

# **GENISLAB REPORT**

**FROM BLEKINGE INSTITUTE OF TECHNOLOGY, SWEDEN**

## **GENDER BUDGETING**

### **HUMAN RESOURCES**

### **ORGANISATIONAL CULTURE**

#### **-DEVELOPMENT OF METHODS**

**PIRJO ELOVAARA**

**KERSTIN GUSTAVSSON**

**ELIN HALLGREN**

**LINDA PAXLING**

**LENA TROJER**

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The Gender in Science and Technology LAB (GENIS LAB)

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## Abbreviations

BTH	Blekinge Institute of Technology
COM	School of Computing
DSN	School of Planning and Media Design
HAL	School of Health Science
HR	Human Resources
ING	School of Engineering
MAM	School of Management

The operational BTH team working with the GenisLab project has included the following persons

Pirjo Elovaara, ass.professor / active during the whole project

Kerstin Gustavsson, university lecturer / active during the whole project

Elin Hallgren, consultant Caspo /active 2013, 2014, written major parts of this report

Rebecka Molin, PhD student / active 2011, 2012

Linda Paxling, PhD student/ active from 2012 and throughout

Lena Trojer, professor / active during the whole project

## Executive Summary

GENISLAB, is a four year project (2011 - 2014) within the 7<sup>th</sup> Framework Programme for research and technology. The aim of the project is to promote organizational change in six European scientific organizations. Each partner develops its own Tailored Action Plan based on three dimensions, Gender Budgeting, Human Resources (HR) Management and Gender and Organisational Culture and Stereotypes. This report presents results of quantitative and qualitative data on Gender Budgeting and HR management.

### GENDER BUDGETING

#### *Funding*

Detailed data for the quantitative study of funding was collected for the year 2012. During the financial year 2012 the distribution of internal faculty funds and external project grants shows a significant misallocation. Men receive a significantly larger share of the internal faculty funds than women. External resources in turn were funding the research activities by women. The result from one of the schools of BTH concerning applied research grants highlights that research activities by women depend on sources of external funding. Taking into account the Swedish Research Council report, which states that women are awarded research grants to a lesser extent than men in the field of natural and engineering sciences, it appears to be a more demanding financial situation for female researchers.

#### *Time*

There are also clear differences between women's and men's opportunities for research and career development. The men in interviews responded that it rarely led to any consequences or reprimands (in addition to themselves) not doing extra work. For women it seemed to be the opposite. The women worked well over their 40 h per week for

catching up and they missed compensation like sharing the burden or opportunity to leave. This makes a clear example of how men's and women's contributions are valued and handled different in the organization.

### *Space*

The history and culture of each school plays a significant role in the space allocation, despite mergers and reorganisations. If an employee previously had access to a larger area or a better view, this worked as an argument to keep it that way during organisational changes. .

### HR MANAGEMENT

At BTH there is a skewed distribution of women and men in research positions. Of the approximately 8,800 undergraduate students in 2012 44% were women, among PhD students 30% were women, lecturers including post-docs and research assistants 33% women and professors including visiting professors, adjunct professors and research leader 15% women.

Just in a few official documents BTH expresses a will to even out the distribution of women and men, including the Annual Report 2012. Additionally, there are requirements based on the government's appropriation to the recruitment of professors with at least 26 % women. From these documents and the interviews it has not been possible to discern how the process of recruitment is done or how BTH equality work is linked to other strategies.

According to the wages for 2013, female professors and lecturers had three to four per cent lower earnings in average than men. Male lecturers and professors had without any exception the highest salaries. The study focused on processes of recruitment, retention and release. The GenisLab gender screening tool was identified by the HR management to be relevant and valuable for BTH.

### ORGANISATIONAL CULTURE

It is the firm conviction of the BTh GenisLab team that impacts from the GenisLab work with the gender audit, analysis and implementation of gender budgeting and human resource management has started a transformation process of organisational culture. It is thus by focusing the efforts on gender budgeting and HR issues that the BTH team is actively doing culture transformation at BTH. There is however another culture transforming activity, which the GenisLab BTH team have been involved in since 15 years. We want to contribute with that activity as well in this report and specifically in a book to be published as a result of the GenisLab project. Included in the book is also a presentation of an externally funded R&D&I project concerning gender stereotypes called *A norm-critical game culture*.

Let us summarize some general comments. When discussing gender in sectors like technology and engineering, we often tend to count heads, i.e. how many women are

present in which functions. By contrast, gender issues are much less seen as generating knowledge and technology in themselves. Here we touch upon the culture issue of an academy traditionally seen as “the culture of no culture” (Traweek, 1988:162) . The GenisLab BTH team is actively involved in the development of feminist technoscience as a knowledge and culture transforming agent at a technical university.

