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UNIVERSITY OF PORTO

EVALUATION REPORT

May 2010

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1.   INTRODUCTION

This report is the result of the evaluation of the University of Porto, Portugal. The evaluation took place on 15-17 November 2009 (first visit) with the second visit taking place on 22-25 March 2010.

The evaluation of the University of Porto (hereafter termed "the University" or "U. Porto", a name adopted by the university) is part of a larger process of reform of the Portuguese higher education system. This process has included a "Country Report" by the Organisation for Economic Co-operation and Development (OECD) in 2006; a review of Quality Assurance of Higher Education by the European Association for Quality Assurance in Higher Education (ENQA) in 2006; a new law for Higher Education enacted in 2007 and the restructuring of academic study programmes into a three-cycle system as part on the ongoing implementation of the Bologna process.

In order to assure the quality of its higher education institutions, the Portuguese authorities wanted institutional evaluations of both public and private higher education institutions (universities and polytechnics) to be conducted in the period 2006-2010. It was agreed that these institutional evaluations would be conducted by the Institutional Evaluation Programme (IEP) of the European University Association (EUA).

Portuguese academics have played a significant role in the creation of the IEP (as part of what was then the Standing Conference of Rectors, President and Vice-Chancellors of the European Universities (CRE), the forerunner of the EUA) and indeed Professor Alberto Amaral, former rector at the University of Porto and current Chair of the Portuguese Quality Assurance Agency [A3ES] is one of the founding fathers of the programme. U. Porto was one of three European universities to participate in the pilot phase of the CRE IEP in 1995.

1.1   The Institutional evaluation programme

The Institutional Evaluation Programme (IEP) is an independent membership service of the European University Association (EUA) that offers evaluations to support the participating institutions in the continuing development of their strategic management and internal quality culture.

The distinctive features of the Institutional Evaluation Programme are:
- A strong emphasis on the self-evaluation phase
- A European and international perspective
- A peer-review approach
- A support to improvement

The focus of the IEP is the institution as a whole and not the individual study programmes or units. It focuses upon:
- Decision-making processes and institutional structures and effectiveness of strategic management

- Relevance of internal quality processes and the degree to which their outcomes are used in decision making and strategic management as well as perceived gaps in these internal mechanisms.

The evaluation is guided by four key questions, which are based on a 'fitness for (and of) purpose' approach:
- What is the institution trying to do?
- How is the institution trying to do it?
- How does it know it works?
- How does the institution change in order to improve?

1.2 The University of Porto and the national context

The history of Portuguese university education dates from 1290 with the establishment of a university in Coimbra. With the Republican revolution of October 1910, several changes were introduced into the Portuguese education system, namely the establishment of the universities in Lisbon and Oporto. The University of Porto was created on 22 March 1911 by a decree of the first Portuguese Republican government, as an offspring of older schools, the Polytechnic Academy, the School of Medicine and Surgery, the Royal Academy of the Navy and Commerce and the Royal School of Surgery.

Today, the University of Porto's faculties and research units form a comprehensive, complex and diverse institution, covering the main fields of knowledge. The university has almost 29,000 registered students at its 14 Faculties and Business School and is supported by an academic staff of 1,860 full-time equivalents (FTE) and a technical and administrative staff of 1,700 FTE.

Porto (also known as Oporto in English) is the second city of Portugal with an estimated population of about 220,000. The city is located in the estuary of the Douro River and lies at the centre of the political Greater Metropolitan Area of Oporto, with a population of slightly more than 1.7 million and is the main agglomeration of northern Portugal.

The university is based in three main sites, called 'poles'. In the city centre – where the neoclassical rectory building marks the birthplace of the University of Porto - lies "Pole 1", "Pole 2" is located on the campus of Asprela, in the northern limit of the city of Oporto and "Pole 3" is located in the Campo Alegre area, in the south-western part of the city, not far from Pole 1. A number of other institutes and centres are scattered all over the city and even beyond its limits.

1.3 The self-evaluation process

In 2007, the University of Porto began the self-evaluation process for this present evaluation. The institutional evaluation process entailed three distinct phases and used a combination of bottom-up ad top-down approaches.

Phase I was based on self-evaluation exercises in the university's 14 Faculties and also on the audits that each Faculty performed on another Faculty. This phase was launched in May 2007 with a two-day workshop attended by the self-evaluation teams of each Faculty, consisting of 5-10 members (nominated by the Dean) including representatives of teaching and research staff, administrative and management staff and students. During this workshop, the self-evaluation committees were briefed on the guidelines for the IEP evaluation and for the "external" evaluation of the University of Porto's Faculties.

In phase I, each self-evaluation committee undertook both a self-evaluation exercise in respect of its own Faculty and a quality audit of another Faculty. Each committee produced a self-evaluation report (including an improvement plan) and an audit report. This phase was largely completed by June 2008.

In phase II, all of the reports (self-evaluations and audits) were analysed by the Continuous Improvement office of the Rectorate. The comparison and analysis of the reports allowed the production of a synthesis document. This Summary Report document represented the global "bottom-up" perspective from the university.

Phase III commenced in March 2009 with the nomination, by the Rector, of the members of the institutional self-evaluation committee (SEC). This committee produced the institutional self-evaluation report of the University of Porto, combining their "top-down" view with the findings resulting from the Faculty self-evaluations and the "external" audits of the Faculties.

The self-evaluation process concluded with the sending of the institutional self-evaluation report (SER), including the aforementioned Summary Report as an annex, to the IEP office and then onto the IEP evaluation team for the University of Porto in October 2009.

The evaluation team considered the U. Porto approach to self-evaluation (self-evaluation and audit of Faculties followed by a synthesis report) to be original. The university followed the guidelines provided by IEP for the format of the SER closely and the document was concise and readable, containing an appropriate balance of description and analysis, a SWOT analysis and additional material provided as annexes. The evaluation team felt that the material provided enabled them to arrive at the university sufficiently and appropriately briefed for their task. The SER, however, did leave its conclusions in an open format and did not explicitly chart an operational plan for improvement in the future.

