

**UNIVERSITY of VAASA**

## **Evaluation of Research Activities 2005-2009**

### **Final report**

#### **Contact**

University of Vaasa  
P.O. Box 700 (Puu villakuja 8)  
65101 VAASA, FINLAND  
TEL. + 358 6 324 8111  
FAX + 358 6 324 8208  
[www.uwasa.fi](http://www.uwasa.fi)

[www.uwasa.fi/english/research/evaluation/](http://www.uwasa.fi/english/research/evaluation/)

#### **Evaluation Secretariat**

Head of Research and Innovation Services  
Marita Niemelä  
email: [marita.niemela@uwasa.fi](mailto:marita.niemela@uwasa.fi)

Executive Assistant  
Anne Sved  
email: [anne.sved@uwasa.fi](mailto:anne.sved@uwasa.fi)

**Published in December 2010**

## Contents

Preface .....	3
Foreword .....	4
Evaluation process.....	6
Summary and reflections on the evaluation of research activities .....	8
Evaluation reports .....	15
University Panel .....	16
University level evaluation.....	17
Panel of Business Studies.....	26
Department of Accounting and Finance .....	27
Department of Business Law .....	30
Department of Economics .....	33
Department of Management.....	36
Department of Marketing.....	39
Department of Production.....	43
General Issues of Recommendation to the University of Vaasa Regarding the Faculty of Business Studies .....	47
Panel of Humanities.....	49
Faculty of Humanities .....	50
Panel of Public Administration .....	54
Faculty of Public Administration .....	55
Panel of Technology.....	59
Department of Computer Science .....	60
Department of Electrical Engineering and Automation.....	63
Department of Mathematics and Statistics .....	66
Appendix: Terms of Reference .....	69

## PREFACE

This report presents the result of the first overall research evaluation of the University of Vaasa. The evaluation was executed during 2010 and it focused on the research activities of the University of Vaasa in the years 2005-2009. The units of assessment were:

- Department of Accounting and Finance
- Department of Business Law
- Department of Computer Science
- Department of Economics
- Department of Electrical Engineering and Automation
- Department of Management
- Department of Marketing
- Department of Mathematics and Statistics
- Department of Production
- Faculty of Humanities
- Faculty of Public Administration

The University of Vaasa is a multidisciplinary University offering degrees at all academic levels from Bachelor's to Doctor's. It works in close co-operation with its surrounding region of Ostrobothnia and values internationalisation in its degrees and research.

The teaching and research activities of the University are widely based, their focus being on business studies, administration, technology, languages and culture. The maritime campus offers a modern study environment for 5,000 students.

The University functions in three faculties: Faculty of Business Studies, Faculty of Philosophy and Faculty of Technology. During the timescale of this evaluation exercise (years 2005-2009), the University of Vaasa had four faculties: Faculty of Business Studies, Faculty of Humanities, Faculty of Public Administration and Faculty of Technology. From the beginning of the year 2010, the Faculty of Humanities and the Faculty of Public Administration merged and formed the Faculty of Philosophy.

## FOREWORD

An individual researcher is subject to assessment and evaluation in all phases of research. When applying for funds for research, the quality of the research plan and the qualifications of the researcher play a crucial role. The publication of the results of research is very competitive. To be able to end up on the pages of top-ranked journals the manuscript has to pass several demanding referee rounds. Only high-quality research can get published on high-quality publication forums. The research is assessed again several times during the researcher's career when climbing up the ladders of an academic career. Experts evaluate the diversity and depth of the publication tracks of the applicants for tenured academic positions. On the independent level, the researchers are used to evaluation throughout their career.

Finnish universities are also evaluated on an annual basis for financing and the results of their research. Funding of a university is increasingly dependent on the amount of competitive research funding and, to a minor degree, on refereed publications. In the future, the financing of a university is going to be based to a higher extent on the quality of research – using quantitative and qualitative measurements.

The annual evaluation at the university level is based on relatively narrow and quantitative observations. Therefore, the peer assessment of research has become a standard procedure. During the past two decades, the FINHEEC has initiated several overall evaluations of universities; both teaching and research are evaluated. FINHEEC has also initiated several discipline-based evaluations. As an example of this, our university has taken part in evaluations of business administration and economics, computer science, languages and engineering. The purpose of these evaluations has mostly been consultative and on a national level. Evaluations, whereby universities or institutions have been ranked on their performance, have not been a part of the Finnish academic tradition.

The analysis carried out by the Academy of Finland has raised doubts about the quality and competitiveness of Finnish research. Moreover, the analysis shows that the publication intensity and impact of research has declined slightly. To some extent this can be explained by growing investments in research in the Asian countries and, to some extent, on the financing policies of Finnish research. More funds have been available for applied technological research than for basic research. The balance of financing through institutions (TEKES and Finland's Academy) has been questioned again recently.

The universities have now adopted the practice of organising peer reviews of the research, typically at five-year intervals. The target of these exercises has not been the performance of individual researchers but rather the performance and coherence of the research teams and institutes, and the quality and functionality of the research organisation and doctoral education. Universities have used the evaluation reports to understand how the university is performing in comparison with international standards, and how the institutes and research groups are ranked within the university.

The University of Vaasa initiated its first overall assessment of the research based on the strategy adopted by the senate of the university. We plan to assess our research every five years. Based on the assessment, funds are allocated to the groups showing the best performance. Our aim is to observe the research groups showing the potential to become high-quality groups in order to facilitate the renewal of research.

Understanding the level of achievement of our research groups is important for the researchers. At the university level our wish is to understand what we are doing right or wrong when developing the preconditions and infrastructure for the development and progress of our researchers.

Since its foundation, the University of Vaasa has been a successful and efficient teaching institute. In addition, we have a steady record of research in a number of departments. Our researchers have become more international, and international journals have become the primary channel for publication. During the recent years we have paid much attention to our research organisation. Moreover, the research groups have formulated their research agenda, publication policies and plans to finance research.

This assessment exercise makes it possible for us to clarify our research strategy and make justified decisions as to how we should invest our limited resources in order to remain competitive among the research universities of the world in the disciplines of the University of Vaasa.

Matti Jakobsson

Rector of the University of Vaasa

## **EVALUATION PROCESS**

### **Organisation**

The evaluation of the research activities was decided upon by the University Senate on 19 September 2008. On 29 September 2008 the Rector nominated a Steering Group to support the execution of the evaluation. The group was chaired by prevailing Vice Rector for Research, Professor Jukka Vesalainen, and the other members were Research Director Erkki Hiltunen (representing the Faculty of Technology) and Professors Esa Hyyryläinen (representing the former Faculty of Public Administration), Jorma Larimo (representing the Faculty of Business Studies) and Nina Pilke (representing the former Faculty of Humanities). The Head of Research and Innovation Services, Marita Niemelä, and Executive Assistant, Anne Sved, acted as Secretariat of the evaluation. The evaluation process was operationally co-ordinated and organised by the Secretariat. During the academic year 2008-2009, the Steering Group determined the structure and composition of the evaluation panels, the criteria to be applied, and the materials to be provided to the panels, as well as other methods of implementation (see Appendix: Terms of Reference). The evaluation was funded by the University of Vaasa.

### **Evaluation Panels**

The evaluation was performed by five panels of independent scientific experts. Each panel had 5-6 scientific experts as members, the majority of them from abroad. Four of the panels were discipline-specific and each of them evaluated the units within one discipline (Business studies, Humanities, Public Administration and Technology). The fifth panel, the University Panel, was responsible for providing a university-level evaluation report and university-wide recommendations for future development. The University Panel was chaired by the University Panel Chair. Other members of the University Panel were the chairs of the discipline-specific panels. The University Panel Chair also participated in all discipline-specific panels. His responsibility was to ensure the commensurability of all panels' evaluations. Having a joint member in all panels proved to be a good idea: as planned, it had a considerable effect on the commensurability on how the evaluation criteria were applied by the panels, and also on the way the panels worked. It also made it easier for the University Panel to form a university-level opinion concerning the research activities.

The candidates for the evaluation panel members were identified based on recommendations by other Finnish and European universities and scientific research policy and funding bodies. Candidates were shortlisted by the Steering Group based on the correspondence between their fields of expertise and the areas of research at the University of Vaasa. The objective was to form panels that possess knowledge of all of the major research areas of the unit(s) of assessment. Letters of invitation were sent to the candidates in November 2009 and the chairs and the members of the panels were officially nominated by the Rector in January 2010. The panel chairs and University Panel Chair had an orientation meeting with the representatives of the University of Vaasa in May 2010.

### **Evaluation Materials and Site Visits**

The evaluation was based on desk research and site visits conducted by the panels. The units of assessment compiled the written background material to the evaluation panels for desk research during spring 2010. The material was then sent to the panellists at the end of June 2010. The material provided to the panels included, for

example, descriptions of the units and resources appointed for research in the units, descriptions of how research is organised in the units, information about the volume of publications and samples of the most relevant publications, descriptions of doctoral training in the units, a description of the units' international and national co-operations and a description of the societal impact of research.

The site visits were organised separately for each evaluation panel in September and October 2010. During the site visits, the panels were able to specify and expand their knowledge of the research activities in the university by interviewing a sample of researchers representing the various phases of a researcher's career. The panels had also time for internal discussions and creating a joint opinion for the evaluation report during the visits. The panels had two interviews per each unit of assessment: firstly they interviewed the professors of the unit and secondly the post doc researchers and doctoral students. The units of assessment decided upon the persons who took part in the interviews. The panels stayed in Vaasa 2-4 days depending on the amount of units to be evaluated.

## Evaluation Criteria

The primary task of the panels was to provide the university with an objective evaluation on the quality of its research activities in written form, followed by a given set of instructions. Panels were asked to give a numerical rating<sup>1</sup> and a written statement on four evaluation criteria: quality of research, doctoral training, quality of the research organisation and societal impact of research. Panels were also asked to give recommendations for future development. The evaluation report was written in a structured form. All the panels worked very effectively during the site visit and were able to provide a unanimous evaluation report during. The university level report was made by the University Panel, which was also provided within the schedule.

<sup>1</sup> *The following rating scale was used in the numerical rating of the quality of research:*

*7 The majority of the submitted works are at a **high international level** and virtually all others at a good international level, 6 At least one third of the submitted works are at a **high international level** and many others are at a good international level, these together comprising a clear majority, 5 The majority of the submitted works are at least at a **good international level** and virtually all others are at a fair international level, 4 At least one third of the submitted works are at a **good international level** and many others are at a fair international level, these together comprising a clear majority, 3 The majority of the submitted works are at least at a **fair international level**, 2 A minority of the submitted works are at a **fair international level**,*

*1 None, or virtually none, of the submitted works are at a **fair international level**.*

*The following rating scale was used in the numerical rating of doctoral training, quality of the research organisation and societal impact of research:*

*7 Excellent, 6 Very good, 5 Good, 4 Average, 3 Somewhat below average, 2 Fair, 1 Poor*

## SUMMARY AND REFLECTIONS ON THE EVALUATION OF RESEARCH ACTIVITIES

### Background and objectives of the evaluation exercise

The reasons why the University of Vaasa decided to enter into this long and time-consuming evaluation process stem basically from the fact that societies world-wide are interested in universities in terms of productivity, results, societal impact and quality. In Finland, the governmental objectives manifest themselves in the forms of tightening result control, quality assurance programmes, and the so-called public-sector productivity programme. At the same time "the great structural reform" proceeds and we have seen three important mergers of independent universities. Moreover, the debate on "research" versus "education" universities is ongoing and increasing in magnitude. It has been seen that one of the clearest signs of research orientation in a university is the appearance of so-called centres of excellence in research. All these external forces are important strategic drivers for every university and higher education institution in Finland. The executed evaluation process and this report serve as a source of important strategic information, which will enable the university management to build a strategy for the future together with the development programmes to implement it.

To be more specific, the University of Vaasa wanted to obtain an objective expert opinion of its research activity in relation to international standards. This evaluation exercise has to be seen also as a managerial tool to increase the strategic awareness amongst the university staff. This was a deep, profound self-evaluation process, using outside experts and site visits, which was aimed at increasing awareness and the growing general notion of the importance of quality in both the processes and output of research activity.

The following Tables 1 – 4 present a summary and overview of the panels' assessments of the 11 units evaluated. Along with the numerical ratings, the tables include a collection of various qualitative issues that the panels have raised as important points of view concerning the quality of research. The panellists emphasised the fact that direct comparisons of numerical ratings across the units may be somewhat misleading. This was also an issue raised in the planning stage of this exercise. So, when reading these tables, care must be taken so as not to become stuck on individual numbers. Instead, look at the issues raised as well. However, while considering these issues, one has to notice that different panels have had different points of view when executing the evaluation, leading them to pinpoint different characteristics of good quality. Therefore, the emerged issues cannot be interpreted as directed towards only the focal unit, but only as explicit expressions concerning that particular case. It is highly recommended that members of the various units read these tables (and the reports as a whole) as sources of useful perspectives of research quality. Some units may find it unfair not to have been recognised for certain issues they consider strengths themselves, and in some instances a critical issue raised by the panel may suit better to any other unit than the unit in question. Some of these assessments will be commented on in the summary below.

### Quality of research

The reports by the panels indicate that **the quality of research at the University of Vaasa seems to be at a good international level**. However, the quality varies between the units and even between research groups in certain units. The unit of Mathematics and Statistics gained the most positive comments on its research quality and the positive comments were mostly based on the excellent publication forums, within which the unit has successfully been published. Quite many units gained positive comments on their international co-authorship. The unit of Production received critical comments on their publication quantity, because the panel saw a negative connection



between quantity and quality. Similarly the unit of Electrical Engineering and Automation was criticised for the notion that short-term projects do not support good quality in research, especially when it comes to journal publication. It is possible that all the units having short-term research funding with a strong practical orientation face the same problem. The unit of Electrical Engineering and Automation received critique on its low international visibility, which by and large, stems from their local and practical orientation of research.

**Table 1.** Summary and overview of the panels' assessment on the **quality of research**: numerical ratings and various emerged qualitative issues.

Key: Positive expression = **bold text**; critical expression = normal text; x = explicitly mentioned in the report considering focal unit; (-) critical unit-specific expression in otherwise positive general expression; (+) positive unit-specific expression in otherwise critical general expression.

Issue/Unit	Mathematics	Com. science	Elect. Eng. & autom.	Accounting & Finance	Marketing	Management	Economics	Business law	Production	Humanities	Public Administration
<b>Quality of research ( numerical rating)</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>
Publications in excellent international journals, reasonable impact	x										
Evidence of international co-authorship	x	x		x	x	x			x	(-)	(-)
High international visibility	x		(-)								
Focus on quantity decreases the level of quality									x		
Short-term projects do not support journal publication			x								
Research quality/quantity varies between the groups/individual researchers		x	x		x					x	x
Publications are not fully consistent with the topic areas of research groups					x	x					
Only national publication profile								x			

The panels also raised the fact that research quality and quantity varies a lot within the units. There seem to be certain groups and certain researchers who are clearly more active in terms of research output. In some cases (the units of Marketing and Management) the panels pointed out that the contents of publications do not fit properly to the contents of the research programmes. The unit of Business Law was blamed for its publication profile, which is on a national basis only. Since this has been a deliberate choice by the unit, one has to assess whether the publication strategy selected is in line with the university's strategy.

