

PRECONDITIONS PROCESSES PERFORMANCES

FOR HIGH-QUALITY RESEARCH

Results from the External Research Assessment
at Malmö University (ERA19)

EXTENDED EXECUTIVE SUMMARY



**MALMÖ
UNIVERSITY**

**PRECONDITIONS, PROCESSES, PERFORMANCES
FOR HIGH-QUALITY RESEARCH**

Editors: Mikael Alexandersson and Inger Lindstedt

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ISBN 978-91-7877-078-6 (print)

ISBN 978-91-7877-079-3 (pdf)

DOI 10.24834/isbn.9789178770793

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The publication is also available at:

<http://doi.org/10.24834/isbn.9789178770793>

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FOREWORD BY KERSTIN THAM, VICE-CHANCELLOR MALMÖ UNIVERSITY

Three years ago, Malmö University started to prepare for becoming a research university in 2018. We needed to formulate a new strategy and to prioritise how to use the new government research funds. Our vision is that “Malmö University contributes to a sustainable and more equal society through research-based knowledge, critical reflection and readiness to act” (*Strategy 2022*). Therefore, we want to produce knowledge for change in order to meet complex societal challenges.

One important condition for the development of high-quality research at an international level is the presence of coherent and creative academic environments with a critical mass of internationally active researchers, teaching staff and doctoral candidates as well as first and second cycle students. These environments enable long-term relationships and collaborations to develop with other national and international universities, as well as cooperation with various societal actors.

A coherent quality system is under development at Malmö University, and ERA19 is one of the very important components of this system. ERA19 was the first comprehensive international research evaluation conducted at Malmö University. Previously, the multidisciplinary research centres, programs and platforms have been evaluated on a regular basis. However, in preparation for ERA19, most faculties decided that the departments should serve as the units of assessment, which has previously not been the most common way to organise the “border-crossing” research at Malmö University.

Therefore, I look forward to the results and recommendations from ERA19 with the greatest interest, and I am certain that we will learn a lot from the perspectives taken.

The timing of conducting ERA19 has been perfect since we are, at different levels, in the midst of prioritising and implementing research strategies for the future. Based on the ERA19 reports and recommendations, we can now take the next step in building our academic environments. The process of ERA19, with self-assessments and panel visits, has facilitated our strategic discussions. During the coming months,

we are well-prepared to further sharpen our strategies to reach our ambitious goals stated in *Strategy 2022*.

From my perspective, the most important key for success is to retain the engagement and creativity expressed by the researchers during the ERA19 process, in order to share and prioritise research areas and strategies for the future. By incorporating the principles of collegiality and peer-review in our research and new quality framework for research, we can build long-term, nationally and internationally outstanding research and achieve a better balance between education and research. By involving students in our research, we can integrate their future-oriented perspectives and at the same time strengthen the scientific impact of research in our educational programs.

I would like to extend my warm thanks to Mikael Alexandersson for his superb leadership and hard work with designing and conducting ERA19 but also for his work on this report. I am certain that people outside Malmö University will also find the model and structures of ERA19 useful and inspiring.

My gratitude also goes to the chairs and vice-chairs of the panels, for their outstanding work, conducted together with the excellent panelists during almost a year, and for the constructive and inspiring dialogues during the site visit in Malmö in November 2019.

Many thanks to Bo Petersson, Peter Jönsson, Maria Dahlberg and Inger Lindstedt for their generosity, commitment and hard work.

Finally, my thanks go to all the ERA coordinators, researchers and administrators who made ERA19 possible.

Now, inspired by ERA19, we will take the next step in our shared journey, continuing to build research and education at Malmö University!

Malmö, 21 April 2020

Kerstin Tham, Vice-Chancellor, Professor

PREFACE BY MIKAEL ALEXANDERSSON, EXTERNAL CHAIR

Since university research is largely funded by public money, often competitively allocated, it is normal for it to be evaluated. In addition to external interests, universities themselves are motivated by internal interests in assessing their research effort. In a continually changing research landscape universities need solid information about research strengths and weaknesses. But the challenges and pitfalls for universities engaging in research assessment are numerous. Consequently, research assessment needs to be understood correctly and applied sensibly. Assessment should reflect research reality and the needs of those involved. There is an importance of agency. It should be supportive of those involved when they are formulating their plans for future research. However, identifying renewal in academic research is often more difficult than assessing past performance.

The research quality assessment at Malmö University, ERA19 (External Research Assessment 2019), presented in this report, is a central component in the process of developing and establishing a future framework for quality assurance of research. Since Malmö University is striving towards higher and higher quality and wants to be an advanced multidisciplinary university, an external research assessment will serve as a useful knowledge base showing where Malmö University research stands today and what the strategical issues are for future success. ERA19 is also expected to bring solid information to the continued development in relation to the overall goals for research in Malmö University's *Strategy 2022*. The goal for ERA19 is to develop research quality on various organisational levels (research unit, faculty level and university level). The assessment was carried out with the help of external international evaluators and their recommendations will be highly important for continued research quality development. Their analyses and recommendations will be integrated into the planning and follow-up of operations in accordance with the quality framework for research at Malmö University. The results and recommendations on the university-wide level

can also form the basis for the Vice-Chancellor's future allocations within the framework of joint undertakings.

The Vice-Chancellor invited me, as the chair of the steering committee and the chairman for the expert panel chairs, to plan and direct the evaluation. The core of the evaluation was a peer-review process, where distinguished scholars of the international research community were invited as members of expert panels to review all research at Malmö University. Preparation before site visits from the 32 research experts in November 2019 was based on written material (e.g. self-evaluations, bibliometrics, overviews, backgrounds) provided by 16 research units (the departments in most cases), the five faculties and at the university level. The design of ERA19 is relatively conventional, both for reasons of resources and schedule, but also to avoid complications in the interpretation of the results. For instance, the process, themes, data and criteria were the same for all fields of research at Malmö University.

In this report the result of the research evaluation is presented on a general and integrated level. Unfortunately, a summary cannot express the views of the expert evaluators' panels in full. When summarising and integrating complex information from all expert panel reports there had to be a selection. The aim is that the report will contribute to the overall impression communicated by the external international evaluators. But to get the full picture one has to consult the expert panel reports. These are presented in full on the University's website: mau.se/era19.

The outcome of ERA19 shows that research produced at Malmö University is generally of high quality, and in some instances outstanding and internationally leading. The external international evaluators have also identified several areas where improvements could be made, and they have provided the University with a series of recommendations to address these. Undoubtedly, ERA19 reveals considerable strengths in many fields and disciplines of Malmö University, and it elucidates areas with potential for future success. ERA19 also points at weaknesses and offers advice on actions for successful development. The results from ERA19 will now be

dealt with and addressed at all levels within Malmö University. It is up to the academic community, staff members in general and the leadership on all levels at Malmö University to take it from here, and work with the strategically important issues pointed out in this report in a concrete way. This work will also lead to some difficult decisions in terms of priorities within various areas. But by drawing wise conclusions and making the right choices, the way for the future success of research at Malmö University will be paved.

Finally, I want to express my appreciation for the professional and competent work of the coordinators in ERA19 and other personnel at Malmö University in carrying out the tasks that have been required from them by the evaluation. The panel experts have been deeply committed to the task, and their qualified assessment work and generous sharing of advice and good ideas is highly valued. Finally, the capabilities and friendliness of my collaborators in the project core team – Bo Petersson, Peter Jönsson and Maria Dahlberg – and in the steering group for ERA19 have made this work both enjoyable and efficient. A special thanks to Inger Lindstedt for her invaluable efforts in ERA19, including the collaboration on the compilation of this report.

On behalf of the external international evaluators, I hereby submit this report – Preconditions, Processes, Performances for high-quality research: Results from the external research assessment at Malmö University (ERA19) – to the Vice-Chancellor at Malmö University, Kerstin Tham.

Malmö, 21 April 2020

Mikael Alexandersson, Professor in Education

Chair of the steering group and Chair for the expert panel chairs, ERA19 Panel committee

INTRODUCING MALMÖ UNIVERSITY

Malmö University was founded in 1998. In the beginning, some education programmes which were already located in the city of Malmö were incorporated from neighbouring Lund University, while other courses and programmes were new. Research at Malmö University has since its establishment been characterised by a multidisciplinary approach – cross-disciplinary collaboration where knowledge from different scientific fields is brought together around an issue or research question of social or scientific importance.

After having obtained full university status in 2018, Malmö University has increased its ambition to be competitive in the international academic research arena, while also being committed to contributing to the development of a socially, economically, ecologically and culturally sustainable society. The multidisciplinary approach in research and higher education is also reflected organisationally. In all of the university's faculties and departments, research, education programmes and courses bring together different academic cultures, traditions and scientific fields.

Malmö University has grown rapidly – primarily within first and second cycle education, but also within doctoral education and research. Ever since the beginning in 1998, professional education and training (PET) has been an

important and substantial part of Malmö University's activities. The teacher education, for instance, is one of the largest in Sweden, and the education programmes in nursing and social work are also substantial.

The number of students at Malmö University corresponds to 12 000 full time equivalents (FTE). 86 per cent of these are first-cycle students and 14 per cent are second-cycle students. Compared to the national average, Malmö University has more students with a non-Swedish background and with a non-academic background.

In 2019, Malmö University had a total of 278 doctoral students. Approximately one fourth of these were employed outside the University, which is well above the national average, reflecting the significant element of professional education and training also in doctoral education. In Sweden, doctoral students are normally employed at university during their entire doctoral education.

THE ORGANISATION AND GOVERNANCE OF SWEDISH UNIVERSITIES

In Sweden, higher education is offered by public-sector higher education institutions (HEIs) and, to a lesser extent, by independent education providers. There are approximately 30 public-sector HEIs which are generally referred to as universities in English, although formally not all have the status of "full university" (Swedish: *universitet*) but "university college" (Swedish: *högskola*). The main difference between the full universities and the university colleges is their authority to award certain education qualifications. While full universities are authorised to autonomously award first, second and third cycle qualifications (Swedish: *utbildning på grundnivå, avancerad nivå* and *forskarnivå*, respectively), university colleges are authorised to award first cycle qualifications only. In order for them to award second and third cycle qualifications, the government agency overseeing higher education assesses, after a due process of application, each programme before providing authorisation. There is no difference, however,

in the status of the qualifications awarded. Regarding research, full universities receive more direct government funding for research and third cycle (doctoral) education than university colleges do. When Malmö University became a full university in 2018, the direct government funding of research increased from SEK 139 million in 2017 to SEK 235 million in 2018.