1.4   The evaluation team and the site visits

The self-evaluation report of the University of Porto along with the appendices was sent to the IEP evaluation team on 15 October 2009. The first visit of the evaluation team to the University of Porto took place on 15-17 November 2009 with the second visit taking place on 22-25 March 2010. In between the visits, the university provided the team with some additional documentation on the membership of the university General Council, as requested.

The Team for the preliminary visit consisted of:

- Georges Verhaegen, former Rector, Université libre de Bruxelles, Belgium, chair
- Carmen Fenoll, Professor of Plant Physiology, Universidad de Castilla-La Mancha, Spain
- Gülsün Saglamer, former Rector, Istanbul Technical University, Turkey
- Arnaud Willem, student, University of Strasbourg, France
- Padraig Walsh, Chief Executive, Irish Universities Quality Board, Ireland, co-ordinator

Unfortunately, the student member of the team, Mr. Arnaud Willem, was unable to participate in the second visit. He was replaced by Ms. Andrea Blättler, student, University of Lucerne, Switzerland.

Following the established IEP process, the evaluation team conducted two site visits. The team met the Rector; the team of Vice- and Pro-rectors; the Steering Committee (SEC) who organised the self-evaluation of the university; representatives from the General Council (including a separate meeting with its President); central administrative staff; staff responsible for the university-wide ICT system; the Faculty Deans; academic and administrative staff and students (including doctoral students) from many of the academic units (including five of the fourteen Faculties and two research Institutes/centres); staff involved in spin-out campus companies in the university Science and Technology park; and representatives from business and the municipalities from the Oporto area.

During these visits, the evaluation team had many useful discussions, which were conducted in a very open manner. The university was very well prepared for the review visits, with the background to the team's presence and tasks well explained. The evaluation process was obviously well known within the university, due to the individual self-evaluations and the "external" evaluation of faculties by other faculties. The contents of the SER were less familiar, as this had been prepared as a higher level synthesis document.

1.5   Acknowledgements

The evaluation team would like to thank Rector José Carlos Diogo Marques dos Santos and all the academic and administrative staff members, students and external stakeholders of the university for their helpful discussions during the preliminary and main review visits.

The evaluation team would especially like to thank Pro-Rector for Continuous Improvement, Professor José António Sarsfield Pereira Cabral, for his great efficiency and courtesy in liaising with the evaluation team and for organising and modifying the programmes for both visits according to the wishes and expectations of the evaluation team. The visits were extremely well organised and the evaluation team was met uniformly with courtesy and professionalism in the parts of the university that they visited.

2.   MISSION, VISION AND STRATEGIC PLAN

The first question in the IEP evaluation methodology is presented as "What is the university trying to do?" The mission and vision statements and strategic goals of the university should normally provide the answers to this question.

Both the new (May 2009) and previous (January 2006) statutes of U. Porto state that, being a higher education institution strongly rooted in research, the university's mission is to create scientific, cultural and artistic knowledge, to promote the economic and social value of knowledge, and to actively participate in the progress of the community in which it is inserted.

In June 2006, the newly-elected Rector announced the following vision of U. Porto "to be one of the 100 best European universities in 2011 (according to accepted international standards for evaluating university education) for the celebration of its first century".

The achievement of that vision is based on four strategic themes: Education, Research, Internationalisation and Governance. For each of these themes, a strategic goal was defined.
- **Education:** to reach excellence in the various levels of higher education, according to international standards
- **Research:** to transform U. Porto into a Research University by increasing the quantity and quality of research work
- **Internationalisation:** to reinforce U. Porto's internationalisation
- **Governance:** to ease the governance and management of U. Porto, by improving its effectiveness and efficiency.

These strategic goals were contained in the Rector's election manifesto in June 2006. It was clear to the evaluation team (and also as indicated in the university's self-evaluation report) that the match between these strategic goals and those of the individual Faculties was not clear. Although the Faculties, either explicitly or implicitly, have strategic objectives, it was evident to the evaluation team (and indeed to the steering group who prepared the self-evaluation report) that these local objectives owe more to the individual disciplinary areas than from the declared central strategic goals of U. Porto.

As one of the annexes to the U. Porto self-evaluation report, the evaluation team were presented with the *U. Porto Strategic Plan 2009-2013*. This document outlines the translation of the university's mission and vision into the aforementioned four strategic topics.

This document recognises that a strategic plan is not in itself sufficient for change to occur and recognises the need for the university to develop an Action Plan and to assess and monitor compliance with the indicators defined in the plan.

The university states that it intends to use the *Balanced Scorecard* methodology as a tool to explain and to operate its strategy. The *Balanced Scorecard* is a tool designed to relate strategic objectives (long-term) with short term objectives and actions (strategic operation). It seeks to monitor the performance (measured as the degree of compliance) of the organisation in an integrated way, by means of adequate indicators (both qualitative and quantitative).

The document concludes by stating that the strategic operation to be conducted by U. Porto will involve the definition of "Action Plans" that will lead to the completion of objectives outlined for each Strategic Topic" and the identification of the person or persons in charge of its completion, the timescale, the sequence of actions and the indicators to be used in assessing the success of actions.

As it stands, the university's Strategic "Plan" is more of a strategic statement with the operational plan yet to be developed and rolled out. The university recognises that the period 2007-09, which led to the establishment of the Foundation, was "too troubled and demanding to allow the execution of all the intended stages of the Strategic Plan" but that it believes that the conditions are now right whereby the Rectoral team is willing to submit the strategic plan as a proposal for discussion and adoption by the General Council.

The evaluation team believes that the university has done a good job to date in using a self-analysis exercise to prepare what is essentially a working document in the form of a "Strategic Statement" identifying four "strategic topics" and the indicators the university intends to use for monitoring progress in these areas.

The evaluation team agrees that the university now needs to elaborate a series of action plans, derived from the core strategic statement, in a prioritised format. These plans need to be developed at the level of the academic unit (Faculty). These academic unit plans should then be collated and an overarching university strategic plan constructed. It is then the responsibility of U. Porto's new General Council to discuss and approve the overall plan and finally the academic units should adapt their own plans according to the university-level strategic plan. In this way, the university`s strategy will not merely be a collection of strategies of the academic units but will becomes the main document from which the units derive their strategies.