## Doctoral training

The doctoral training at the University of Vaasa was judged to be at a good or average level compared to international and national standards. The numerous issues raised by the panels (Table 2 below) indicate the complicated nature of this area. What seems to be generally positive is the ability and willingness of all the units to offer personal-based guidance for doctoral students. However, only the unit of Production gained a positive remark on its ability to attract foreign PhD –students. Similarly, the prevailing practice used by Humanities of having a grading committee within the dissertation process was positively commented on. This particular issue was on the development agenda in 2010, when the varying practices between the faculties were harmonised.

**Table 2.** Summary and overview of the panels' assessment on **doctoral training**: numerical ratings and various qualitative issues raised.

Key: As in Table 1.

Issue/Unit	Mathematics	Com. science	Elect. Eng. & autom.	Accounting & Finance	Marketing	Management	Economics	Business law	Production	Humanities	Public Administration
<b>Doctoral training (numerical rating)</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>
Success in attracting international students									x		
PhD cooperation with other university		x						(-)			
Good personal guidance and availability of the supervisors	x			x	x	x		x	x	x	x
The practice of committee assessment of PhD dissertations										x	
Lack of research oriented external funding (Academy of Finland)									x		(+)
Projects do not support PhD -studies						(+)			x		
Lack of (capable) PhD -students	x										
Selection process of PhD students based on personal and internal contacts				x		x				x	x
Diversity of topics makes it difficult to achieve critical mass										x	
No formally organised PhD courses/structured programme	x	x	x					x			
Implementation and follow up of study plans										x	x
The average annual outcome of doctors is low											x
Ad hoc funding for doctoral students									x		

Two criticisms appear to be pertinent across all the units. First, the selection processes for PhD –students are based on personal and/or internal contacts only, without any purposeful attempt at attracting students from other universities in Finland or abroad. Second, there are no formally organised, structured, PhD –programmes at the university. The panels also called for more research-oriented external funding, especially referring to the funding of the Finnish Academy. It is worth noting that there has been a general lack of this kind of external funding at the university, even though this comment was explicitly presented only in the case of Production.

The panels did not refer much to the numbers of doctoral degrees as such. Only in the case on Public Administration was it criticised as being rather low. Taking an overall look at the number of doctors produced between 2005 and 2009, it is unfair to criticise this particular unit, because in comparison with other units it has succeeded relatively well (see Table 5). Moreover, there are units that have not succeeded in producing any new doctors whatsoever.

## Quality of the research organisation

The quality of the research organisation ranges from *very good* to *average* as well as a *somewhat below average* within the 11 units evaluated. One of the main aspects behind the panels' interpretation seems to be the amount of external funding attracted through competitive processes. All the panels commented on this matter. Five units were reported to have good records in external funding, and four gained rather critical comments. Some units received positive remarks on their national as well as international co-operation.

**Table 3.** Summary and overview of the panels' assessment on the **quality of the research organisation**: numerical ratings and various qualitative issues raised.

Key: As in Table 1

Issue/Unit	Mathematics	Com. science	Elect. Eng. & autom.	Accounting & Finance	Marketing	Management	Economics	Business law	Production	Humanities	Public Administration
<b>Quality of research organisation (numerical rating)</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>4</b>
Success in attracting external funding	(-)		x	(-)	x	x	x	(-)	x	(-)	(-)
Clear plans for the future		(-)				x				x	
Activity in organisation of conferences											
Good international co-operation/relationships	x			x	x	x			x		x
Good national co-operation/relationships				x	x	x		x	x		x
Coherence of research groups											
Unclear departmental versus research group structure										x	
International co-operation depending too much on personal contacts											x
International mobility of researchers is low											x
The unit is too diverse to achieve balanced coherence			x						x		
Lack of leadership	x										

The panel of Public Administration highlighted two internationalisation-related matters (co-operation on personal contacts only and low international mobilisation) by raising criticism concerning the unit. It is, however, quite evident that this criticism has to be directed towards almost every unit at the university. The problem of redundant diversity was raised in the case of two units (Electrical Engineering & Automation and Production). An internal reviewer may argue that Humanities may also suffer from such a problem. The unit of Mathematics receives criticism on its lack of leadership. As a small unit it clearly represents an organisation resembling a platform for experts rather than an organisational entity as such. The same holds true for many other units at the university. This single issue may reflect a deep cultural-based state of affairs at the university, where the “platform for individual experts” -thinking dominates over the “university of focused organisational entity” -thinking.

## Societal impact

**The societal impact of the University of Vaasa seems to be at a very good or good international level.** The panels have noticed the deep and numerous contacts established with university researchers and local companies. Also the impact university researchers have through different committees, administrative boards and executive groups has been recognised positively. Humanities has received positive feedback on its activities within training and development, as well as its activity through the so-called Newspaper University. These positive remarks also hold true for many other units at the university.

**Table 4.** Summary and overview of the panels' assessment on **societal impact**: numerical ratings and various emerged qualitative issues.

Key: As in Table 1.

Issue/Unit	Mathematics	Com. science	Elect. Eng. & autom.	Accounting & Finance	Marketing	Management	Economics	Business law	Production	Humanities	Public Administration
Societal impact (numerical rating)	4	2	6	5	5	5	5	5	5	6	5
Co-operation with (local) companies/organisations				x	x	x		x	x		x
Impact in the form of memberships in committees etc.	x		x	x	x	x	x	x	x	x	x
Training and development in collaboration with the Levon Institute											
The Newspaper university											
No faculty policy or even university policy in this field											

As the above overview shows, the research at the University of Vaasa is mostly at a good international level. Although quality varies across the units, the panels have found signs of good quality in each of the units evaluated.

## Quality embedded in quantity

The ultimate reason for any quality-management practice is to improve an organisation's result-oriented conduct and activity. In a market-driven economy, quality is a function of customers' preferences. Universities are not subject to pure market conditions even though there are various features presently acting as market-driven forces. These are mostly set by the Ministry of Education as the main body of the Finnish Government responsible for educational affairs, including research activity. It is well known that the funding of the Finnish universities is largely based on educational quotas, which means that quantitative results are displayed as organisational success in terms of the various degrees conferred. However, the development of the funding principles has been directed towards a more research (and quality) oriented model. The refereed journals are seen to outperform other types of publications, and external funding obtained from competitive sources (Academy, Tekes, EU) is valued higher than other forms of external funding. Thus quality is embedded in quantity on a selective basis.

Table 5 consists of figures indicating the quantitative performance of the units evaluated. The figures are generated from the background information reports prepared for the present assessment process. The publication/professor ratio is calculated by dividing the total number of publications by the average number of professor-years in the unit between 2005 – 2009. According to cross-unit comparison, the unit of Production shows superior performance in this measure by a total of 88 publications per professor in five years. It means 17.6 publications per professor per year. The figure does not, of course, indicate each professor's individual production, rather his/her activity to lead the research group's work in a successful, result-oriented way.

There are good reasons to argue that the numerical output of doctors reflects the quality of doctoral training in the unit. The relative amount of doctoral degrees varies from zero to 3.1 doctors per professor in five years. Referring to the university's doctoral degree quota (21 from 2009 onwards), and 52 professors responsible for reaching the target, it makes about 0.4 new doctors per professor yearly and 2 doctors per professor in a five year period. Referring to the target, three units (Management, Business Law and Production) have succeeded extremely well, and three units (Mathematics, Electrical Engineering & Automation and Economics) have more or less failed to reach the objectives in doctoral education.

**Table 5.** Quality embedded in quantity

<b>Result/Unit</b>	<b>Mathematics</b>	<b>Com. science</b>	<b>Elect. Eng. &amp; autom.</b>	<b>Accounting &amp; Finance</b>	<b>Marketing</b>	<b>Management</b>	<b>Economics</b>	<b>Business law</b>	<b>Production</b>	<b>Humanities</b>	<b>Public Administration</b>
Average number of professors in person-years 2005 - 2009	3,0	3,5	4,4	7,0	6,1	6,1	1,0	2,0	3,1	10,5	6,6
<b>Publications</b>											
Refereed journals	62	24	15	62	53	81	7	18	104	131	73
Articles in compilations or in conference proceedings	30	57	73	72	122	239	0	31	152	149	31
Monographies	0	3	0	2	5	12	0	11	2	14	21
University's own publication in series with referee process	19	2	1	13	16	16	8	7	16	12	11
Total	111	86	89	149	196	348	15	67	274	306	136
Total/professor (average in person-years 2005 - 2009)	37	25	20	21	32	57	15	34	88	29	21
<b>Doctoral training</b>											
Number of doctoral degrees conferred during 2005 - 2009	1	6	0	8	9	19	0	5	8	18	9
Average per professor (average in person-years 2005 - 2009)	0,3	1,7	0,0	1,1	1,5	3,1	0,0	2,5	2,6	1,7	1,4
<b>External funding (competitive sources of funding; 1000 €)</b>											
Academy of Finland	118	63	0	460	223	526	0	55	0	102	375
Tekes	0	399	384	261	436	779	0	0	442	0	0
EU research funding	0	4	163	0	214	59	223	0	610	0	12
Ministries of Government of Finland	0	4	170	0	297	312	0	0	290	50	91
Graduate Schools	53	0		323	309	37	0	0	0	154	230
Total	171	470	717	1044	1479	1713	223	55	1342	306	708
Total / professor (average in person-years 2005 - 2009)	57	134	163	149	242	281	223	28	433	29	107

External funding is connected to quality through competition in “project-proposal markets”. In order to succeed in such competition, a research organisation must have an interesting and up-to-date research proposal, it must show a credible track record in terms of publications and earlier projects, and it must usually be able to co-operate with other research organisations. All these qualities are also qualities of good research in the present assessment exercise. The figures of external funding attracted by the units thus reflect their research capability. Looking at the relative amount of external funding received by the units, the unit of Production seems to be at its own level. This unit receives an average as high as 433 k€ external funding per professor in a five year period. With respect to highly-valued funding from The Academy of Finland and Tekes, the unit of Management shows the best performance; absolutely and relatively.

## Taking advantage of the evaluation exercise: towards a learning organisation

An organisation learns by critically assessing itself using external expert opinions and by changing its activities accordingly. The former has now been completed but the latter is still in progress. It has been possible see various positive signs as a result of the self-evaluation processes realised almost one year ago. The objective of increasing awareness regarding quality and result orientation as a whole amongst the university staff has already been achieved. Moreover, at this very moment various university-level development projects are having to tackle the same important issues that the panels highlighted in their reports. For example the task of re-structuring and harmonising doctoral training is about to be completed by the end of 2010.

Along with continuous assessment, there are two important qualities an organisation has to meet in order to be “a learning organisation”. They are *the systemic approach* and *the shared understanding of vision and key performance indicators of the organisation*. The systemic approach refers to the comprehensive structure of

means and ends by which the organisation achieves its goals, and the shared understanding refers to the common awareness of that structure by the organisation members. A systemic understanding is not easy to reach in a world of varying external and internal interests. The scattered result-oriented co-ordination mechanisms tend to foster sub-optimisation rather than a systemic understanding of the means-ends –structure critical to success of any organisation.

In order to build up such a systemic understanding we first have to answer the following question: what is the ultimate goal for our research? Let's assume that our answer would be something like "to contribute in theory and practice by presenting new and innovative research findings". If this corresponds to our main goal, the next question is: what are the main means to reach the ultimate goal? Here we may find many kinds of means such as international and national co-operation, researcher exchange, effective doctoral training, external funding, organising research activity by research groups, other structural arrangements, co-operation with local companies etc. All these are factors taken into account as aspects of qualitatively-excellent activity in the present assessment. The danger lies in the sub-optimal treatment of these qualities, by understanding them as goals having value as such. The sub-optimising thinking is fostered effectively through the Ministry's present funding model. It consists of a diverse set of measures at the means level, which indicates that means really have value as such in the prevailing system.

The panellists raised a question as to whether the university has a research strategy at all. This critique may seem a little bit surprising, because we have a strategy. It is even printed in the leaflet. The lack of strategy may stem from the poor awareness of it by the staff, or the strategy may be difficult to adopt due to its unstructured nature. The strategy does not have meaning to the individual members of the organisation. To be simple enough, strategy is about setting up the goal and defining the means through which the goal can be achieved. This, again, supports the systemic thinking with a shared understanding of the goals and means –structure.

In order to be a learning organisation it is not enough for any organisation to merely set and measure objectives for different qualities, such as international co-operation or external funding. Instead, keeping in mind the ultimate goal the organisation has to ask the following question: what kind of international co-operation or what kind of external funding effectively leads us to reach the ultimate goal? The relation between the means and the goal matters. This also reflects the connection between quality and quantity: relevant (and in that sense high quality) sub-goals (means) improve the possibility of achieving the main goal.

The panels' reports and Tables 1 - 4 above serve as sources of relevant information when it comes to the various means of achieving the goals of research at the University of Vaasa. It is highly recommended that these points of reference will be used in reshaping the strategy for research activities. It is also important that the various aspects are dealt with as parts of a comprehensive system, where each part has a role in attaining the ultimate goal of research.

Prof. Jukka Vesalainen

Head of the Steering Group

## EVALUATION REPORTS

University Panel .....	16
University level evaluation.....	17
Panel of Business Studies.....	26
Department of Accounting and Finance .....	27
Department of Business Law .....	30
Department of Economics .....	33
Department of Management.....	36
Department of Marketing.....	39
Department of Production.....	43
General Issues of Recommendation to the University of Vaasa Regarding the Faculty of Business Studies .....	47
Panel of Humanities.....	49
Faculty of Humanities .....	50
Panel of Public Administration .....	54
Faculty of Public Administration .....	55
Panel of Technology.....	59
Department of Computer Science .....	60
Department of Electrical Engineering and Automation.....	63
Department of Mathematics and Statistics .....	66

## UNIVERSITY PANEL

The University Panel constituted a university level evaluation based on the work of the four discipline-specific evaluation panels.

**Chair:**

Professor emeritus Ossi Lindqvist, University of Eastern Finland, Finland

**Panel members:**

Professor Juha Kinnunen, University of Eastern Finland, Finland

Professor Anne Kovalainen, Turku School of Economics, Finland

Professor emeritus Erkki Lakervi, Helsinki University of Technology (TKK), Finland

Professor Liisa Tiittula, University of Helsinki, Finland



## UNIVERSITY LEVEL EVALUATION

The university panel is asked to give an assessment on the research activities of the University of Vaasa as a whole (Terms of Reference, section 4.6).

The university panel's written statements and recommendations for future development are written on the form below.

The evaluation of research activities 2005-2009 of the University of Vaasa was performed by four invited international Panels, one for each Faculty, in September-October 2010. Besides, a university level Panel, consisting of the Chairs of the four Faculty-level Panels and a Chair, prepared the final evaluation report in November 2010.

The Terms of Reference called for an evaluation and assessment of the research activities of the university, for their further development, and also identifying the units that are carrying out research on a high scientific level. The University has indicated in its strategy that in the current situation it is to its interest to strengthen its research activities and their impact. This effort apparently follows not only a national trend in higher education, but also a trend that is visible even globally. As commonly known, many of the international university rankings published are heavily based on institutions' research performance and its impact. Thus there is a common move away from the 'old' teaching institutions into more research-based organizational structures. This is related to the need to strengthen the institution's own competitiveness in the higher education (HE) and globally competitive research markets at large. Yet many of the academic fields represented by the University of Vaasa have traditionally been teaching-oriented, in Finland and also elsewhere in Europe, but there is a lot more pressure towards developing for high quality and relevant research for both local and national and for international use.

However, the Panels felt that a sheer research assessment exercise is not enough for the given task, but it requires a more thorough analysis of the functions and structures of the University of Vaasa. In order to meet the demands of its current strategy, that 'the university and its staff will just do more research', yet requires a strategic approach involving analyses of the university's management and organizational structures, its teaching organization and contents, research management and organization itself, engagement with the business world and the society at large, the alumni, and also the internationalization strategy.