In Sweden, universities (including university colleges) have autonomy within a system of governance and management by objectives. The Swedish Parliament and Government have the overall responsibility for higher education and research, deciding on legislation and other regulations. Different agencies that administrate, oversee and evaluate higher education and research – such as The Swedish Higher Education Authority (UKÄ) and The Swedish Research Council (*Vetenskapsrådet*) – receive their instructions from the government, but otherwise work independently.

MALMÖ UNIVERSITY'S ORGANISATION

Malmö University is organised into five faculties, a university library and a central organisation for administration and services. The highest decision-making body is the University Board (Swedish: *Universitetsstyrelsen*), which consists of board members from external organisations (in majority) as well as employees of the university.

Higher education and research are carried out at the five faculties, each led by a dean and a faculty board. The faculties are further organised into altogether fifteen departments, which in most of the cases also correspond to the research units in ERA19. Research is also conducted at five cross-faculty research centres. As described in the next chapter, about the process for ERA 19, the research units within ERA19 were defined as each faculty deemed appropriate. At all faculties except the Faculty of Odontology, the research units correspond to the departments. The Faculty of Odontology decided to present themselves as one singular research unit.

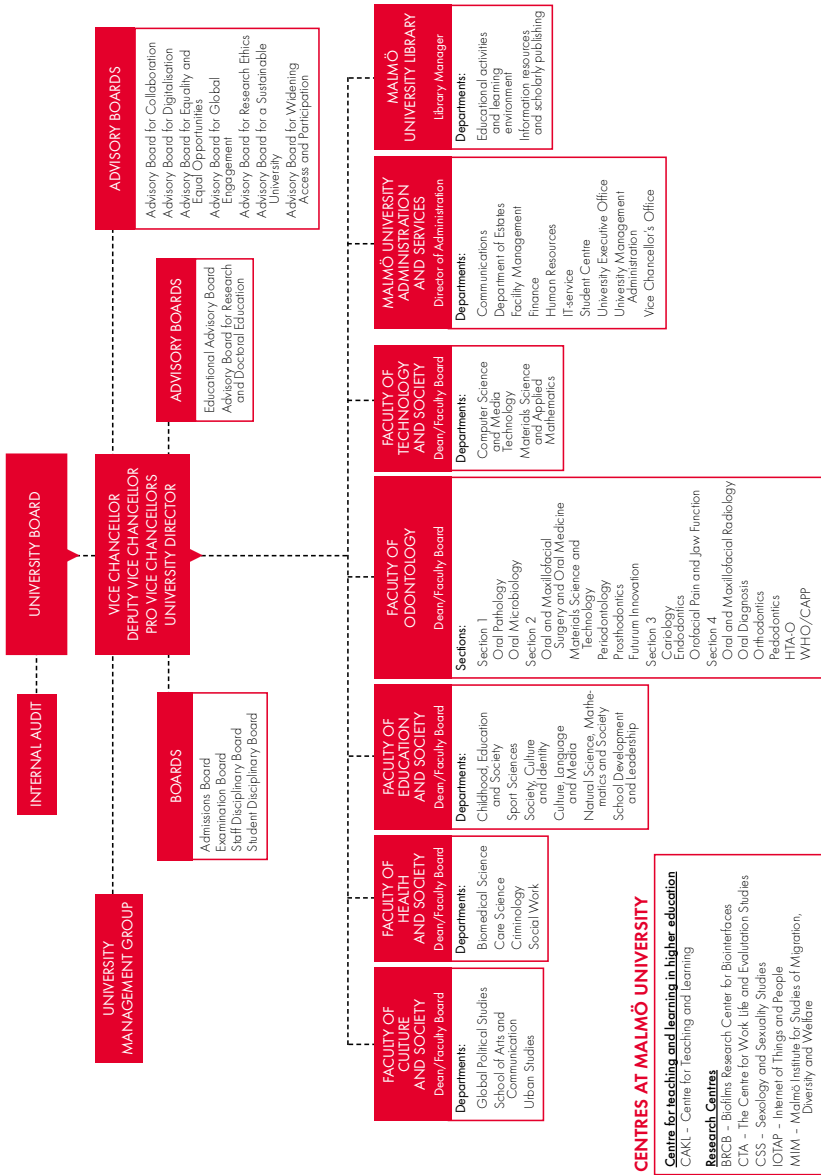


Figure 1. Organisational chart Malmö University, 2020

At the faculty level, the academic staff is represented in different decision-making bodies, such as faculty boards, and various advisory committees. At the university level, each faculty is represented in boards where research issues are discussed and prepared for decision making by the Vice-Chancellor or the University Board. Principles for resource allocation and overall strategies for the University are decided by the University Board where the academic staff is represented.

Whereas overarching and strategic research-related issues are decided by the Vice-Chancellor – for example the establishment of research centres, funding of major research programmes or the initiation of doctoral programmes – there is a process of peer-review preceding formal decisions.

In order to create strong and cross-sectorial research environments, Malmö University has established multidisciplinary and cross-faculty research centres. At the research centres, academic staff from different disciplines work together conducting research on joint issues. They collaborate with partners in society, and link research to teaching, primarily within second cycle and doctoral education. Each of the five centres is evaluated individually every five years, after which the Vice-Chancellor decides whether or not funding should continue. Due to this regular evaluation scheme, the research centres have not been evaluated as milieus under ERA19.

FUNDING AND RESOURCE ALLOCATION

The funding of Swedish higher education institutions (HEIs) is part of the state budget – proposed by the government and decided by the Swedish Parliament. An important feature of the Swedish system for university funding is that revenues for education and revenues for research (including doctoral education) must remain separate.

Government research funding is allocated as direct funds to the universities, and as external funds, through various research councils and government agencies where they are allocated in competition through peer-review. External funds also include funding from non-government bodies,

such as private and semi-private foundations or European research organisations.

Among Swedish universities, there is a great difference in research revenues. Over the last 15 years, approximately 90 per cent of the government's direct funding for research and development at HEIs has been allocated to the traditional universities and the specialised universities. About 10 per cent has been allocated to the newer universities and the university colleges (including Malmö University).

At Malmö University, research funding is allocated differently depending on the type of grants. The governmental direct funding for research is disbursed to Malmö University centrally. Out of these funds, 75 per cent are distributed directly to the five faculties for further allocation at their discretion, following a resource allocation model decided by the University Board. The remaining 25 per cent are kept at the university level, where the Vice-Chancellor decides on how these resources are allocated. For example, the five research centres receive their base funding out of this share, as do major research programmes, strategically prioritised activities and certain support for doctoral studies (e.g. doctoral schools).

External research revenues – which encompass external research grants (Swedish: *externa forskningsbidrag*) and commissioned research (Swedish: *uppdragsforskning*) – are distributed directly to the departments where the researcher is employed, from the different funding agencies, foundations and other organisations. Out of these revenues, approximately 30 per cent are deducted for overhead. The 16 evaluation units within ERA19 (15 departments and the Faculty of Odontology) display somewhat different profiles in terms of revenue.

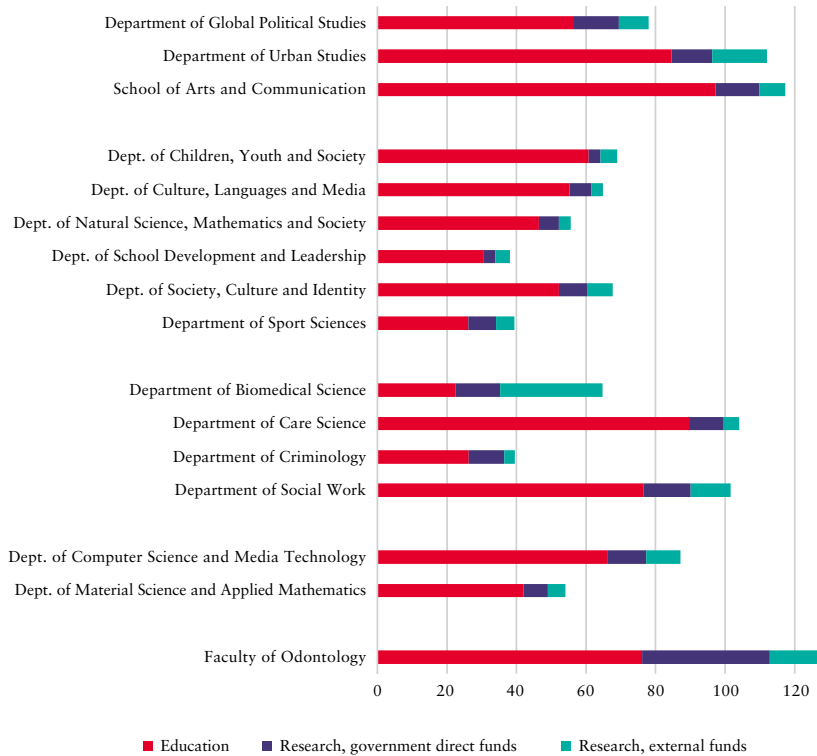


Figure 2. Revenues 2018 per department and the Faculty of Odontology (the 16 primary research units within ERA19). Amounts in MSEK.

The allocation of research revenues differs between faculties, which means that part of the research revenues are not allocated to the department level. At the Faculty of Education and Society, part of the education is organised at faculty level, and not at department level, which means that not all revenues for education at the faculty are shown in the chart. Government funding for the dental clinic at the Faculty of Odontology is not included. The 15 departments are listed faculty-wise: Culture and Society, Education and Society, Health and Society, and Technology and Society.

ACADEMIC STAFF

In 2018, Swedish higher education institutions (HEIs) employed 76 179 persons (61 400 FTE). Seen nationally, over the last decade, assistant professors and career development positions are the employment categories that have increased the most, while the number and share of lecturers have decreased. The number of professors has also increased significantly due to the universities being allowed to promote assistant professors to professors (after a due process of external peer-review), which was not possible before 1999. It should be noted that the employment category of assistant professor (Swedish: *universitetslektor*) is highly diverse, including teachers recently having received their PhDs as well as those with many years' experience, soon to become full professors.

