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HELLENIC REPUBLIC
H.Q.A.
HELLENIC QUALITY ASSURANCE AND
ACCREDITATION AGENCY

EXTERNAL EVALUATION REPORT

DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

December 10, 2013

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External Evaluation Committee

The Committee responsible for the External Evaluation of the Department of Management Science and Technology of the Athens University of Economics and Business consisted of the following five (5) expert evaluators drawn from the Registry constituted by the HQAA in accordance with Law 3374/2005 :

1. Professor Emmanuel Thanassoulis (Coordinator)
Aston University, UK
2. Professor Chrisanthi Avgerou,
London School of Economics and Political Science, UK
3. Professor Spyros Economides
California State University, USA
4. Professor Eleni Hadjiconstantinou
Frederick University, Cyprus (Imperial College, UK till October 2012)
5. Professor Aris Syntetos
Cardiff University, UK

The Evaluation took place from 18 to 22 November 2013.

GLOSSARY

ABS	Association of Business Schools
ACM	Association for Computing Machinery
AIS	Association for Information Systems
AUEB	Athens University of Economics and Business
DMST	Department of Management Science and Technology
ECR	Efficient Consumer Response
EEC	External Evaluation Committee
EFQM	European Foundation of Quality Management
HRM	Human Resources Management
HQAA	Hellenic Quality Assurance Agency
IEEE	Institute of Electrical and Electronics Engineers
IER	Internal Evaluation Report
INFORMS	Institute for Operations Research and the Management Sciences
OMEA	Internal Evaluation Committee
PG	Postgraduate
The Committee	External Evaluation Committee
The Department	Department of Management Science and Technology
UG	Undergraduate

N.B. The structure of the “Template” proposed for the External Evaluation Report mirrors the requirements of Law 3374/2005 and corresponds overall to the structure of the Internal Evaluation Report submitted by the Department.

The length of text in each box is free. Questions included in each box are not exclusive nor should they always be answered separately; they are meant to provide a general outline of matters that should be addressed by the Committee when formulating its comments.

Introduction

I. The External Evaluation Procedure

The External Evaluation Committee (henceforth **EEC** or equivalently, **the Committee**) received the Department’s Internal Evaluation Report (**IER**) dated September 20, 2013 before the visit to the Department of Management Science and Technology (henceforth **DMST**, or equivalently **The Department**) of AUEB. The Committee was favourably impressed with the thoroughness and professionalism with which the OMEA (Internal Evaluation Committee, *Ομάδα Εσωτερικής Αξιολόγησης*) prepared the IER and with the presentations of the information contained therein.

After an overview and orientation meeting at the Hellenic Quality Assurance Agency (HQAA) offices, the Committee visited the Department Monday through Wednesday 18-20/11/2013. Upon arrival in to the DMST location, late Monday morning, the Committee members were met by the Chair of the Department (Πρόεδρο του Τμήματος), Dr. C. Tarantilis and immediately met some of the faculty members.

The meetings started with a presentation by the Department Chair, Dr. Tarantilis. The presentation was thorough and comprehensive placing the DMST within the context of AUEB and covering all the main points related to the evaluation including Curriculum, Teaching, Research, Services and Outreach. He explained that the structure of the Department and its organization is based on three main academic pillars (**Information Technology and Systems; Operations Research and Management Science; Management**). Subsequently, the Committee met with the Rector and Vice-Rector of Academic affairs (Drs. K. Gatsios and E. Giakoumakis) and had a discussion about the strategy of the University, especially as it relates to the impact of the new legislation for educational reforms on the University as a whole. The Rector pointed out the adverse impact of the reduction in administrative staff mandated by the governmental cuts (for example 35 layoffs out of a total of 189) while the University which was recently ranked 123 out of 1000 institutions worldwide must maintain its sustained effort to meet its key goals of Academic Excellence in Research and Teaching, Outreach to the Business Community and Service to the Society.

A discussion with the ERASMUS/International student exchange officer (Ms. Galanaki) was also conducted. She pointed out that AUEB and the DMST in particular have been the pioneering units of international academic exchanges among Greek institutions of higher education with other countries, mainly European, and with a great volume of student exchange activity within the ERASMUS programme. Indeed, Ms Galanaki is the Erasmus contact point for the whole of Greece.

Finally, the postgraduate programmes supporting facilities and personnel of the Department were visited and the Committee had the opportunity to discuss issues of concern with the staff. While the facility space is limited, the staff voiced its satisfaction in terms of cooperation and working relations with faculty and students.

The second day started with the visit of the Committee in the facilities and with the administrative support personnel of the undergraduate programmes of study. The space

limitations, the uncertainty regarding employment due to the recently mandated governmental budgetary cuts and the continually revised rules and legislation by the Greek government were some of the negative aspects voiced by the staff regarding their job. On the other hand, they indicated that the positive aspects of their job were the congeniality and communication they enjoy with students and faculty of the Department, the freedom to propose operational changes to the Department administration and the fact that their duties are enjoyable within an environment of informality and personal contact of the people they serve. They also voiced a mild apprehension concerning the decision for a “Business School Unit” to be formed by including a number of Departments and thus combining and centralizing corresponding administrative functions. To that extent they feel uncertain about the redistribution of work load and responsibilities.

The remainder of the morning was devoted to a presentation on the undergraduate (**UG**) programme by faculty members. The goals and objectives, the structure and content, statistics on student performance, relations between faculty and students and programme assessment methodology were presented and discussed. This presentation was followed by an interactive session between a group of undergraduate students and the Committee in the absence of faculty. In that discussion with the students, positive comments were made relating to the degree of scholastic engagement and involvement with businesses for practical experience that the faculty promotes. The morning sessions concluded with visits to the computer laboratories and the library.

In the undergraduate computer laboratory comments were solicited from both students and supervising technical staff. It should be noted that the visit to the computer laboratory had not been announced in advance to the students and staff concerned in order to sample a session as it would be in the normal course of events. Other than the space limitation problem, both students and laboratory staff had positive comments for their work environment, cooperation and mutual work relationship.

During the visit to the library which is a typical academic library facility, the lack of funding to procure and make available relevant and useful subscriptions to periodicals seemed to be the main concern. Nevertheless collaborative subscriptions with other Greek Universities were being purchased to the main research outlets relevant to DMST faculty. The Committee also inspected the section of the Library devoted to textbooks mandated for each UG course which was well stocked and had suitable policies of loan periods to maximize access by students and staff.

The afternoon sessions of this second day focused on postgraduate (**PG**) programmes. At the presentation of the various PG degree programmes, the Committee members were impressed with their diversity. The degree programmes include the International MBA Programme, the Executive MBA programme, the MSc in Human Resources Management, the MSc in Public Policy and Management as well as an innovative and unique of its kind MSc in Heritage Management offered jointly with the University of Kent in the UK. There seems to be a synergy between the faculty members in the respective degree programmes, some of which have achieved international recognition and awards.

In the interactive session between the Committee members and the (full and part time) graduate students that followed, the students made very positive comments regarding the faculty support and encouragement they receive, the opportunities for professional business contacts opened to them and the culture of team work that is promoted within the Department.

The third day was devoted to Research, Outreach and Strategy related matters. The research conducted was presented by Research Laboratory. Each Laboratory has a Director from the Faculty, it is theme based and it involves research by faculty (some from AUEB Departments

other than DMST), their PhD students and in some cases post docs. The presentations focused on publications, PhD supervision, research projects, profile of the faculty and their international collaborations.