The four Panels made observations that are rather consistent through all the academic fields, and thus it appears that many of the strengths and weaknesses of the four Faculties are rather similar in nature. This may indicate an outcome of a common strategy of the University, or it may also reflect the tacit practices that have been developing over time. The latter one may be actually more true.

Yet the current situation in higher education in Finland, with increased autonomy for the HEIs, calls for strengthened roles for the leadership. At the same time, a successful execution of an institution's strategy is also a matter for the whole team, involving the staff, the students and other relevant stakeholders, and not only the key persons in formal managerial positions. Actually it requires an inspirational leadership as well as management of human resources, and not of 'management' of the organization only. This is all tied to the organization's mission ('what will be done for whom'), and its vision ('what the organization wants to be in the future').

There has been a profound change in research policies and research practices in universities in the last few decades. First of all, there has been a shift from a single-discipline into a more transdisciplinary and heterogenous approach; this also should imply a shift from purely academic interests into clear problem-solving processes. That is, if in the past the scientists were mostly working for their own CV, then nowadays they also have to respond to a number of academic and non-academic (societal) interests. A new dynamism has been entering the research practice in the sense that it often involves temporary collaborative networks, often with several (outside)

institutions at the same time. By the same way, in the past the funding of research used to be mostly institutional, but now it is necessary to raise the support from a variety of outside sources. The University of Vaasa is emphasizing its role in its societal impact, but even in this activity there has been a profound change in the academic world; in the past the assessment was made ex-post, i.e. when the results of research are interpreted; but now the approach is rather ex-ante, when the problems and priorities are set for research. The approach of the University of Vaasa in this sense has been a bit mixed, also between different Faculties and departments.

And, finally, the quality control of the results is not a matter for the academic community alone or a simple scientific question, but it includes a variety of social, political, and economic interests that also are related to the target relevance of the research work. These latter ones are, if possible, even more difficult to measure than pure academic quality. Yet the final purpose should not be an academic 'straitjacket', stifling individual initiative and 'freedom of research', but actually a good strategy should only open new possibilities and means for new innovative work to flourish. Often the method of 'Citation Index' has been used to measure the quality of individual papers or research programs, but at the university or even at the faculty level it is much less applicable, often even misleading, simply because the index can give highly variable results between different academic fields, and it may be even questionable for instance in Humanistic sciences. The sheer quantity of publications alone may not turn into 'quality', and in assessments this should be carefully accounted for and should not alone form the basis of rewards and recognition.

The university Panel in its assessment of the research activities of the University of Vaasa has thus reflected also on the current national and international trends in research and knowledge production at large. The University has rightly asked for an assessment of the current state and also of the future potential; apparently the 'quality' of research is also a matter of capability of and ambition for transformations rather than some static 'state' here and now. A good part of such an assessment is also the quality and organisation of the researcher training, including promotion of and developing the generic skills.

## **Assessment on the Research Activities of the University of Vaasa**

### **Overall Evaluation**

The Panels noted that the University of Vaasa had made a careful and extensive preparation for this assessment of research, and the site visits were well organized and useful as they also clarified a number of open issues. The four Faculty-level Panels, on their site visits, interviewed the staff and a number of students, and the discussions were open and informative. A common experience shows that the self-evaluation procedure itself is also an efficient learning process for the institution.

The common guidelines for a higher education institution's (HEI) strategy call for at least the following components. First, it has to indicate how the institution is different from others, in order to stake out its own competitive niche. This should also involve an analysis and description of the functional environment of the University. Second, a strategy involves also a risk analysis, which should always be in demand especially in turbulent times (as we also now live in). A good SWOT analysis comes close to such a risk analysis. Third, a strategy should carry a close relationship with the institution's budget and also the anticipated budget. And finally, there also must be an element of a follow-up, or even an annual progress report on how the strategy is being implemented, which may also require regular annual prioritising. It is also important that there is good evidence of proper and relevant data acquisition from inside and outside of the university.

Starting with the published strategy of the University of Vaasa, a common observation has been that although it contains a clear expression for more and better research, it does not contain the actual measures or analyses that would clearly support it. The strategy would benefit from a clear profile setting and also from a clear concentration of the scientific potential. The various functions of a university are deeply interconnected, e.g., between teaching and research (or, teaching load vs. time spent in research vs. doctoral training), and this needs to be recognized also at the strategy level; thus the strategy should be much more than only a list of desirable outcomes. The building of necessary coherence between the Faculties and departments and even individuals is left open, and in many cases a rather silo-type management and practice seem to prevail. Yet to be fair, the University has also excellent examples to the contrary; among them the emerging approach in the field of energy research has good potential, also in view of possible closer regional and national cooperation, etc. Also, within some disciplinary fields, coherent research group formulations with sufficient critical mass are emerging.

The University could also benefit strategically from its relatively small size in the national scene by well-targeted networking and cooperative actions, nationally and internationally. The Panels also noted that the regional and local engagement and impact of the University, through all its Faculties, is exceptionally strong, which should not at all be a hindrance to striving towards even higher international levels of research; actually, a rather contrary relationship should exist, which means that the region and its businesses would benefit more from a high quality research. There seems to exist in the University a certain 'service function' in its relationship with the local industry, but it may not always support strong knowledge generation for a maximum benefit to the University, including PhD training.

Finally, the overall strategy does not indicate of what kind of budget measures are to be taken to support it, nor are there indications of follow-up processes and/or who are responsible for them. Yet in the interviews it was indicated that such measures are forthcoming. At the university level, the relative amount of external funding for research is very modest, and in some fields almost non-existent, which actually means that the University itself is bound to support its research and research training by various but apparently insufficient means. But the undesirable side effect of it might be that it creates unnecessary competition for funds and means within the University itself rather than forward-looking cooperation. A strong effort towards external funding should be expected to promote innovative cooperation within the University, and also through interdisciplinary approach. The rather undeveloped culture for external grant applications and funding may still reflect the University's past practices as a teaching institution and/or as a mere provider of educated labour for business.

As part of the overall evaluation, the University level Panel wishes to give some more detailed observations about the University of Vaasa as follows. The assessment texts by the four Panels for the different faculties and departments provide for more detailed observations and recommendations. The University Panel also wishes to emphasise that the individual scores given to different Faculties and departments are not comparable as such within the University, and conclusions based on sheer numerical comparisons should be avoided. The accompanying texts are intended to be more instructive.

First, strong regional engagement is already one of the University's strategic strengths, with research as its major tool in this respect. Yet it would benefit further from a more strategic approach towards its major stakeholders, incl. regional organisations and businesses, as well as with other HEIs present in the Vaasa region. Besides, the manufacturing companies and businesses at large in the Vaasa region are heavily export-oriented; and partly they are multinationals thus opening up the global market field. Yet a good part of this kind of partnering seems to be in the form of provision of short-term services rather than being built on a long-term and research-based cooperative strategy that would also support and provide for further researcher training in the respective fields. The Levón Institute seems to make an efficient and flexible tool and a 'clearing house' towards education and

regional services at large in the Province. The Tritonia Library also serves as a good liaison point for all the HEIs and their students in the Vaasa region.

Second, the relatively small size of the University of Vaasa can also be turned into its advantage. The University in its strategy indicates of being “a multidisciplinary, business-oriented university”. The Business Studies in the University make close to half of its total size, and both Technology and Management as well as the Administrative Sciences also have (or at least should have) strong links with the overall business world’s problematique. This would certainly provide for a more coherent approach to setting joint research problems over and with several academic disciplines. There are good indications of project works within disciplines and departments, but less so within the whole university, across departments and even Faculties. Good examples might be the EU FP7 project on Intangible Capital coordinated by the University of Vaasa, as also the good cooperation in the area of the financial market research, and consumer behaviour studies. They are all based on solid research, and also the approach towards energy issues could provide for new opportunities to expand it into an extensive regional cooperative project, with the inclusion of several companies. Energy appears at present as an important emerging topic in the Vaasa region, and it involves also new initiatives for research.

The main strengths of the Humanistic sciences apparently lie in language immersion and teaching, terminology, and languages for special purposes (LSP). Furthermore, a special niche for the University could be joint research of languages and communications with other Faculties, especially with Business Studies, Computer Science, etc.

The same observations about the need for better coherence within the University should similarly apply to the researcher (PhD) training. The campus of the University Vaasa is a tight community of scientist and students, where physical distances alone should not be any hindrance for personal contacts and cooperation. The same should apply to cooperation with the two Universities of Applied Sciences next to the campus, though the University shares some teaching and demonstration laboratories with them.

Third, teaching and research are linked in numerous ways, and in more general terms, ‘teaching should be based on research’. And this relationship also applies the other way around. A common observation for the entire University of Vaasa was that teaching/learning did not support well the researcher training, and actually the PhD training was started well after the Master degree. The PhD training was often observed to be a kind of ‘drifting’, without clear and structured study plan, though some PhD students indicated that such a plan existed. On the other hand, the PhD students interviewed were generally very happy with the guidance received from their tutors and major professors, which is also expected on a small campus. In a number of cases the financing of the PhD training was based, for instance, on assistantships provided by the University itself, but they often included a rather heavy teaching load that left little time for research. The selection for the PhD studies was mostly based on the success of the Master studies shown by the students in their courses, and there had been little effort to advertise such position nationally or internationally. This appeared to be related to, and a consequence of the fact that the University had developed rather meager financial means for PhD training, partly because of the small amount of external funding for research projects. Besides, the very small size of the departments or even Faculties apparently is preventing them from building an effective career path for researchers, starting with PhD’s, post-docs, etc. As to the current problem of the heavy teaching loads of the teachers, the new degree structure following the Bologna Process should be fully utilized.

The Panel strongly supports the concept of a university level doctoral school with systematic common procedures for student recruitment, evaluation, methodological training, and supervision.

## **Which units are clearly executing research on a high scientific level**

The four Panels gave their assessments of the quality of research, and the scores given may indicate the direction that might give an answer to this question. However, from the strategic point of view, this may not be enough to give a full description of the situation, since also the strength of researcher training and research organisation, including networking within and outside the University, should be considered. This is also a matter of sustainability, since in very small departments with a small number staff, dependent on a single staff, the overall situation may change quickly, even for 'statistical' reasons. It appears that every Faculty and most of their departments have single research papers that are of good if not even of excellent quality, and published in good international journals. Similarly, there are visible efforts to build national or even international research networks, which do not function properly unless the University has to offer some special quality to them. Especially in the technical and experimental fields, the availability of proper laboratories and instruments is crucial. A good example is the modern teaching and testing laboratory Technobothnia on the campus, which is also used by the local industries and shared by the two Universities of Applied Sciences in Vaasa. Yet there is still a good potential for more effective utilisation of the Technobothnia facilities.

The question about successful 'units' in the University of Vaasa in this very context may not be quite relevant, especially in view of the changes proposed below for the future management of research in the University. However, some of the departments seem to stand out better, not only in terms of sheer research 'quality' but also in terms of networking and capacity for acquisition of external funding.

The field of Business Studies is the oldest one in the University of Vaasa, and apparently it has been able to build on long-term research and research contacts that seem to be working well, despite the heavy teaching load of its staff. The Accounting and Finance seems to be well on the way to national and international cooperation; the Economics is a coordinator of a FP7 Programme; the Management shows good evidence of research collaboration and high activity leading to international co-authorships; the Production, which formally belongs to the Faculty of Technology, shows good quantity in its publications, but the overall quality suffers from short-term projects; Business Law is meeting many important regional and/or national needs, but its international visibility is low; the Marketing shows solid research of good international quality as well as promising new avenues e.g., in the field of consumer behaviour.

In the Faculty of Humanities the research quality is good but not necessarily excellent. It is answering to many local problems but the yet its research requires better strategic targeting by the Faculty. External research collaboration is rather meagre in extent and in depth, and the research in the Faculty may also be hampered by a rather heavy teaching load of the staff and the teachers at large.

The Faculty of Public Administration shows a good level of research activity despite its small number of researchers, especially in ethics and comparative methodology. It has a number of promising openings, e.g., in the field of health and welfare research as well as regional studies. This field is sure open to truly big and currently relevant societal questions, like aging of the population, financial markets, and impact of climate change. The research in the Faculty is perhaps too often fixed on certain theoretical ideas rather than emphasising a true 'problem solving' mode.

The Faculty of Technology in the University of Vaasa is a rather young one, and it was built especially to meet the demands of the local industries. The Computer Science has several research groups, though showing variable quality. Apparently this field and the staff are also hampered in their research by heavy teaching loads. The Mathematics and Statistics shows relatively high quality research, and it also collaborates with a number of foreign universities. Yet their doctoral training is of very small scale, which may also reflect the lack of a Master program in the field. The youngest of the Technology departments, Electrical Engineering and Automation, is the only unit that

is concentrating on engineering proper. It appears not to show a very high quality of research, though the Automation groups show a number of quality publications, also of interdisciplinary nature. The staff in Electrical Engineering have managed to collect good amount of contract funding from national sources as well as short-term projects with local industries. The emerging focus on energy issues may provide good future opportunities for development work and research.

## **Which units are potentially leading to outstanding results in the future?**

In reference to the proposals below, it is up to the University of Vaasa itself to decide what kinds of specific strategic decisions are to be made for the future. Generally, it is recommended that the research activities within the University are made more competitive, both towards external and university-based funding, including also the researcher (PhD) training, and other related activities. Thus an open competitive environment should give opportunities for any unit or research team in the University to make its good mark. As already mentioned above, the 'units' in the University are so small that their long-term sustainability is in doubt, and it might be better to work with the concept of 'research teams' instead. The University also has a clear service function towards the region and its businesses, but it has also to develop a strong and effective research strategy to support it. The University's research function may well extend the regional level, but the overall societal relevance has an important role as well.

The chapter below on 'Recommendations for the future' continues the discussion on this very item.

## **How well have the strategic objectives for research as defined in the university's strategies 2009 and 2012 been achieved so far?**

The Strategy of the University of Vaasa for 2009-2012 (in its English version) indicates several measures that aim towards enhancing its competitive position nationally, and also leading it into the desired future. The mandate of this assessment of research covers only the years of 2005-2009, but after that the University apparently has already taken steps towards reforming its management system, faculty structure, etc. The strategy also describes the recent changes in the (national) environment all the Finnish HEIs are now facing, especially in and after 2010, which could be interpreted also as a kind of risk analysis for the future.

However, the University's strategy plan in its current form appears as a list of desirable outcomes rather than being a real guidance for the overall management of the institution, at all its administrative levels. The specific measures and time frames to achieve such goals should be determined at least in the background plans. As also indicated above, the panels did observe but few clear impacts of the strategy at the level of faculties and departments. In fact, not all of the persons interviewed were even aware of such a strategy plan. This does not mean that the higher management levels in the University are not aware of the situation, but the management would benefit from more concrete and transparent steps towards actual measures throughout the University. Also, the self-assessment reports prepared by the Faculties and departments appeared to be of uneven quality, apparently because there had been little mutual cooperation in the preparatory phase of the documents.

However, the basic messages in the strategy are still sound, but they need some re-working and clarification, also in relation to future budgets and time frames. It is important that the entire staff and all of the University's stakeholders are aware of the institution's strategic plans and actions so that the University itself can guide its own future, rather than being on an ad hoc course. This does not mean that periodic analyses and re-orientation of the

strategic goals are not needed. A good policy might involve a formal progress report that is produced once a year, and, when major decisions are to be made, the strategic plan is also consulted.