	Malmö University	Sweden
Academic staff, whereof:	979 (68 %*)	41354 (67 %*)
- Lecturers	26 %	12 %
- Doctoral Students	12 %	24 %
- Career Development Positions	2 %	9 %
- Assistant professors	34 %	22 %
- Professors	8 %	12 %
- Other Academic Staff	18 %	21 %
Non-academic staff, whereof:	455 (32 %*)	20074 (33 %*)
- Administrative staff	67 %	61 %
- Technical staff	24 %	33 %
- Library staff	9 %	6 %

* out of total staff (FTE), academic and non-academic, which amounts to 1,434 at Malmö University and 61,428 in Sweden, respectively.

Figure 3. Employees 2018 per staff category. Full-time equivalents (per cent). Source: UKÄ.

At Malmö University, 68 per cent of all employees are academic staff and 32 per cent comprise administrative, technical and library staff. Among the academic staff, lecturers (Swedish:

universitetsadjunkt) and assistant professors (Swedish: *universitetslektor*) make up the two largest employment categories.

In Sweden, the categories of academic staff vary between academic fields. The proportion of assistant professors and lecturers is high in social sciences and humanities and arts compared to other fields. In medicine and health sciences, in the natural sciences, and in engineering and technology, the proportion of staff holding career development positions is significantly higher than in other fields.

At Malmö University, all academic positions include a minimum of research or competence development. Assistant professors have teaching duties of 70 %, research duties and personal competence development of at least 20 % and other duties (e.g. administration) of 10 %. Lecturers have teaching duties of 80 %, time for competence/skills development of 10 % and other duties (e.g. administration) of 10 %. Competence development for lecturers does not necessarily imply that they carry out research themselves, but rather that they take part of research to ensure a connection between higher education and research. Full professors have a minimum time for research equivalent to 30 % of their employment plus normally 10 % for other duties. (The minimum research time for full professors changed in 2014 from 50 % to 20 %, and then again in 2018 from 20 % to 30 %). In odontology, all teaching staff – including full professors, assistant professors and lecturers – have clinical duties of 20 %.

In Sweden, doctoral students typically have a fixed-term employment with a duty to primarily carry out doctoral studies. Doctoral students may not be admitted without secured funding for the entire duration of the doctoral education (four years full time). Departmental duties (up to 20 per cent of full time), such as teaching, is often part of the position and the employment is then extended accordingly. At Malmö University, 64 per cent of all doctoral students have such employment (Swedish: *doktorandanställning*). 24 per cent are employed outside the University, for example at private businesses, or regional or municipal authorities. The remaining 12 per cent have other kinds of financing.

PROCESS AND METHOD OF ERA19

When Malmö University was conferred the status of full research university from 2018, direct governmental funding for research increased, and the issue of quality in research was immediately put high on the agenda. This was further prompted by new governmental policies deciding that all Swedish higher education institutions were to be responsible for their systems of quality assurance of research, including self-initiated assessments.

In June 2018, the University Board formally gave the Vice-Chancellor the task to carry out an external assessment of the quality of research at Malmö University. Certain boundary conditions applied: The assessment should: (a) be in alignment with the overarching goals expressed in Malmö University's *Strategy 2022*; (b) be performed at three levels (research unit, faculty and university levels); (c) use assessment by international experts. Furthermore, the outcome of the assessment was to be used to develop and enhance research quality at Malmö University. It is expected that external assessments of the research quality will be integrated as a component in Malmö University's upcoming (in December 2020) quality framework for research.

PREPARATIONS

Simultaneously with launching the project organisation, the Vice-Chancellor asked the faculties to identify suitable units of

research (that is, units of assessment) to be included in the forthcoming assessment. The response converged toward a common standpoint that the research units should be congruent with the departments, except at one faculty (the Faculty of Odontology) which chose to be regarded as one single research unit.

A project directive was decided by the Vice-Chancellor as the first step to launch the organisation of the External Research Assessment 2019, henceforth ERA19. Among other things, the directive stated that the Vice-Chancellor was the project owner and that a steering group and a project core team should be formed.

RATIONALE

At this stage, it was emphasised that the rationale of ERA19 is to contribute to the improvement of research quality at Malmö University. Consequently, the assessment will result in reports containing recommendations from the appointed experts. Key recommendations will be included in the planning of future activities regarding research in order to take full advantage of the assessment. For this reason, ERA19 will be an important tool in the development of research quality at the research units, as well as at the faculty and university levels.

ORGANISATION

As pointed out in the project directive, the steering group of ERA19 consisted of the Pro Vice-Chancellor, an advisor to the Vice-Chancellor, two deans, the university library manager and the manager of the University Executive Office. The steering group was led by an external chairperson, appointed by Malmö University especially for ERA19. The steering group made decisions on crucial issues regarding how ERA19 was to be implemented. Among its initial tasks was to decide on a project plan, which outlined the essential activities in ERA19 along a rough timeline.

For carrying out ERA19, a project core team was formed consisting of a project manager (advisor to the Vice-Chancellor),

a project coordinator and an assistant project coordinator. Administrative staff associated to this core team – from the Library, the Department of Finances, the Department of Human Resources, Communications Department and the University Executive Office – was tasked to serve ERA19 with a general background of the Swedish academic system, along with facts and figures on bibliometrics, economy and staff at the research units. An editor was included to coordinate the work on the self-evaluations, which later were also checked for language and style.

Another internal key group consisted of representatives from the faculty level and the designated research units. One ERA coordinator was appointed for each research unit (16 altogether) and also one ERA coordinator for each faculty (five). Since the Faculty of Odontology consisted of only one research unit, the duties of coordination of this faculty were shared between two ERA coordinators. The prime task for the ERA coordinators was to manage the self-evaluations at research unit level and at faculty level, respectively. An additional coordinator was engaged to help compose the self-evaluation for the university level.

The steering group initiated the ERA19 operations step by step in close collaboration with the project core team. Eight meetings were held during the project period, when the project core team presented the current status of ERA19 and the steering group decided what the next step in the process would be. Before major measures were implemented, a proposal to interested parties was sent for referral.

MAIN COMPONENTS

The main components of ERA19 were: self-evaluations, expert panels, site visit and reports. Background material of the kind mentioned above serves as reference and underpins claims made in the self-evaluations. This supportive documentation and data will be introduced below.

Self-evaluations

The self-evaluation in which representatives of the entity in question analyse and describe the situation in a self-reflective and critical way was central to ERA19. Templates were constructed in continuous dialog with the ERA coordinators and other interested parties (one template for each level) in order to assist and structure the self-evaluations. Four university-wide meetings were held as arenas for introduction and discussion regarding the progress of the work on self-evaluation and other issues in order to exchange feedback on how ERA19 advanced.

Application of best practices informed by an international perspective made the content of the self-evaluation templates quality assured. A number of predefined themes proven to be of importance to academic research quality were thus highlighted, with the intention of assisting the authors to extract and draw attention to the most important issues in a uniform way.

A set of instructions followed the templates to take advantage of the potential of each theme. In this way, the themes were unpacked so that they could be problematised in more detail. The instructions included guiding questions to help the ERA coordinators and the writers of the self-evaluations.

Preparations for writing the self-evaluations started with workshops targeted at all ERA coordinators, which raised the coordinators' awareness of the process of producing self-reflective documents in this genre by suggestions on how to structure the text against the themes in the template. When self-evaluations were almost completed (90%), internal readers with solid experience of conducting self-evaluations provided feedback on the ERA coordinators' texts before they were submitted.

Expert panels

Recruitment of experts to the five faculty-specific panels began with a nomination from each faculty. Internationally and nationally renowned scholars with strong integrity, excellent track records in relevant fields, a broad research overview, experience in research management, and a capacity for assessing research at system level, were required qualities of the nominees. After nominations from each faculty, the candidates were

screened for possible conflicts of interest before they themselves were asked to actively declare that they had no conflicts of interest regarding the faculty they were proposed to assess. The selection process for panelists aimed to form gender-balanced panels that jointly covered the range of scientific expertise needed to review the faculty in question. Invitations were administered centrally after consultation with the faculty ERA coordinator, who sanctioned all invitations before they were sent.

Each panel was led by a chairperson who coordinated the reports on the research units at that faculty. The chairperson was also responsible for the faculty level report and contributed to the report on the university level. Besides written instructions, a special meeting between the ERA19 management and the chairpersons was held prior to the site visit to clarify any questions about their duties. At least the chairperson or the vice-chair was familiar with the Swedish research system. The vice-chair was intended to take over the chairperson's duties if he or she was prevented from acting as such.

All chairs and vice-chairs for the expert panels together formed the ERA19 Panel Committee, which was chaired by the chair of the steering group.

Depending on the size (in ERA19 there is a range from one to six research units per faculty) and heterogeneity in research, the panel for each faculty consisted of six to eight experts.

Site visit

A number of interviews in different constellations were held with the three levels involved during the site visit 26–29 November 2019, standardised in four groups at the research units: (a) ERA coordinator, head of department and head of research; (b) senior staff; (c) junior staff; (d) doctoral students. An appointed secretary from Malmö University assisted each panel by taking notes during the interviews.

The self-evaluations, the frame story and the fact sheet (see below) formed the main background material for these interviews, as well as lists of preliminary questions that the panels were asked to submit before the site visit.

During the site visit, it was possible to discuss topics and ask questions that had surfaced depending on how the panel had understood the self-evaluation – but the interviews could also be used to sort out any misunderstandings that had arisen, as the interviewees had the opportunity to make various clarifications.

The panels' chairs and vice-chairs presented their preliminary impressions to the University leadership at the end of the site visit.

Report templates

As mentioned above, there are three types of panel reports in ERA19: one for the research unit level, one for the faculty level and one for the university level, respectively. Each report template is structured according to the themes of the corresponding self-evaluation, followed by a brief summary of strengths and development areas.

Assessment tool

The panels received an evaluation tool consisting of criteria for categorising the information in each theme in the research unit's self-evaluation. This tool helped the ERA19 Panel Committee integrate the findings of each panel to justify and harmonise the comments and recommendations to the research units in the panel reports. (The assessment tool does not apply to the faculty and university levels.)

POST SITE VISIT: PRELIMINARY AND FINAL REPORTS

Preliminary reports were submitted by each panel to the respective faculty for inspection so that any factual errors in them could be corrected and misconceptions (if any) resolved before the final versions were presented, while the ERA19 Panel Committee finalised the university level report.