The day closed with the interaction of the Committee, first with the non-tenured and then with the tenured faculty members separately. In the former case issues related to promotion, personal and professional development were discussed and in the latter case issues related to the development and long term evolution and long term objectives of the Department were discussed. The impression of absolutely no conflicts or diversion of interests and focus within a group and between groups was conveyed to the Committee which again noted the culture of team work and cooperation that prevails in the Department and which result in remarkable productivity and academic achievements given the human professional resources available.

During the presentations and the discussions the Committee was impressed with the professionalism, the quality of the presentation materials and amount of effort that was devoted in preparing all documents that were provided to and examined by the committee, such as:

- The Department's Internal Evaluation Report (including tables with statistics on research productivity, average grades of graduating students, list of courses offered at various degree programmes etc.)
- A copy of all the Department's Power Point presentations
- The Department's newsletter on the research conducted by the Faculty including list of publications
- Promotional material on the postgraduate courses.
- A research handbook summarising the achievements of the faculty.

II. The Internal Evaluation Procedure

The production of the IER by the Department followed the required procedure. The IER was of high quality, complete, informative and contained the material necessary for the external evaluation. The discussions with the Internal Evaluation Committee (OMEA) and other faculty members supplemented and elaborated on all aspects of the IER that merited additional discussion. In particular, the Committee appreciated the presentation of supplementary material which was provided and further clarified some sections of the IER. All documents presented key information in useful graphical and tabular form. **The Committee concluded that the Department has met the objectives of the internal evaluation process with exemplary professionalism.**

A. Curriculum

Undergraduate program.

UNDERGRADUATE PROGRAMME IN MANAGEMENT SCIENCE AND TECHNOLOGY

APPROACH

The goal of the undergraduate programme in Management Science and Technology is to provide state-of-the-art knowledge on three interrelated domains: management, management science and operations research, and information technology and systems. In addition to substantive knowledge, through this programme students acquire skills and competences that enable them to start performing a range of managerial roles, including digital competency, collaborative team work and leadership, entrepreneurial behaviour etc.

The programme is geared towards serving the needs of the Greek economy by developing professional management and entrepreneurial capabilities with international orientation.

The Department actively seeks and attracts students with high potential.

The programme comprises 27 compulsory and 10 elective courses plus a 3 month compulsory internship. It is structured in five streams: *E-business Innovation and Entrepreneurship*, *Operations Research & Management Science*, *Operations and Supply Chain Management*, *Information Systems and Technologies*, *Strategy and Human Resources Management*. The courses are taught by well qualified academic staff most of whom are research active in the courses they teach.

Noteworthy is the enrichment of student experience by embedding in the taught programme collaboration with the research groups of the Department, group assignments and contact with industry for the purposes of coursework. The compulsory internship scheme integrated in the programme facilitates the transition from university studies to employment.

The design of the programme curriculum is informed by guidelines and standards set by relevant international associations, namely INFORMS, AIS, ACM, IEEE, ABS. Importantly, the generic disciplines-based curriculum has been adjusted to address requirements of the Greek socio-economic context after consultation with employers and by monitoring the employability and employment status of alumni.

The Department has in place a clear procedure for curriculum design and revision. It involves an 'academic curriculum committee' which comprises both faculty and student representatives. The last revision, which took place in 2013, was organised by the academic curriculum committee of the Department and the revisions were approved by the General Assembly. It involved consultation with all members of staff and feedback from alumni and employers.

IMPLEMENTATION

The Programme is an effective implementation of the intended goals and objectives. The syllabi of the taught courses are up to date and comparable with equivalent courses of highly reputable universities. The Programme is clearly described on the web site of the Department, the course guide, and brochures, thus effectively communicated to various audiences, including students, staff and visiting academics, employers and prospective students.

The Programme's international orientation is strengthened by participation in the Erasmus exchange Programme. The Department offers 14 courses in English to incoming Erasmus students and this year (2013/14) it has 72 places in foreign universities available for its students.

The UG Programme is a very intensive. In comparison to Programmes we are familiar with, it is more extensive in terms of topics it covers, longer in terms of number of lecture hours per course, and involves more detailed teaching of its courses' topics. This has implications both for time left for research by staff and for students to develop their own critical thinking. These points are touched upon in our recommendations later.

Recently, the number of staff teaching on the undergraduate Programme has declined from 25 to 20 (due to retirement, secondment, resignations for taking up academic positions abroad). This year the Department managed to adequately resource the full Programme with well qualified, albeit overloaded with teaching, staff. Nevertheless with one further imminent retirement, the Department will be short of the required teaching staff for its undergraduate Programme. There is an urgent need for recruitment to replace lost staff. Yet recruitment is frozen in the current financial crisis in Greece.

RESULTS

Student evaluation survey results as well as feedback from alumni and employers that were made available to us provide convincing evidence that the Management Science and Technology undergraduate Programme is highly regarded by its students, graduates and Greek employers. The Programme has achieved high demand, requires high marks from university entry exams and as a result attracts highly capable students. It has consistently the 3rd highest aggregate entry points among 25 Economics and Management and the 4th highest among 28 Informatics and Telecoms Department in Greece. Its graduates are appreciated by Greek employers and until the Greek economic crisis had no difficulty finding well paid employment. An increasing proportion of graduates now undertake entrepreneurial initiatives. There is also evidence that students of this Programme find internships and employment abroad. Post graduate destinations include the most highly ranked Business Schools and Technology universities of the US, Canada, and Europe. **In short, the Department is achieving very well the goals and objectives it has set for this Programme in terms of equipping its graduates for the world of work.**

IMPROVEMENT

The Department constantly monitors the quality and changing requirements for its undergraduate Programme. A recent curriculum revision suggests that it has also the ability to swiftly respond and implement Programme improvements accordingly.

Two areas of **improvement would** require changes in the broader context of higher education in Greece. First, regulation on quantity and intensity of teaching, and secondly staff retention and recruitment.

The Department should consider regulatory opportunities for reducing the number of taught courses and teaching hours per course, thus allowing more time for students to explore learning resources on their own, but under academic guidance, in order to develop independent thinking and critical judgement. The Department will need to strive to replace lost staff and retain existing staff. We touch on staff retention and recruitment under financial constraints in our recommendations in Section F.

TAUGHT POSTGRADUATE PROGRAMMES

APPROACH

The Department has varying degrees of involvement in the design and delivery of five interdepartmental Masters Programmes: MBA International, Executive MBA, MSc in Human Resources Management, MSc in Public Policy and Management, and MA in Heritage Management (jointly with the University of Kent in the UK).

While each of these Programmes has its own goals and objectives, they all serve established needs for advanced knowledge and skills in Management in the Greek and (for some) international economic contexts. These goals are achieved by a rigorous selection of candidates with high potential and by offering research-led and practice relevant courses.

While the curricula of the Programmes reflect different perceptions of needs and opportunities, they all resulted from collaboration with other departments and close contact with industry.

More specifically, the goals, objectives and particular features of the five postgraduate Programmes of the Department are as follows:

The ***MBA International***, taught in English, led by the Department of Management Science and Technology and delivered in collaboration with two other departments of the AUEB, is the flagship postgraduate Programme of the Department. Its main goal is to provide a full MBA curriculum of high international standards and aims to be internationally competitive. The Programme curriculum has taken shape and is regularly revised in consultation with leading figures of local and international business and by utilising feedback from its alumni.

The ***Executive MBA***, which is delivered in collaboration with three other Departments of the AUEB, aims at providing a fully-fledged postgraduate curriculum for participants with extensive work experience in senior positions in the private and public sectors. The contribution of the Department of Management Science and Technology to the curriculum of this Programme comprises courses in areas of its research expertise, including information systems and digital innovation, leadership, and quantitative methods and management.