## Recommendations for the future

As mentioned above, the strategy plan of the University of Vaasa already contains a number of good elements that will guide it towards a more research-based institution. But a number problems and bottlenecks also exist. The overall observation for the research activities of the University in 2005-2009 shows that they are split into a number of very small units, sometimes based on a single professor/researcher only. This certainly results in a relative lack of coherence and loss of the benefits that a truly cooperative academic 'college' might produce. So there is clear need for a re-assessment of the University's research and research management policy that must also involve structural changes. The current strategy plan of the University is already moving in this direction.

In modern research, problem solving is the key, and the problems are often or nearly always very multidisciplinary, requiring cooperation over and between several academic fields. Business Studies themselves are a good example. Also in this context alone, research teams covering several fields may be more productive than one in a single academic field or 'unit'. The University of Vaasa has a number of very small 'units', and it could be more profitable to simplify the faculty and departmental structures. E.g., the Business Studies could well benefit from an even more research-oriented internal restructuring, instead of relying on the rather small departmental units.

Also in Engineering, a more ideal structure might be a single Faculty without any departments, though retaining the degree courses but combining forces for effective research and service functions. Also, moving certain departments/teams between the Faculties should be considered, as already discussed above. The distinction between public and private management is also narrowing down, and in research in this field, both sides could obtain good benefits from a closer collaboration.

The basic functional units in the University should thus be research teams rather than fixed administrative departments. It could provide for better dynamism for the University and all its research. It may even happen that an active individual scientist belongs to several research groups at the same time, thus following the matrix model of research organizations. The 'silo' structures and 'silo' thinking prevent the university from using its full potential, be it in the area of teaching or research or service to the society!

No 'unit' cannot be strong without strong and dynamic researcher (PhD) training. Recruitment of new PhD students should be an open process and reach also the national and international 'market'. This should also involve promotion of student and staff mobility, also including movement between the academe and business, and at least systematic short-term studies abroad for the students but preferably even for one-year or longer. Promotion of visiting foreign experts is a very cost-effective way of supporting both PhD training and the ongoing research at large. Commitment to a strong research policy also requires finding a new balance between teaching and research by the staff, which may require a major shift in the University's overall strategy plan. The PhD training should also be supplemented by a clear career development plan, but apparently this requires larger units than a single department in the University.

It is also necessary that the University and its Faculties develop a clear policy towards external financing of research. This should also involve appropriate training (e.g., towards EU and other international research funding agencies), as well as proper advisory and support services for the faculty and students.

In short, for the success of a research strategy, the following requirements have to be met: 1) a well structured PhD training, preferably at the level of the whole university, supported by solid financial structure, 2) active international and institutional partnerships that are not built on ad hoc basis alone, 3) active promotion of mobility

and the administrative structures to support it, 4) a clear research strategy that also is supported by proper infrastructure, and 5) a critical mass that involves at least some five professors and ten if not more researchers for each major project, though admittedly especially in the Humanistic sciences this measure of 'critical mass' may not be applicable the same way. – Anyhow, for an effective research strategy it is not enough that some individual research papers are published in some 'good' scientific journals!

Yet a research strategy also needs proper 'carrots'. The University of Vaasa could provide a great variety of them, including annual prizes for the 'best research paper', or the 'best PhD thesis', or offering a systematic competitive post-doc position, etc.

The implementation of the research strategy should be throughout on a competitive basis, which is the best way of maintaining high quality overall.

This may also be the most proper answer to the question the University of Vaasa posed: "Which units are potentially leading to outstanding results in the future?" Only the units themselves can have an answer to this question! The Panel has seen good potentiality in many of the units but pinpointing any one of them out may not be fair as so much also depends on the future measures by the University itself regarding its structural rearrangements, internal cooperation in research, etc.

Hopefully one result of this strategy approach is that the research groups and the Faculties in the University of Vaasa are and become capable of renewing themselves with time, in terms of both scientific contents and of changing paradigms, as well as responses to the societal needs.

The alumni are still a partially untapped resource for the University of Vaasa. Also, a deeper cooperation with the several Universities of Applied Sciences in the region is still a 'hidden' resource.

The new situation the Finnish universities are living in, with a plenty of more autonomy but more direct responsibilities as well, puts new demands on the overall leadership of the HEIs, from top down to all their administrative levels. Strategic thinking and action are certainly useful tools in the right direction towards a successful future.



## Signature / Evaluation Report – University Level



Ossi Lindqvist

University Panel Chair, joint member of all evaluation panels



Juha Kinnunen

Chair of the Panel of Public Administration



Anne Kovalainen

Chair of the Panel of Business Studies



Erkki Lakervi

Chair of the Panel of Technology



Liisa Tiittula

Chair of the Panel of Humanities

## PANEL OF BUSINESS STUDIES

The Panel of Business Studies evaluated research activities of the five departments of the Faculty of Business Studies and one department of the Faculty of Technology (Department of Production). The units of assessment were:

- Department of Accounting and Finance
- Department of Business Law
- Department of Economics
- Department of Management
- Department of Marketing
- Department of Production

**Chair:**

Professor Anne Kovalainen, Turku School of Economics, Finland

**Panel members:**

Professor Kjell Grønhaug, Norwegian School of Economics and Business Administration, Norway

Professor Carla Millar, University of Twente, the Netherlands

Professor Kalle Määttä, University of Eastern Finland, Finland

Professor Andrew Stark, Manchester Business School, United Kingdom

**Joint member:**

Professor emeritus Ossi Lindqvist, University of Eastern Finland, Finland

Site visit 5.-8.10.2010.

## DEPARTMENT OF ACCOUNTING AND FINANCE

### Quality of Research

Numerical Rating: 5

All of the papers on the submitted list of 20 are published in English-language, peer-reviewed, international research journals. The majority of the papers submitted are at a good international level, and other papers submitted are at a fair international level. The submitted papers seem relevant and based on original research.

There is clear evidence of international and national co-authorship, indicating the existence of research collaborations between Department of Accounting and Finance of the University of Vaasa and universities both within Finland and abroad.

The research culture of the Department of Accounting and Finance is in line with the new strategy of the University, placing more emphasis on research.

### Doctoral Training

Numerical Rating: 5

The selection process of doctoral students appears to be through internal and personal contacts, mainly based on their masters' level studies. External and international student recruitment could be considered as one possible future way in broadening the application pool. Nonetheless, in order to achieve this, both the Faculty of Business Studies and the University of Vaasa itself will need to strengthen their research profiles and appeal.

PhD students interviewed seem to be content with the quality of supervision and access to their supervisors. The skills of all academics are available to PhD students. Exposing their work nationally and internationally at conferences is encouraged, and funding is provided to support attendance.

### Quality of Research Organization

Numerical Rating: 6

It was not clear to the Panel, how the current university strategy is designed to support high quality research activities at either the faculty or unit levels. Perhaps as a consequence, the unit research funding strategy is not explicitly linked to the university strategy.

On the basis of the figures provided to the panel, the unit has attracted a relatively modest amount of external research funding. Nonetheless, the department has accepted the responsibility for raising funds for the maintenance of expensive databases needed for the research undertaken.

All business research is inherently multidisciplinary. Furthermore, the Finance group works closely with the Mathematics and Statistics group.

The unit appears to have many relationships both nationally and internationally. The unit might benefit from thinking more strategically concerning the building of relationships internationally.

## **Societal Impact of Research**

Numerical Rating: 5

By its very nature, work in the area of accounting and finance has clear societal impact, for instance in the fields of legislation, policy, financial services and banking.

The Panel wishes to make a statement about the societal impact of research activities within the units evaluated that is common to all the units and, as a consequence, is repeated across units.

First, the Panel considers that all the research conducted is relevant to economic and social needs. Second, the Panel is generally impressed by the range of activities pursued by academic staff within society and with respect to economic activity in general. Such activities include, but are not confined to: (i) providing research-based advice to improve the operations and efficiency of businesses and local government; (ii) providing research-based advice to improve the efficiency and operations of regional bodies; and (iii) sitting on, and chairing, national bodies as a consequence of expertise demonstrated through research activities. The type of activity pursued varies by the particular nature of the unit. For some units, the extent and scope of their research activities lend themselves more easily to interaction with business and commerce. For other units, the extent and scope of their activities lend themselves more easily to the offering of policy advice. Third, there is good evidence of continuing collaborations between units and corporate and/or public sector actors.

## **Panel's Recommendations for the Future**

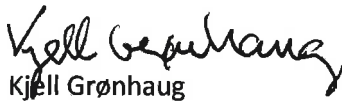
The Accounting and Finance Department, perhaps for reasons for history, appears to have an established research culture with a set of effective research themes and good practices. It would benefit, however, from considering a more strategic approach to research grant generation. There are possibilities for the further development of links with other research themes within the faculty, including those being developed within the Economics, e.g. with respect to intangible assets. The Panel was made aware during the visit that some recent publications have been in research journals of exceptional standards, suggesting that the department already has effective mechanisms for research.

## Signatures

Vaasa, 8<sup>th</sup> October, 2010



Anne Kovalainen (Chair)



Kjell Grønhaug



Ossi Lindqvist

Carla Millar



Kalle Määttä



Andrew Stark

## **DEPARTMENT OF BUSINESS LAW**

### **Quality of Research**

Numerical Rating: 3

Submitted papers = understood as the submitted list of 20

In its evaluation, the Panel has taken into account that, in some cases, it is not feasible or desirable to publish research results in English, but instead Finnish or Swedish, and that the size of the department is very small.

Most of the 20 submitted research outputs are published in Finnish. Only one publication on the list of 20 is published in English.

The publications are published in the Business Law research area. The submitted publications seemed to be relevant and based on original research but, unfortunately, it is not possible for the panel to have full acquaintance with the publications given, as indicated above, that all but one of the submitted publications were in Finnish or Swedish.

The publication profile of the Department of Business Law is currently geared toward national impact. Both international publishing and wider research fields are strongly encouraged in the future for both senior and junior researchers. Globalization of the markets demands this kind of approach, in addition to the academic careers.

### **Doctoral Training**

Numerical Rating: 4

The selection process of doctoral students appears to be mainly through internal and personal contacts, based on their masters' level studies. External students recruitment could be considered as one possible future way of broadening the application pool. Nonetheless, in order to achieve this, both the Faculty of Business Studies and the University itself will need to strengthen their research profiles and appeal.

The Department has doctoral students, but funding has not been provided systematically, although support by the professors is provided for the doctoral students' application process. There is no structured doctoral education programme in place, and national level contacts are poorly described in the report. It is observed that PhD theses tend to be written in either Finnish or Swedish, despite the fact that they might have attracted wider attention, both academically and otherwise, if they had been written in English.

The PhD students interviewed seem to be content with the quality of supervision, and access to their supervisors. All students interviewed had attended Nordic and broader international conferences.

### **Quality of Research Organization**

Numerical Rating: 4

It is not clear to the Panel how the current university strategy is designed to support high quality research activities at either faculty or unit levels. Possibly as a consequence, the unit research funding strategy is not explicitly linked to the university strategy.

On the basis of the figures provided to the panel, the unit has attracted relatively little, if any, external research funding.

The topics of the current generation of PhD students seem to reflect topical issues in international, business law-related, areas. Hence, working and publishing in English should be encouraged.

The unit appears to have some international relationships, but most are national.

The research cells seemed to be working as an appropriate form of organizing research, in particular given the small size of the department. Nonetheless, the small size does restrict the otherwise desirable potential engagement of Business Law with the other departments in the Faculty of Business Studies.

## **Societal Impact of Research**

Numerical Rating: 5

Due to its nature, the Department of Business Law has an important societal role nationally, regionally and locally. The current PhD topics have direct relevance to society, and the department is encouraged by the Panel to further engage with public audiences.

The Panel wishes to make a statement about the societal impact of research activities within the units evaluated that is common to all the units and, as a consequence, is repeated across units.

First, the Panel considers that all the research conducted is relevant to economic and social needs. Second, the Panel is generally impressed by the range of activities pursued by academic staff within society and with respect to economic activity in general. Such activities include, but are not confined to: (i) providing research-based advice to improve the operations and efficiency of businesses and local government; (ii) providing research-based advice to improve the efficiency and operations of regional bodies; and (iii) sitting on, and chairing, national bodies as a consequence of expertise demonstrated through research activities. The type of activity pursued varies by the particular nature of the unit. For some units, the extent and scope of their research activities lend themselves more easily to interaction with business and commerce. For other units, the extent and scope of their activities lend themselves more easily to the offering of policy advice. Third, there is good evidence of continuing collaborations between units and corporate and/or public sector actors.

## **Panel's Recommendations for the Future**

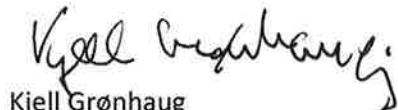
Given additional resources, there is a clear potential for mutual benefit from closer collaboration between the Department of Business Law and other departments within the Faculty of Business Studies. Also, additionally, there is the possibility of closer collaboration with the Department of Public Law.

## Signatures

Vaasa, 8<sup>th</sup> October, 2010




Anne Kovalainen (Chair)



Kjell Grønhaug



Ossi Lindqvist



Carla Millar



Kalle Määttä



Andrew Stark



## DEPARTMENT OF ECONOMICS

### Quality of Research

Numerical Rating: (4, see below)

Submitted papers = understood as the submitted list of 8.

In providing a numerical rating for this unit, a number of caveats need to be established. First, the Department of Economics is very small with, at present, only one professor. Second, that professor has only been in post since 2007. Third, he appears to have inherited a department with no clear previous research focus (for example, no research money entered the department in the years 2005, 2006 and 2007). As a consequence, the research outputs submitted for consideration effectively represent the work of the single professor and, to a large extent, reflect the previous responsibilities of that individual as a member of a research institute, as opposed to his current responsibilities as a professor. This latter observation is important because the professor is focussing the current work of the department around a number of themes which, whilst related to his previous work, do require his research interests to evolve. Overall, the Panel do not believe that an evaluation of the submitted outputs is indicative of the future potential of the Department, especially in the context of any potential plans for expansion.

In the light of the above, the Panel is of the opinion that at least one third of the submitted research outputs are at a good international level with many others being at a fair international level, these together comprising a clear majority. The submitted papers seem to be relevant and based on original research.

### Doctoral Training

Numerical Rating: 5

The department positively encourages PhD students to attend all national PhD courses (HECER) relevant to their studies. Furthermore, given the restricted resources of the department, this is the only way to secure appropriate doctoral education in economics.

The funding of the current level of doctoral students appears to be in place. The supervision is arranged, if necessary, with the help of external experts in the PhD students' research fields. Again, given the restricted range of expertise at the department, this is the only way to organize adequate supervision. The doctoral students interviewed were aware that their choices of research topics were inevitably confined due to the small size of the department.

### Quality of Research Organization

Numerical Rating: 5

It was again not clear to the Panel how the current university strategy is designed to support high quality research activities either at faculty or unit levels. As a consequence, the unit research funding strategy is not explicitly linked to the university strategy.

On the basis of the figures provided for the Panel, the unit has attracted a significant amount of external funding, despite its small size. The coordination of the FP7 EU project on Intangible Capital is impressive, and the Panel noted that this is the only EU FP7 programme coordinated at the University of Vaasa.

## **Societal Impact of Research**

Numerical Rating: 5

The Panel wishes to make a statement about the societal impact of research activities within the units evaluated that is common to all the units and, as a consequence, is repeated across units.

