidaturas	Projectos Aprovados	Taxa Aprovação
2002	6	6	1
2004	52	28	0,54
2006	81	17	0,21
2008	140		

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.

Table 10: Enrolment in the Art and total enrolment in Portugal compared to benchmark countries in 1998, 2002, 2006

10a) ISCED 5 A

	1998			2002			2006		
	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE
GE[1]	59985	1785938	3,36	81539	1835558	4,44	81325	1953504	4,16
IT	28622	1823210	1,57	54416	1805315	3,01	100528	1976850	5,09
NL	19023	455230	4,18	21072	503591	4,18	25011	572147	4,37
UK	92264	1279679	7,21	155610	1444685	10,77	131880	1730046	7,62
EU27	304273 (s)[2]	10531922 (s)	2,89	496188 (s)	12761074 (s)	3,89	626321	15745574	3,98
PT	5076	259544	1,96	12801	373774	3,42	15691	342567	4,58

Source: Eurostat

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[1] GE = Germany, IT = Italy, NL = Netherlands, UK = United Kingdom, EU27 = the 27 member states of the European Union, PT = Portugal
[2] s = estimated

10b) ISCED 5 B

	1998			2002			2006		
	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE
GE	2849	311756	0,91	2277	324150	0,70	2322	335961	0,69
IT	14480	33503	43,22	n.a.[3]	n.a.	n.a.	n.a.	n.a.	n.a.
NL	0	6144	0,00	0	7252	0,00	n.a.	n.a.	n.a.
UK	25341	588426	4,31	48519	710923	6,82	21831	511883	4,26
EU27	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	93398	2518322	3,71
PT	3817	77876	4,90	564	7109	7,93	298	4233	7,04

Source: Eurostat

10c) 1c) ISCED 6

	1998			2002			2006		
	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE	enrolment in Art	total enrolment in HE	percentage of enrolment in Art to total enrolment in the HE
GE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IT	0	12369	0,00	0	25998	0,00	647	38262	1,69
NL	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UK	1361	70318	1,94	2762	85073	3,25	2470	94180	2,62
EU27	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	13422 (s)	509058 (s)	2,64
PT	123	14364	0,86	331	12855	2,57	596	20512	2,91

Source: Eurostat

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[3] n.a. = not available

Table 11: Graduates in the Art

11a) ISCED 5 A D1

	1998			2002			2006		
	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE
GE	8661	188820	4,59	9471	176025	5,38	13424	267597	5,02
IT	1059	142828	0,74	3404	201019	1,69	12088	273451	4,42
NL	2747	72720	3,78	2947	75145	3,92	3987	94600	4,21
UK	n.a.	261753	n.a.	27884	279788	9,97	31330	315934	9,92
EU27	27445 (s)	1608107 (s)	1,71	77486 (s)	1984552 (s)	3,90	102459 (s)	2307709 (s)	4,44
PT	795	31814	2,50	2255	59191	3,81	2191	50666	4,32

Source: Eurostat

11b) ISCED 5 B Q1

	1998			2002			2006		
	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE
GE	992	108777	0,91	858	94057	0,91	805	104388	0,77
IT	2627	4891	53,71	3170	7287	43,50	n.a.	n.a.	n.a.
NL	n.a.	1763	n.a.	0	2365	0,00	n.a.	n.a.	n.a.
UK	n.a.	88436	n.a.	6080	126506	4,81	5904	126113	4,68
EU27	8655 (s)	475924 (s)	1,82	22454 (s)	580336 (s)	3,87	30667 (s)	699847 (s)	4,38
PT	784	12172	6,44	172	1916	8,98	1345	12762	10,54

Source: Eurostat

11c) ISCED 6

	1998			2002			2006		
	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE	graduates in Art	total graduates in HE	percentage of graduates in Art to total graduates in the HE
GE	280	24890	1,12	251	23838	1,05	310	24946	1,24
IT	0	3894	0,00	27	4456	0,61	n.a.	n.a.	n.a.
NL	0	2517	0,00	0	2556	0,00	n.a.	2993	n.a.
UK	n.a.	10994	n.a.	221	14232	1,55	319	16466	1,94
EU27	554 (s)	74924 (s)	0,74	1139 (s)	84456 (s)	1,35	1701 (s)	103956 (s)	1,64
PT	10	2492	0,40	83	2991	2,77	156	5342	2,92

Source: Eurostat

Table 12: PhD in the Art and total PhD in Portugal compared to benchmark countries in 2004, 2005, 2006