The ***MSc in Human Resource Management***, which is delivered in collaboration with one other Department of the AUEB, aims at equipping participants with knowledge, skills and competencies for professional careers in human resources management or for continuing towards a PhD. The contribution of the Department of Management Science and Technology to the curriculum of this Programme comprises courses on areas of its research expertise, including organizational behaviour, leadership, and information systems.

The ***MSc in Public Policy and Management***, taught in English, is led by the Department of Management Science and Technology and is delivered in collaboration with two other Departments of the AUEB. It aims at equipping participants who are already employed in the public sector organizations or have extensive broader experience in other areas, with knowledge and skills for making policy in specialised areas of public interest and for managing public sector and non-governmental organizations.

The ***MA in Heritage Management***, taught in English, has been designed in collaboration with the School of European Culture and Language of the University of Kent in the UK. It is led by the Department of Management Science and Technology and is delivered in collaboration with one other Department of the AUEB. The Programme is intended for managers of archaeological sites and other cultural heritage institutions with financial, managerial and administrative knowledge and skills. The EEC was told that this Programme was initiated as a new 'line of business' in setting up collaborative degrees which will stand the Department in good stead for developing further such initiatives with other institutions

abroad.

The design and quality monitoring of Programme curriculum involves an advisory council with experts on archaeology from Greek, British and American universities, as well as relevant professional institutions.

IMPLEMENTATION

All Programmes have effectively implemented their curricula and they are of comparable standards with equivalent Programmes in reputable universities abroad.

There is ample documentation on all Programmes informing students, prospective students, staff and potential employers. The curricula are well structured, coherent and functional. The Programmes include a combination of theoretical and practice oriented material. Students the EEC saw emphasized their appreciation of material oriented more towards practice than theory and praised their teachers' efforts to include in their teaching, in addition to theory and models, case studies and practical components. The students the EEC saw confirmed that the Programmes they studied effectively combined academic knowledge and practice oriented coursework. Those without extensive prior work experience found the academic and practice driven learning delivered by their Programme useful for entering professional careers. Those who had experience in senior professional roles found their Programmes 'inspirational' and enabling them to instil culture change in their places of work.

Almost all members of staff of the Department teach on postgraduate courses related to their expertise. The Committee formed the view that the PG Programme courses in many instances drawn from relevant research expertise at the Department.

RESULTS

An important indicator of the success of postgraduate Programmes is demand. These Programmes have had fairly stable demand over the years. Although it declined with the current Greek economic crisis, all Programmes continue to attract adequate numbers of students and not only remain financially viable but play a decisive role in generating revenues for investing in research and improving the physical space available for students and faculty.

Students' evaluations are consistently high. Notable among the evidence of quality achievement and excellence are the following:

- The MBA International has achieved accreditation by the international Association of MBAs (AMBA) and has won several international distinctions and awards, including AMBA MBA innovation award in 2013 and 13th place among 200 Masters Programmes in Western Europe in Eduniversal Masters rankings 2013.
- The MSc in Human Resources Management has received the European Foundation of Quality Management (EFQM) distinction at the level of 'committed to excellence'(2008) and was ranked 7th MSc in HRM in Europe (2012) by the Eduniversal "best masters rankings".
- The MSc in Public Policy and Management was ranked 23rd according to Best-Masters. Com in 2012.
- The Executive MBA attracts scholarships by The Bodossaki, Fulbright and Stavros Niarchos Foundations.

IMPROVEMENT

The Department monitors the quality of the Programmes through student evaluation surveys, alumni and employers' feedback. It is mindful of declining demand by foreign students and declining employment opportunities for its home graduates, both of which are related with the current Greek economic crisis. Their response, quite rightly we believe, is to strengthen the international character of most postgraduate Programmes, achieve international accreditation, and exploit opportunities for innovative context relevant knowledge areas in collaboration with reputable foreign institutions. Full recommendations are given in Section F.

PhD PROGRAMME

The goal of the PhD programme is to prepare future academic teachers and researchers in the thematic areas of the Department. The taught components of the programme (on research methodology and organizational theory) are intended to provide research competencies and a common conceptual foundation for all PhD students of the Department. PhD research is conducted under supervision by members of staff with expertise in the domain of the doctoral study and through affiliation with thematic research groups – the 'research labs'. **The research contribution by PhD students is covered in Section C under Research in this Report.**

B. Teaching

APPROACH:

The Department deploys teaching and learning methods comparable to those of well-established international Universities. Students take for each UG (Undergraduate) course 4 hours of Lectures per week, 3 hours per week for PG (Post Graduate) courses. These are supplemented with tutorial sessions and students have the opportunity to see the Lecturer in his/her office hours, if they wish, to further understand the course content. Technical subjects such as computer programming can involve additional hands-on sessions in computer labs under the supervision of staff trained in the relevant computer skills, especially so in the run up to assessment deadlines which involve the use of computer software. In certain courses students are set work to be carried out in groups of 2 or 3 persons giving students experience in working in groups. Finally all undergraduate students have an internship for a period of time at some organization for practical experience.

Beyond the traditional teaching methods above, use is made of case studies, role playing and guest speakers which enriches the experience of students.

Course materials are placed on line on the proprietary system “eduportal”. This the Committee understands is soon to be replaced by the “Moodle” system. The system appears adequate as a basic repository of teaching materials but many more features such as facilities for assessment submission, time dependent visibility of materials, ability to check for plagiarism etc. would be desirable and some such as submission on line we understand will be available in the forthcoming Moodle system.

Students the EEC met expressed the view that their teachers were not only accessible regarding their courses but that they showed a genuine interest in them and were supportive and encouraging of their studies.

The teaching facilities in the physical sense are of varying quality. All rooms are equipped with the basic facilities one would find in any good University such as desks, chairs, and power point projectors. However, while the facilities for postgraduate students at Evelpidon/Lefkados are good in terms of the internal lay out of the teaching rooms, they do give a sense of tight space especially so as some floors of the building are used by another, non-university organization. The facilities in the main building at Patission Street are spacious. However, the building both internally and externally is ‘old and tired’ and is not very inspiring as a place of learning. This is not helped by graffiti at many places and ‘wall to wall’ party political posters in certain sections of the building.

Facilities were especially cramped for the UG administrative staff at the Patission building, having barely enough space to move. This space is especially depressing to work in and the EEC hopes more space can be found for them, perhaps in a re-organised structure of the Business School recently created.

Regarding the assessment process generally credit is by examination and assessed assignments carried out individually or in a small group of 2 or 3 persons. In the latter case the mark awarded to the assignment is the same for all group members. The lack of validation of the examination and assessment process by a second marker and/or an external

examiner while the norm for Greece is not in line with established practice internationally at good universities and this is further commented upon below under 'Improvement'. The current system, as dictated by the State, allows for multiple opportunities to retake an exam until a course is passed. This too is out of line with international practice and is commented upon further under improvements.

IMPLEMENTATION

The Department has 22 regular faculty members currently 2 of them on leave. This serves 858 UG and 383 PG students. In terms of the UG Programme the student staff ratio is 858/20 or about 43:1. This is more than twice as high as would be found in research oriented Universities internationally. It is to the credit of the faculty that despite this very high ratio they instil in their students a sense of knowing them and caring for them personally and providing adequate access and feedback when students require it.

To the heavy UG load staff carry we need to add further student weight reflected by the 383 PG program though this is a slightly more complicated calculation as the PG programs are interdepartmental, and in one case inter-university. Teaching on PG programs is not mandated by the State for academic faculty in the manner it is for UG Programmes and in that sense this teaching load is voluntary. However, it is of fundamental importance for income generation to support the research profile of the Department. Some of the PG students on taught programmes bring the Department in contact with the organizations where they are employed and this can lead to research or consultancy access for staff, PhD students and Post Doc Fellows.