In the same manner, the present Extended Executive Summary was edited and synthesised from these reports.

Self-evaluations, final reports and this Summary are made openly available on Malmö University's website: mau.se/era19.

The recommendations in the final reports are expected to be converted into action points in the activity plans according to Malmö University's quality development system.

The ERA coordinators answered a short questionnaire in order to check their views regarding experiences and attitudes towards ERA19 so far and a similar survey will be performed regarding the panelists.

SUPPORTIVE DOCUMENTATION AND DATA

The ERA19 organisation has produced supportive documentation (a frame story) and data on personnel, economy, external grants received, applications for external funding and bibliometrics. Selected data for each research unit was shared with the panels through a condensed fact sheet to prevent information overflow.

FRAME STORY

Similar research assessments at other Swedish higher education institutions have shown that the invited experts sometimes experience an information deficit about the conditions that apply to conducting research at Swedish universities. ERA19 therefore includes a frame story in order to alleviate such a risk.

The frame story consists of two parts: an introduction to the profile of Malmö University and a description of how research at Malmö University is embedded in the Swedish academic system. In addition to serving as background information for the panelists, the content of the frame story can be referenced in the self-evaluations to avoid repeated text sections.

Personnel

Preliminary lists of personnel were shared with the ERA coordinators for use as background to the self-evaluations and for accuracy checking. A final summary of each research unit's staff situation (2016–2018) for the different employment categories was provided in the fact sheet. Unlike data on economy, external funding and bibliometrics, personnel data was divided by gender.

Economy

Preliminary figures of the detailed funding situation (2013–2018) for each research unit was shared with the ERA coordinators for use as background to the self-evaluations and for accuracy checking. The most relevant information in this original report was finally extracted and included in the fact sheet.

Applications for external funding

The ERA coordinators were provided with preliminary information on each research unit's registered activity and success rate regarding applications for external funding (2018) for use as background to the self-evaluations and for accuracy checking. A short summary of the final information was given in the fact sheet.

Bibliometrics

The university library shared and discussed a comprehensive bibliometric report with the ERA coordinators for use as background to the self-evaluations. These discussions included accuracy checking that sometimes prompted registration of publications in Malmö University's institutional repository in order to be included in ERA19. The comprehensive bibliometric report describes the research output in terms of scientific publications (2013–2018) and comes with a presentation of other related bibliometric aspects. The panelists had access to those full text publications that could be shared in this manner.

Different publication traditions within Malmö University, in combination with a need for standardisation within each faculty (since ERA19 had one expert panel for each faculty), implied compromises regarding the fact sheet in which the most important bibliometric features were presented. Because of such compromises, some sections of the fact sheets differed somewhat between faculties, and in some cases within the same faculty.

ASSESSMENT OF THE RESEARCH

INTRODUCTION

This chapter presents the results of the review of the quality and productivity of research at the University, and gives a picture of the overall status of the research at the research units. The focus will be on a limited number of key issues. For example, whether and to what extent the following exist: (1) long-term and growing nationally and internationally outstanding research at the research units; (2) strong, coherent and boundary-crossing international academic environments; and (3) research that delivers tangible benefits to both the local environment and to broader national and international communities. In the following, when the term ‘unit’ or ‘units’ is used, it refers to ‘research unit’ or ‘research units’ respectively.

The results of the assessment, described in the panels’ reports, have been analysed and integrated into an overall summary. In such an analytical process, a certain abstraction and generalisation of distinct descriptions is necessary. Information that is more detailed will be found in the full reports, available at the University’s website: mau.se/era19. After the overall summary, the 16 research units’ research will be presented in the form of three categories showing differences

between the units. Since all research units received detailed feedback through their specific panel report, no individual research units (or faculty) will be named in this summary.

A GENERAL PICTURE OF THE RESEARCH AT THE RESEARCH UNITS

A very distinct finding of ERA19 is the noticeable collegial culture which clearly characterises the research units and the faculties. The collegial culture is embedded in the overall ambition of the University regarding decentred collegiality. This ambition, which also exists in most of the units, is the “glue” that builds the collegial academic climate and unites the faculty members. A major strength in the units is also shared responsibilities, loyalty to the group and a collegial atmosphere. There is an inclusive work environment with a sound collegial culture without unnecessary hierarchy. The organisation and the environment often reflect a spirit of democracy at all levels and an organic growth of operations. Core values at the research units are academic freedom and academic collegiality. There is an obvious commitment to a trust-based ethos, which is much more than a corporate aspiration and comes alive across many of the units. In general, there are dynamic collegial working environments with cross-departmental collaborations and a willingness to collaborate and learn from others.

Overall, one of the most important strengths of the University is the tangible spirit of enthusiasm and collegiality that constitutes a valuable resource to build the future development of research. The commitment is compatible with going beyond traditional academic structures, which is visible in the organisation and academic culture of the research units at the faculties. Due to the accreditation as full university, the University now has a momentum to promote research growth and quality, secure the core values by further nurturing the academic culture, and further develop unique research profiles. It appears that there exists a healthy situation of mutual trust from management to researchers and vice versa, and

that a dialogue culture is rooted at all levels. It also appears that management responses are requested not as much for authorisation, as for seeking support and advice. The same situation seems to exist for matters that are reported up to university level.

The general picture is that particular areas of research, or research foci that connect well to each other, are clearly articulated. With the building of research groups there are indications of plans in place at many of the research units to support research development in the years ahead. At a majority of the units the research is concentrated on a manageable set of research objectives, in pursuit of an ambitious and shared vision of distinction.

The research units on the whole have varied and established profiles, comprising many researchers with good international research output and research foci of great relevance to society. In more or less all research units there are some excellent individual researchers across all categories of staff. The research units are vibrant and creative research environments with their focus set on not only having an impact on the scene of international research but also being of great relevance to the society at large. It is clear that research at the University is of relevance to stakeholders outside of academia.

The research units also showed examples of notably successful cases of impact. While more or less all units have presented interesting impact cases, there is no formulated strategy for impact and especially for its assessment, neither on the level of research units nor on the faculty level. The units have outreach and output strategies for reaching these actors and a developed organisation for collaboration with external stakeholders. The units showed many examples of research of clear relevance to society at large as well as research output directed to society at large. The research units' records on societal interaction are in many cases impressive, but few of them have explicit ideas about related indicators, measurements, and quality assessments.

More or less all research units have regular research seminars, with good attendance from both permanent staff and

PhD students. In general, there seemed to be a good atmosphere at the units with everybody helping everybody and senior staff being available to help all PhD students.

The publication patterns of the research units vary. The majority of publications are peer-reviewed research articles, book chapters or scientific reports, and there is also a number of outputs at the policy and public level. However, in some of the units it is evident that the publication pattern is extremely diverse in a more critical way. In these research units, peer-reviewed articles, books and book chapters account for less than half of the publications, whereas there is also a sizeable amount of non-review publications. These units also tend to have difficulties attracting external funding.

In the research units in general there is a good and extensive correlation between their research topics and subjects taught in undergraduate study programs. Much time is devoted to education and pedagogical issues. However, there is an imbalance of resources between education and research in a majority of the research units and there is in general a heavy workload in education that prevents the research staff from developing their research and realising the full potential of the unit. These problems constitute a barrier for developing a sufficient volume of long-term research at a high national and international level. The academic staff in the research units have the potential to do internationally outstanding research, but due to issues of time and resources, it is hard to accomplish.

On the other hand, there are research units that solve the balance between research and teaching. There are many examples of strong leadership that can balance research and education and handle collegiality in a constructive way. For many units, one of the main purposes of the research is to give a scientific basis to education. It is obvious that a large amount of research reflects the research units' educational commitment.

THREE OVERLAPPING CATEGORIES

All the research units at the University have a lot in common, as described above, but there are also several examples showing that there are significant differences evidenced by specific characteristics. The differences lie in how the researchers work strategically, how they organise and lead the research and achieve success in research and to how they encourage and support different steps in the research process. Roughly, three kinds of research units appear that differ by showing different characteristics. However, there is no clear boundary between these three categories. Rather, they overlap.

The first group is described under the heading *strong research units* below. Subsequently, under the heading *promising research units*, the research units that show strong potential to develop or are in a clear development phase are described. In a third group characteristics of a few research units that are partly critical and that require external support for development are described: *less developed research units*.

Strong research units

There are some research units at the University that have a vibrant, diverse, and inter- or multidisciplinary profile of collaborative and internationally competitive research and research output. The overall impression of these units is very good: outstanding research and world-class fundamental research. Their viability is very good, and they have presented excellent research. This group of research units is good at attracting funding. A distinctive feature is that solid external funding has been growing during the last three years. They have a good success rate on external research grants.

Some research units in this category are truly international environments; there is a good amount of international staff at all levels and PhD students are recruited from all over the world. The researchers in the units are engaged in large research networks involving different countries, showing international relevance and visibility of the unit. The research is of solid international and national standard, visible both internationally and nationally with certain areas of originality valuable

to the local educational context as well as internationally. These research units effectively collaborate with an extensive network of relevant national and international research institutions as well as with a number of non-academic partners.

The research profiles of these research units are not only diverse and inter- or multidisciplinary; they are also fundamental and applied; local, national and international; collaborative and cross-comparative. These units are working with varied and multiple stakeholders and on diverse collaborations with the goal of societal impact. The record on societal interaction is also impressive. The number of board memberships in international research associations is impressive and probably contributes to the visibility of the research in the units as well as providing excellent contacts for the development of international networks. The research profiles demonstrate a broad area of expertise from which PhD students benefit. This also implies diverse opportunities for involvement in research projects, including the opportunity to work with collaborators and visit other institutions, nationally and internationally. The faculties to which these research units belong are also diverse and multifaceted, as are their research organisations. Some units in this category have been proactive and deliberate in terms of articulating research strategies and carrying them through.

The staff shows a good and balanced mix of researchers at various career levels (PhD student, assistant professor, associate professor and full professor) for this type of environment. There is also evidence of some excellent practice in their organisation of PhD student culture and support. In particular, the empowerment of the PhD student cohort to self-organise, and the support for a PhD coordinator is exemplary.

Researchers within the research unit have played prominent roles in the shaping of the discipline internationally and they have well-established long-term collaborations with international scholars. There are also clear signs of gaining international visibility and traction in particular areas of research and regarding particular individuals.