We have chosen to exemplify the GenisLab organizational culture dimension by giving our story as being embedded in the development of a new university campus at the technical university BTH. Starting a new campus was a result of negotiations between the leadership of the university and the local Government of the town, where the campus was to be located. At the same time an innovation node or innovation system called NetPort was established. NetPort later became an organization co-owned by the university, the local Government and the business sector of the three chosen focus areas. The development of the campus and of NetPort started in the year 2000.

After almost 15 years the university campus is firmly established mainly thanks to the sustainability strategy of the innovation system NetPort and an understanding of a Triple Helix collaboration to be dynamic, to pass different phases during expansion and the necessity to be nurtured all the time in continuous dialogues.

We decided to contribute in the GenisLab dimension of organisational culture by writing a book about our story. The book is titled *Change @ Campus Karlshamn / OUR STORY- CULTURE, NORMS and GENDER at Blekinge Institute of Technology*. The manuscript will be ready end of February 2015 and published during Spring 2015. This contribution was also decided in the BTH TAP.

## STRATEGIES

The GENISLAB team at BTH propose the following strategies for implementing gender mainstreaming:

- A)** A clear prioritization of gender issues by Top management with requirements and monitoring linked to incentives / sanctions
  
- B)** Implementation of methods for yearly systematic mapping on gender mainstreaming, with procedures and processes regarding
  - 1. research funding, time resources and space resources
  - 2. Human Resources for recruitment, career development and exit strategies
  - 3. Innovation and stereotypes
  - 4. Making visible the variation of priority cultures at the departments, analyse and propose measures.
  
- C)** The Activity Assignments of BTH
  - 1. Focus on active promotion of gender equality in the departments including monitoring incentives and sanctions

2. Each department will have its own scorecard with gender perspectives, linked to BTH scorecard, and monitoring the practical implication for gender equality
3. Mandatory training in gender equality, 7.5 credits to all permanent employees, in collaboration with Academia Syd, with the HR manager at BTH being responsible.

#### DISSEMINATION RESULTS

The GenisLab project at BTH has a double strategy. The GenisLab interventions according to BTH TAP includes

- 1) development activities (based on an extensive and detailed study of relevant facts about BTH) as well as
- 2) an intertwined implementation/transformation process.

Concrete results of this double strategy is

- a new equality committee (Likabehandlingskommittéen in Swedish)
- a new BTH equality strategy and plan 2104 – 2016 mainly based on GenisLab TAP for BTH
- GenisLab TAP included in BTH score card
- an externally funded R&D&I project concerning gender stereotypes called *A norm-critical game culture*.

## 1 Introduction

GenisLab is a four year project (2011 - 2014) within the 7<sup>th</sup> Framework Programme for research and technology, FP7. The aim of the project is to promote organizational change in six European scientific organizations. Each partner develops its own plan of action: Tailored Action Plan (TAP). The TAP is based on three dimensions, Gender Budgeting, Human Resources Management and Gender and Organisational Culture and Stereotypes.

In a Participatory Gender Audit of BTH, there were no results of direct evidence of discrimination against women in research, staff or students. However the auditing team found that the management of BTH took gender equality for granted, and that there was a lack of data of detailed sex-disaggregated statistics and information of work on gender equality and gender issues at BTH. This report presents results of sex-disaggregated data and methods developed to collect quantitative and qualitative data.

The data collection took place during the period of February 2013 to January 2014 by the independent consultant Elin Hallgren, Caspo. Findings and methods were discussed and developed with the GenisLab team at BTH: Lena Trojer, Professor Pirjo Elovaara, Ass. Professor, Linda Paxling, PhD student and Kerstin Gustavsson, university lecturer. Collaboration with the Equality Committee at BTH has taken place during the period for discussion and implementation of the work.

The report gives a background to previous work in gender equality in higher education in Sweden. Statistics and efforts are presented both locally (BTH) and nationally as well as comparisons within the EU. Each section also begins with a short introduction in previous studies and methods. The report concludes with a summary of findings and recommendations for further work.

## 2 BTH, Sweden and Europe

### 2.1 Blekinge Institute of Technology

Blekinge Institute of Technology (BTH) has approximately 8,800 students at the undergraduate and graduate level, and approximately 44 % of the students are women. In 2012, there were 3,731 full-time students. The total number of PhD students for 2012 was 104, including 32 women (30%) and 72 men (70%). In 2012 there were 18 doctoral degrees registered (including 6 women) and 9 licentiate degrees (including 2 women). The average study time for doctoral students was 41 months (3.4 years) in 2012. The proportion of women as Professors at BTH was 15% in 2012, and this includes visiting professors, adjunct professors and research directors. Among senior lecturers 33% were women, including post-docs and research assistants.