The evaluation team's findings and recommendations for the remainder of this report will be outlined along the lines of the structure of the 4 "Strategic Topics" identified by the university in its document *Strategic Plan U. Porto 2009-2013*:

- Governance and Management
- Teaching and Learning
- Research and Entrepreneurship
- Internationalisation

3. GOVERNANCE AND MANAGEMENT

3.1 Governance

Background

To begin, the evaluation team had to consider the main external constraints under which the university operates and the status of institutional autonomy in Portugal, which is an important issue also for many other countries of the European Higher Education Area.

The evaluation team were conscious that this evaluation was taking place at a time of profound change globally and for Portugal, as a country severely impacted by the current international financial crisis and for the Portuguese higher education institutions themselves.

The evaluation team notes from the SER that improving governance, organisational structure and decision-making mechanisms was considered a priority policy area for the Rector of U. Porto in order to move towards its strategic goals.

Legislation and Autonomy

A new university law was enacted in Portugal in September 2007 providing for increased university autonomy over its own affairs. Under the new law, the rector, with the assistance of vice-rectors and pro-rectors, has preserved his traditional position as the main management instrument of the university although the traditional election of the rector by his colleagues has changed to a system of appointment/election by the members of the General Council. This is a change consistent with ongoing reforms in European higher education. This kind of change is designed to strengthen the strategic capacity and managerial leadership of the rector.

The new law also increases university autonomy in the management of human resources through the capacity to regularly evaluate the merits of its academic staff. The universities are still awaiting a further new law for the evaluation of staff performance. This is an important issue because the development of human resources is crucial for universities.

Prior to the 2007 law, the organisational model of U. Porto (and that of the other Portuguese universities) was characterised by a system of independent Faculties possessing legal status, making the co-ordination between the Rector and the Faculties difficult due to the complexity of the decision-making processes.

Foundation model

This new law permitted universities to become, if they so wished, so-called "Foundation Universities". The Statutory Assembly of the University of Porto (a 20-member body consisting of 12 elected members of staff, 3 elected students and 5 external members), established under the new law, voted to become a Foundation University. In so doing, U. Porto became one of only three of Portugal's 14 public universities to adopt this new model.

Under the Foundation model, the Faculties will maintain their management autonomy. However, the university states in the SER that the new governance structures will define a clear decision-making structure which will reduce the current fragmentation of power and responsibility, facilitating better co-operation between the Faculties and the Research & Development Institutes and between the Faculties and the central services.

Based on the new law and the Foundation model, the new statutes for the university were published in May 2009. The university has expressed the hope (in the SER) that the new governance model will foster quality and productivity, enhance internal coherence and improve the articulation between the Rectorate, the Faculties and the R&D units and institutes.

New university structures

The University of Porto Foundation will be managed by a Board of Trustees, consisting of five external members appointed by the General Council and approved by the government. The new governance structure consists of three main bodies: a General Council, the Rector (elected by the General Council and approved by the Board of Trustees) and a Management Council. The university Senate will be retained as an advisory body whose mission is to ensure the cohesion of the university and the participation of all units in its management.

Opportunities created by new structures

The new law and the establishment of the Foundation will provide the university with the tools to implement new structures and remove the previous barriers to integration and inter-faculty cooperation. Under the Foundation law, it will be easier to create, fuse or extinguish organic units, for instance, and to integrate the interfacing research institutes back into the university as organic units, which would be welcomed by the evaluation team as an integrative step for the university.

The evaluation team wholeheartedly endorse a governance model which will reduce the still-apparent fragmentation that exists within the university and which will permit and facilitate better co-operation between individual Faculties and between the Faculties and the central services of the university.

The evaluation team subscribes to the university's goals of improving the cohesion of the university; of implementing a governance system base on trust; of simplifying and increasing the efficiency of decision-making by reducing the number of collective bodies with decision-making capacity; of improving the connection between the centre and the Faculties; of facilitating the participation of the academic community and the external stakeholders in the decision-making process; of following the subsidiarity principle, of simplifying processes and reducing bureaucracy and enlarging internal and external accountability.

Threats

The evaluation team recognise that the university is still in a state of transition. Although new bodies such as the General Council have been established, their work to date has largely been confined to making statutes.

There did not seem to be an understanding among staff met by the evaluation team of what the Council has done to date; what its future role will be and how it will fulfil its governance role without straying into a management role. The team suggests that the work of the Council be actively disseminated to the university community rather than using the approach of "it's available on the web".

The balance of the governance and management roles of the General Council, the Rector(ate) and the Faculties and Institutes, at this early stage for the new Foundation, need to be constantly reinforced to the staff of the university. The evaluation team believe that a commitment to transparency and campus-wide information flow is vital to overcoming any fears of creeping centralisation and loss of autonomy. This will facilitate the university's stated goal (as outlined in its SER) of becoming "a single and united institution, preserving and respecting diversity and decentralisation of decision (-making) and not a federation of almost independent institutions."

The team recognise that the full translation of the new law and new governance and management structures into tangible changes will take many years.

Fragmentation

The evaluation team was struck by the level of fragmentation within the university, notwithstanding the historical and legal status of independent faculties in this and other Portuguese universities. The team encountered many anecdotal examples of such fragmentation: the inability (until quite recently) to make internal telephone calls between faculties; the presence of over 30 separate libraries; the artifices necessary to construct inter-faculty research institutes as separate "half-in half-out" legal entities; the individualised accounting and human resource management

systems at faculty level; the payments of inter-faculty "rents", and the absence of the U. Porto name on a significant number of the faculties research publications.

The evaluation team frequently came across resistance to the idea of developing the university into an entity that is more than a collection of Faculties. Some outlined the fear that they could be swallowed up by larger Faculties or that they would lose their autonomy if a more centralised approach was adopted to accounting or human resource management.

The evaluation team believe that, in some cases, staff that they met were confusing autonomy with tools. A reading of the national law conveys the impression that the intention in relation to autonomy of the organic units is that of *academic* autonomy, which every unit should have and which is also a global principle in academic institutions. The financial and managerial autonomy is derived from the university statutes, whereby the university is the legal entity receiving the resources from the state thereby possessing the ultimate responsibility for these.