Summary: Characteristics of a strong research unit

- Strong academic culture
- Strong collaborative ethos
- Developed research vision and strategy
- Successful in attracting external research grants
- Varied research of solid standard
- International visibility
- Strong, high-level publication output
- Strong and enthusiastic PhD student community
- Developed relation research – teaching

Promising research units

This group of research units is similar in the sense that they are research environments with great potential for development, excellent research quality and notable outreach. They are also already doing a lot on all three fronts. Although the research quality varies there is an upward trajectory in all these units. Groundwork has been laid for a number of promising initiatives and there is room for further development. The research profiles are well developed, promising initiatives have been taken and the potential for more excellent research is present. The research units have also made good progress towards improving the academic environment and culture. Promising strategies at both faculty and unit level are identified, so in that sense groundwork has been laid for a number of potentially successful initiatives that will have impact on both levels. Since some of the research units have a strong tendency towards vigorous internal collaboration, another promising sign is that in parallel to the development of the research groups within the faculty, approaches are being made towards other units outside the faculty but within the University.

The research units in this category have national and partially international research collaboration in some areas. There are many examples of high quality, internationally competitive research but these are often dependent on a limited number of individuals. There are research groups in these units that have great potential and can both benefit from and contribute to other projects in the University. These researchers

also have good ideas for diversification and renewal of their research. These research units have an energetic group of young academic staff, which holds much promise for the future. Some of the units have clear plans for developing the research profile and enhancing research activity and productivity. The research can be characterised as being of solid national standard, very visible nationally but only to some degree internationally. However, there is a potential for further development in an international perspective. In some areas research also has the potential to be internationally outstanding.

Some research units in this category have been relatively successful in attracting external funding, but that is not generally the case. It is plausible that more researchers in the units will be successful in attracting external funding in the future since the research capability clearly exists. On the other hand, there are some large research projects that have very good external funding. Quite a large part of the funding in some of the research units is commissioned research, which provides good opportunities for societal impact and collaboration with different stakeholders. There is also an increase in internal research funds from the University itself and this opportunity should be grasped.

The research in this category of research units is of obvious relevance to society and the units also have great potential to make further contributions in this area. The intensified focus on collaboration with municipalities on research in some of these units is also promising.

The publication record of these research units is good over the assessment period, and many of the units have some publications in top international journals. They demonstrate an increasing number of publications in high-quality international publications and a general increase in citations over the evaluation period. However, a significant proportion of the publications remain non-open access and in the distribution of publications, a proportionally large number are conference publications. There is potential for a better balance between different publication approaches and an increase of co-production with international co-authors.

Much of the work to be done in the research units in this category is strategic in nature – the first steps in orienting the units towards becoming more research intensive and focused research environments is well underway, and the ground-work has been laid for a number of promising initiatives. Strategic planning with clearly established objectives, feedback systems, and support systems is the next step.

Summary: Characteristics of a promising research unit

- Research is dependent on a limited number of individuals
- Research quality varies and there is room for further development
- Research is of solid national standard
- There is some international research collaboration
- External funding varies
- There is potential for improving the academic environment
- There is potential for more advanced publication approaches

Less developed research units

There are a few research units in this category, with a wide variation in research competencies; the lack of strong research expertise in some of these units was notable. They also have challenges in recruiting staff with strong research portfolios. The lack of critical mass and the low number of PhD students in some of these units make it difficult to guarantee high quality research-based education. Some research groups within the research units are very small and therefore more vulnerable. There is a tendency for fragmentation of research, especially in units where the range of areas of interest is broad and where there is an absence of clearly articulated unifying orientation. The research activity is often spread across a broad range of disciplines, all of which can be considered to be relevant to the maintenance of important knowledge for external stakeholders, but unlikely to lead to internationally competitive research.

There is little evidence of a vibrant research culture in these research units and unclear attitudes to excellent research

and its usefulness. The absence of a strong research culture is a limitation, especially for new and emerging scholars. However, there are researchers who perform quite well without contributing significantly to the academic culture. There is also, in general, a lack of a coordinated and focused feedback and support system, and insufficient procedures for planning and the setting of priorities. There are several potential directions that could be followed, but there are no concrete attempts to explore any such avenue. In order to succeed, a strong leadership, a shared willingness and external support are required.

Although the research units show some visibility and some degree of originality, they are not established internationally. On the other hand, there is some research in these units that has relevance to national research development. International research collaborations are occasional and somewhat undeveloped. Although the output was good by conventional measures of quality, some of these research units did not meet the societal challenges.

There is generally a limited number of applications for external research grants, and limited external funding for research. Internationally oriented funding is really a critical factor at these research units. The funding that exists is often for applied research, which is not always good for a research environment in the longer run. The research units in the category share the problems that they lack long-term funding strategies and formalised systems for oversight and monitoring of research activities such as applications and research output. But with the implementation of strategical planning and external support there is likely room for development.

The publication rate per member of staff is rather low compared to other research units at the University, the number of articles in top publications is limited and the average number of citations is not impressive. Some units' research might have good visibility, but there is no explicit plan for improving in terms of high-level publications and more citations. In that sense there is a lack of a publication strategy that sets clear goals.

Characteristics of a less developed research unit

- The research culture is not clear or developed
- There is a lack of competencies
- There are mixed views on disciplinarity and usefulness
- There is no explicit research agenda
- External funding is limited
- Publication is ineffective
- The degree of internationalisation is insufficient

DEVELOPMENT AREAS AND PROPOSALS FOR THE IMPROVEMENT OF RESEARCH

INTRODUCTION

The external evaluators' assignment is to give recommendations and proposals for continued research development, based on the self-evaluations, supportive documentation and site visits. In the reports on the 16 research units and five faculties, as well as the university level, strengths and development areas are discussed, and recommendations for further development given. This chapter focuses on the overall analysis and synthesis of the results in these reports.

Below are four proposals – often in the form of constructive recommendations – for strategic developmental areas that can, as the Panels see it, support the strengthening of the quality of research, but also Malmö University's position and attractiveness – both nationally and internationally. More specifically,

the proposals implicate central areas like the improvement of research; competence building and competence support; quality assurance and research efficiency and the advancement of the university's effectiveness.

PROPOSAL FOR THE IMPROVEMENT OF RESEARCH

Interconnected research strategies

The university level, the faculties and the research units do not always seem to have an interconnected strategic research plan with a common format for all research units where they develop their particular operationalisation of the plan. The goals should be connected and operationalised. Internal strategies focused on basic research are necessary in the long run to secure the future of the research units.

A step-by-step procedure should be elaborated for how to reach common goals and set priorities of research. Research units which today lack an operational plan for how to increase resources for research should be required to elaborate one. The elaboration of such plans requires innovative and operative leadership skills and clear goals both on faculty and research unit levels. The university level has to develop a structure for the improvement of research strategies that supports the faculties and the research units to reflect their distinctive areas of strength and progression. There should be clearly established objectives in the operational plans, as well as feedback systems, and support systems. While defining such plans, academic collegiality needs to be respected and a balance between research and education retained.

The university level should plan for developing sharper indicators for communicating and analysing the quality of research. Closer oversight of research activities could help highlight ways in which productive research time can be maximised. Given the central importance of Quality Culture Enhancement, it would be helpful to develop metrics against which progress can be measured and monitored over time.

Such indicators could take stock of the number of grants applied for and subsequently received; the number of publications produced, their nature (local vs. international, commissioned vs. academic) and quality of impact; the degree of external collaboration and its fit with staff and the research profile; and dissemination activities such as conference presentations and public engagement. All these indicators can help maintain and develop an equitable and productive academic culture.

The University needs to devise strategies for overseeing and achieving a satisfactory mix of internally and externally funded research, as well as commissioned research.

Recommendations: An interconnected research strategy should be developed at research unit level, faculty level and university level, including how and when to reach the goals. The urgency of this strategy is related to a need to reflect on the outcomes of the investment of the first wave of new funding resulting from Malmö University's achieving full university status, and the importance of informed investment of any additional funding to come.

Focus and priorities of research

In many research units there are strong research environments that have great potential for development. At the same time, there are quite small groups and individual researchers that pursue research with varying degrees of success. There is a risk of fragmentation since a critical mass of staff and senior researchers is necessary within each sub-discipline to develop strength. With too much individual focus the topics and the research become thinly spread and fragmented, whereby the expertise becomes thin and the research unit's research profile weak. The university level should consider strategies for how to communicate the necessity of achieving minimal critical strength.

The University states in its self-evaluation that one area of weakness is the inability to recruit internationally competitive research staff due to the relatively limited government funding for research. Whilst the Panels sympathise with this problem it

does reinforce the notion that utilisation of research funding needs to be highly focused and targeted on key areas of organisational strength and/or development. With a limited financial resource, it is essential that these be targeted to specific areas of the research portfolio of the University.

The existing Research Centres and Research Programmes ought to provide the key signature elements of the University's external visibility. Although the research of these Centres and Programmes lay outside of the scope of ERA19, the Panels feel it will be important to apply a rigorous review of these to determine which should be supported in the future as the major exponents of the University's overall research status. It will be important to review the quality and productivity of these investments in due course to determine their longevity. There should be a careful review of their success and productivity and subsequent redirecting of resources as appropriate. It will be important to ensure that the different research units and faculties of the University are provided with every opportunity to fully participate in these prioritised areas of research. There is a need to stimulate and focus cooperation across research unit borders and prioritise among areas for collaboration.

Recommendations: The University should consider focusing on a limited number of key research themes for which the University can be recognised nationally and internationally. As part of this approach, it will inevitably be necessary to question the value of continuing to support research in some areas.

Time for research

The question of research time for staff seems to be the most pressing challenge facing more or less all research units and faculties. How research time is organised is actually a structural issue. In general, there is limited time for research at the University and a lack of a systematic and operative strategy to handle the challenge. 10–30 % time set aside for research is too little by national and international comparison and makes it hard for the University to be competitive as a research university. Establishment of successful research careers requires

dedicated time and this will not be possible, even for the most capable individuals, when they have a maximum of only one day per week.

Indeed, the University and its faculties need to establish appropriate mechanisms for retention of key research leaders and the career development of junior staff. This may be a more sustainable approach to the development of a strong academic research base than seeking to recruit staff with already established significant international research reputations. Remedies could involve the development of a teaching only academic pathway, consideration of the most efficient means to deliver the curricula using the most up-to-date digital technologies, targeting early career research staff who are just embarking on their research careers; provision of sabbaticals to this group of staff to facilitate their development.