Students submit their assessed assignments in general to the academic responsible for the course concerned, either on line or in hard copy form. This adds unnecessarily an administrative component to the load of the academic and could create problems for the strict meeting of deadlines of submission of coursework. If deadlines are not adhered to by all students and enforced by the Lecturer responsible this can be unfair to students who do meet deadlines or in any case submit their work earlier than others by considerable time. This point is commented upon further under improvements.

Faculty members are available to students via e-mail and hold a minimum of two office hours per week. These are supplemented to an extent by UG students having access to PhD and research lab staff. The students we met did report that they are happy with access to Lecturers in the run up to assessment deadlines and also to getting timely, adequate and informative feedback on their assignments. Nevertheless some improvement on the access system in place is possible as noted later under Improvements.

Faculty teaching at the Undergraduate level is evaluated by the Quality Assurance Unit (MOΔIII) and teaching at the Postgraduate level is evaluated by the academic committee managing each Program. The evaluation takes place at the end of each course (weeks 9-11). The instrument used is in line with instruments used in good universities for this purpose. The processing of the results and their reporting to the member of staff concerned and the Head of Department is also in line with other institutions. However, actions post this stage in terms of follow up could be strengthened as noted under recommendations below.

One outcome worth noting is that recognition for good teaching in annual awards has been instituted and also is being taken into account for promotion of faculty. However, caution is

needed to ensure good teaching quality is judged more broadly than simply with reference to student evaluations.

There are extensive exchange agreements with a wide range of institutions. The department contributes 14 courses taught in English and offered to ERASMUS incoming students. Some of these are also open to home students who wish to take them in English. About 220 students have come in and some 320 own students have taken studies abroad under the Erasmus scheme in the last 10 years. This offers good exposure for the Department's students to an international context of higher education both through the incoming and the outgoing students. Students also benefit indirectly through the international mobility of faculty. The internal report notes numerous visits by DMST staff abroad and by staff from overseas Universities to the DMST.

The Department is well integrated with the AIESEC institution offering its students further international experience. Indeed one of its alumni was recently in the co-ordinating committee of AIESEC for one year in the Netherlands.

The Department strongly encourages and supports its Ph.D. students to publish papers in reputable journals. This is reinforced by the strong culture of publication of the faculty members.

Beyond the two textbooks in Greek mandated by legislation for each course, students are offered additional source material in slides, notes, case studies etc. This is commendable. In a visit to the Library we noted some well-known international textbooks are available in translation. However, the need for the Department General Assembly to approve ALL textbooks seems overly bureaucratic. The Lecturer is best placed to know the best textbook for his/her course.

RESULTS

Overall, the Committee believes that teaching is delivered very well with dedication by all levels of staff coming in contact with students. This is also reflected in the mean score of over 4 out of 5 (best) on a Likert scale on student satisfaction with the delivery of lectures.

In terms of completions the self-evaluation report notes that 80% of UG students who graduate do so within five years. This percentage does not seem to be too low given the legal framework in Greece whereby students can retake examinations an 'infinite' number of times. Indeed the median duration of 4.5 years for a 4-year degree Programme is impressive by Greek standards. However, the percentage graduating within the 4 years at 46% would be considered too low by international standards but this most likely is the result of legislation which permits repeated retakes of courses and the mind set this creates in the student body that 'time is not of the essence' in completing the degree Programme. The percentage could well improve as students factor in more and more that under new legislation they must complete in 6 years their degree.

The average grade of graduation is 7.4 and 2 in 3 graduate with a grade between 7 and 8.5 out of 10. This is impressive and attests both to the high quality of students recruited and to

the effective teaching.

Postgraduate students according to the self-evaluation report generally complete satisfactorily in the prescribed duration their degree Programme. Their average graduation grade is between 7.6 and 8 out of 10 which again testifies to the high calibre of students recruited and the dedication and delivery of the content by staff.

IMPROVEMENT

The Department aims to maintain its ‘carefully planned and executed” undergraduate Programs described in Section A. The Department has a solid record of involvement with the business and local community at the teaching level both through internships at the UG level and through projects and postgraduate degrees some of which recruit from those in employment. The Department aims to maintain this track record and indeed improve upon it through further initiatives. One such recent initiative is the *innovation summer school* which can be developed further, for example through more sponsorship to enable more students to benefit from it.

The challenges the Department faces for the future are largely exogenous because of the legal framework in which it operates, exacerbated by the prolonged financial crisis gripping Greece at the time of writing. The particular challenge is to retain good staff or recruit replacements when they do go, as salaries in Greece become highly uncompetitive in an increasingly international academic market for good academic staff.

The Department aims to increase its international collaboration in joint degrees both at UG and PG level. As noted in Section A a good start in this respect has been made through the establishment of the joint MSc in Heritage Management with Kent University in England.

The Department also aims to strengthen further its links with secondary schools and tutorial colleges (φροντιστήρια) to increase the visibility of its courses and improve further the quality of those recruited to its UG Programmes.

The Department hopes to secure within the newly created Business School, of which it is a part, a position in terms of surplus revenue share commensurate to its contribution in teaching and research income generation which it can use in turn to improve the working space for its staff, fund PhD students and invest in research output. This can create a virtuous circle as noted earlier by increasing the attractiveness of the Department to new students and staff leading to further capacity for revenue generation. However, the picture for UG teaching space remains more problematic because of lack of adequate state funding. Some rationalization of courses and space use in the framework of the Business School of which now the Department forms a part could ease the situation here, but without refurbishment the space will remain uninspiring.

The Department intends to lobby where the opportunity arises the State authorities to improve funding for staff recruitment and PhD students and for relaxation of arcane regulations which stifle academic initiative. In this respect the Department sees evaluations like the present one as a means to lobby the State for funding which would reflect the quality of work both at teaching and research level done in academic departments.

The EEC acknowledges that a good system of student feedback on teaching effectiveness is in place, administered by the Quality Assurance Agency (MOΔIII) and by the Programme Committee for each degree, leading up to reporting and discussing the feedback between the staff member concerned and the Head of Department. However, it would be worth considering whether the system can be extended to ensure a record is made so that a paper trail will exist mapping out student feedback and corrective action taken over time. Further, provision can also be made to report back to the student body the feedback given in previous years on the course concerned and on subsequent action taken so that student engagement and trust in the feedback system can be maintained.

There is no provision in law in Greece for a system of external examiners to vet the standard of examination questions and of assessed assignments. To its credit the Department has instituted an internal process of discussing the questions and assignments set between subsets of staff. However, the Department should consider codifying this process and making it comprehensive across all courses as per our recommendations in Section F.

The IER shows that all those registered to take the examinations on at least one of the Post Graduate degrees in 2011/12 passed the examination. Indeed there was no average graduation mark below 7 out of 10. It is not clear if this was at the first attempt by each student. While this is not in itself impossible, and it could be the result of the student cohort being very strong, it is somewhat unusual by international standards for such uniformly high marks on courses. A formal system of vetting the questions as outlined above would ensure they were challenging enough and sample second marking would further guarantee the marks reflect the quality of the work of students.

There was no clear statement in the IER regarding the adherence to deadlines for assessed assignments and what the impact would be on a student who hands in work late. Similarly there was no mention of how unforeseen events such as illness that may force a student to hand in an assessed assignment late are handled. The Department should consider laying strict guidelines on adherence by students to deadlines for handing in assessments but it should also set up formal procedures for appeals by students who fail to meet the deadline for good reasons. It is more practical to operate such a system and be consistent across all courses if the handing in of assessments is processed by the administration rather than by a variety of academics.