There are few examples in the available documents how BTH works with recruitment, training and career development. In the annual report for 2012, BTH writes that recruitment also includes enhancing skills in the work for human resource management and a goal is to increase the proportion professors and increase the proportion of female teachers in the technical areas.

The Swedish Government's Appropriation to Blekinge Institute of Technology for the financial year 2013, states that during the period 2012-2015, at least 26 percent of the professors hired shall be women.

### 2.2 Previous national studies

Women are in the vast majority in higher education and 65% of all higher education degrees are awarded to women. However, there are differences in what areas women graduate. In 2010 28 % of the graduated civil engineers and 26% of the computer engineers were women. In 2011, the proportion of female students in ICT programs was 23%, compared to the period 1998 to 2000, where the proportion of women was 30-40%. The recruitment base for higher academic careers in terms of gender balance is limited, although several reports indicate that in recent years the proportion of women in the third cycle level in engineering has increased. The proportion of women as professors in Engineering Sciences (including Informatics) is remarkably low. The report from *The Swedish Agency in Higher Education* (2011), shows that the proportion of females becoming professors in engineering science is 6 %, and the proportion of males is 11.9% .

The Association of Swedish Higher Education (SUHF) made an inquiry in 2011 on initiatives in gender equality within the Swedish universities. SUHF found that several educational institutions have provided additional funding to women for research (or planning of research) with a time ranging from one month to two years. SUHF also found that organizational changes have been implemented to reduce the imbalance, and that a number of initiatives have been implemented in form of projects and training.

In 2006 The Royal Institute of Technology (KTH) was commissioned by the Swedish Government to develop action plans for the ICT industry and academia. KTH proposed that the universities should add a gender perspective in course content, add recruitment goals in order to increase the proportion of women and train teachers, program directors and supervisors in gender perspectives on technology and pedagogy. The Swedish Agency for Economic and Regional Growth followed up on the results in 2012 and found that some of the proposals have been implemented, but none of the institutions knew about the action plan. An explanation for this according to The Swedish Agency for Economic and Regional Growth was that the proposal from KTH never came to a decision by the Swedish Government and therefore could not be communicated formally.

There are few studies addressing academic work and career in relation to gender within Swedish universities. A comparative study was made at the University of Gothenburg (2012) between a male dominant faculty, Natural Science, and a female dominant faculty, Education Science. The study showed that some of the employees thought they know “how things are.” But when they were confronted with quantitative data, these perceptions could not be confirmed.

A report at the Department of Computer Science and of Information Technology at Uppsala University in 2010 concerning the recruitment to doctoral studies, the views of science, work environment and supervision, made the conclusion that the women in the study had, to a higher degree than men, the notion of recruitment to PhD training to be made in an informal way. Another conclusion was that women rated their work performance lower than men with no apparent connection to their actual performance.

### **2.3. Statistics EU28**

Like Sweden, more women than men study and are finalizing their degrees at the undergraduate level at universities and colleges within the EU28 and Europe. The tendency is increasing. In 2000 53.7% of the students were women, which increased in 2009 to 55.7%. The biggest difference was in Latvia and Iceland, where almost two-thirds of the students were women. An opposite situation existed in Cyprus, Liechtenstein and Turkey, where the majority of students were male. However, there are significant differences in which fields women constitute the vast majority, mostly in social sciences, education and humanities. In mathematics, science and technology, only a third of the students, who graduate are women. There has been no improvement balancing the figures for the previous decade. There is no evidence that the recruitment base for higher academic studies in Europe differs from the conditions in Sweden. EU has reported similar



figures regarding distribution of women and men within the graduate students, lecturers and professors.

### 3 GenisLab

GenisLab, Gender in Science and Technology LAB, aims to increase women's influence and participation at the technical faculties (nanotechnology, physics and ICT) at six scientific organizations in Europe. GenisLab, is a four year project (2011 - 2014) founded within the 7th Framework Programme for research and technology, FP7. Six scientific partners and three technical partners form a consortium and partnership for the exchange of experiences, best practices and development of tools. The participating partner from Sweden is Blekinge Institute of Technology, the Department of Technology and Aesthetics. The other participants are Fondazione Giacomo Brondolini (Italy), Associazione Donne e Scienza (Italy), International Training Centre / International Labor Organization (Italy), Istituto Nazionale di Fisica Nucleare (Italy), Faculty of Technology and Metallurgy, University of Belgrade (Serbia), National Institute of Chemistry (Slovenia), the Leibniz Institute for Polymer Forschung Dresden eV (Germany) and the Consejo Superior de Investigaciones Científicas - Institute for Polymer Technology, (Spain). The activities of the project are based on three dimensions, namely Gender Budgeting, Human Resources Management and Gender and Organisational Culture and Stereotypes.