First, the Panel considers that all the research conducted is relevant to economic and social needs. Second, the Panel is generally impressed by the range of activities pursued by academic staff within society and with respect to economic activity in general. Such activities include, but are not confined to: (i) providing research-based advice to improve the operations and efficiency of businesses and local government; (ii) providing research-based advice to improve the efficiency and operations of regional bodies; and (iii) sitting on, and chairing, national bodies as a consequence of expertise demonstrated through research activities. The type of activity pursued varies by the particular nature of the unit. For some units, the extent and scope of their research activities lend themselves more easily to interaction with business and commerce. For other units, the extent and scope of their activities lend themselves more easily to the offering of policy advice. Third, there is good evidence of continuing collaborations between units and corporate and/or public sector actors.

## **Panel's Recommendations for the Future**

The Panel believes that the scale of activities is too small relative to creating a sustainable department. Furthermore, given the importance of economics to the business studies, the Panel is of the opinion that economics as an activity should be expanded. As a consequence, the Faculty and the University need to rethink this matter seriously.

## Signatures

Date and place




Anne Kovalainen (Chair)



Kjell Grønhaug



Ossi Lindqvist



Carla Millar



Kalle Määttä



Andrew Stark

## DEPARTMENT OF MANAGEMENT

### Quality of Research

Numerical Rating: 4

All of the papers on the submitted list of 20 are published in English-language, peer-reviewed, international research journals. At least one third of the papers submitted are of a good international level and other papers submitted are of a fair international level. The submitted papers seemed to be relevant and based on original research. The submitted papers are not fully consistent with the topic areas of the two specific research groups. Instead, the publications reflect a much wider range of topics.

There is clear evidence of international and national co-authorship, indicating the existence of research collaboration between the Department of Management of the University of Vaasa and universities both within Finland and abroad.

The publication record and the future plans positively reflect the change in the university strategy from teaching to research.

### Doctoral Training

Numerical Rating: 5

The selection process of doctoral students appears to be through internal and personal contacts, mainly based on their masters' level studies. Increasing external and international student recruitment could be considered as one possible future way in broadening the application pool. Nonetheless, in order to achieve this both the Faculty of Business Studies and the university itself will need to strengthen their research profiles and appeal.

PhD students interviewed seem to be content with both the quality of supervision and access to their supervisors. The skills of all academics in the Department are available to PhD students. Exposing their work nationally and internationally at conferences is encouraged, and funding is provided to support attendance.

At the university level, there might be a need for a general supervisory model for PhDs whereby, if necessary, two, or in some cases, and when needed, even more supervisors can be involved in the supervisory process as specialists (such as method- or subject-specific related resources). The Panel observes, however, that this is occurring already within the Department of Management on at least an informal basis. To formalise this type of system throughout the university would ensure the best possible supervision for PhD students and would possibly speed up the process of PhD writing.

### Quality of Research Organization

Numerical Rating: 6

We are not clear how the current university strategy is designed to support high quality research activities at either faculty or unit levels. Again, we observe that, possibly as a consequence, the unit research funding strategy is not explicitly linked to the university strategy.

On the basis of the figures provided to the panel, the unit has been successful in attracting a fair amount of external research funding. The research funding has been allocated to cover doctoral and postdoctoral positions, with good success. The stimulating and cooperative culture within the unit has assisted in making them forward-looking with respect to their research strategy.

All business research is inherently multidisciplinary, and this statement also applies to the research done within the Department of Management.

The unit appears to have many relationships nationally and internationally. The unit has clear plans to strengthen the strategic links to key institutions both nationally and internationally.

## **Societal Impact of Research**

Numerical Rating: 5

HRM-research has societal impact within and through the collaboration with the HRM-professionals. There is collaboration in research with the national professional association (HENRY). SNE-research has collaboration both locally and regionally. The Department of Management has regular and enduring collaborations with local and national companies for both teaching and research purposes.

The Panel wishes to make a statement about the societal impact of research activities within the units evaluated that is common to all the units and, as a consequence, is repeated across units.

First, the Panel considers that all the research conducted is relevant to economic and social needs. Second, the Panel is generally impressed by the range of activities pursued by academic staff within society and with respect to economic activity in general. Such activities include, but are not confined to: (i) providing research-based advice to improve the operations and efficiency of businesses and local government; (ii) providing research-based advice to improve the efficiency and operations of regional bodies; and (iii) sitting on, and chairing, national bodies as a consequence of expertise demonstrated through research activities. The type of activity pursued varies by the particular nature of the unit. For some units, the extent and scope of their research activities lend themselves more easily to interaction with business and commerce. For other units, the extent and scope of their activities lend themselves more easily to the offering of policy advice. Third, there is good evidence of continuing collaborations between units and corporate and/or public sector actors.

## **Panel's Recommendations for the Future**

At the university level, there might be a need for a general supervisory model for PhDs whereby two, or in some cases, and when needed, even more supervisors can be involved in the supervisory process as specialists (such as method- or subject-specific related resources). To formalise the type of system currently operating informally and successfully in the Department of Management throughout the university would ensure the best possible supervision for PhD students and would possibly speed up the process of PhD writing.

## Signatures

Vaasa, 8 October, 2010




Anne Kovalainen (Chair)



Kjell Grønhaug



Ossi Lindqvist



Carla Millar



Kalle Määttä

Andrew Stark



Andrew W Stark

## DEPARTMENT OF MARKETING

### Quality of Research

Numerical Rating: 4

Submitted papers = understood as the submitted list of 20

All of the papers on the submitted list of 20 were published in English-language, peer-reviewed, international research journals. At least one third of the papers submitted are at a good international level, and other papers submitted are at a fair international level.

Nearly all of the papers in the category of a good international level are in the area of International Business. The submitted papers seem to be relevant and based on original research. In general, the specific areas covered in the field of International Business have been subject to substantial scrutiny over many years.

There appear to be many promising new avenues within the consumer behaviour research group. However, this is not visible in the currently submitted publications. The university may wish to pay attention to the area of research funding of the consumer behaviour research group.

There is clear evidence of international and national co-authorship, indicating the existence of research collaboration between the Marketing Department of the University of Vaasa and universities both within Finland and abroad.

The publication frequency with respect to publications submitted seems to be uneven both across professors and also across researchers.

The publication record and the future plans positively reflect the change in the university strategy from teaching to research.

### Doctoral Training

Numerical Rating: 5

The selection process of doctoral students appears to be mainly through internal and personal contacts, based on their masters' level studies. External and international students' recruitment could be considered as one possible future way of broadening the application pool. Nonetheless, in order to achieve this, both the Faculty of Business Studies, and the University itself, will need to strengthen their research profiles and appeal.

There appear to be more developed processes in place within one of the research groups in comparison to the other. The research groups should develop more coherence in practices and processes, in order to offer a broader platform for the learning experiences of PhD students.

Nonetheless, within the unit, there are clear examples of good practice, such as regular one-to-one meetings, group meetings, and peer evaluation. These latter activities appear to create a good sense of cohesion amongst doctoral students. It also appears that doctoral students are encouraged to participate in both national and international conferences. Doctoral students are offered participation in university-level, national and international training courses and programmes. Responses from current and past doctoral students indicate that they believe, and believed, themselves to be part of a stimulating research environment. The future career prospects of the doctoral students were uncertain.

The PhD students interviewed seem content with both the quality of supervision and their access to their supervisors. The skills of all academics in the department are available to PhD students. Exposing their work nationally and internationally at conferences is encouraged, and funding is provided to support attendance.

## **Quality of Research Organization**

Numerical Rating: 5

It is not clear to the Panel how the current university strategy is designed to support high quality research activities at either the faculty or unit levels. Perhaps as a consequence, the unit research funding strategy is not explicitly linked to the university strategy.

On the basis of the figures provided to the panel, the unit has attracted a relatively good amount of external research funding. The relationship between the amounts of external funding, the activities and positions funded with these resources, and the level of research output is not entirely clear.

The unit appears to have many relationships nationally and internationally. The unit might need to reconsider, however, whether reducing their number, and focusing on key relationships, might be more advantageous.

Problem of scale have an effect on the rating. Specifically, the research groups would gain from being bigger, not only in terms of critical mass but also in terms of development of the research group as far as contents, future directions, etc. are concerned.

## **Societal Impact of Research**

Numerical Rating: 5

The EPANET Chairs have strong societal impact due to the close interaction between the professors and business and consumers.

The Panel wishes to make a statement about the societal impact of research activities within the units evaluated that is common to all the units and, as a consequence, is repeated across units.

First, the Panel considers that all the research conducted is relevant to economic and social needs. Second, the Panel is generally impressed by the range of activities pursued by academic staff within society and with respect to economic activity in general. Such activities include, but are not confined to: (i) providing research-based advice to improve the operations and efficiency of businesses and local government; (ii) providing research-based advice to improve the efficiency and operations of regional bodies; and (iii) sitting on, and chairing, national bodies as a consequence of expertise demonstrated through research activities. The type of activity pursued varies by the particular nature of the unit. For some units, the extent and scope of their research activities lend themselves more easily to interaction with business and commerce. For other units, the extent and scope of their activities lend themselves more easily to the offering of policy advice. Third, there is good evidence of continuing collaborations between units and corporate and/or public sector actors.

## **Panel's Recommendations for the Future**

The amount of high quality research varies greatly amongst department members. Initiatives should be implemented to fully exploit the research capacity.



In view of the fact that Consumer Behaviour research has a strong societal impact, the Panel recommends the CB Group to publish its research.

It is also recommended that the department consciously considers and consciously pursues new areas for research, particularly in the area of Consumer Behaviour.

Efforts should be made to ensure continuation of the EPANET Chairs.

## Signatures

Vaasa, 08 October, 2010



Anne Kovalainen (Chair)



Kjell Grønhaug


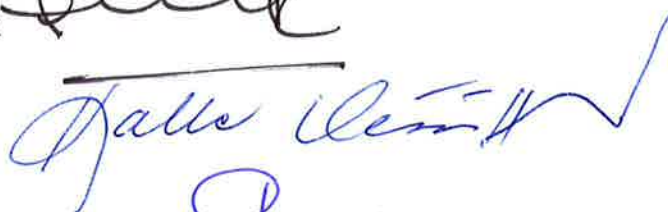


Ossi Lindqvist

Carla Millar



Kalle Määttä



Andrew Stark

## DEPARTMENT OF PRODUCTION

### Quality of Research

Numerical Rating: 3

Submitted papers = understood as the submitted list of 20.

All of the papers on the submitted list of 20 are published in English-language, peer-reviewed, research journals. The majority of the papers submitted are at a fair international level. The submitted papers seem to be relevant and based on original research. Although the department is prolific in publishing papers, it might benefit from publishing fewer papers, but of a higher quality. Action research appears to form the basis for many of the publications produced by the department. As a consequence, the current strength of the department appears to be mainly in the applied field, instead of being more concerned with theory-driven testing and development.

There is clear evidence of international and national co-authorship, indicating the existence of research collaboration between the Department of Production at the University of Vaasa and some universities both within Finland and abroad.

### Doctoral Training

Numerical Rating: 4

The department appears to be relatively successful in attracting international students. The recruitment practices and selection criteria, however, are not clearly systematized or transparent. Further, the recruitment of international students comes with a potential obligation to foresee, how such students, after graduation, can re-enter the labour market, whether academic or commercial.

The funding of the doctoral students appears to be ad hoc and heavily based upon the availability of project funding. The projects themselves are not necessarily related to the PhD student topic areas, either in terms of focus or intellectual level. As a consequence, whilst undoubtedly providing funding support, the projects do not necessarily help the intellectual development of the students, and students can sometimes find it difficult to focus on the completion of their dissertation. Also, the absence of predictable funding to enable students to expose their PhD work regularly at national and international conferences could be seen as a disadvantage. An aspect of the limited funding available for doctoral students includes limited access to infrastructure. A further problem is the lack of a structured PhD education programme.

Nonetheless, within the unit there are clear examples of good practice, such as regular one-to-one meetings and group meetings. There appears to be a good sense of cohesion amongst doctoral students. Responses from current and past doctoral students indicate they believe themselves to be part of a stimulating research environment. However, the future career prospects of the doctoral students were uncertain.

PhD students interviewed seemed content with the quality of supervision and access to their supervisors. The skills of all academics in the department are available to PhD students. As indicated above, the intellectual development of PhD students could benefit from a more structured PhD education and tuition programme.

## Quality of Research Organization

Numerical Rating: 4

It was again not clear to the Panel how the current university strategy is designed to support high quality research activities at either the faculty or unit levels. Perhaps as a consequence, the unit research funding strategy is not explicitly linked to the university strategy.

On the basis of the figures provided to the panel, the unit has attracted a significant amount of external funding. As indicated above, however, the balance of external funding does not fully support the development of an intellectually stimulating and knowledge-driven, research environment. In this regard, it is disappointing that the unit has not been successful in generating funds (for example, from the Academy of Finland) that can be used directly to support doctoral students.

There is no direct relationship between the amount of external funding and the quality of research output.

All business research is inherently multidisciplinary. This statement applies in particular to research work undertaken in the Department of Production.

The department appears to be too diverse to achieve balanced coherence. Furthermore, much of the diversity appears to overlap with the activities of the Faculty of Business Studies. Given the previous two sentences and the fact that the department was originally set up to link business studies with technology, the University might need to reconsider the location of the activities currently covered by the Department of Production.

## Societal Impact of Research

Numerical Rating: 5

Due to the applied nature of research at the Department of Production, the societal impact both locally and regionally is strong.

The Panel wishes to make a statement about the societal impact of research activities within the units evaluated that is common to all the units and, as a consequence, is repeated across units.

First, the Panel considers that all the research conducted is relevant to economic and social needs. Second, the Panel is generally impressed by the range of activities pursued by academic staff within society and with respect to economic activity in general. Such activities include, but are not confined to: (i) providing research-based advice to improve the operations and efficiency of businesses and local government; (ii) providing research-based advice to improve the efficiency and operations of regional bodies; and (iii) sitting on, and chairing, national bodies as a consequence of expertise demonstrated through research activities. The type of activity pursued varies by the particular nature of the unit. For some units, the extent and scope of their research activities lend themselves more easily to interaction with business and commerce. For other units, the extent and scope of their activities lend themselves more easily to the offering of policy advice. Third, there is good evidence of continuing collaborations between units and corporate and/or public sector actors.

## Panel's Recommendations for the Future

The department was originally set up to link business studies with technology. This has resulted in a department that appears to be too diverse to be coherent. Furthermore, much of the diversity appears to overlap with the

activities of the Faculty of Business Studies. As a consequence, the University of Vaasa might need to reconsider the location of the activities currently covered by the Department of Production.

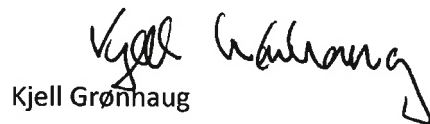
The unit has attracted a significant amount of external funding over the period covered by the evaluation. Whilst undoubtedly providing funds that also help support PhD students, the balance of external funding, however, does not fully support the development of an effective research environment. As one specific aspect of this, and in the light of the university's policy of internationalization, PhD student mobility, and their exposure to international research mobility, is somewhat limited. To address this will have resource implications. The Panel would also suggest that future recruitment of faculty should emphasise a more theory-driven research approach.