In their oral report, the team spoke of their own experiences internationally of institutions where university-wide accounting and HRM systems are used as tools but where the institution operates on the subsidiarity principle whereby decision-making and autonomy on actions is devolved to the most appropriate level.

Where such systems operate successfully, any perceived loss of autonomy is balanced by transparency and clarity of decision-making; university-wide access to information and data and well-managed internal communication protocols.

Relations between Central and Local Governance

The evaluation team found a university with rather weakly-developed central management services in areas such as accounting, human resources management and a low level of central funds available to the Rectorate for pursuing strategic areas.

The university needs to develop better (external and internal) information and communication systems, which also belong to those activities which could better be conducted at the level of the Rectorate, with the support of coordinating persons acting at academic unit level.

There are several practical reasons (alongside the legal ones) why the evaluation team is suggesting some changes in the operations between the Rectorate and the academic units, which could lead to a fortification of the power and responsibilities of the central administration (Rectorate).

The reasons are outlined below:

The brand name of the institution: In a globalised world, the recognition of educational functions and research of an academic institution is usually based on the name of the university (such as Harvard, Oxford etc.) and not on the individual names of its component units. The name of the university and the image which is associated with the name creates the brand for all outputs of the institution. Therefore, a good brand is very important for all academic units and they should do their utmost to advance this common brand. Of course, there is also the brand name of the unit but this must be secondary to the common brand. The university has largely recognised this by the concatenation of the university and faculty acronym in titles such as FEUP (Faculty of Engineering at the University of

Porto) but must continue to insist on all publications emanating from the university containing the U. Porto name.

Strategic management of the university: The strategic planning and management of a university requires a common ideology, mission and vision for the institution. The individual strategies of the organic units should be derived from the general, overarching strategy of the university. This is the basic ideology and method for creating a good university.

Advancement of interdisciplinarity: The encouragement of the joint organisation of multidisciplinary courses by the various faculties is very seriously outlined in the U. Porto Strategic Plan. The evaluation team welcomes the proposal for a university-wide Doctoral School.

Joint services for academic staff and students: Although services operate in practice at the academic unit level, many academic services are nowadays so complicated and require special competences that these special services cannot be delivered effectively by the presence of multiple local offices at the unit level. They should be developed in a single office for the whole university and only then distributed to the practical level. Such competences are needed in fields such as internationalisation, Bologna affairs, the development of new learning methods, research support issues, the development of entrepreneurship and innovation transfer, fund raising etc. The evaluation team welcomes the proposal for a new Centre of Shared Resources and Services and Student Support Services.

Funding: Finances always pose serious threats for a university even in more favourable economic times and therefore the spending of resources on overlapping and duplicated operations in different parts of the university does not represent prudent financial management. A rationalisation of operations would be needed even in more prosperous times but particularly given the current state of the world economy.

3.2   Management

Information and Communication Technology (ICT)

In the SER and during the site visits, the university placed great importance on ICT for improving the overall performance of the institution. The evaluation team met the staff responsible for, and were given a live demonstration of, the university-wide information system (SIGARRA), based on a previously developed in-house information system at the Faculty of Engineering.

The team welcomed this development but expressed some caution about the limited number (22) of staff employed for this campus-wide function, over half of whom are based in one Faculty and the increased risk management necessary for any in-house system (noting, however, that it sits on an Oracle system).

Financial Management

According to the SER, there is presently very little money top-sliced from the university budget available for the Rector to allocate in terms of, for example, strategic interventions and initiatives, prizes for excellent achievements at the university level, strategic grants at the university level etc.

The evaluation team believes that in the development of the university strategy there must be some special resources allocated for use by the Rector. This is one of the main tools for institutional steering and introduces an element of competition between units and staff members inside the university.

These strategic funds have to be allocated from the global budget of the university and as overheads from the non-governmental revenues. They should be allocated by the Rector in a manner which is consistent with the agreed university strategic plan and should also be transparent. Similar strategic resources could be collected also at the academic unit level and then used for strategic purposes of the unit, consistent with the unit strategic plan.

Considering that U. Porto has a rather large engineering faculty and a business school and good relations with the industry of the region, there may still be possibilities for further increasing non-public revenues. In order to increase the level of fundraising, the university will certainly need more activities. For example, a special development office responsible for external communications and the image of U. Porto could be established. This office could have contact persons in each faculty.

Human Resources Management

The development of human resources is one of the most important functions in developing universities to international level. Strict legal regulations currently inhibit the development of human resources in many continental European universities. The new Portuguese statutes will, it would appear, increase the possibility for the management of human manpower by offering promotion on the basis of teaching and scientific merit.

Because of the decentralised structure of the university as discussed previously, the development of human resources is mainly taken care of at the academic unit level but this is certainly one of those functions which should have a common, university-wide policy, which again needs special expertise and arrangements at the level of the Rectorate.

The university recognises that, in order to increase its competitiveness at an international level, it needs to attract academic staff and researchers from internationally renowned universities. The university also notes (in the SER) that there is no tradition of hosting post doctoral researchers at U. Porto. The strategy of establishing networks, partnerships and joint programmes with renowned universities, is seen as a good basis.

There is a satisfactory female representation among the academic staff at U. Porto but the percentage of female academics in senior academic positions is insufficient. Therefore, it may be useful for U. Porto to pay attention to work-life balance issues and actively encourage female academics to apply for promotion in order to increase female representation at the senior academic grades.

There is a strong need to increase the level of qualification of the non-academic staff in the university. It is essential that the university has an increased number of professionals in the position of academic support and administrative staff.

4.   TEACHING AND LEARNING

4.1   Organisation of Teaching at the university

The reconstitution of the University of Porto following the 1974 revolution, introduced a number of unsatisfactory practices, particularly the delegation of responsibility to all Faculties to provide the teaching on all their programmes. This has led to the duplication of disciplines within the university with the Engineering Faculty, for instance, being obliged to hire teachers for Mathematics and Physics. This is certainly a sub-optimal practice which does not allow the development of a critical mass of expertise in areas and militates against the planning of inter-faculty programmes.