At present students are not split into smaller groups for tutorial classes following up lectures or indeed for practical sessions in computer labs. This can be problematic for courses with large numbers of students. Tutorial classes of 30 or so students would be desirable to provide more scope for students to interact with teachers and smaller still groups in computer lab sessions to ensure all students absorb the content being covered. However, it is appreciated that implementing these suggestions could be problematic under the current space and staff limitations.

The Department could consider setting up some sessions to advise about effective teaching practices those new to teaching. Also a peer teaching evaluation system would help staff share good teaching practices as would a mentoring system for those new to teaching.

Attendance of some undergraduate courses is too low. The Department should identify the causes for this and take corrective action where appropriate.

Finally there was no mention in the IER about a systematic check for plagiarism and how any student caught plagiarizing is dealt with. With easy access to the internet it is very important procedures are in place that ensure assessed assignments handed in by students do not plagiarize and are the result of a student's own work.

C. Research

APPROACH

The current research strategy of the Department is to conduct both fundamental and applied research in a wide range of subject areas within the three main academic domains of the Department, namely, **Management Science, Information Technology and Systems** and **Management**. To this end, the Department has formulated a framework for carrying out research of high calibre and international recognition striving for academic excellence. The research policy and orientation of the Department is evident through the activities, publications, research collaborations and projects undertaken by the faculty members in the above areas.

The Department has set itself the following key objectives in research:

1. Publish high quality/ high impact research in internationally recognised research outlets.
2. Foster innovative research initiatives and maintain an active international presence through research collaborations.
3. Invest in the development of its academic staff and promote a doctoral research culture.

As evidenced by the research output of the Department, faculty members conduct research in their own area of scientific training and specialisation but also collaborate productively with colleagues from other relevant academic disciplines within the local, national and international context. It is the Committee's view that the quality and impact of the Department's research output are in line with its mission statement aiming to enhance and disseminate scientific and practical knowledge at the interface of management and technology. Indeed, evidence in the IER suggests that some research laboratories in the Department are internationally recognized due to their research activities and publications and some faculty members are very well-respected at the international level. The Committee notes that, within the last five years, the volume and quality of research output of the Department have significantly improved with a clear emphasis being placed on publications in the top end of ABS list and ISI Web of Knowledge listed journals.

A research culture is clearly evident in the Department and there is a shared understanding of the need to maintain an active research profile and a good research record. It may be desirable to set up a formal process to review each faculty member, say on an annual basis, regarding their goals, methods and aspirations where research is concerned. These discussions can be aligned with the internal standards already in place for assessing research in the context of tenure and promotion of individual faculty. Despite the current adverse economic situation in Greece, the Department has engaged in a promotions strategy that is based inter alia on good research output. Within recent years new and dynamic research-active faculty members have been appointed or promoted.

During the discussions of the Committee with staff not yet in senior posts it was found that collaborative research with senior faculty works well and this is already evident by the joint publications produced as well as the participation in a number of joint research projects. The Committee considers this to be good practice and recommends that a formal review process be established to provide each staff member with guidance and research direction consonant with the Department's overall research strategy. This will make it possible to exploit such synergies as may exist within and between the various thematic research groups.

IMPLEMENTATION

Six research laboratories currently operate within the Department, each of which supports the research priorities and initiatives of the Department. These are:

- ✓ Management Science Laboratory - MSL
- ✓ Laboratory of Electronic Commerce and Electronic Business - ELTRUN
- ✓ Information Systems Technology Laboratory - ISTLab
- ✓ Strategy and Entrepreneurship Laboratory - ESTE
- ✓ Transportation Systems and Logistics Laboratory - TRANSLOG
- ✓ Centre for Organizational Behavior and Leadership – CROB-L

The Department has a strong sense of identity and strong collaborative research-oriented culture reflected in the undertaking of multidisciplinary research projects and leading to joint publications with a number of co-authors. The theoretical as well as applications orientated research output undertaken by the six thematic research groups - the “research labs”- reflects the Departmental identity and the culture of team work that is promoted within the Department and builds on the taught postgraduate and undergraduate programs. The Faculty should be commended for their commitment.

Apart from faculty, DMST research staff comprises doctoral students, a limited number of post-docs and occasionally postgraduate students from taught Programmes. The Department has been running a Doctoral program since 2003 and, to its credit, the Department has recognized the need for and is moving toward the implementation of an extended ‘taught-part’ of the doctoral program.

The Committee understands that PhD students that are not self-funded are supported either by the Greek State’s Scholarship Foundation (*IKY*).or by DMST funds generated through research projects and/or postgraduate degree programmes. This model of funding PhD research is generally in line with what can be found in other research led universities.

The Doctoral program offers the choice for the PhD theses to be written either in the English or Greek language. The former facilitates students in moving on to publish in international journals. Building a significant student body of high quality doctoral students can potentially make a substantial contribution to the Departmental research output in the relevant field of knowledge. Upon graduation, these individuals (alumni) may further contribute to the Department or University in different ways through their connections to the Greek or overseas industry and other academic appointments. Indeed, the Department has so far produced 76 PhD holders, approximately half of whom have pursued an active academic career in international and domestic academic institutions.

The Department strongly encourages and supports its PhD students to publish papers in reputable journals. This is reinforced by the strong culture of publication of the faculty members and the systematic mentoring within the Department. The Committee recognizes as a very positive practice the fact that postgraduate and (to a lesser extent) undergraduate students are included in research projects and publications. This generates a positive research attitude within the Department and the Committee would like to see this good practice continued and enhanced.

Each Laboratory currently operating within the Department houses the research activities of one or more faculty, some of whom may be from other Departments of AUEB, but the Head of the Laboratory is from DMST. Some of the faculty of each Laboratory typically supervise one or more PhD candidates, post-doctoral assistants or other students whose research falls

within the remit of the Laboratory.

The nature of the research carried out in the Department does not require specialist equipment as this largely amounts to computer hardware and software. Nevertheless the Department hopes that more space can be made available to it in the re-organised structure of the new Business School. Further, it aims to generate funds through research and taught postgraduate courses to increase its research space.

According to the faculty members, library resources are satisfactory and the availability of fully operating online access facilitates the faculty's research productivity and flexibility of working off-site. However, there are limited funds for access to research journals and so the range of journals that can be accessed on line is not as wide as they would require. The Committee recognizes the financial constraints bringing this about but recommends that the Department should explore ways to optimise the range of journals to support the multidisciplinary research undertaken by the six research labs.

It is generally commendable that the resources supporting research are used effectively and efficiently. It is worth noting, however, that these resources are highly dependent on recruitment of postgraduate students. It is noted that this income may be vulnerable as student recruitment fluctuates, especially as the current economic crisis continues.

The research output of the Department is disseminated through the production of books, edited volumes of research papers and publications in top peer-reviewed international conferences in the faculty's respective academic disciplines. A large number of journal peer-reviewed publications produced by members of the Department shows a strong element of collaborative research work within the Department and with colleagues from other departments of the University. These collaborations are likely to intensify in the near future in view of the merging of departments to become a School. Some publications are co-authored with researchers outside the Department and, in some cases, the co-authorship is with renowned international scholars. Faculty members have collaborated successfully with colleagues from academic institutions elsewhere in Europe and the US (e.g., MIT, Princeton University, Imperial College London, CERN, EPFL, etc.) and produced high quality published research output. The Committee encourages this good practice as a platform of promoting research and developing links with reputable institutions in Europe and worldwide.