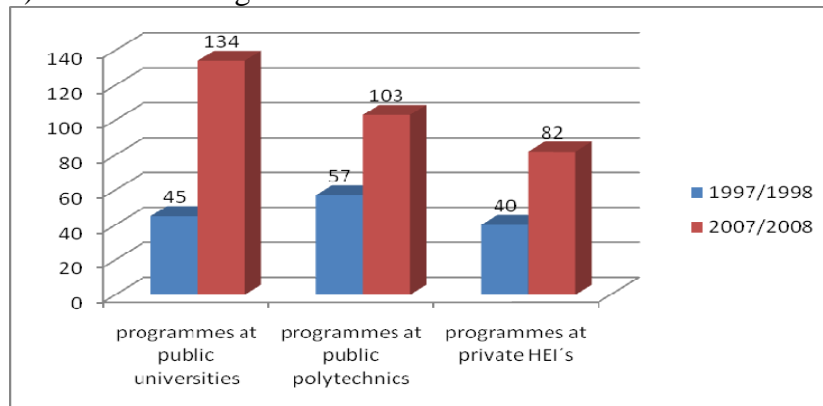|	2004			2005			2006		
	PhD in Art	total PhD	percentage of PhD in Art to total PhD	PhD in Art	total PhD	percentage of PhD in Art to total PhD	PhD in Art	total PhD	percentage of PhD in Art to total PhD
DE	244	23138	1,05	319	25952	1,23	310	24946	1,24
IT	125	8466	1,48	172	9604	1,79	n.a.	n.a.	n.a.
NL	0	2679	0,00	n.a.	2879	n.a.	n.a.	2993	n.a.
UK	245	15257	1,61	273	15778	1,73	319	16466	1,94
EU 27	1073	80122	1,34	1502	97775	1,54	1556	98098	1,59
PT	n.a.	n.a.	n.a.	18	998	1,80	25	1094	2,29

Source: Eurostat

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Figure 1: Portugal – Provision of A&C

a) HEI´s offering A& C programmes
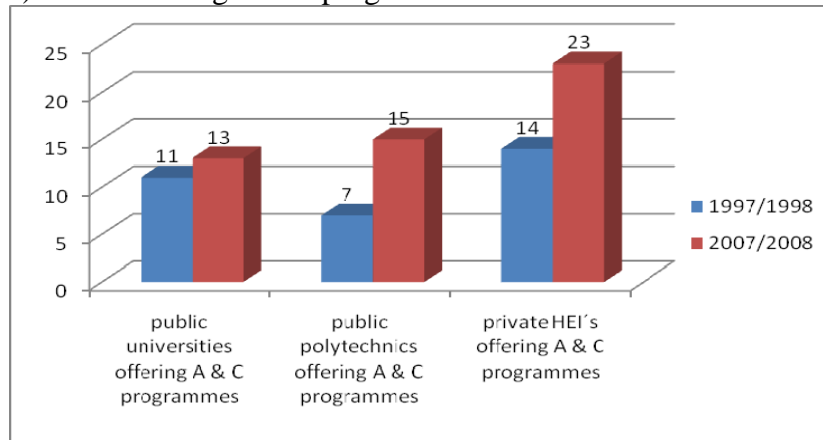
Source: own analysis based on the material of GPEARI, 19.1.2009

b) Number of Programmes

Source: own analysis based on the material of GPEARI, 19.1.2009

c) Number of enrolled students

Source: own analysis based on the material of GPEARI, 19.1.2009

Figure 4:

Evolução das bolsas de doutoramento e pós-doutoramento concedidas
Estudos Artísticos e **Arquitectura**
1994-2008

(*) Em 2008 foram consideradas as candidaturas aprovadas, já que o valor das bolsas concedidas ainda não está consolidado.

Fonte: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.
(CFT Figure 1)

Figure 5:

Unidades de I&D, 2008
Estudos Artísticos e Arquitectura

679.803 €; 2%

■ Estudos Artísticos e Arquitectura
■ Outras áreas científicas

40.005.797 €; 98%

Fonte: Fundação para a Ciência e a Tecnologia, Departamento de Suporte à Rede das Instituições Científicas e Tecnológicas, à data de 23 de Março de 2009.