The university has been active in developing its educational programmes according to the Bologna reforms through changing the degree structure, which was finalised at the end of the academic year 2008-09. The basic ideology in the Bologna agreement lies in a reformulation (where required) of the basic degree into two cycles composed of a 3-4 year (full-time of study) Bachelor (1st cycle) programme followed by a (1-2 year) Masters (2nd cycle) programme, 5 years in total.

The implementation of the Bologna system has obviously been difficult and there has been some reaction and resistance to this from the academic staff. The university admits, in the SER, that the adoption of the Bologna reforms in terms of restructuring a long first cycle into a shorter Bachelors programme followed by a Masters programme has been largely mechanistic. In some case, an integrated 5-years Masters has been adopted, which reduced the possibility of mobility into and out of U. Porto. The university has not, as yet, really adapted from a curriculum-led input approach to a learning outcomes approach.

4.2   Quality Assurance

European Standards and Guidelines for Quality Assurance (ESG)

Every university has a responsibility to assure the quality of all its activities: its programmes of study, its research and its organisation and management. Under the Bologna Process, each signatory country, including Portugal, has responsibilities in terms of quality assurance. Specifically, it has an obligation to assure the quality of the programmes offered under the 3 cycles of the Bologna Process, as expressed in the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG).

The ESG, however, clearly state that the primary responsibility for quality assurance (QA) lies with higher education institutions. Each country also has an obligation to establish an external QA system that ensures that each university has in place well-functioning and effective QA systems. Each university has a responsibility to ensure that its study programmes have been developed in a manner consistent with the Bologna principles, including the need to move from an input-based, curricular system led by the teacher to an outcomes-based system based on the needs of the learner.

The internal quality assurance system that the university puts in place must, of course, be consistent with Part 1 of the ESG. It must contain the essential elements specified in those standards:

such as a university-level quality assurance statement, systems for the approval, monitoring and periodic review of study programmes and administrative services, a systematic process for the quality assurance of teaching and non-teaching staff (including mechanisms designed to support staff in the improvement of teaching quality) and a student assessment system that is designed to achieve the learning outcomes specified for each study programme.

Quality Assurance at the university of Porto

U. Porto recognises, in the SER, the importance of establishing a quality culture throughout the university. In 2006, the Rector set up the Continuous Improvement office at the Rectorate, with the mission of designing and supporting a quality system.

This office has correctly assessed the importance of having in place good procedures for the collection and dissemination of relevant and detailed information about the university's performance and for procedures for monitoring, assessing and improving it. The SIGARRA system has been successfully used to provide information, including performance indicators about student admissions, enrolments, etc. This is an important contribution towards the objective of installing a quality culture.

The university, in its SER, recognises that the development of a quality culture requires continuous improvement based on self-knowledge, accountability and assessment and the development of appropriate feedback mechanisms. Also, the university recognises that it does not have, as yet, a comprehensive and robust quality assurance system. This was evidenced as a weakness during the self-evaluation process and the university recognises the importance of systematising and consolidating its quality procedures and increasing their external visibility.

The present evaluation process has permitted the university to initiate a process of self-evaluation. The evaluation team believe that the development of a quality culture in the university would be enhanced by systemising this process and making it cyclical rather than the one-off evaluation that the present exercise represents.

In the current evaluation, there was no evaluation of the central services of the universities. The team strongly recommend that this forms part of the next institutional level evaluation.

Programme restructuring as part of the Bologna Process

While the restructuring of academic programmes under the Bologna Process is important and essential, the true test of success is whether these study programmes deliver the stated learning outcomes and this can only be ascertained when a quality assurance system has been put in place to evaluate how and whether these learning outcomes are being achieved.

It is also important to use the quality system to evaluate whether the university has the correct programmes in place and particularly whether it needs to adapt, merge or retire programmes. The evaluation team concurs with the university SER where it recognises that the speed of adjustment from a long first cycle to the Bachelor/Masters programme cycles (as required by the Bologna process) may have been too fast and that, at 150 or so, the number of 2nd cycle programmes is too large and needs to be reduced.

During funding crises, it is also important to make strategic decisions to prioritise essential functions and eliminate peripheral activities particularly if they are not profitable. Often these kinds of cuts are very painful. The university must consider its suite of educational programmes and decide if they are all still appropriate and productive. This entails evaluation of the efficiency of all of the university's actions.

Student evaluation

The SER describes the procedure whereby, within the university, a Programme Director is formally responsible for the monitoring and the assessment of its "own" programme and for the production of a Programme Report each academic year (with the assistance of SIGARRA), which is submitted to the Pedagogic Committee of the relevant Faculty, and finally to the Dean. The ESG recognise the importance of student involvement in quality assurance at institutional level and the evaluation team believe that the student input into curricular review at the university, in particular, should be enhanced.

Students interviewed by the evaluation team did not respond very positively to the current single-mode electronic quality evaluation tool. This is evidenced in the approach that has been taken to programme evaluations by students where it appears that the same evaluation form is used throughout the university, that it is administered electronically through SIGARRA, that the response rate, in many cases, is poor, and that the feedback to students of the response to their evaluations is also poor.

While it is essential that self-evaluation builds upon a quantitative information base, it may be more useful to develop a more customised 'fit for purpose' evaluation system, based on discipline or type (lecture, laboratory) and including in-class administration of evaluation tools, on a selection of modules within programmes rather than trying to evaluate every module every teaching period every year.

It can also be useful to triangulate quality assessments by evaluating student satisfaction with the university as a whole or with the programme as a whole rather than relying on an aggregate of module evaluations for an entire programme.

New Quality Assurance Agency

The SER also refers to the role envisaged for the new quality assurance Agency for Evaluation and Accreditation of Higher Education (A3ES) in terms of its evaluation and accreditation of the Portuguese higher education institutions and their programmes, which will start its operation in 2009/10.

The ESG, however, clearly state that the primary responsibility for quality assurance (QA) lies with higher education institutions and that the university therefore has the responsibility for the regular monitoring of its own programmes.