In addition, faculty disseminates its research through conference proceedings. A large number of papers are presented annually at refereed internationally recognized conferences (national and international) with multiple co-authors from the DMST and their research collaborators on research topics pertaining to the research activities carried out in the research labs of the Department. Financial support is provided for participating in such conferences both to faculty members (up to two conferences per year) as well as PhD students (a maximum amount of 800 Euros is provided to cover for at least one conference attendance) provided their research work is presented. The Committee finds such levels of support satisfactory and conducive to research. It must be noted though that over the recent years, due to the financial difficulties that the country is facing, only limited funds from externally funded research projects are available, on a competitive basis, to support conference participation resulting in the decline of the number of conference papers.

It must be noted that the DMST faculty has limited options for financial support in conducting academic research beyond the participation in competitive research projects. DMST members are active in securing research funding from European, national and limited

private sources. Members of the faculty have initiated numerous projects as PIs and participated in a number of externally funded research projects. Further to their involvement in research projects, faculty members are also very active in promoting research results through consultancy for such organisations as, the Confederation of Hellenic Enterprises, Hellenic Management Association, etc. Significant amount of funding for the Department has been obtained through a number of consultancy projects.

An important activity of the Department is the wide dissemination of the research produced by faculty and research staff. This includes the annual “DMST Newsletter” which is the Department’s newsletter on the research conducted by the faculty including up-to-date list of publications, attendance of conferences by its members, distinctions and awards, editorships, research projects, organization of conference events, etc. In addition, the Department reports on a continuous basis on its web-site, information on staff and doctoral research, publications and the on-going research and service activities of its members. A research handbook summarizing the achievements of the faculty has also been recently published.

Finally, the Department organizes a series of regular research seminars where distinguished international scholars are invited to present their most recent work to the faculty and Ph.D. students. Part of the research output undertaken by the six research labs of the Department is also disseminated via these research seminars.

RESULTS

The Committee acknowledges the culture of team work and cooperation that prevails in the Department since its inception and the synergy between the faculty members within and between the research labs. This has resulted in remarkable productivity and academic achievements by the Department given the constraints of financial and human resources.

Evidence of research excellence is reflected in the quality and impact of the Departmental research output. A careful examination shows that, since 2000, there are notable achievements, both in terms of quality and quantity, relative to the size of the faculty. Members of the Faculty have made important contributions in publications in scholarly journals (ABS Lists, ISI-listed publications) and received a high number of citations. Notably, in the period 2003-12, the Departmental research output includes 442 journal papers and 389 out of these appear in the ISI Web of Knowledge. On average, this corresponds to about one ISI publication per year per DMST staff during that period. This is a very good rate of output by international standards, provided the quality of research is good. In this respect it is noted that many of the papers concerned have appeared in top ranked journals (equivalent to 3* in the ABS journal ranking system). It is worth noting also that over the same period, the research work of faculty members has received over 6,700 citations in the ISI Web of Science citation reports. This corresponds to about 15 citations per journal paper which is very impressive, especially considering that more recent papers would not yet have had time to be cited extensively. These data point to very good research output from the Department in general terms both in terms of quantity and quality. More detailed data on the research output of DMST staff are given in the IER.

Further significant indicators of the impact of the research produced by the Department include the number of the joint industry-academia research initiatives, the academic recognition for the DMST faculty, international collaborations, external visibility, rewards and awards. International networking and recognition of the DMST research staff is evidenced from the number of incoming visiting faculty, the research partnerships, memberships in the Editorial Boards of respectable journals, prizes for scientific work and academic contributions, patents (one member of staff holds 2 patents), presentation papers

at national and international conferences.

Faculty members of the Department were honoured for exceptional achievements in Operations Research by the Institute for Operations Research and Management Science. Also, members have received awards for “Best paper” at conferences of international scope, such as, the Academy of Management, International Conference on Industrial Engineering and Engineering Management, International System Administration and Networking Conference and Honorary Medals, such as, the President’s Medal by the British Operational Research Society and the Honorary Medal for significant achievements in Operations Research by the INFORMS Society. Most Ph.D. students have presented their work at internationally recognized conferences, which is a notable achievement by international standards. In addition, some Ph.D. students have published their work in reputable journals.

Department faculty have extensive activity in editorial positions of international journals. The presence of the Department in the international academic community is evidenced by: at least 15 faculty members are members of editorial boards or Guest Editors in at least 41 international journals, including Journal of Strategic Information Systems, Journal of Decision Systems, International Journal of Electronic Markets, Journal of the Operational Research Society, IEEE Software, the European Journal of Information Systems, Organization Studies.

The research project funding generated by the Department over the last 10 years accounts for 80% of the total funding for the new Business School of AUEB and for 40% of the AUEB total project funding. More specifically, a significant amount of funding comes from the EU research projects and other national research funds as well as a large number of consulting projects. DMST members have been involved in research activities of practical relevance and have developed close links with local industry and companies in Greece.

IMPROVEMENT

The Department has set itself the following strategic goals to be achieved in research over the next five years:

- ✓ Secure financial resources to provide continuing support for academic research with the main targets being doctoral scholarships and research funding for the existing six research laboratories.
- ✓ Maintain and further develop collaborations with well-known research groups in Europe and worldwide.
- ✓ Reinforce the capacity to produce high quality/high impact academic research.
- ✓ Maintain and improve performance levels of research output against important KPI’s (i.e. citation counts, journal impact factor, etc.).
- ✓ Strengthen the PhD Program
- ✓ Develop and encourage local horizontal collaborations with faculty and researchers from the three other departments which will be included in the structure of the new University Business School, such as, co-supervision of PhD students, joint research projects.

The Committee recognizes that the flexibility and autonomy of the Department in the implementation of the above strategic goals is limited by the requirements imposed by the Greek State on minimum teaching hours by course and by member of staff, and by limited financial support from the State. These limit time that staff can devote to research and recruitment and retention of research active staff. Nevertheless, the Committee proposes the following:

The Department could consider an imaginative policy for staff retention and recruitment within the funding limitations by for example offering enhanced study leave periods and flexible timetabling of teaching. See also in Recommendation E2 on this point.

It would be beneficial for the Department to establish a formal staff mentoring process to provide guidance for future research priorities and generally maintain and enhance the research environment in the Department. The Committee commends in this respect that the Department has established a link between good quality research output and promotions.

The Department is encouraged to further enhance, support and expand the PhD Programme and promote links with Universities abroad. Building a significant body of high quality doctoral students can make a substantial contribution to the Departmental research output. To make this possible, the Committee suggests that the Department allocates, to the extent finances permit, additional financial resources to attract high quality researchers, such as, offering a number of PhD scholarships to the most competent candidates. The prospect of the newly established Business School of which the Department will be a part creates new opportunities in terms of revenue sharing and enhancing resources.

The Committee views the research model adopted of collaborations between faculty, students and post docs as a very productive and supportive one and an example for emulation by others. The Committee understands that Lab members are given space where they wish to develop their own independent lines of research and/or to take the lead in some of the research of the labs, and get the credit for doing so. The Committee recommends that this freedom is safeguarded, especially so for members who are newer to research and at early stages in their careers so that they can develop without being overshadowed by more experienced researchers.

D. All Other Services

For each particular matter, please distinguish between under- and post-graduate levels, if necessary.

APPROACH

The Department has 6 administrative assistants and 5 educational laboratory staff. The EEC believes the academic faculty of the Department are satisfied with the service they receive from support staff. Students too indicated that they were satisfied with the access they had to faculty, administrative and other support personnel. The administrative staff felt that their working relationship with both faculty and students is excellent and that they are happy and proud to provide support to the best of their ability. A number of processes have been computerized but certain aspects such as student examination records are also kept in hard copy form as a backup.