Unidades de I&D, 2003
Estudos Artísticos e Arquitectura

47.037 €; 0,48%

■ Estudos Artísticos e Arquitectura
■ Outras áreas científicas

9.813.099 €; 99,52%

Fonte: Fundação para a Ciência e a Tecnologia, Departamento de Suporte à Rede das Instituições Científicas e Tecnológicas, à data de 23 de Março de 2009.
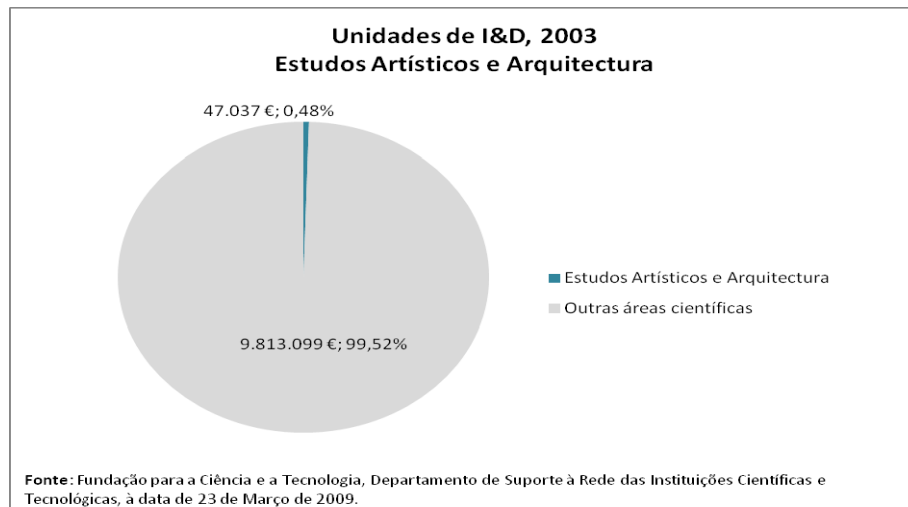
Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.

Figure 6:

Unidades de I&D
Avaliação 2007
Distribuição das classificações
Estudos Artísticos

0; 0%   2; 12%
3; 18%
12; 70%

■ Excellent
■ Very Good
■ Good
■ Fair
■ Poor

Unidades de I&D
Avaliação 2007
Distribuição das classificações
Outras Ciências

7; 2%   45; 14%
50; 16%
98; 31%   115; 37%

■ Excellent
■ Very Good
■ Good
■ Fair
■ Poor
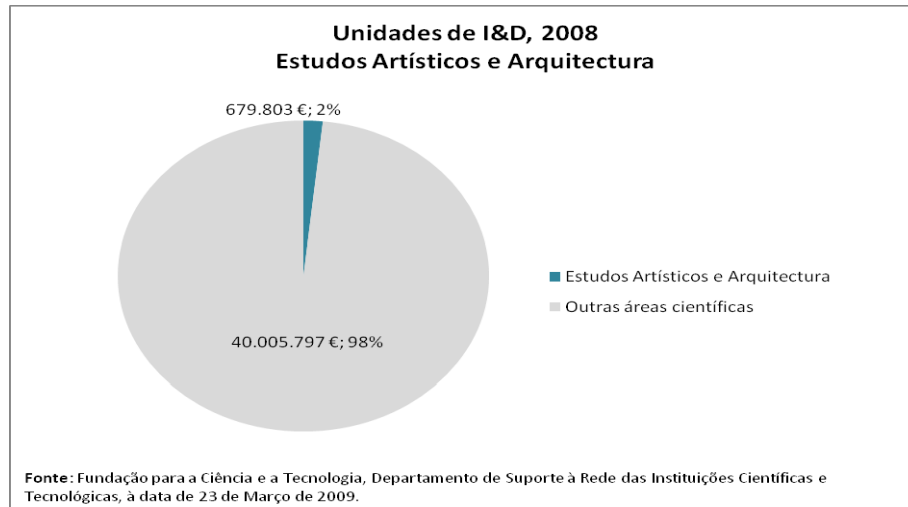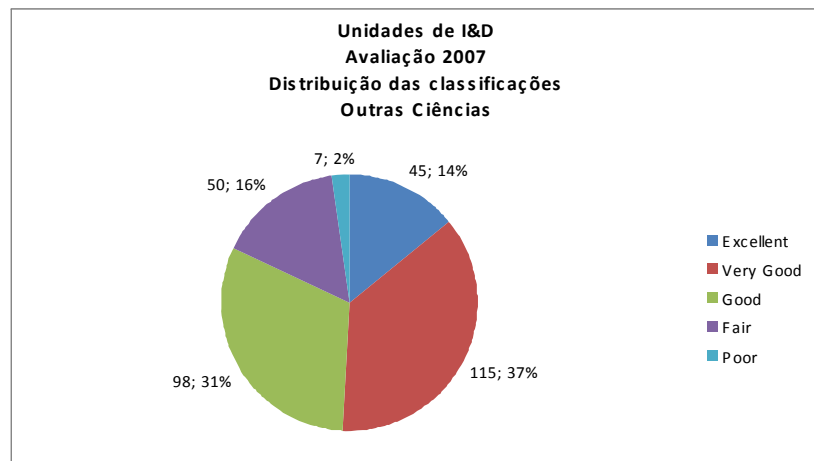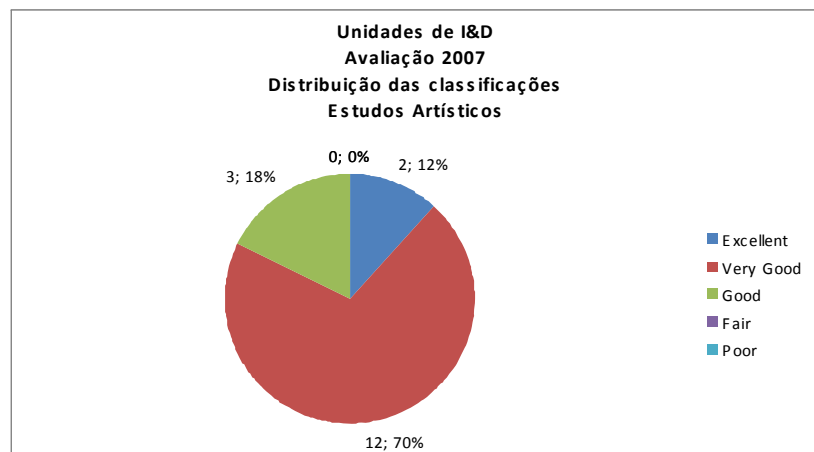
Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.