The University leadership needs to consider ways in which the teaching load on more junior staff could be alleviated. This will be particularly important for newly recruited staff to the University who may be just starting out on an independent research career. Related to this, in many universities some staff (perhaps 10% of the total) are employed whose main responsibilities are in education. Promotion pathways are available to these staff based on teaching excellence, education innovation, external recognition for their education through specialist textbooks, and so on.

Moreover, the University should also consider whether it is feasible to allocate 100% research for a specified time for some staff. One way of reducing the teaching load for senior researchers could be to engage doctoral students to teach the equivalent of up to 20 per cent of their service. This would also give them important experience of teaching in higher education, which is crucial in their applications for positions in their future careers.

To achieve internationally recognised standing as a research-driven university it is essential that staff time for research be protected. Allotted research time is a valuable commodity at a research university. The existence of a rule at several faculties that a researcher who receives external funds for research

automatically gets less time for research from the University is a problem, which should be dealt with at university level. Solving this inconsistency would clearly make it more attractive for researchers to seek external funding.

The Panels discuss two different strands when it comes to the imbalance between teaching and research. The first one is to develop a system with research focused and teaching only positions. The other one is to develop a strategy to better integrate research and teaching and thus balance teaching and research responsibilities more equally among staff.

Recommendations: The University should carry out a systematic study of the imbalance between teaching and research time and its implications aiming to find solutions and mechanisms that will minimise it. The university level also needs to solve the inconsistency with researchers losing research time when they receive external funding.

Strategy for inter- or multidisciplinary research

It is clear that inter- or multidisciplinary research is one of the cornerstones for the profile of Malmö University. Today, an increasing number of researchers at Malmö University have interdisciplinary or multidisciplinary experience and they have developed research competency across disciplines. The inter- or multidisciplinary perspective, which is highlighted by the University, also has an explicit relevance to society. However, inter- or multidisciplinary is complex and demanding and this form of research can be seen in terms of both opportunities and risks.

In general, it is demanding to develop meaningful relationships between different research areas, with multidisciplinary seen as an asset because of the ability to investigate an issue from different perspectives. Without a clear strategy for interdisciplinarity or multidisciplinary, some research can become fragmented and disjointed. It is also important to analyse and define what the requirements should be to study for a PhD with a multidisciplinary orientation and how this would either limit or enhance the possibilities for different types of research.

For some departments there is a need to deal with the situation of the multifaceted research by focusing cooperation across department borders.

Recommendations: There is a need, at all levels, to focus on how a more specific, comprehensive and targeted inter- or multidisciplinary research strategy can be developed and to analyse the consequences for the development of the specific research in the units, and the requirements of PhD students.

Shared impact strategy

Malmö University places significant emphasis on collaboration within academia, with different societal stakeholders and with the immediate environment (city and region). This is an integral part of the University's identity, research profile and vision. Relevance of research and teaching, that is, societal impact, is in the DNA of the University at all its faculties, departments, and research units. There is a strong commitment to conducting research of high societal relevance, and a long tradition of commissioned research, with impact on policy and professional practice and in close collaboration with actors outside academia. It is obvious that this is entirely in line with the University's mission and an important differentiating factor for how Malmö University is perceived externally.

Some of the impact cases presented in the self-evaluations are impressive, while others are of variable quality. There is, however, no formulated strategy for impact and especially for its assessment, neither on the level of research units nor on the faculty level. It is not enough to produce excellent research with relevance for society, it must also be made visible and useful.

The Panels applaud the University's focus on society and community engagement, and consideration should be given to how this goal is translated into action. It is important to constantly analyse goal attainment in both a short and long-term perspective. Systematic and operational development plans and evaluations focusing societal impact are important for all levels at the University. However, societal engagement takes time and more clarity is needed regarding expectations

in this dimension of work and how it will be taken account of in for example promotion procedures.

Malmö University as a whole has to be clearer and more proactive about expectations and preferences regarding societal impact. The Panels underline the importance of these instruments given the central significance of Quality Culture Enhancement. There is a need for an approach to follow up the effect of research of societal relevance. Such an approach should focus on the issue of how to operationalise 'impact', which includes definitions of impact standards, frameworks and tools. This approach should also identify ways to assess whether such impact has been achieved. All in all, this concerns identification and tracking of related indicators and measurements, but also quality assessments of relevant impact factors. In this context, the importance of a sound social impact measurement framework has to be emphasised. All departments at the University – no matter which scientific orientation they have – need to pursue proactive directions to measure and produce impact and have a vision about impact on society in the longer perspective.

Accordingly, the University should develop some form of measurement or indicators against which progress, goal attainment and quality of impact can be measured and monitored over time. Such information should for example take stock of the number of grants applied for and subsequently received, public engagement and collaboration with stakeholders, efficiency in implementation and outcomes.

Recommendations: The impact strategy should seek to incentivise staff to amplify societal interaction and embed ways of capturing the extent of change-making interventions. It should also monitor significance and reach of impact and develop instruments for measuring societal impact as well as for evaluating effects of strategic decisions concerning collaboration with different societal stakeholders. The impact strategy should also take into account differences between scientific areas.

Capability to attract external funding

The balance between external and the internal funding has changed since Malmö University became full university. There is an ongoing discussion among the researchers about this balance. There is an obvious lack of financial resources at the research units in relation to their research potential. Also, research strategies with a focus on improving the acquisition of external funding are not always in place. Grant application strategies have so far been very much based on individual interests or opportunities.

All research units must increase their capability to attract external funding. The faculties should be supported by the university level to develop strategies and models that encourage the research units to formulate individual research strategies adapted to their respective situations, competences, opportunities and developmental needs. The University as a whole has to be clearer and more proactive about expectations and preferences regarding funding, publications, quality assessment, external visibility and societal impact. There is also a need for a formal mentoring system that would enable younger researchers in the different research units to develop research applications individually or in cooperation.

At the research units and the faculty level strategies are necessary for the improvement and ongoing reorganisation of quality assurance structures, internal peer-review systems, and grant writing workshops. Action plans should be elaborated to enhance staffs' skills and competence with regard to research grant writing. This should involve a strategy for optimising external funding, e.g., setting personal and departmental goals and tracking applications (successful and unsuccessful). The University should support the organisation of systematic grant writing workshops and internal peer-review procedures, as well as follow-up systems of grant applications. The development of centralised administration of research support services, including finance and grant preparation, are welcome initiatives and need to be made easily accessible to all staff in all faculties. It may be necessary to consider the provision of some devolved local support at faculty level to ensure ade-

quate access to these services. The Panels did not have the opportunity to assess the level of core facilities investment at the University, but it is important that these services are provided to support the research work of all faculties.

There is also a need for stronger collaboration, with solid networks, between faculty members and/or external partners when it comes to planning future research projects and applications. The university level should encourage efforts and consistent work to apply for external funds in collaboration with other international and national players. Such action is necessary to improve the ability to attract external grants from national and international funding agencies.

Recommendations: There is a need to develop research strategies with a focus on how to improve the acquisition of external funding. In that important process the faculties and the research units must be supported by the university level. There is also an urge for stronger collaboration – both internally and externally – in future research projects.

Advanced publication strategies

Most research units have seen a positive development in recent years when it comes to submission of manuscripts and subsequent publication in international peer-reviewed journals. Even if some research units still lag behind in international publications due to traditional patterns of publication within their field of research there is a growing awareness of the necessity to publish in English to increase impact and outreach to the wider academic community. At bottom there is therefore a positive trend, reinforced by the promotion of the University into a full research university.

However, there is still a notable lack of strategies here. When it comes to publications the main strategy currently often seems to be the individual researcher's own personal choices and preferences. There is therefore a need, at all levels, to develop and formalise a clear publication strategy, in order to increase publication in high impact international journals. Even if numbers are important, quality should clearly be

prioritised instead of quantity. A publication strategy could also cover the production of materials for more local and practice-oriented enterprises.

The University should consider defining yardsticks for the expected level of research publications for the different categories of academic staff. A system that allows researchers who have published the most to spend more time doing research using internal funding could be considered for increasing research output.

Moreover, Malmö University faces some endemic problems in raising its quality and quantity of publication output as it is often relatively problematic to find good publications venues for inter- or multidisciplinary research results.

Recommendations: There is a need, at all levels, to develop and formalise a clear publication strategy, in order to increase the quality and number of publications submitted to high impact international journals.

Internationalisation of research to become more visible and transparent

The policies in relation to increasing the internationalisation of the University are positive and important in order to raise the standard and visibility of the overall research profile. However, today the amount and focus of international collaborations tend to rely on contacts and networks of individual researchers. It appears that international co-operation is largely initiated “bottom-up” by the researchers themselves, with some scaling up to faculty level, and that a strategic governance of cooperation with other universities or companies is missing.

The meaning and direction/purpose of internationalisation is not clear and transparent enough. There is a need for a strategy here, based on a wide and open conversation about directions and goals. The question of internationalisation needs to be specified in terms of goals and efficiency for staff and research quality. The strategy should cover collaboration, funding, guest professors, post-docs, PhD students, etc. Although mention is

made of encouragement of doctoral students to visit partner universities abroad, it would also be important to facilitate overseas visits via sabbaticals for all staff at all grades, in particular those at junior level who need to cater for their research career progression.

Initiating networking and collaboration with prioritised partners in other countries is necessary to develop the research environment and to attract international scholars and participation in larger national and international grant applications. Co-authorships including international co-authors is another clear outcome of internationalisation. Generally, there should be a higher visibility through a larger presence by the University in international conferences and journals. With the exception of projects with Nordic partners, international collaboration in more extensive research projects, such as within the framework of Horizon Europe, or participation in extended international networks, is rare.

Recommendations: There is a need for a clear and transparent university-level strategy of internationalisation specifying direction and goals of cooperation with strategic international partners. The desired level of internationalisation needs to be specified in terms of goals for staff and research quality. Such specifications should include collaboration, funding, guest professors, visiting post-docs and PhD students.

PROPOSAL FOR COMPETENCE BUILDING AND COMPETENCE SUPPORT

Dynamic recruitment strategies

The recruitment of academic staff is vital for reaching the objectives in *Strategy 2022*, securing high quality research and building coherent and internationally competitive academic environments. The recruitment strategies of the faculties and departments are central for quality enhancement. They should be aimed at retaining and recruiting staff with the competency profiles needed to achieve the strategic goals and targets.