## Signatures

Vaasa, 8<sup>th</sup> October, 2010



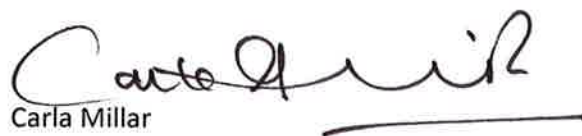
Anne Kovalainen (Chair)



Kjell Grønhaug



Ossi Lindqvist



Carla Millar



Kalle Määttä



Andrew Stark

## **GENERAL ISSUES OF RECOMMENDATION TO THE UNIVERSITY OF VAASA REGARDING THE FACULTY OF BUSINESS STUDIES**

### **Multidisciplinary Research**

There is no research discipline as referred to as “business”, in the strict sense of natural science disciplines. The theories upon which business research is built can be drawn from economics, law, mathematics, politics, psychology, sociology, etc. As a consequence, all business research is inherently multidisciplinary and most probably interdisciplinary.

### **Resource Allocation**

The university has put forward a strategy for the future which focuses on enhanced resource capabilities, greater internationalization, increasing mobility, etc. The departments evaluated by the Panel have undoubtedly been making good attempts to follow the new strategy. The resource allocation mechanisms of the university and the faculty, however, do not appear to be fully based on the need to efficiently support the strategy.

As an example, *ad hoc* approaches to careers of junior academic staff, to PhD student funding, to attending to conferences, etc. require attention. As an illustration of this point, the Panel observed a wide variety of practices in place in relation to funding and resources available for PhD students. The Panel believes that the Faculty of Business Studies would benefit from common standards with respect to the funding of doctoral education.

### **Changing the Organisation Structure to More Research Enhancing Entities**

The Panel would wish to ask whether being organized into departments is the most effective way of implementing the new strategy of the university. In this context, we observe that the Faculty of Business Studies is by international standards relatively small. Moreover, certain departments within the Faculty of Business Studies are extremely small.

One possible organisation is in research groups. Under a research group organization, there is no need for an individual researcher to belong to one research group only. As a consequence, the matrix organising of the research activities might encourage increased cooperation among researchers coming from different research backgrounds and traditions.

Would a regrouping of academic staff on the basis of research cohesion be more beneficial both for research culture and research outputs as well as administratively and financially? Indeed, are departments needed at all?

The Panel recommends to University to include the Department of Production in this possible reorganization, on the grounds that this department has considerable overlap with the existing activities of the Faculty.

### **Career Structure and Career Planning for Junior Academic Staff**

In order to promote a stable research environment, in which junior academic staff play a predictable and important part, the Panel recommends to the University and the Faculty to take more transparent approach to career planning for junior academic staff.

## **Mobility/International Mobility for All Academic Staff**

In line with the University's internationalisation strategy, and in order to enhance the professionalisation and hence national and international employability of academic staff, the Panel recommends to the University of Vaasa the establishment of a transparent structure and accessible mechanisms for international mobility of both PhD students and all levels of academic staff.

## **PhD Supervision, Education and Training**

At the university level, there might be a need for a general supervisory model for PhDs which allows, if necessary, two supervisors to be involved in the supervisory process, for instance as specialists, such as method- or subject-specific expert, or as a training vehicle for more junior academic staff. To formalise the type of system currently operating informally and successfully in the Department of Management throughout the university would ensure excellent supervision for PhD students and would possibly speed up the process of PhD writing.

The Panel also believes that PhD students throughout the Faculty should have access to the same level to doctoral education and training. The Panel observed a variety of practices in place and it strongly believes that the Faculty of Business Studies would benefit from common standards with respect to doctoral education.



## PANEL OF HUMANITIES

The Panel of Humanities evaluated research activities of the Faculty of Humanities. The unit of assessment was:

- Faculty of Humanities

**Chair:**

Professor Liisa Tiittula, University of Helsinki, Finland

**Panel members:**

Professor Heidi Hansson, Umeå University, Sweden

Professor Christopher Hall, University of Eastern Finland, Finland

Professor Jan Svensson, Lund University, Sweden

**Joint member:**

Professor emeritus Ossi Lindqvist, University of Eastern Finland, Finland

Site visit 23.-24.9.2010.

## **FACULTY OF HUMANITIES**

### **Quality of Research**

Numerical Rating: 4

The current strategy indicates that the University wishes to move towards a stronger research culture. Our comments are intended to help the new Faculty of Philosophy achieve this goal.

We have been asked to comment on the quality of the research based on the submitted works. The seven-point scale makes frequent reference to international level. However, we would like to point out that international publication and high quality are not equivalents. For instance work published in Finland and in Finnish or Swedish can be of high international quality, and equally work published in English is not automatically of high quality.

The instructions given to the Faculty were to submit five pieces of work which are “relevant to the research focus of the unit.” Five publications is very little to go on, but these have formed the basis of our assessment. We were also provided with a list of the twenty most important publications, but on the basis of a list we cannot judge the quality, only the relevance of the publications. We notice that not all the publications were peer reviewed.

Our overall assessment is that the research at the Faculty is good, but not excellent. All the submitted publications are relevant to their fields, and the works we have seen are original investigations. Innovativeness is expressed in applying existing methods and theories to new contexts and data.

The number of joint publications with external collaborators in the period under review is very small. The emphasis has been on internal collaboration through the founding of research groups. There are empirical studies which show that international collaboration is a way of raising standards. International collaboration does not necessarily mean joint publications, but can take on other forms, e.g. contributions to collections of articles. In this respect, the Faculty has been more active.

Publication frequency must be related to research time. Some staff have high teaching loads (e.g. those in the Language Centre). Based on the numbers, it seems that staff produce 1-2 publications a year, which is a fair result.

Research areas with a longer history in the Faculty seem to work well. Strengths are language immersion, terminology and languages for special purposes, where a number of doctoral theses have been written and research projects are conducted.

### **Doctoral Training**

Numerical Rating: 4

There are pluses and minuses in the Faculty’s doctoral training programme, but overall it seems to be about average compared to other Finnish universities. The number of doctoral students per supervisor seems comparable to that of similar units in Finland.

We were not given any explicit student selection criteria. It seems that most PhD students were chosen on the basis of good MA theses at the University of Vaasa and not through external recruitment. There are a small number of positions for PhD students which can be advertised externally. A strong research profile and increased funding opportunities would help attract external PhD students.

Some doctoral training is provided at the University level in the form of courses. However, it is unclear how training is organised within the Faculty. The number of seminars organised by the Faculty is small, but the students are active in attending conferences. The diversity of topics makes it difficult to achieve critical mass in many fields. To remedy this situation, thematically organised joint research seminars could be organised for doctoral students and research active staff in related areas.

The students were very satisfied with the personal guidance provided by their supervisors. Each student should have a personal doctoral study plan, but it is unclear how these plans are implemented and followed up.

The assessment of PhD dissertations by a committee corresponds to practices at other Finnish universities.

## Quality of Research Organization

Numerical Rating: 3

The evaluation of the research organisation includes several levels of the University, from the University Senate down to the individual professor/researcher. The University's strategy (2008/2010) is formulated in a way which makes it hard to use in the planning of the actual research. This is also reflected in the plans of the Faculty. For instance the University highlights multilingualism in its Strategy, but this is not given great prominence in the Faculty documents.

The SWOT analysis in the Faculty's self-assessment is very general and does not give clear guidelines for future work. When it comes to the actual organisation of research within the Faculty, there are two types of organisation existing side by side, the former departments (subject areas) and research groups. At the moment there is a transition period and there does not seem to be a consensus on which of these organisation principles should be followed.

The research groups would benefit from more structured management. One example of the problems of managing research activities is KIMONA, which was an attempt to bring together researchers. This, however, has recently split into four separate research groups.

There is a need to build more interdisciplinary research, especially in fields where this has not been a tradition. It is, however, difficult to start new areas of research, one reason being a shortage of funding. The Faculty has recognised that it has not been very successful in attracting external funding, which points to a weak application culture. The Faculty has to address this problem. One possibility would be for the Faculty to organise seminars on grant applications, in which researchers help each other improve their applications and discuss the feedback from funding bodies, offer training in ethical issues, data management, etc.

The Faculty has been successful in forming networks and strategic partnerships with relevant partner organisations. The Faculty has been very active organising conferences, for instance the annual VAKKI conferences, which attract participants both from within Finland and from abroad. This is an advantage, not least in the training of doctoral candidates.

The number of international staff exchanges (both incoming and outgoing) among researchers and teaching staff are very low. Increasing the number of international exchanges would help promote joint research projects and joint publications with colleagues from other countries.

## Societal Impact of Research

Numerical Rating: 6

At the University of Vaasa there is a strong emphasis on use value. Many research topics chosen have immediate societal relevance, e.g. work on doctor-patient interaction and terminology.

There is also high societal relevance and impact in those cases in which there is actual collaboration, e.g. in immersion education and in in-service training for school teachers. Work at the Levón Institute as well as work in further and adult education are good examples of disseminating knowledge to the wider community. The “newspaper university” is an innovative idea.

Given the small size of the Faculty, the societal impact is impressive.

## Panel's Recommendations for the Future

It is important to develop a strategic plan for the Faculty which leads to a better correspondence between Faculty and University strategies. Such a plan should have clear goals, set priorities, and indicate the allocation of economic resources.

We recognise that in a Faculty with such a wide teaching remit there will always be areas which fall outside topically organised research groups. Even so, the Faculty would do well to work towards a research structure which is less influenced by old subject and departmental divisions in order to make the best use of available resources.

There is a need for more structured management of research groups, which would improve efficiency and make it possible to identify promising research topics for the future.

The Faculty needs to increase its external funding by improving its application culture, e.g. by organising training seminars for grant applications, inviting speakers from funding bodies etc. Funding for research could also be enhanced through the allocation of monies raised from local businesses and benefactors.

International collaboration is a way of improving the quality of research. This can be achieved by increasing the number of international staff exchanges, e.g. by making use of programmes such as Erasmus, NordForsk, Fulbright and Marie Curie. In addition, visibility could be improved by providing translation and language checking services.

The recruitment of PhD students could be improved by the establishment of clear and transparent selection criteria. An increase in the external recruitment of PhD students and postdoc researchers would be beneficial to the research environment. The training of PhD students could be made more efficient by a systematic use of personal doctoral study plans.

The research environment would be further strengthened by more frequent, thematically organised joint research seminars, in which both senior research staff and students present their ongoing research.

## Signatures

24th September 2010, Vaasa

Date and place



Liisa Tiittula (Chair)



Christopher Hall



Heidi Hansson



Ossi Lindqvist



Jan Svensson

## PANEL OF PUBLIC ADMINISTRATION

The Panel of Public Administration evaluated research activities of the Faculty of Public Administration. The unit of assessment was:

- Faculty of Public Administration

**Chair:**

Professor Juha Kinnunen, University of Eastern Finland, Finland

**Panel members:**

Professor emeritus Peter Bogason, Roskilde University, Denmark

Professor John Halligan, University of Canberra, Australia

Professor Rune Premfors, Stockholm University, Sweden

**Joint member:**

Professor emeritus Ossi Lindqvist, University of Eastern Finland, Finland

Site visit 19.-20.10.2010.

## **FACULTY OF PUBLIC ADMINISTRATION**

### **Quality of Research**

Numerical Rating: 4

The level of research activity is good despite the relatively small number of researchers. The research strength emerges in several areas: welfare, comparative, ethics, regional studies, and public law.

The public management group has a long tradition of relevant work, including an emphasis on comparative research, specificity of the public sector and values and contrasts with private sector. The stream of work on administrative ethics registers strongly, particularly for the empirical basis of the work, and the focus on the significant Finnish case where trust continues to be an important element.

Of the other groups, the health and welfare researchers has embarked on an ambitious program on wicked issues and developed ideas about deliberative process as a promising way of handling such issues. The regional studies group is engaging in important research on forces shaping and processes of economic change.

The Panel was provided with information about the quantity of outputs across several categories, but documents of background information do not deliver sufficient evidence about their quality. Of the twenty publications listed many are significant, but in the new world of rankings it is unclear how many of these would receive much recognition. There are a number of solid and respectable publications in good refereed international journals. Several stand out for originality and ability to attract international attention. Of the five sample publications provided, they appeared to come from only two of the five research groups: the health and public management groups. There is recent substantial work on administrative law, but the Panel would have appreciated more information if it fell within the evaluation period. The Panel was informed of the strong continuing commitment to 'monographies', but details were not provided.

Overall then, there is a substantial level of research activity that has been published. The potential is there for enhancing the quality of research, and for demonstrating this through publishing well.

The interviews made it clear that new work is emerging since the evaluation period, including a substantial study in the welfare field, and another planned collection with a significant international published collection in regional studies. The research groups discussed later have the potential to take the quality of the research to a higher level.

### **Doctoral Training**

Numerical Rating: 3

The Faculty of Public Administration has a relatively large number of doctoral students, but many of those are not really active. Most of them are not salaried by the university. The law prohibits the university from striking them from the list of doctoral students. The faculty and university should monitor the progress of doctoral students in order to make clear who is using advisory resources. The panel met excellent doctoral students and post docs but considering the number of doctoral students an average annual outcome of two doctors is low.

The selection criteria for entering doctoral studies are not quite clear. It appears that the successful students approach a professor or are approached by a professor and encouraged to apply by writing a research proposal. Open positions are not advertised, and this means that the chances for applicants from outside the department

are slim. The selection criteria are not clear except academic excellence, but there is no visible competition among proposals since there is no fixed date for the intake of applications.

There seems to be no systematic process for monitoring the progress of the doctoral work. There is good contact between advisor and active students, based on a day-to-day interaction within the organization, these personal contacts function as mentoring. Personal advice e.g. for participation in conferences come out of such processes.

Formal courses in research methodology and philosophy are set up at the university level. Training particular to each doctoral project comes out of departmental seminars and/or participation in the research groups, and from participation in courses by graduate schools at other universities. Participation in international and national conferences is encouraged and partly paid for by the university.

It appears that there are no specific grants for doctoral studies at this university. Therefore, doctoral students have to get a research assistant position or the like, some even have employment outside the university. Other things being equal, this takes time from the doctoral work and prevents the doctoral student from focus on the themes of his/her doctoral research.

## **Quality of Research Organization**

Numerical Rating: 4

The panel found the Faculty of Public Administration to have favorable and high quality research environment. The total number of person-years is moderate in terms of research activities and has been stable over the years, despite visions to the contrary.

There are five research groups. The groups are of varying size but generally small, and dependent on a single professor (except the comparative public management and ethics group). The balance of group members appears to be made up of junior staff, perhaps at post doctoral level, plus doctoral students. The groups appear to be fairly coherent and retain their separate identities. Each group has separate seminars.

There is no ideal size for a research group, but small groups within a small institution where staff are stretched, invariable means they can be vulnerable and subject to other challenges.

National scientific cooperation is good, indeed excellent in some cases. There are plenty of international networks, but perhaps too much depends on individual contacts.

There is evidence of joint research projects with national and international partners. But joint publications among the research groups are limited. Similarly, joint publications with representatives from other universities are few, and joint publications with international partners are low.

The expert contact level nationally and internationally is at a high level. International mobility among teachers and researchers is too low, particularly for long term visits.

Some multidisciplinary co-operation is apparent within the University of Vaasa, but the broader university environment within the city is characterized by institutional fragmentation.

The facilities are appropriate: researchers have access to the latest scientific discussion via library and electronic journals. The Tritonia facilities create a modern environment for all students and also researchers.

The ability to attract external funding is moderate. There is some success from the Academy of Finland, and the amounts have grown over the evaluation period, but total annual volume is below average. There exists good and long term funding also from national and regional sources, in those projects the time scale is shorter, emphasis is



on development activities or clear practical support of policy issues, not necessarily on systematic research questions. This leads to short term funding and contracts for doctoral and post doc students.