The Department does not have an explicit policy to increase the student presence on campus. However, as it will be mentioned in the next section, the activities of collaboration with various public and private sector organizations that the Department encourages and promotes, engages and excites a large portion of the student population, especially the undergraduates, and as a result they are enticed to be physically present in order to participate or work on these activities besides their class time.

IMPLEMENTATION

The Department is self-contained and supported in terms of administrative and technical staff. A rather extensive document listing in detail the functions, duties and responsibilities of the departmental administrative support staff was given to the Committee. When the Committee met with the administrative staff, other than inquiring about issues of work satisfaction or concerns, questioned the amount of workload as described in the document relative to the staff size. Surprisingly, there were no complaints, other than some uncertainty regarding the layoff threats on account of the recent governmental actions and everyone seemed to enjoy a congenial and cooperative relationship with faculty and students.

The Committee solicited opinions from the personnel involved with functions of the computer laboratories, covering both student tutoring and supervising as well as systems support. A high degree of job satisfaction was noted in this group.

With the upcoming reorganization of a number of departments in the newly set up Business School, it is likely that many of the support services will be centralized perhaps resulting in economies of scale while at the same time this may create adversity in terms of domain preservation and workload redistribution battles, at least at the initial reorganization stages. To the extent that this may result in some unnecessary disruption of the Departmental functions, the Committee wishes to forewarn the Department to anticipate and plan for such an eventuality.

Concerning the facilities, two of the main buildings were seen by the Committee. The Patisson Street building appears to be in a very poor state. Despite its impressive architectural style the building suffers from a number of major problems including being generally dirty, cluttered by graffiti and party political posters on the walls. The offices and classrooms were generally in a rather poor state. Overall the building did not feel like a pleasant environment for students or staff to work in. In contrast, the facilities at the Evelpidon/Lefkados street building are generally in a much better condition, clean and conducive to learning. The computer laboratories were certainly very inadequate in terms of space both for student and staff workspaces. The library seems to have adequate space, but it was noted once again that the lack of adequate funding has adversely impacted its services both in terms of materials and staff support.

RESULTS

There is a variety of activities, both educational and professional in nature that the departmental administrative staff seems to be handling very efficiently in spite of the apparent shortage of human resources and electronic support systems.

With the appropriate faculty participation, one such activity is the coordination and management of the ERASMUS student exchange program which for the Department has proven to be a successful and widely visible academic activity. Another activity is that of the alumni public relations and related activities. Since the Department places emphasis on business and community outreach and involvement, part of the workload regarding communications, coordination, tracking and record keeping is being handled by the administrative staff even though faculty and students, both graduate and undergraduate are involved in sustaining and increasing this activity.

IMPROVEMENTS

The University is likely to acquire in the near future additional space in the building on Evelpidon/Lefkados street a portion of which may be allocated to the Department and enable it to use as it sees fit. Concerning the Patisson Street building, the Department should promote efforts to make the environment at the building more conducive to learning. The Committee understands that this is more of a University wide issue rather than a

Departmental issue but the Department should press this issue to the extent it is possible within existing structures.

In reference to any perceived or planned improvements for support personnel and structures, since the reorganization efforts for the creation of the Business School unit are under way, the Department has no choice but to postpone any large scale facility improvements until the reorganization is concluded. However, any small scale improvements directly related to Departmental activities should be implemented.

It should be noted that if the recommendation B3 below is adopted whereby assessed assignments are handed in to administrative staff in order to enforce adherence of hand-in deadlines then the work load of administrative staff will increase considerably and this could have resource implications both in terms of staff and space.

Please, comment on quality, originality and significance of the Department's initiatives.

The Committee noted a large scale comprehensive effort of a variety of initiatives. The related collaboration activities were presented to the Committee by faculty, students and a limited number of individuals who were outside the academic community of the Department. These results are obviously mutually beneficial for both students and collaborating organizations.

The types of activities in the various collaboration areas which were substantiated with concrete examples, include but are not limited to:

- Faculty involvement with Greek professional and industrial associations
- Student engagement in surveys and case studies of Greek companies
- Faculty Chairmanships and Board Memberships on private and public organizations
- Faculty consultancies and other links with the industry
- Faculty and student involvement in civic societies
- Student Internships with industrial and business organizations with enhanced prospects of employment
- Faculty supervised undergraduate and graduate student research with high impact for industrial and business organizations as well as governmental agencies

In addition to the above, the Department, through its Innovation and Entrepreneurship program has established a number of initiatives, conferences, fora and awards for the purpose of motivating the entrepreneurial spirit of students and suggesting innovative solutions for assorted issues and problems in business and industrial organizations. The Committee finds particularly praise worthy the following initiatives:

Youth Entrepreneurship Summer program (YES) (www.yes.aueb.gr)

Ennovation competition (www.ennovation.eu)

The Annual Management Science and Technology National Student Conference

These initiatives are directed at students, the first two at upcoming applicants for University, while the student conference is organized and ran by the Department's students but it is targeted at all students from Greece and abroad. The Department offers a number of scholarships to top students participating in a nationwide competition to attend the YES programme for 2 weeks. These initiatives testify to the Department's engagement with the society in which it exists and offer good example for emulation by other institutions.

The **quality** of the collaborative activities is evidenced by a number of awards and Honorary Medals such as a President's Medal by the British Operational Research Society, Honorary Medal for significant achievements in Operations Research by the INFORMS Society or a European Case Clearing House Award for the best European teaching Case study. The **significance** of the collaborative activities is evidenced by faculty appointments on national and international organizational and academic boards such as Hellenic Mathematical Society, Hellenic ECR Retail Association or IEEE Computer Society Board of Governors. The **originality** of the collaborative activities is evidenced by the adoption and implementation of faculty research work in systems that are marketed by well-known technical companies as in the case of Microsoft that used research work in "Group Wise Processing of Relational Queries" in the query processor of Microsoft's SQL server.

In conclusion, the Committee recognizes a significant outreach effort from all the faculty members with the objective of strengthening the links between the University and external private and public sector organizations. This activity has very positive returns for the students and creates opportunities for them to secure internships, employment opportunities, networking with prominent business professionals as well as governmental agencies and research institutions.

E. Strategic Planning, Perspectives for Improvement and Dealing with Potential Inhibiting Factors

***** DMST MISSION STATEMENT*****

"The Department of Management Science and Technology should grow carefully, capitalize on its achievements, and move forward to develop further high quality research and teaching, as well as meaningful and mutually beneficial relationships in the local, national and international contexts"

Based on this mission statement, the Department has articulated in its IER the following strategic areas and in each one has enumerated specific goals to be achieved in the time frame of 2013 to 2017:

Teaching:

- Continue the development of innovative interventions in teaching and student learning such as in digital platforms and e services for faculty and students, student e portfolio, involvement of undergraduates in research via research assistantships.
- Increase the list of courses offered in English (currently in the ERASMUS program) and link them with the undergraduate study curriculum.
- Develop new and innovative postgraduate programmes in collaboration with leading institutions in cutting edge fields of academic and industrial interest such as Business Analytics.
- Place the DMST degree in the lead position for top choice in student university applications for Economics, Management and Technology fields.

Research:

- Locate and secure financial resources to provide continuing support for academic research with the main targets being doctoral scholarships and research funding in the six research laboratories in existence;
- Reinforce the capacity to produce high quality/high impact academic research
- Collaborate with high quality universities in the PhD Programme

International Collaboration:

- Sustain and further develop international collaborations with distinguished international universities for joint Masters Degrees

- Continuing involvement in joint research proposals for competitive R&D projects funded by the EU
- International exchange programs for >50 students (Europe and other regions)
- Develop and participate in a joint undergraduate degree in English

Administration and Performance:

- Cultivate local horizontal collaborations with faculty and researchers in the three other departments of the AUEB Business School soon to be organized (i.e. co-supervision of PhD students, joint research projects and courses offered).
- Maintain the collaborative and distributed management style of the Department.
- Maintain good performance levels against important KPI's (i.e. mean time for graduation, student satisfaction, research output etc).