An efficient and sustainable composition of capable research staff with optimal balance between career stages, age groups and genders is highlighted as a goal.

The recruitment of academic staff is also vital for high quality in research and for building coherent and internationally competitive academic environments. More funding for research must also be combined with recruitment of new staff. As it is often hard to find suitable candidates for positions within the research areas of the research units, the faculties must be prepared to offer good working conditions to attract good researchers and recruit from other Nordic countries and internationally in focused areas. The University and the faculties must provide an infrastructure to attract and retain international scholars.

Given the range and diversity of departments, research units, and research platforms, the recruitment process could be a significant tool to equalise the research and teaching quality of the different units without losing the advantages of interdisciplinarity and multidisciplinary. Given that the faculties take the final decision regarding employment, this would be a possibility to not only encourage departments to develop a more coherent, quality oriented and fair recruitment system, but to steer their recruitment practices in the right direction. This includes a recruitment and workload system that allows departments to redress the disparity between those who mainly teach on the one hand and those who mainly do research on the other. With the recruitment of highly qualified, diverse staff with a higher degree of job security, it would be possible to improve the integration of research and teaching and thus improve the quality of both.

The quality aspect is also highly relevant to the recruitment of assistant professors (Swedish: *universitetslektor*). The recruitment of this category of researchers is extremely important for a university because this is the level at which most people enter the faculty at a Swedish university. It is essential that the recruited assistant professor has the potential to become a successful research leader and attract proper external funding.

The Panels conclude that recruitment strategies in general have to be developed, as some of the existing ones seem to lack explicit articulation and transparency, e.g. there is a need to improve the diversity of the staff not only in terms of gender but in terms of other characteristics, especially migrant background and different cultural traits, given that the City of Malmö is the most diverse city in Sweden in this respect.

Recommendations: There is a need for a focused recruitment strategy to improve research quality. The recruitment strategy should improve internationalisation and the diversity of the staff, not only in terms of gender but also in terms of other characteristics, especially migrant background and different cultural traits.

Mentoring system for career development

There are too many positions at the University that are insecure and too many good researchers remain in temporary positions. The University also has to create a mentoring structure for younger researchers to further improve external funding as well as career development of emerging researchers. Therefore, the university level should develop both university and faculty mentoring schemes for all research staff, including the PhD students. There is also a need to be explicit about how to use the associate senior lecturer position system more fully.

The tenure-track path now being opened up is a step in the right direction, but numbers should be increased and the possibility of being considered for a permanent position should be disseminated to all junior staff – including the fact that positions are internationally advertised and competition hence is likely to be stiff. The university level should support the faculties and the departments to minimise the employment of temporary teachers or researchers and maximise the employment of permanent staff.

Greater transparency in the professional development of staff is needed, e.g., what are the requirements for permanency, who can apply, how to support teaching staff without PhDs, why is research time being augmented for certain staff, etc.

There is also need of resource planning to tie investment to future viability, and balance diverse competing needs, which may include: the need for succession planning (and gender balance) of senior staff; enhanced use of the associate senior lecturer position to secure the tenure of more junior staff; investment in PhD students and post-docs; investment in the development of staff without PhDs; investment in visiting professorial positions; investment in sabbaticals and/or in enhancing research time for junior/mid-ranking staff.

Recommendations: The University needs to develop university and faculty mentoring system for career development for all research staff, including the PhD students.

Plan for inclusion of doctoral students and junior researchers

The Panels were impressed by the attitude to research expressed by the PhD students. It was also evident that both the older and the younger staff had a committed view on teaching, sometimes even a bit too serious. Teaching duties and student interactions seemed often to have priority over research, which is not necessarily how it should be. A faculty member who is supposed to perform both teaching and research cannot always give teaching higher priority than research.

There is also evidence of some excellent practice in the organisation of PhD student culture and support. In particular, the empowerment of the PhD student cohort to self-organise, and the support for a PhD student coordinator is exemplary. There is a strong culture of informal support and mentoring for junior staff and PhD students, although the Panels would argue that this should not stand in for a more formal, university-wide scheme.

However, at some departments, some PhD students seemed to have difficulties finding their place in the system, some even not recognising the existence of doctoral schools or the coordination of their studies. There is a clear need for a wider, formal mentoring programme to support professional development.

The faculties should consider the development of a structured doctoral training programme to provide consistent oversight and guidance of PhD students. Where it is possible this should overlap with other doctoral programmes in other areas of the University. The university level is also recommended to analyse the organisation of its doctoral education as a whole and suggest implementation of career planning initiatives for all doctoral students. Better interaction between research and teaching seems to be necessary on the PhD level.

The faculties should put resources into developing a credible and comprehensive plan for their doctoral education, especially considering the significance of early-career researchers for the progression of research at the University. One way to strengthen the international approach further would be to establish exchange programs for the PhD students.

There is also a need for a support structure for junior researchers to better foster them to identify as scholars, and encourage junior researchers to pursue opportunities for early careers funding. To transfer knowledge between senior and junior researchers may provide a useful framework for engaging both groups. It would also be helpful, especially for junior staff, if there were some clear guidance on where to publish. In order to continue the current successful funding strategy, young researchers should be better supported with regard to grant writing.

Recommendations: The University should construct a strategy that supports the development of a credible and comprehensive plan for its doctoral education and its doctoral schools. There is also a need to support a mentoring system for career development for junior staff and PhD-students.

PROPOSAL TO ENSURE QUALITY AND EFFICIENCY IN RESEARCH

Quality assurance system for research

Quality is related to what makes a difference and should be built on a sound and robust system for quality assurance. In *Strategy 2022*, the University strongly expresses the ambition to cultivate long-term, nationally and internationally outstanding research and doctoral education, to offer education grounded in research and to ensure strong, coherent and boundary-crossing international academic environments in which education, research and collaboration with the society at large are integrated. This ambition puts high demands on all levels of the organisation and a solid and acknowledged quality assurance system is required to drive research in the direction pointed out by the overarching university strategies.

With decentralised collegiality, it is important to have a well-defined and sharp quality assurance structure with an effective feedback system providing clear frames for decisions about prioritisation. It demands strong and innovative academic and administrative leadership and solid structures that enable and facilitate high quality research. A clearly articulated quality assurance system, with a defined feedback system, would be especially useful for doctoral students and junior researchers and potentially for senior researchers who need to invigorate their research activities.

Although the Panels appreciate that the research of the research centres and research programmes lay outside of the scope of ERA19, it will be important to continuously apply a rigorous review of these areas to determine which should be supported in the future as the major exponents of the university's overall research status. Furthermore, it will be especially important to ensure that the different research units and faculties of the University are provided with every opportunity to fully participate in these areas of research.

The Panels noticed that a national system to evaluate the quality assurance processes employed by Swedish universities has been decided. The ERA initiative is one way of following

up such an initiative on the university level, but according to the national system, there should also be internal processes within the research units or university wide processes that are implemented at each research unit.

Recommendations: A quality assurance system for research needs to be developed at university, faculty and research unit levels in order to build strong frames for development, where the researchers in the collegial bottom-up system can pursue their goals for research and education.

Review of the resource allocation model

The allocation model for internal research funding is crucial for maintaining good conditions for research and education and for a functioning infrastructure at departmental level. The model is also a fundamental instrument for the University and the faculties to influence research policy at departments using incentives of different kinds. The current model of allocating research funding to the faculties is based on number of active doctoral candidates (30 %), external research revenues (30 %), performance measured by a bibliometric index (20 %), and a base funding of 20 per cent.

Two aspects are of special importance here (and both have been contested topics at other universities): the share of resources that the faculty keeps for, e.g., research platforms or other strategic investments on faculty level, and the share of resources decided by performance indicators (bibliometrics, external funding etc.). The Panels would like to underline that knowledge about the effectiveness and outcomes of the allocation model is vital for the ongoing transformation of Malmö University, and recommends that a thorough evaluation of the current model is implemented.

The existence of a rule at several faculties that a researcher who receives external funds for research automatically gets less time for research from the University is a problem, which should be dealt with at university level. Solving this anomaly would clearly make it more attractive for researchers to seek external funding.

Recommendations: There is a need to review whether the current resource allocation model is effective and leads to increased research quality, but also whether the model supports the ongoing transformation of Malmö University.

PROPOSAL FOR THE ADVANCEMENT OF THE UNIVERSITY'S EFFECTIVENESS

Administrative support for research

To become a research university the infrastructure for administrative and practical support at the university and faculty level is a factor that needs attention. It is evident that some fairly new infrastructure components are highly appreciated, like the Grants Office and the English language support in writing applications and publications.

Looking into the future, and the era of open science, new elements of infrastructure are necessary to support researchers in performing increasingly complex tasks, for example in using new technology and new statistical and methodological methods, as well as bibliometric support relating to open publications and open data. Those new aspects, highly relevant for research development, are not emphasised in the self-evaluations but will influence research in the future. The University and the faculties need to include those aspects in the funding and organisation of research.

As pointed out earlier, the recruitment of academic staff is vital for high quality in research and for building coherent and internationally competitive academic environments. Given the range and diversity of departments, research units, and research platforms, a highly efficient recruitment process is absolutely necessary, especially when it comes to international recruitments. The University therefore needs to develop a more coherent, quality-oriented and fair recruitment system, and to steer its recruitment practices in the right direction.

Recommendations: The University should support having systematic grant writing workshops and internal peer-review procedures for grant applications, as well as follow-up systems. There is also a need for including the new aspects of open science and new elements of infrastructure to support the researchers. The development of centralised administration of research support services, including finance and grant preparation, are welcomed initiatives and need to be made easily accessible to all staff in all faculties.

There is also a need for HR support for international recruitment to improve if the recruitment strategies are to be achieved.

Improvement of internal and external communication

The Panels identify a lack of open, systematic and targeted communication – both internally and externally. The state of communications concerning research (external as well as internal) needs to be improved. For instance, the University’s website was not in a very good shape. If the University wants to keep communication strategies at the central administrative level it should have a multi-faceted communications department that is able to interact sensibly with both faculties and departments, while responding to individual and specific needs at the different tiers. Both for the faculty level and the central level of the University up-to-date information is the key to strengthening contacts with potential new employees and collaborators, funding bodies, societal stakeholders and the immediate environment (city and region), and in that way maximising the impact of Malmö University.