In general, there is a need for administrative support at faculty level for research activities. It will be important for research staff to expand capacity through the regional, national and international collaborations. These should favor institutional rather than individual relationships, and cooperative ventures.

## **Societal Impact of Research**

Numerical Rating: 5

The staff of the Faculty of Public Administration have a rather high participation rate in activities in the region and nationally, by being members of various boards and by giving advice to public and private organizations analyzing topics as regional development, legislation, reforms of public administration in general and welfare services. The societal relevance of the research at the faculty is good.

Expectations from the region are heavy and some of the smaller research projects are financed by organizations in the region, and thus the department helps support development activities of the region. It appears that such activities come about somewhat by chance and there is no faculty policy or even university policy in this field – although the Levón Institute may be one good step in this direction.

## **The Panel's Recommendations for the Future**

The sequence of the recommendations for the faculty does not reflect any priority.

- In the Faculty of Philosophy, research policy and strategy should be developed, integrating the activities of the research groups and creating a better thematic focus. This goes also for participation in the solution of societal problems in the region. A coherent policy will also make it easier to communicate with the outside world about the research of the department.
- A Faculty plan should be formulated for improving the overall quality of publications, which includes publishing in higher ranked journals, and publication of articles in English and books with international publishers.
- The University considers formulating a research strategy that connects the university and faculty levels.
- The University considers designating areas of research strength that includes Public Management, Policy and Governance. This will encourage a coordinated focus to the research program within the Faculty.
- Doctoral training needs systematization at the university and faculty level, and should be far more structured, also in the supervision processes, and the Faculty should have a thematic policy for that recruitment, linked to the research groups.
- There should be more full time positions or special grants for doctoral students.
- Tenure track recruitment for postdocs should be better structured.

## Signatures

Vaasa, October 20th 2010

A stylized handwritten signature in blue ink, consisting of a large loop followed by a series of smaller loops and a long horizontal stroke.

Juha Kinnunen (Chair)

A handwritten signature in blue ink, featuring a large 'P' followed by a series of loops and a long horizontal stroke.

Peter Bogason

A handwritten signature in blue ink, featuring a large 'J' followed by a series of loops and a long horizontal stroke.

John Halligan

A handwritten signature in blue ink, featuring a large 'O' followed by a series of loops and a long horizontal stroke.

Ossi Lindqvist

A handwritten signature in blue ink, featuring a large 'R' followed by a series of loops and a long horizontal stroke.

Rune Premfors

## PANEL OF TECHNOLOGY

The Panel of Technology evaluated research activities of the three departments of the Faculty of Technology. The units of assessment were:

- Department of Mathematics and Statistics
- Department of Electrical Engineering and Automation
- Department of Computer Science

**Chair:**

Professor emeritus Erkki Lakervi, Helsinki University of Technology (TKK), Finland

**Panel members:**

Professor Michel Gevers, Université catholique de Louvain, Belgium

Professor Philip de Goey, Eindhoven University of Technology, the Netherlands

Professor Seif Haridi, SICS, Swedish Institute of Computer Science, Sweden

**Joint member:**

Professor emeritus Ossi Lindqvist, University of Eastern Finland, Finland

Site visit 13.-15.10.2010.

## DEPARTMENT OF COMPUTER SCIENCE

### Quality of Research

Numerical Rating: 5

Overall, the department produces good quality research.

It is composed of three research groups (activities): wireless communication, evolutionary computation, and information management. The wireless communication group produces high quality research. The group is still young, and therefore has the potential to improve its impact. The research quality in information management is low, while the work on optimization and evolutionary computation is of good quality.

The Panel has observed a drop in the number of publications in 2008 and 2009. According to the staff interviewed by the panel, this appears to be due to a heavy teaching load. The Panel recommends that that this problem should be addressed so that the quality of research is maintained in the future.

### Doctoral Training

Numerical Rating: 3

There are no locally organized PhD courses. Post-graduate seminars have been organised in cooperation with the University of Tampere and Helsinki School of Economy (now Aalto University). Six PhD degrees have been awarded during the survey period; some of them are in Economics. The Panel appreciates that the communication group cooperates with the corresponding group at Aalto University at the PhD studies level.

The PhD students are encouraged to publish and to participate in conferences.

The PhD students in information management work mostly on their own. The group on evolutionary computation is too recent to be evaluated, since the Chair is new.

### Quality of Research Organization

Numerical Rating: 3

The research is divided broadly into information management, evolutionary computation, and communication systems. Overall the department is small. The research group in communication systems is quite active and promising, and the group in evolutionary computation has a good track record. The Panel observes that the research activity in computer science proper is rather thin.

The total funding of the department has decreased over the evaluation period, and in addition the external funding is low for a department in computer science.

This department, just like the others the Panel has reviewed, does not seem to have a collective vision about its strategy, its future and internal mechanisms for collaboration.

With the exception of communication systems, the other research groups lack coherence. It is evident from the publications that there is good collaboration with researchers in other universities.

## **Societal Impact of Research.**

Numerical Rating: 2

The department has some collaboration with local industries, mainly in the field of energy. Their direct financing seems modest, however. It also has some involvement in teaching courses in the Open University.

## **Panel's Recommendations for the Future**

- The research activity of the Automation group in the Electrical Engineering and Automation department is really a computer science activity that would fit much better in this department. The activity of this group would integrate well with the research activity on evolutionary computation in the Computer Science department.
- The Panel recommends that the name of the department should better reflect the balance between Communications Technology and Computer Science.
- The Panel strongly recommends that a clear research strategy and leadership should be established that covers all activities of the department.
- Given its small size, the Faculty of Technology could also consider abolishing the current department structure. This would have the advantage of fostering collaboration between the different research groups. It would also facilitate managing the career structure of the staff.
- A lack of a well defined post PhD career path is hampering the progress of this Faculty. The Panel strongly support the plan of the University to organise a kind of tenure-track system.

## Signatures

Date and place: Vaasa, October 15, 2010

A handwritten signature in blue ink, consisting of a stylized 'E' followed by a long horizontal stroke.

Erkki Lakervi (Chair)

A handwritten signature in blue ink, featuring a large, looped 'M' followed by a horizontal stroke.

Michel Gevers

A handwritten signature in blue ink, with a large 'P' and 'd' followed by a horizontal stroke.

Philip de Goey

A handwritten signature in blue ink, featuring a large 'S' and 'H' followed by a horizontal stroke.

Seif Haridi

A handwritten signature in blue ink, with a large 'O' and 'L' followed by a horizontal stroke.

Ossi Lindqvist

## DEPARTMENT OF ELECTRICAL ENGINEERING AND AUTOMATION

### Quality of Research

Numerical Rating: 3

The overall quality of research in the department is rather low, but the quality varies greatly between the different groups. The Automation group has a good scientific culture with high quality publications of interdisciplinary nature.

The research in the other two groups (Electrical Engineering, and Energy Engineering and Physics) is mostly driven by short-term projects with companies and organisations through research contracts, with almost no journal publications resulting. The professors in these two groups have almost no refereed journal publications, and some of the publications in the provided list are more of an engineering character rather than being truly scientific.

As a result these two groups, whose activities are mostly focused on energy, have a low international visibility. On the other hand, they clearly provide an important service to the local industry. This may provide interesting opportunities for the future if a well thought-out and long-term research strategy is developed to counter the current short-termism.

To summarize, only a minority of the submitted works are at a high international level.

### Doctoral Training

Numerical Rating: 3

No PhD's graduated during the evaluation period 2005-2009, but two are expected soon. The main emphasis so far in the department has been on building up the Master level. Due to the small number of PhD students in specific areas, only few courses for doctoral studies have been arranged. The national graduate schools led by other universities have offered the students some opportunity to participate in relevant courses and meet other professors and graduate students. The PhD students have been coached on an individual basis by their supervisors. The department does not organize doctoral training seminars in which the PhD students have an opportunity to present their work or to present papers.

### Quality of Research Organization

Numerical Rating: 4

The department is subdivided into three different groups that function with two very different research cultures: Automation on the one hand, and Electrical Engineering, and Energy Engineering and Physics on the other. These two groups do not seem to interact much. The research group on Automation addresses basic research questions, while the research activities of the other two groups are mostly customer-driven.

This department has been very successful in attracting external funding. At the national level, the department has numerous collaborations, but less so at the international level. The multidisciplinary cooperation within the University of Vaasa is fairly active. The research group on Automation has a satisfactory structure. In the other two groups, many of the graduate students belong to the staff; they have a good industrial but a low academic

experience. The research in the department is not coherent although the theme on energy has a potential to create more synergy.

The department has good laboratory facilities, which are apparently used mostly for teaching purposes so far. These facilities could be used to develop a stronger competence in experimental research. Co-operation is intensive with local industry and universities of applied sciences; it has led to the common management of Technobothnia by several partners.

## **Societal Impact of Research**

Numerical Rating: 6

This is the strongest point of the department. It appears to be actively involved in collaborations with local and regional companies and thus it offers added value to the Vaasa region. The research contracts and direct donations made by private companies play a key role here. This provides funding for some professorships and some PhD training. The Automation group has a wider profile and thus the societal impact reaches also to activities outside the Vaasa region.

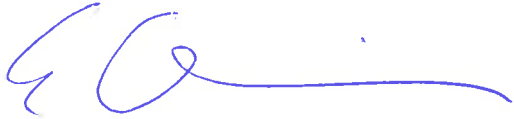
## **Panel's Recommendations for the Future**

- The research groups on Electrical Engineering and Energy Engineering and Physics provide a good service to the university and to the region by conducting highly relevant Research and Development activity with many local and regional companies; these activities are focused on energy. Given the background of the current staff, the Panel does not see how these groups could move, within the foreseeable future, to a scientific research activity of high international level. The Panel therefore recommends that these two groups be encouraged to pursue and improve their application-driven research.
- The research activity of the Automation group is really a computer science activity that would fit much better in the department of Computer Science. This would put an end to the present fragmentation of the research activity on evolutionary optimization into two different departments.
- The Panel recommends that a clear research strategy and leadership should be established that covers all activities of the department.
- Given its small size, the Faculty of Technology could also consider abolishing the department structure. This would have the advantage of fostering collaboration between the different research groups. It would also facilitate managing the career structure of the staff.
- A lack of a well defined post PhD career path is hampering the progress of this Faculty. The Panel strongly supports the plan of the University to organise a kind of tenure-track system.



## Signatures

Date and place: Vaasa, October 15, 2010

A handwritten signature in blue ink, consisting of a stylized 'E' followed by a long horizontal stroke.

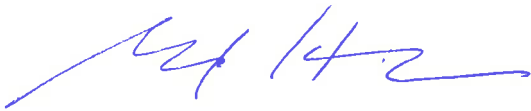
Erkki Lakervi (Chair)

A handwritten signature in blue ink, featuring a large, rounded 'M' followed by a horizontal stroke.

Michel Gevers

A handwritten signature in blue ink, starting with a large 'P' and followed by a horizontal stroke.

Philip de Goey

A handwritten signature in blue ink, featuring a stylized 'S' followed by a horizontal stroke.

Seif Haridi

A handwritten signature in blue ink, featuring a stylized 'O' followed by a horizontal stroke.

Ossi Linqvist

## DEPARTMENT OF MATHEMATICS AND STATISTICS

### Quality of Research

Numerical Rating: 6

The quality of research of this rather small department is high. The research activities are mainly in three topics: operator theory, statistics, and mathematical finance. Several of the publications are in excellent international journals and have reasonable impact in their field. In addition, the department members actively pursue collaboration with international colleagues. The research topics in mathematics are active research topics and have good international visibility, even though they are quite classical (operator theory, boundary value problems, spectral theory). The group in Statistics has good interaction with the department of Finance and Accounting and with the Finance Department of Hanken as well as Texas A&M. The group of Business Mathematics addresses fundamental questions in Mathematical Finance and has collaborations with several foreign universities.

In summary, the scientific quality is at a high international level.

### Doctoral Training

Numerical Rating: 3

The department has very few PhD students. There is no formally organised doctoral training. The interviewed PhD students have declared themselves pleased with the personal individual training they have received from their supervisors. On the other hand, attendance in seminars and international conferences is not enough encouraged. The educational part of the doctoral program is done very much in cooperation with other universities, e.g. within graduate schools. The professors participate in the training of students in other departments at the University of Vaasa, in other Finnish universities and even in Germany and Holland. The low recruitment of PhD students is a serious problem. One possible reason for this is the absence of a Master program.

In summary, in spite of the fact that the PhD students are satisfied with their supervision, the organisation of the doctoral training is conventional and sub-optimal.

### Quality of Research Organization

Numerical Rating: 3

The department is well structured and has a clear organisation of disciplines. It does not attract much external funding, neither is it involved in international research projects. However, it does collaborate internationally on an informal basis. There is a good collaboration with the Faculty of Business Studies.

There is a lack of leadership in the organisation, especially regarding vision, future challenges and threats. The selected research topics are rather narrow and of minor engineering relevance. This hinders the collaboration with the other departments within the Faculty of Technology.

## Societal Impact of Research

Numerical Rating: 4

The societal impact during the period 2005-2009, as presented in the report, is relatively high given the small size of the department. This impact has taken the form of membership in committees and scientific foundations, as expert member in higher education evaluation teams and publication of popular science articles in newspapers. The other factor is through the teaching of courses at the Open University in the Vaasa region. There is, however, no significant direct interaction with industry or financial organisations.

## Panel's Recommendations for the Future

- The lack of a Master program makes it difficult to recruit PhD students. The formation of a joint Master program with other departments could alleviate this problem and increase the interdisciplinary research within the Faculty as a whole. Another possibility is a joint Master program with the Faculty of Business Studies.
- The panel recommends that the proposal of the department to set up a Master program in Financial Engineering should be supported.
- Cooperation with other departments of the Faculty of Engineering should be improved. The Panel recommends that the Faculty of Technology sets up a strategic mechanism to implement this cooperation.
- If new faculty positions are opened in this department, it is recommended that these positions are directed in areas of mathematics that are of engineering relevance, such as computer science, optimisation, networks, automation, etc.
- The Panel recommends that a clear research strategy and leadership should be established that covers all activities of the department.
- Given its small size, the Faculty of Technology could also consider abolishing the current department structure. This would have the advantage of fostering collaboration between the different research groups. It would also facilitate managing the career structure of the staff.
- A lack of a well defined post PhD career path is hampering the progress of this Faculty. The Panel strongly support the plan of the University to organise a kind of tenure-track system.

## Signatures

Date and place: Vaasa, October 15, 2010



Erkki Lakervi (Chair)



Michel Gevers



Philip de Goey



Seif Haridi



Ossi Linqvist



## EVALUATION OF RESEARCH ACTIVITIES 2005-2009

### TERMS OF REFERENCE

This document sets out the standard Terms of Reference applicable to all evaluation panels. The contents of this document are relevant to all panel chairs, panel members and to all the units of assessment. This document should be read in conjunction with Appendix C: Guidance for the units of assessment which will be used by the units of assessment (hereafter referred to as the unit) in preparing their evaluation documents (Appendix D: Background Information Form). The unit refers to the department or faculty whose research activities are to be evaluated (see Appendix A).