Impact to Society:

- Strengthen ties with the industry and professional organizations to maintain high rates of graduate recruitment, (i.e. through research collaborations and broader dissemination of research output.)
- Support and train un-employed young people.
- Implement R&D projects with high impact to the local society (i.e. public electronic procurement).
- Institute and promote a Centre for New Entrepreneurship and Digital Innovation in collaboration with AUEB Innovation unit.
- Expand contacts with secondary education teachers, advisory bodies and students to promote DMST and enhance high school education (i.e. competition, summer school etc).

Staffing:

- Retain the existing staff (academic, administrative and technical.)
- Attract and recruit high quality faculty with inter-University joint appointments and visiting Professors.

The Committee sees these as commendable objectives for the Department and in large measure achievable.

Noteworthy is that the Department has set very high aspirations for the quality of research its staff publish and it has set procedures for monitoring and using it in appointments and promotion procedures. High quality research will raise the visibility of the Department at the international stage which will in turn contribute to sustaining its attractiveness to new students and staff.

One potential inhibiting factor in the Department's ability to achieve its objectives is the regulatory framework and in particular the Department's ability to respond to market pressures for retaining staff when the responses require approval and funding at State level. Paradoxically the quality of some of its top faculty in terms of research visibility at the international stage exposes the Department more severely than might otherwise be the case to the danger of losing staff as the economic crisis in Greece persists and makes salaries ever less competitive than might be available for such staff outside Greece.

One further potential inhibiting factor in the short term is likely to be the creation of the Business School of which the Department is a part. There is a likely to be a transitional period where Departmental roles will be 'negotiated' and the outcome of these negotiations

will affect the effectiveness of the School and the Departments within it.

F. Final Conclusions and recommendations of the EEC

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

In the relatively short period since its establishment in 2000 DMST has developed remarkable academic competencies and achieved impressive results. In many respects DMST is an exemplar new university unit that developed multidisciplinary excellence according to international standards despite the restrictive conditions of Greek academia. Transferring their substantial experience in some of the best universities in Europe and the US, the team of academics who founded the Department instilled an ethos of collaborative striving for international recognition and local relevance.

The international orientation of the Department is visible in the curriculum of its taught programmes and is strengthened by its involvement in the Erasmus programme. The department's strategy of international orientation in research has resulted in a stream of publications in high quality journals comparable with good universities in advanced European economies and the US.

Local relevance is manifested in the engagement of the Department with the Greek industry and its multi-faceted efforts to prepare students with knowledge and skills in demand by Greek employers. Noteworthy and indicative of the Department's responsive orientation to the local context is the swift enrichment of the undergraduate programme with taught components and activities that foster entrepreneurial competencies when the economic crisis limited the job opportunities of their graduates.

At the time of our evaluation, the Department is a vibrant academic place with high morale across senior and junior staff, PhD and taught programme students. All members of staff are research active and Department maintains an international presence in its disciplines with a very healthy stream of high quality publications. The Committee found a very intensive work effort that delivers excellence through a culture of collaboration.

The strategic priority of the Department should be to sustain and continue to improve its high standard outcomes within a changing environment. Potential threats include its recent positioning in a larger unit (the Business School) parts of which may not share its ethos and competence, and loss of members of staff who leave Greece to pursue academic careers in good universities abroad. The Department must find ways of keeping teaching and student service loads at levels comparable to research universities with which it rightly compares itself. Opportunities of international collaboration, such as through visiting academic staff posts, may provide valuable links with constantly developing international academic quality standards, but it cannot address the issues of securing permanent career staff.

At a more routine level, there is, of course, room for improvement of various tasks and our recommendations below are intended to point out such areas of action.

A. CURRICULUM

Recommendation A1.

The Department should consider regulatory opportunities for reducing the number of taught courses and teaching hours per course, thus allowing more time for students to explore learning resources on their own, but under academic guidance, in order to develop independent thinking and critical judgment.

Recommendation A2.

The Department should seek to strengthen its postgraduate Programmes with opportunities for innovative context-relevant knowledge areas in collaboration with reputable foreign institutions.

Recommendation A3.

The Department could strengthen its PhD Programme by adding cross disciplinary theory and advanced methods courses to the two compulsory taught courses for PhD students.

B. TEACHING**Recommendation B1.**

The Department could unify the MOΔΠ and PG system of student feedback on teaching and extend it to report back to the student body the feedback given in previous years on the course concerned and on subsequent action taken so that student engagement and trust in the feedback system can be maintained.

Recommendation B2.

The Department should set up a formal systematic process of internal vetting of exam questions and of assessed assignments to ensure they are fit for purpose. Further, the Department could set up a system of sample second marking to ensure the marks are appropriate for the standard of the work submitted by students.

Recommendation B3.

The Department should enforce strict guidelines on adherence by students to deadlines for handing in assessments but it should also set up formal procedures for appeals by students who fail to meet the deadline for good reasons. It is more practical to operate such a system through the administration rather than faculty.

Recommendation B4.

The Department should set up sessions to advise those new to teaching about effective teaching practices.

Recommendation B5.

The Department should set systematic procedures to ensure assessed assignments handed in by students do not plagiarise others but rather are the result of a student's work alone.

C. RESEARCH**Recommendation C1**

The Department should establish a formal process to provide guidance for future research priorities and generally monitor and promote the research activity and environment in the Department.

Recommendation C2

The Department is encouraged to further enhance, support and expand the PhD Programme and promote links with Universities abroad. To make this possible, the Committee suggests that to the extent its finances permit the Department should allocate additional financial resources to PhD studentships.

Recommendation C3

The Committee commends the fact that Lab members are given space where they wish to develop their own independent lines of research and/or to take the lead in some of the research of the labs and get the credit for doing so. The Committee recommends that this freedom is safeguarded, especially so for members who are newer to research and at early stages in their careers.

D. ALL OTHER SERVICES

Recommendation D1

To the extent that funds for infrastructure improvements become available, the Department should adopt a continuing strategic goal to maximize the computerization of the administrative procedures as the trend of reducing the number of public employees during the governmental austerity policies continues.

Recommendation D2

The Department should promote efforts to make the environment at the Patisson building more conducive to learning. The Committee understands that this is more of a University wide issue rather than a Departmental issue but the Department should press this issue to the extent it is possible within existing structures.

Recommendation D3

The Committee praises the Department for the student-targeted initiatives such as *YES*, *Ennovation* and the *Student Conference* and encourages it to expand these initiatives where possible through sponsorship.

E. STRATEGIC PLANNING, PERSPECTIVES FOR IMPROVEMENT AND DEALING WITH POTENTIAL INHIBITING FACTORS

Recommendation E1

The Committee recognizes the administrative overload that Departmental faculty has to undertake. Nevertheless, it would seem appropriate to institute a formal standing committee to formulate, propose, track and manage the progress of future plans and goals of the Department. Perhaps it could be a formally implied responsibility of the OM.E.A as part of the ongoing self-evaluation process.

Recommendation E2

The Department should actively consider policies for staff retention and recruitment within the constraints of State funding and the legal framework in place. This could include salary top ups through earned income by the Department, making more time available for research for staff (e.g. by careful timetabling of teaching by each faculty member etc). Care will be needed in devising such a system to ensure it is transparent and not divisive among staff.

The Members of the Committee

Name and Surname	Signature
1.	_____
2.	_____
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