Recommendations: While it makes sense to have a coherent visibility of all the research units of the University, the university leadership should see to it that the department of communication in collaboration with researchers develop shared goals. In the ‘era of the image’, internet presence is a crucial tool for attracting students as well as staff and for enhancing collaboration with the outside world, paving the way for greater impact and more all-encompassing societal relevance.

PANELS IN ERA19

This chapter presents the experts on the five faculty-specific panels evaluating the research at Malmö University during ERA19. They were asked to be evaluators because they are internationally and nationally renowned scholars with strong integrity, excellent track records in relevant fields, a broad research overview, experience in research management, and a capacity for assessing research at system level.

A chairperson who coordinated the reports on the research units of the faculty led each panel. The chairperson was also responsible for the faculty level report and contributed to the report on the university level and to this report. The Panels also had a vice-chair who is familiar with the Swedish research system.

Depending on the size – in ERA19 there is a range from one to six research units per faculty – and heterogeneity in research, the panel for each faculty consisted of six to eight experts.

FACULTY OF CULTURE AND SOCIETY (KS)



Picture 1. Panel for the Faculty of Culture and Society. From left to right: Ash Amin, Stephen Maddison, Hanna Ojanen, Nora Räthzel (Vice-chair), Liesbeth Huybrechts and Ulf Hedetoft (Chair).

Hedetoft, Ulf, *Chair*
Professor, International Studies
University of Copenhagen, Denmark

Räthzel, Nora, *Vice-chair*
Professor, Sociology
Umeå University, Sweden

Amin, Ash
Professor, Geography
University of Cambridge, UK

Huybrechts, Liesbeth
Professor, Cultural Studies; Participatory Design
Hasselt University, Belgium

Maddison, Stephen
Professor, Cultural Studies
University of Brighton, UK

Ojanen, Hanna
Adjunct Professor, Political Science
Finnish National Defence University
and University of Helsinki, Finland

FACULTY OF EDUCATION AND SOCIETY (LS)



Picture 2. Panel for the Faculty of Education and Society. From left to right: Tomas Englund, Bettina Dahl Søndergaard, Joan Duda, Eva Björck (Chair), Sigmund Loland (Vice-chair), Esbjörn Larsson, and Juliet Langman.

Björck, Eva, *Chair*

Professor emerita, Special Education
Jönköping University, Sweden

Loland, Sigmund, *Vice-chair*

Professor, Sports Philosophy and Sport and Ethics
Norwegian School of Sport Sciences, Norway

Duda, Joan

Professor, Sport and Exercise Psychology
University of Birmingham, UK

Englund, Tomas

Professor emeritus, Education
Örebro University, Sweden

Langman, Juliet

Professor, Applied Linguistics
University of Texas at San Antonio, USA

Larsson, Esbjörn

Professor, History of Education
Uppsala University, Sweden

Søndergaard, Bettina Dahl

Professor, Mathematics Education
Aalborg University, Denmark

FACULTY OF HEALTH AND SOCIETY (HS)



Picture 3. Panel for the Faculty of Health and Society. From left to right: Peter Dellgran (Vice-chair), Vania Ceccato, Anette Müllertz, Kyle Treiber, Karen Luker (Chair), Inger Ekman, and Krister Holmberg.

Luker, Karen, *Chair*

Professor, Community Nursing
The University of Manchester, UK

Dellgran, Peter, *Vice-chair*

Professor emeritus, Social Work
University of Gothenburg, Sweden

Ceccato, Vania

Professor, Urban and Regional Studies; Urban Security
KTH Royal Institute of Technology, Sweden

Ekman, Inger

Professor, Care Sciences
University of Gothenburg, Sweden

Holmberg, Krister

Professor emeritus, Surface Chemistry
Chalmers University of Technology, Sweden

Müllertz, Anette

Professor, Physiological Pharmaceutics
University of Copenhagen, Denmark

Treiber, Kyle

University Lecturer, Neurocriminology
University of Cambridge, UK

FACULTY OF ODONTOLOGY (OD)



Picture 4. Panel for the Faculty of Odontology. From left to right: Jonathan Sandy, Eija Könönen, Pernilla Lundberg (Vice-chair), Anne Nordrehaug Åstrøm, Mike Curtis (Chair), and Albert Feilzer.

Curtis, Mike, *Chair*

Professor, Microbiology
King's College London, UK

Lundberg, Pernilla, *Vice-chair*

Professor, Molecular Periodontology
Umeå University, Sweden

Feilzer, Albert

Professor, Dental Material Sciences
University of Amsterdam, Netherlands

Könönen, Eija

Professor, Periodontics
University of Turku, Finland

Sandy, Jonathan

Professor, Orthodontics
University of Bristol, UK

Åstrøm, Anne Nordrehaug

Professor, Clinical Dentistry
University of Bergen, Norway

FACULTY OF TECHNOLOGY AND SOCIETY (TS)



Picture 5. Panel for the Faculty of Technology and Society. From left to right: Peter Gudmundson, Ingo Timm, Antonia Bertolino (Chair), Anne Persson (Vice-chair), Jan Gulliksen, and Nikolai Piskunov.

Bertolino, Antonia, *Chair*

Research Director, Computer Science
Italian National Research Council, Italy

Persson, Anne, *Vice-chair*

Professor emerita, Computer Science
University of Skövde, Sweden

Gudmundson, Peter

Professor, Material Mechanics
KTH Royal Institute of Technology, Sweden

Gulliksen, Jan

Professor, Human Computer Interaction
KTH Royal Institute of Technology, Sweden

Piskunov, Nikolai

Professor, Observational Astrophysics
Uppsala University, Sweden

Timm, Ingo

Professor, Business Informatics
Trier University, Germany

APPENDIX

RESEARCH UNIT SELF-EVALUATION TEMPLATE

1. Research profile

- a) Central research questions and themes, knowledge gaps addressed, main research activities and composition of research team(s).
- b) Contributions to the advancement of the state of the art within the field.
- c) Quality and quantity of contributions to the body of scientific knowledge.
- d) Engagement in national and international research collaboration within academia and its outcomes.

2. Viability

- Funding; internal and external.
- Academic culture.
- Current scientific staff.
- Recruitment practices for senior staff, post docs and PhD candidates.
- Promotion and support of academic career paths after appointment.
- Facilities and administrative support.

3. Strategies and organization

- a) Goals for development 5–10 years ahead.
- b) Congruence with university-level goals for research as set out in *Strategy 2022* and with the core values of Malmö University.

- c) Leadership structure (academic and administrative).
 - d) Collegial structure.
4. Interaction between research and teaching
- a) Interaction between research and teaching at all three levels (BA, MA, PhD) of education.
5. Relevance to society at large
- a) Relevance of research to society at large.
 - b) Research output directed to society at large.
 - c) One (1) impact case.
6. Other
- a) Specifics that the research unit wishes to mention and describe.
7. Overall analysis; strengths and development areas
- a) An overall analysis with a holistic approach.

FACULTY LEVEL SELF-EVALUATION TEMPLATE

1. Strategies
- a) The goals that the faculty intends to pursue in the years ahead and their connection to *Strategy 2022* and the core values of Malmö University as expressed therein.
 - b) Promotion and support of long-term internationally outstanding research in strong, coherent and boundary-crossing international academic environments in which education, research and collaboration with society at large are integrated.
 - c) Promotion and support of internationalization of research and the development of strategic partnerships with strong academic institutions abroad.

2. Organization and resources
 - a) Structure for strategic leadership and executive management; delegation of responsibilities.
 - b) Allocation of direct government funding for research within the faculty.
 - c) Recruitment of senior staff, post docs and PhD candidates.
 - d) Promotion and support of academic career paths after appointment.

3. Quality culture enhancement
 - a) Plans for enhancement of research collaboration within academia, collaboration between departments at Malmö University and collaboration with the non-academic sector.
 - b) Promotion and support of the production of high-quality research results and their dissemination (including through open-access) and the acquiring of external research grants.

4. Other
 - a) Specifics that the faculty wishes to mention and describe.

5. Overall analysis; strengths and development areas
 - a) An overall analysis with a holistic approach.

UNIVERSITY LEVEL SELF-EVALUATION TEMPLATE

1. Overall strategies and policies
 - a) Feedback system to ensure that the goals set out in *Strategy 2022* and the core values of Malmö University are fulfilled.
 - b) Promotion and support of long-term internationally outstanding research in strong, coherent and boundary-crossing international academic environments

in which education, research and collaboration with society at large are integrated.

- c) Policies for recruitment of senior staff, post docs and PhD candidates, and academic career paths after appointment.
- d) Promotion and support of internationalization of research and the development of strategic partnerships with strong academic institutions abroad.

2. Organization and resources

- a) Structure for strategic leadership and executive management; delegation of responsibilities.
- b) Organization of central facilities and administrative support.
- c) Allocation of direct government funding for research within the university.

3. Quality culture enhancement

- a) Strategies for enhancement of research collaboration within academia, collaboration between faculties at Malmö University and collaboration with the non-academic sector.
- b) Promotion and support of the production of high-quality research results and their dissemination (including through open-access) and the acquiring of external research grants.

4. Other

- a) Specifics that the university level wishes to mention and describe.

5. Overall analysis; strengths and development areas

- a) An overall analysis with a holistic approach.

Malmö University was granted the status of full university by the Swedish government from 2018. In June 2018, the University Board gave its Vice-Chancellor the task to carry out an external assessment of the quality of research at the University. The assessment should: (a) be in alignment with the overarching goals expressed in Malmö University's *Strategy 2022*, (b) be performed at three levels (research unit, faculty and university levels), (c) use assessment by international experts. In accordance with these conditions, the External Research Assessment 2019 (ERA19) was conducted through peer-review, based on documentation and a site visit at the end of November 2019 by five international panels consisting of 32 distinguished scholars from 10 countries and 26 different universities. This report contains an introduction to Malmö University, a description of the methods and process for ERA19 and the evaluation results. All panels' reports (22 in total) have been analysed and integrated into a synthesised summary that presents results of the assessment of the research, recommendations of development areas and proposals for how the quality of research at Malmö University can be further improved.

ISBN 978-91-7877-078-6 (PRINT)

ISBN 978-91-7877-079-3 (PDF)