There may be a sense, however, that the university could end up relying too much on the external accreditation of programmes by the quality assurance agency and on the quantitative output of SIGARRA and not enough on the taking of responsibility for qualitative self-reflection as a

quality tool. As the SER recognise, "everyone is responsible for quality, no matter when and where those activities are performed".

4.3   Teaching staff and teaching load

Teaching Staff

An important indicator of quality in a university is the quality assurance of the university's teaching staff. The university pointed out that this evaluation is required as part of the new higher education law. However, as with the previous comments on external programmatic accreditation, over reliance on external factors to evaluate the quality of academic staff is unhealthy. Again, under Part 1 of the ESG, the assurance that academic staff are qualified and competent to teach is a fundamental part of the university's responsibility.

In recent years, the Portuguese pubic administration has introduced a requirement for every public administration employee to be assessed annually. It is intended that the results of this assessment have consequences at the level of the individual in terms of salary and career progression.

The university recognises that the area of human resource management needs to be improved. There are currently no effective mechanisms to recognise and reward merit. Both academic and administrative staff operate within the national system of public administration, with the academic staff being subject to special statutes (EDCU), which are seen as a major obstacle. It is hoped that the amendment of ECDU in 2009 may facilitate a reduction in the endogamy (inbreeding) that was endemic in Portuguese universities. The previous statutes limited the participation of external assessors in boards for academic appointments. Any increase in the freedom of the university to enhance the cadre of its academic staff is strongly endorsed by the evaluation team.

The university hopes that the adoption of the foundation model will allow for a more active academic management policy which will facilitate the hiring of teaching staff. A university's strength is very much determined by the quality of its academic staff.

The evaluation team commend the introduction of a performance management system but, as with the comments on programme evaluation, urge the university itself to take primary responsibility for the management of the performance of its own staff rather than relying on national employment statutes.

Teaching Load

In conversations with the management team and with staff at individual Faculties, the evaluation team formed the impression that staff were overloaded with teaching and consequently so too were students. There did not seem to be a recognition, however, that much of the load was within the control of the academic staff themselves. The less than fulsome adoption in the university of the paradigm shift from teaching to learning envisaged by the Bologna Process may have exacerbated the problem.

The evaluation team encountered a reluctance to utilise the services of Doctoral students, for instance, as teaching assistants or tutors. The team is aware that, in many cases, these students are funded through the Foundation for Science and Technology (FCT) at the Ministry of Science, Technology and Higher Education but believe that it can be useful for doctoral students to assist in teaching as part of their training. This would also relieve the teaching load on academic staff that would then be freed up to pursue research or to contribute to community service.

4.4 Miscellaneous

Student Intake

One important indicator of quality in a university is the quality of its student intake. It is clear that U. Porto has an intake of high-quality students. In keeping with the findings in the SER, most of the students encountered by the evaluation team were satisfied with the experience of U. Porto, would make the choice again to attend the university and would recommend the university to a sibling or friend.

Teaching and Learning Centre

There is currently no special, centralised office for the development of teaching and learning, which is certainly a very necessary part of an organisation and again is one of those university activities where a high degree of expertise is necessary. In the opinion of the evaluation team, therefore, centralisation of these activities with coordinators in the academic units is the best way for advancement in this area. Besides the development of the didactic methods, this office could also survey the present situation and especially the results of transfer to the Bologna system by adapting new models for evaluation such as the attainment of learning outcomes.

Language Strategy

A general language strategy for the whole university is needed, although the knowledge and practice of the English language by students and younger academics is excellent, as verified by the evaluation team in several interviews. In this strategy, the university should also present how it intends to teach foreign languages as part of its educational programmes and part of its programme for staff development.

Community Service

The university shows an impressive engagement with the community of Porto. The organisation of the annual Junior University in July and September introduces over 5,000 elementary and secondary school students to the laboratories of U. Porto each year. In addition, there is an annual 4-day Exhibition of Science, teaching and Innovation. The university has also embarked on a European Union-funded project with the local municipality to accelerate the development of broadband services in the Oporto area.

5. RESEARCH, DEVELOPMENT AND ENTREPRENEURSHIP

5.1 Research

Research at the university is undertaken by research teams grouped into Research Units, hosted in the different Faculties/Services of U. Porto, or in autonomous Research Institutes. Some of these Research Institutes are installed on independent premises and are ruled by non-profit entities in which the university, collectively, or through its individual Faculties, is a leading member. In general, the best R&D units are integrated in Associate Laboratories. This type of R&D institution is recognised by the Portuguese government for the implementation of specific objectives of national science and technology policy and benefits from specific funding and regulation to hire researchers.

In June 2006, upon his election, the Rector of the university announced that his vision for U. Porto was to be one of the 100 best European universities by 2011 and in particular identified excellence in research as one of the primary goals of the university.

In 2007, the university published over 1,700 scientific papers indexed in the *Web of Science*, which represented 22% of all the Portuguese scientific papers indexed in that database. The evaluation team believe, therefore, that the university has shown great strength in research and has the capacity to become a "research university".

The Portuguese government (through its Science and Technology funding arm, FCT) operates a cyclical system of research evaluation. Of the 69 units at U. Porto evaluated during the last cycle, 14 were included in associate Laboratories, 8 were classified as excellent, 21 very good, 14 good and 6 fair (with a further 6 under re-evaluation). The status of associate laboratory is awarded by the Ministry to research institutions with the higher classifications in the evaluation process carried out by international panels.

Success in national and international competitive funding markets can be achieved by strategic management inside the university, which means fostering excellence and creating critical mass in the areas where it is possible, taking advantage of all the synergies of disciplines in the university.

Governance and organisation

The fragmentation of research at the university, with its independent Faculties and Research Institutes has heretofore, resulted in many scientific papers failing to carry the U. Porto name. Thankfully, this trend has been reversed in recent years.

The fragmentation of the university has also led to the situation whereby a part of U.Porto's research and development units are hosted in institutes autonomous from the university, despite a majority of their researchers being U. Porto staff. This autonomy was encouraged in the past because of the inflexibility of the university's structure towards accommodating inter faculty research.