### Table of Contents

1	Background and Purpose of the Evaluation.....	3
2	Organization.....	3
3	Tasks, Responsibilities and Working Arrangements of the Panels.....	4
3.1	The Structure and Composition of the Panels.....	4
3.2	Tasks and Responsibilities of the Panels.....	5
3.3	Desk Research.....	5
3.4	Site Visits and Interviews.....	6
3.5	Confidentiality.....	6
3.6	Conflict of Interest.....	6
3.7	Evaluation Report and Publicity.....	6
4	Evaluation Criteria.....	7

4.1	Quality of Research.....	7
4.2	Doctoral Training.....	8
4.3	Quality of Research Organization.....	9
4.4	Societal Impact of Research.....	10
4.5	Panel's Recommendations for the Future.....	10
4.6	University Level Evaluation.....	11
5	Timetable.....	11
6	Appendixes.....	12

Appendix A:	Evaluation panels and units of assessment
Appendix B:	General presentation of the University of Vaasa
Appendix C:	Guidance for the Units of Assessment
Appendix D:	Background Information Form
Appendix E:	Evaluation Report – Unit Level
Appendix F:	Evaluation Report – University Level
Appendix F:	Contact Information

## 1 BACKGROUND AND PURPOSE OF THE EVALUATION

The University of Vaasa is a multidisciplinary University offering degrees at all academic levels from Bachelor's to Doctor's. The teaching and research activities of the University focus on business studies, languages and communication, public administration and technology. There are around 4550 students and 430 staff members at the university.

The University Senate approved the Strategy of the University of Vaasa 2012 on 19 September 2008 and according to the strategy, the university has decided to carry out an evaluation of all its research activities every five years. The present evaluation is due in 2010.

The purpose of the evaluation is to assess the research activities and the quality of research at the University of Vaasa from the year 2005 to 2009 and to provide recommendations for future development. The evaluation has the following objectives:

- to evaluate the research activities and the quality of research compared to the international level of research in the field
- to develop the research activities of the university
- to offer units the opportunity to receive international feedback on their research
- to identify units that are currently carrying out research on a high scientific level or are potentially leading to outstanding results in the future

The results of the evaluation and conclusions made will have an effect on the allocation of resources within the university from 2011 onwards.

## 2 ORGANIZATION

On 29 September 2008, the Rector nominated a Steering group to support the execution of the evaluation. The group is chaired by Vice Rector for Research, Professor Jukka Vesalainen, and the other members are Research Director Erkki Hiltunen (Faculty of Technology) and Professors Esa Hyryläinen (Faculty of Public Administration), Jorma Larimo (Faculty of Business Studies) and Nina Pilke (Faculty of Humanities). Head of Research and Innovation Services Marita Niemelä and Rector's Assistant Anne Svéd act as Secretariat.

The Steering group is responsible for deciding on the structure and composition of the evaluation panels, the criteria to be applied, and the materials to be provided to the panels, as well as other methods of implementation.

The evaluation process is operationally coordinated by the Secretariat under the supervision of the Rector and the Steering group. The Secretariat is available to answer questions regarding the evaluation process (Contact information in appendix G). The Secretariat also compiles the evaluation documents, organizes the site visits and provides administrative support.

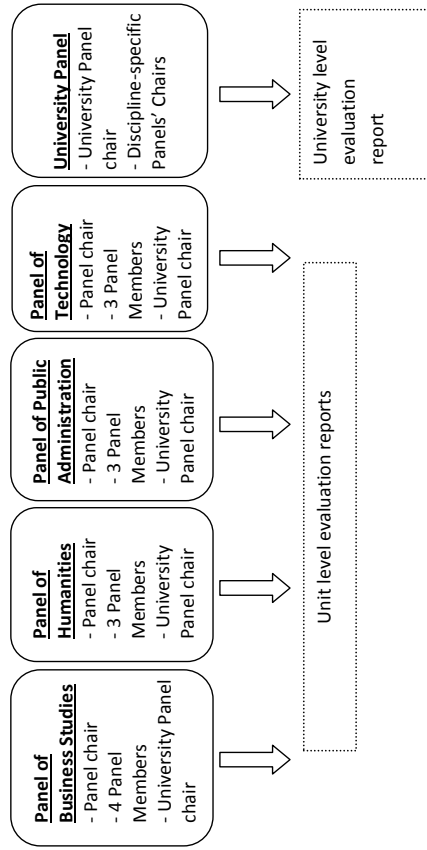
The evaluation is funded by the University of Vaasa.

## 3 TASKS, RESPONSIBILITIES AND WORKING ARRANGEMENTS OF THE PANELS

### 3.1 The Structure and Composition of the Panels

The evaluation is performed by five panels of five independent scientific experts. Four of the panels are discipline-specific and each of them evaluates the units within one discipline (Business studies, Humanities, Public Administration and Technology). One member of each panel is asked to chair the panel. The panel chair is responsible for supervising the panel's progress, especially for ensuring that the panel provides the university with proper unit level reports in due time.

The fifth panel is called the university panel and it is chaired by the university panel chair. The other members of the university panel are the chairs of the discipline-specific panels. The university panel chair is also be the fifth member to the discipline-specific panels and is responsible for the commensurability of the panels' evaluations. The university panel is responsible for providing a university level evaluation report.



The panels, members, Panel chairs and University Panel chair is listed in Appendix A.

### 3.2 Tasks and Responsibilities of the Panels

The primary task of the panels is to provide the university with an objective evaluation on the quality of its research activities, in written form and following a given set of instructions. The evaluation report is expected, among other things, to make suggestions for improving the quality of research, doctoral training and organization of research as well as discuss the impact of the university's research on a societal level. The evaluation will be based on desk research and site visits. The panels' responsibilities are:

- to study material provided by the university before making site visits. Desk work is estimated to consume around 50% of the total work load.
- to interview research personnel during site visits.
- to provide the university the evaluation report during the site visit or at the latest within 2 weeks after the site visit of the respective panel.

The university panel chair and panel chairs are also responsible for providing a university level evaluation report, concerning the research activities in the whole University of Vaasa, within 2 weeks after the visit of the last panel. The university panel chair is responsible for contacting the panel chairs in this matter.

### 3.3 Desk Research

Desk research is performed before the site visits. The material provided to the panels includes:

- A description of the university and its strategies 2008 and 2010
- Descriptions of the units and resources appointed for research in the units
- Descriptions of how research is organized in the units
- A categorized table of the volume of publications and a list of the most relevant publications
- Samples of the most relevant publications
- Descriptions of doctoral training in the units
- A list of doctoral theses and their abstracts
- A description of the units' international and national cooperation
- A description of the societal impact of the research

The Secretariat sends the material to the members of the panels in June 2010.

### 3.4 Site Visits and Interviews

During the site visits the panels are able to specify and expand their knowledge of the research activities in the university by interviewing a sample of researchers representing the various phases of a researcher's career. The panels will also have time for internal discussions and creating a joint opinion for the evaluation report during the visits. The panel chairs and university panel chair will have an orientation meeting with the representative of the University of Vaasa before site visits.

### 3.5 Confidentiality

The panel member undertakes not to make use of and not to divulge to third parties any non-public facts, information, knowledge, documents or other matters communicated to him/her or brought to his/her attention during the evaluation. The evaluation reports and the ratings are confidential until the final summary evaluation report is published.

### 3.6 Conflict of Interest

The panel members are required to let the evaluation secretariat know if there is a conflict of interest. The panel member cannot be a docent, doctor honoris causa or a present or former employee of the University of Vaasa. The panel member is not allowed to have any joint publications with the researchers of the University of Vaasa during the period to be evaluated. The panel member is disqualified if his or her impartiality is endangered. If the panel member is contacted by anyone from the unit of assessment after receiving the material for desk research and before completing the final evaluation report, he or she is instructed to discuss the issue with the Secretariat.

### 3.7 Evaluation Report and Publicity

The evaluation report is written on the Evaluation Form (Appendixes E and F). The panels will provide an evaluation report of the unit(s) during the site visit or at the latest within 2 weeks after the site visit of the respective panel. The evaluation report will be signed by all panel members. The university panel chair will provide the university level evaluation report within 4 weeks after receiving evaluation reports of all panels. All university panel members will sign the university level evaluation report. All evaluation reports and ratings are confidential until publication. All evaluation reports and the university level report will be published at the same time. Evaluation reports will be published by the University of Vaasa.

## 4 EVALUATION CRITERIA

The basic entity to be evaluated by the panels is a 'unit'. Units are either faculties or departments of the University of Vaasa (Appendix A). Panels are asked to give a numerical rating and a written statement on four evaluation criteria (sections 4.1-4.4) and recommendations for future development (section 4.5). The numerical ratings are given on seven-point scales which are described in sections 4.1-4.4. The written statements should be consistent with the numerical ratings.

Each panel should reach a collective decision based on the panel discussions. Panels should ensure that the evaluation takes into account all relevant material available to the panel. The evaluation is based on the evaluation documents (Appendix D: Background Information Form) and information gathered during the site visit. The content of the evaluation documents is described in detail in a separate document "Guidance for the units of assessment". Panels are instructed to familiarize themselves with the "Guidance for the units of assessment" document (Appendix C).

Size and resources of the unit are to be taken into consideration when assessing the extent and quality of its scientific output and research activities. In cases where it is clearly apparent that some parts of the unit are performing better than the unit as a whole, the panels can point this out in their written statement. Individuals are, however, not to be evaluated.

In addition to the unit level evaluation, the university panel will give an assessment on the research activities of the University of Vaasa as a whole (section 4.6).

Panels' numerical ratings, written statements and recommendations for future development are written on the Evaluation Form. (Appendices E and F)

### 4.1 Quality of Research

The panels will evaluate the units' quality of research. The panels are asked to comment on the scientific relevance, originality and innovativeness of research and on the scientific activity compared to national and international levels in terms of publication frequency and quality.

***The following rating scale and accompanying descriptions will be used:***

**7** *The majority of the submitted works are at a **high international level** and virtually all others at a **good international level**.*

**6** *At least one third of the submitted works are at a **high international level** and many others at a **good international level**, these together comprising a clear majority.*

**5** *The majority of the submitted works are at least at a **good international level** and virtually all others at a **fair international level**.*

**4** *At least one third of the submitted works are at a **good international level** and many others at a **fair international level**, these together comprising a clear majority.*

**3** *The majority of the submitted works are at least at a **fair international level**.*

**2** *A minority of the submitted works are at a **fair international level**.*

**1** *None, or virtually none, of the submitted works are at a **fair international level**.*

**High international level** means work which is apt to arouse serious interest in international academic communities and which is published by the leading international publishers or in the leading international journals with the most rigorous editorial standard.

**Good international level** means work which is of undisputed relevance for international academic communities and which is published by well-known international publishers or in well-known international journals.

**Fair international level** means work which is of possible relevance for international academic communities and which has been published abroad or by well-known national publishers or in well-known national journals.

In this scale, "international level" refers to the level of research in Europe.

However, panels are requested to consider that in some cases it is not feasible to publish research results in English but instead either in Finnish or Swedish (official languages of Finland) or, particularly in the Faculty of Humanities, in other languages. These publications may still provide evidence of international excellence, if they can be compared favourably with similar studies in other countries. Thus, the language of the publications should not have an effect upon the rating.

All research, whether basic or applied, should be given equal weight in the evaluation.

The panels are encouraged to use the whole scale. The highest ranking should not be given unless the panel concludes that the unit represents international excellence and is one of the top European departments or institutes in the field.

## 4.2 Doctoral Training

The panels will evaluate the extent and quality of doctoral training in the unit. In addition to clearly measurable outputs, assessment should take into consideration the unit's active recruitment practices, clarity of student selection criteria, level of personal guidance offered to doctoral students and consistency of the evaluation policies and practices. When assessing the organization of doctoral training, particular attention should be paid on doctoral training seminars, unit's active involvement in graduate schools, doctoral students' participation in scientific conferences and in relevant research



networks and on the continuity of communication between the doctoral student and his/her supervisor(s).

*The following rating scale will be used:*

**7 Excellent**

**6 Very good**

**5 Good**

**4 Average**

**3 Somewhat below average**

**2 Fair**

**1 Poor**

#### 4.3 Quality of Research Organization

The panels will give an assessment on how well the unit has succeeded in creating a favourable and high quality research environment, especially in terms of organization, leadership and management, continuity and coherence.

When evaluating the quality of a research environment, the panels are asked to pay particular attention to the unit's ability to attract **external research funding** (taking into consideration the funding opportunities available for the scientific field concerned) and the ability to form networks and strategic partnerships with relevant partner organizations. The panels will evaluate the extent and quality of both **national and international scientific cooperation** in terms of joint research projects, joint publications, expert assignments, conference organization and researcher mobility. The panels are also asked to evaluate the extent of **multidisciplinary cooperation within the University of Vaasa**. The **functioning of research groups** should also be assessed, in particular the organization of research groups (adequate balance of professors, post doc's and doctoral students), research groups' coherence (either through substance, context, methodology or other major factor creating a joint identity to the group) and content of the group's research program and publication plan.

*The following rating scale will be used:*

**7 Excellent**

**6 Very good**

**5 Good**

9

**4 Average**

**3 Somewhat below average**

**2 Fair**

**1 Poor**

#### 4.4 Societal Impact of Research

The panels are asked to assess the contact between the unit's research and the society. In particular, panels should focus their assessment on the societal **relevance** of the research topics in the unit and on the **impact** the research has had on economic activities, culture and society. Panels should also assess the unit's **partnerships and collaboration** with corporate and/or public sector actors.

*The following rating scale will be used:*

**7 Excellent**

**6 Very good**

**5 Good**

**4 Average**

**3 Somewhat below average**

**2 Fair**

**1 Poor**

#### 4.5 Panel's Recommendations for the Future

The panels are asked to provide recommendations for the future development of the unit's research activities (e.g. research themes and topics, doctoral training, research environment and organization, cooperation). Key issues to be addressed are

- What strengths, weaknesses, opportunities and challenges does the unit have?
- How should the unit improve its research performance?

10

#### 4.6 University Level Evaluation

Based on unit level evaluations, the university panel is asked to give an overall evaluation of the research activities and quality of research at the University of Vaasa. In particular, the university panel is asked to address the following questions

- Which units are clearly carrying out research on a high scientific level?
- Which units are potentially leading to outstanding results in the future?
- How well have the strategic objectives for research as defined in the University of Vaasa strategies 2009 and 2012 been achieved so far?

University panel is also asked to provide recommendations on the future development of the university's research activities as a whole.

#### 5 TIMETABLE

August-September 2009	The Vice-Rector for Research and the Secretariat give detailed information and instructions to the assessed units on the evaluation process.
August-October 2009	The candidates for panel members are identified.
November-December 2009	The panel members are contacted and the dates for the site visits of the panels are confirmed.
January 2010	The panel chairs, university panel chair and panel members are nominated.
November 2009- February 2010	The background information for the evaluation documents is precompleted by the Secretariat and sent to the units.
March-May 2010	The evaluation documents are completed in the units.
May 2010	The panel chairs and university panel chair visit the University of Vaasa and have an orientation meeting with the Rector, Vice-Rector for Research and Secretariat.
June 2010	The evaluation documents are sent to the panel chairs, university panel chair and panel members.
June-August 2010	Panels' desk (home) work with the evaluation documents.
September-October 2010	Panels' site visits in Vaasa.
September-November 2010	Panel chairs and university panel chair provides the final evaluation reports to the Secretariat during the site visit or at the latest in 2 weeks after each site visit and the University level report 4 weeks after receiving evaluation reports of all panels.
November 2010	The Vice-Rector for Research and the Secretariat compile the final summary report.
December 2010	The final summary report, including the evaluation reports and ratings will be published.

## 6 APPENDIXES

Appendix A: Evaluation panels and units of assessment

Appendix B: General presentation of the University of Vaasa

Appendix C: Guidance for the units of assessment

Appendix D: Background information form

Appendix E: Evaluation report – unit level

Appendix F: Evaluation report – university level

Appendix F: Contact information