Figure 7:

Financiamento de Projectos de I&D, 2008
Estudos Artísticos e Arquitectura

843.940 €; 1,36%

■ Estudos Artísticos e Arquitectura
■ Outras áreas científicas

61.025.923 €;
98,64%

Fonte: Fundação para a Ciência e a Tecnologia, Programas e Projectos de Investigação Científica e Desenvolvimento Tecnológico, à data de 13 de Abril de 2009.

Financiamento de Projectos de I&D, 2000
Estudos Artísticos e Arquitectura

0 €; 0%

■ Estudos Artísticos e Arquitectura
■ Outras áreas científicas

9.280.934 €;
100%

Fonte: Fundação para a Ciência e a Tecnologia, Programas e Projectos de Investigação Científica e Desenvolvimento Tecnológico, à data de 13 de Abril de 2009.

Source: Fundação para a Ciência e a Tecnologia, Departamento de Formação dos Recursos Humanos em Ciência e Tecnologia, à data de 31 de Janeiro de 2009.
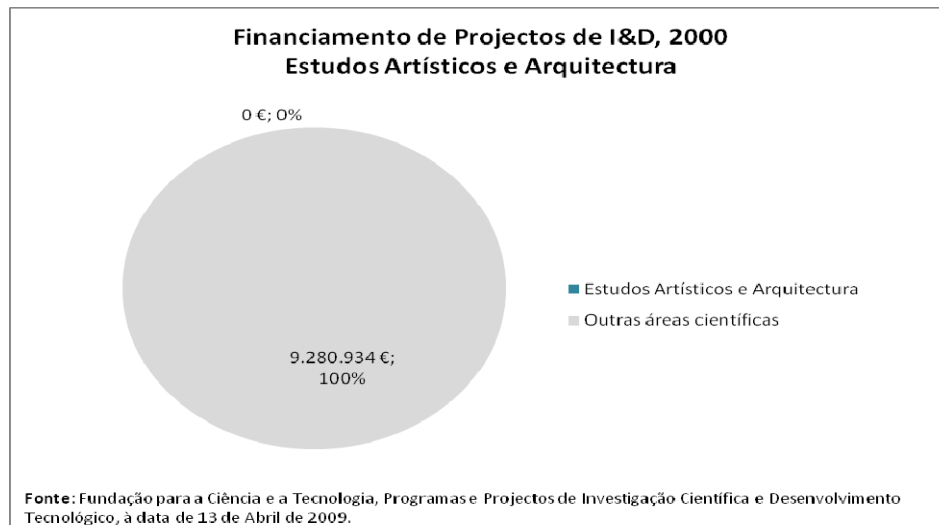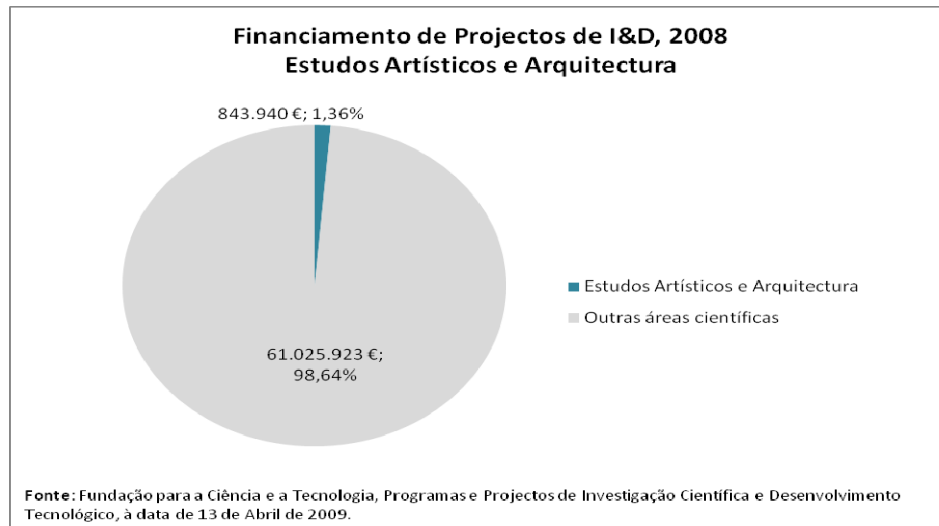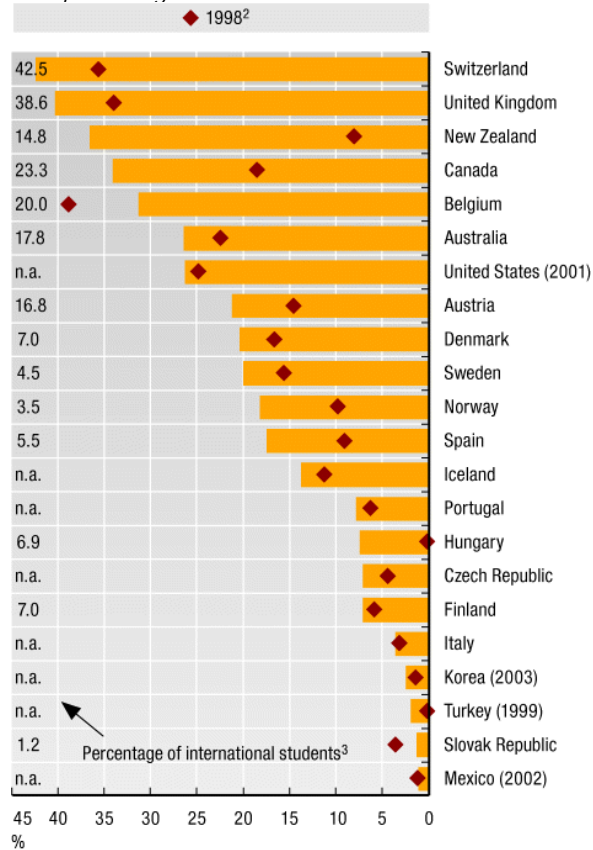
APPENDIX D
FIGURES AND TABLES

Figure 12:

OECD Science, Technology and Industry Scoreboard 2007
⤷Human resources in S&T

⤷**B-2. Foreign and international doctoral students**

Share of foreign doctoral students,[1] 2004
As a percentage of total doctoral enrolment in host country

42.5	Switzerland
38.6	United Kingdom
14.8	New Zealand
23.3	Canada
20.0	Belgium
17.8	Australia
n.a.	United States (2001)
16.8	Austria
7.0	Denmark
4.5	Sweden
3.5	Norway
5.5	Spain
n.a.	Iceland
n.a.	Portugal
6.9	Hungary
n.a.	Czech Republic
7.0	Finland
n.a.	Italy
n.a.	Korea (2003)
n.a.	Turkey (1999)
1.2	Slovak Republic
n.a.	Mexico (2002)

◆ 1998[2]

Percentage of international students[3]

45 40 35 30 25 20 15 10 5 0
%

1. Including foreign students from non-OECD economies.
2. 1999 for Belgium, Mexico and the Slovak Republic; 2000 for Iceland and Portugal.
3. International students are defined as non-resident students of reporting country for all countries except Finland and Switzerland where they are defined as students with prior education outside the reporting country.

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