The adoption of the foundation and the new governance model and the introduction of a full economic cost system (with the appropriate allocation of overheads at the central level) will hopefully accelerate the re-integration of the research units back into the university. The evaluation team would encourage this process as it should lead to greater cohesion within the university and should facilitate the development of inter-disciplinary and inter faculty research.

The evaluation team heard evidence during its visits of a developing trend of a number of small research units merging into larger ones so as to develop critical mass and the team encourages further progress in this area.

As previously mentioned, the fragmentation of the university and the weakly-developed central services means that there is a difficulty with any central steering of research effort. The evaluation team would encourage the top-slicing of the university budget to allow some central funds for research, which can be distributed by the Rectorate. This could provide important seed money, particularly in respect of young researchers. To maintain quality and equity, it is important that the distribution of any such funding is based on appropriate quality evaluation and therefore a university-level Research Committee should be established to oversee this assessment and distribution.

The fortification of central services would permit the establishment of a Research Support Office which could help to foster collaboration between the academic units by disseminating research information both externally and internally. This type of university-wide office is becoming more and more important. It could help to guide academic units to develop strategies, support external grant application, negotiate contracts, manage donations and fundraising, arrange for intellectual property rights and provide for ethical issues.

Research Staff

The development of human resources is the most important tool in order to attain excellence in research as in all other fields in a university. The evaluation team recommends that the workload of teachers should be differentiated by adjusting the teaching load for strong researchers. A useful, strategic tool is whereby the university could create vacancies that do not carry teaching obligations, which could be given for certain periods, say 3-5 years, for excellent scientists among the academic staff. World-class research often requires full-time or practically full-time research during critical periods.

It is important that the university also has means to encourage scientific excellence at different levels through promotion, prizes, awards etc. Prizes should be given at the university level because then they give a better strategic view and are more fully recognised. The academic units should give more practical support to researchers for travelling expenses etc.

5.2   Doctoral studies

PhD education is one of the most important ways to promote university research. In U. Porto, the third cycle is already well-recognised and the university wishes to increase the number of these students.

The evaluation team supports the idea presented in the SER of the establishment of a university-level graduate school in order to improve the quality of doctoral studies, for the advancement of cooperation between different academic units and to promote interdisciplinarity.

The Graduate School could also establish international links and cooperate with graduate schools of other universities, both domestic and international.

The establishment of a Graduate School would also allow the university to introduce some of the features of such schools as adopted elsewhere in Europe. These would include the use of doctoral committees for research in place of the traditional apprentice-master model; the development of transferrable skills, which broadens the PhD student experience and permits doctoral graduates to contribute to the wider workforce outside the higher education system.

The evaluation team also believe that the skills of PhD students could be enhanced by their involvement in undergraduate tutoring, provided this workload is well-monitored and clearly oriented towards career development. If the direct funding of doctoral students by FCT is an issue in this regard, this matter could be pursued through the National Rectors' Conference. The participation of doctoral students in undergraduate tutoring could also facilitate a reduction in the teaching load of academic staff, which could free up time for research and improve access to sabbatical leave.

5.3   Entrepreneurship

The evaluation team were very impressed by the enthusiasm of the staff that they met who were working in research institutes and spin-off companies in the university science and technology park. The staff running the spin-off companies in the Science and Technology Park stressed the importance and competitive advantages of being located near to the university and universally referred to the university rather than any individual faculty.

In its meeting with the research institute INESC, the team were impressed at the global reach of some of the companies, which could act as role models for entrepreneurs in proving that it is possible to compete globally from a base in Northern Portugal.

Young researchers who have established their R&D companies in the university science park are mostly PhD students or graduates of PhD programmes of U. Porto who are also involved in teaching activities in the university, which means two-way information flow between the university and its science park has already been established. This is an important achievement for the science park.

6.   INTERNATIONALISATION

6.1   Students

Internationalisation is a strategic goal for the university as stated in the Strategic Plan. In particular, the university has set a target of 10% foreign students to be achieved by the university's centenary in 2011. The university is already well-advanced towards this target with 8.1% of the student body coming from outside Portugal in 2008/2009. Indeed, the university is among the top 40 in terms of in-coming mobility of Erasmus students and among the top 50 in out-going mobility.

Internationalisation is stated as a core mission of the university with special attention to Portuguese-speaking (Lusophone) countries. Internationalisation should be coordinated at the Rectorate level as this kind of centralisation is necessary today, because many European mobility programmes are now so complicated that successful handling of them requires special competencies.

For international mobility, the language used in teaching is an important tool. Of course, the Portuguese language is spoken in many countries other than Portugal and thus many of the university's undergraduate and postgraduate foreign students come from Portuguese or Spanish-speaking countries. However, the blended teaching of English (the principal language of research) in mainstream programmes is necessary if the university wishes to increase the number of incoming students from outside of the Lusophone countries.

The university is already teaching some first cycle programmes through English. In addition to increasing the attractiveness of the university to foreign students, this is also, of course, important for Portuguese students and the general proficiency of U. Porto's students (and academic and administrative staff) in the English language was well-proven during the two visits. Also the teaching of Portuguese for non-native speakers is important for exchange students.

Mobility is encouraged if the recognition of credit received abroad is easily facilitated and the evaluation team was pleased to learn from students that the university is operating good practices in this regard.

In meeting with a cross-section of international doctoral students, the team was surprised to hear that it was not possible for some students to access English-language classes in another faculty, if such classes were not provided in the student's home faculty. The provision of a central university international office should enable such problems to be overcome.

6.2 Staff

In terms of the mobility of academic staff, a total of 87 persons from 64 higher education institutions (representing 16 European countries) came to the university in 2007/08. The university has also met with some success in European programmes whereby in 2008, 6 of the university's 16 application to such programmes were successful.

Although not specifically commented on in the university SER, the evaluation team would recommend an increasing use of overseas sabbaticals for academic staff. This can facilitate the later recruitment of overseas staff from overseas institutions to teach or give seminars at the university. The team commended the practice whereby staff who had pursued doctoral or post-doctoral research abroad maintained relationships with their alma mater (including some of the world's most prestigious universities) through the invitation of professors for seminar series or short courses. An increase in sabbatical leave could be facilitated by reviewing the teaching load of academic staff.

7.   RECOMMENDATIONS

In terms of strategic planning:
- The university should elaborate a series of action plans, derived from the core strategic statement, in a prioritised format.
- The plans should be developed at Faculty level and should then be collated and an overarching university strategic plan constructed.
- The academic should adapt their own plans according to the university-level strategic plan.

In terms of governance:
- The university should make use of the new Foundation model to create, fuse or extinguish organic units, as appropriate.
- The university should make use of the new Foundation model to integrate the interfacing research institutes back into the university as organic units.
- The work plan and the minutes of the meetings of the General Council should be actively disseminated to the university community.
- The balance between the governance and management roles of the General Council, the Rector, the Faculties and Institutes needs to be constantly reinforced to the staff of the university.
- The university needs a commitment to transparency and campus-wide information flow so as to overcome any fears of creeping centralisation and loss of autonomy.

In terms of the relationship between central and local governance:
- The spending of resources on overlapping and duplicated operations in different parts of the university does not represent prudent financial management and should be eliminated.
- The university should develop central services in fields such as internationalisation, Bologna affairs, new learning methods, research support issues, entrepreneurship and innovation transfer and fund raising.
- The university needs to develop better external and internal information and communications systems at the level of the Rectorate, with the support of coordinating persons acting at Faculty level.
- It is important that all publications emanating from the university contain the University of Porto name.
- The university should proceed with the establishment of a university-level Doctoral School.

In terms of information and communication technology (ICT):
- The limited number of staff working in SIGARRA needs to be reviewed for this important campus-wide function.
- The use of in-house ICT solutions such as SIGARRA needs to be properly risk-assessed and managed.

In terms of financial management:
- In the development of the university strategy there must be some special resources allocated for use by the Rector.

- These strategic funds have to be top-sliced from the global university budget and as overheads from the non-governmental revenues.
- They should be allocated by the Rector in a transparent manner consistent with the university strategic plan.

In terms of the development of human resources management:

- The development of human resources should be strengthened through the use of a university-wide policy, which requires special expertise and arrangements at the level of the Rectorate.
- The university should pay attention to work-life balance issues and actively encourage female academics to apply for promotion in order to increase female representation at the senior academic grades.
- The level of academic qualification and professionalisation of the administrative and academic support staff should be increased.

In terms of quality assurance:

- In keeping with the European Standards and Guidelines for Quality Assurance, the university should outline and document its quality assurance system.
- This system should contain a university-level quality assurance statement, systems for the approval, monitoring and periodic reviews of study programmes and administrative services, a systematic process for the quality assurance of teaching and non-teaching staff and a student assessment system that is designed to achieve the learning outcomes specified for each study programme.
- The university must consider its suite of education programmes and decide if they are all still appropriate and productive.
- In particular, the university should review the number of 2nd cycle programmes which, at 150 or so, is too large.
- The university should make further efforts at moving from an input-based, curricular system led by the teacher to an outcomes-based system focussed on the needs of the learner, as required by the Bologna process.
- The university should systematise its process of self-evaluation and make it cyclical rather than the on-off exercise provided by this evaluation.
- The university should ensure that an evaluation of central services forms part of the next self-evaluation process.

In terms of student evaluations:

- The university needs to develop a more customised 'fit-for–purpose' evaluation system, based on discipline or mode (lecture/laboratory) including in-class administration of evaluation tools.
- The university should consider triangulating assessment by evaluating student satisfaction with the university as a whole or with the study programme as a whole rather than relying solely on an aggregate of module evaluations.
- Students should have a greater formal input into curricular review at the programme level.

In terms of the evaluation of teaching staff and teaching load:

- It is important that the university develops its own performance monitoring of staff rather than relying solely on the higher education law as a means of doing so.
- The university needs to review the teaching load of staff in general, as the level of formal contact time seems to be excessive.
- The use of doctoral students as tutors as part of their training should be explored.

In terms of other matters:
- The university should consider the establishment of a special, centralised office for the development of teaching and learning.
- The university should develop a general language strategy for the whole university and should also present how it intends to teach foreign languages as part of its educational programmes and part of its programme for staff development.

In terms of research:
- If the Research institutes are re-integrated into the university following the adoption of the Foundation model, the university should insist on the appropriate allocation of overheads at the central level.
- The merging of small research units into larger ones with critical mass is to be encouraged.
- The university should top-slice the budget to allow some central funds for research, which can be distributed by the Rectorate.
- Any such funding should be based on appropriate quality evaluation and a university-level Research Committee should be established to oversee this assessment.
- The fortification of central services will permit the establishment of a Research Support Office which could help to foster collaboration between the academic units by disseminating research information both externally and internally.
- The workload of academic staff should be differentiated by adjusting the teaching load for strong researchers.
- The university should develop means to encourage scientific excellence through prizes and awards. These should be given at the central level so that they are more fully recognised.

In terms of doctoral studies:
- The establishment of a university-level graduate school should advance cooperation between Faculties and promote interdisciplinarity.
- This doctoral school should establish links and cooperate with the graduate schools of other universities, both domestic and international.
- The university should adopt the use of doctoral committees for research in place of the traditional apprentice-master system.
- The university should ensure that doctoral students develop transferrable skills, which broaden the PhD experience.
- The university should ensure that the skills of PhD students are enhanced by their involvement in undergraduate tutoring.

In terms of internationalisation:
- Internationalisation should be coordinated at the level of the Rectorate.

- The blended teaching of English in mainstream programmes is necessary if the university wishes to increase the number of incoming students from outside the Lusophone countries.
- The teaching of Portuguese for non-native speakers is important for exchange students.
- The university should encourage and facilitate the use of sabbatical leave for staff.

8.   CONCLUDING REMARKS

This review has taken place during an interesting and challenging time for Portuguese higher education in general and for the university in particular. The team trusts that the University of Porto will find its comments and suggestions helpful, and wishes the university all the best for the next stage of its development.

Envoi

The IEP team wishes to thank the University of Porto once again for the excellent arrangements provided for the review team. It was a pleasure to be in U. Porto and to work with the staff, students, and external stakeholders of the university.