All partners participated in an assessment in 2011 called the Participatory Gender Audit. The audit was based on a gender analysis of both quantitative and qualitative data, through a collection of documents, surveys and interviews regarding career, resource allocation and organizational culture. However, the auditing team found the management of BTH to take gender equality for granted, and there was some kind of "gender fatigue" in the on-going discussions. In addition there was a lack of data as detailed sex-disaggregated data and information of the work on gender equality and gender issues at BTH.

#### 3.1 Action Plan TAP

TAP, Tailored Action Plan, is the action plan for implementing the work of GenisLab, based on the dimensions Gender Budgeting, Human Resources Management and Organizational Culture and Stereotypes. The three dimensions are closely interwoven and based on the national context as well as the situation of the organization.

The methods of implementing the TAP is:

1. Data Collection
2. Analysis of data
3. Development and improvement of current strategies
4. Implementation of change measures
5. Review of the results.

- \* To ensure the process above, a strategy was formed to involve the management and the Equality Committee at BTH at an early stage of the project.
- \* The Equality Committee has incorporated the TAP in their activity plan.
- \* Gender perspectives will be added as a specific perspective in the BTH score card.
- \* The Equality Committee has included the implementation of TAP in their Activity Plan 2014 – 2016 called ‘Equal Rights and Possibilities’.

	<b>Objectives</b>	<b>Actions</b>	<b>Strategies</b>
<b>Gender Budgeting</b>	Funds  Time  Space	Internal faculty funds, External research grants Pilot MAM and DSN  Pilot MAM	Depending on result
<b>Human Resource Management</b>	Recruitment Retention Release	All departments/sections at BTH	Depending on result
<b>Organisation Culture &amp; Stereotypes</b>		GB+HRM Pilot DSN Innovation & Gender Social media	Depending on result

Figure 1 1. TAP, the Tailored Action Plan of BTH, adapted by the BTH GENISLAB team

### 3.2 Method

The period for collecting data was from February 2013 to December 2014. The focus for the data collection has been to fill in the gaps the Participatory Gender Audit identified. Each school at BTH were informed by the management and by the Equality Committee of the importance of assisting GenisLab. The process of data collecting has been documented for monitoring and revision, and the results have been presented and discussed with the Equality Committee. The conclusions of the data collection are reported as a support for continued work on gender budget planning, performance of HR Management and the issues addressing change of organizational culture and stereotypes. The results are presented to all the partners of GenisLab for discussion and exchange of experiences.

During the period of the data collection a major reorganization at BTH took place<sup>1</sup>, which led to delays and disputes regarding data collection. Lack of ability to obtain information or time for interviews was referred to the current reorganization. The data collection based on the TAP focused on fiscal year 2012, i.e. before any reorganization had taken place. All collected data is reflected by the actual conditions in the year 2012, without any

<sup>1</sup> The new organization of BTH started January 2014. The schools of BTH were replaced by three faculties – Faculty of Computing, Faculty of Engineering, Faculty of Health Sciences

regard to future scenarios. This report is mainly focused on the data collection regarding gender budgeting and HR. Both sections are presented with a brief background on how the study was conducted, followed by results and analysis from gender perspectives.

## 4 Gender Budgeting

Gender budgeting is a strategy for working with gender equality. Using gender perspectives regarding finances and resources shows how the actual distribution of resources is performed, and its relation to the needs of women and men. Using gender perspectives on financial aspects also takes into account what is not visible, such as unpaid or / and invisible work.

Gender budgeting is mostly used for analysing and planning public budgets. There are several good examples of gender budgeting, both in Europe and in the rest of the world. The Swedish Women's Lobby reviewed selected parts of the Swedish Government's spring budget, in order to highlight structures affecting resource allocation and hence individuals. South Korea, Australia, Canada and South Africa are among countries that at an early stage started to analyse public resources. The result indicated that men are favoured. There are also good examples of how gender budgeting can be used at local levels. A study in the Stockholm County Council investigated the causes of different treatments for men and women with the same skin disease and the financial impact of these.

There are several methods of working with gender budgeting. The main focus is to highlight the available resources, how resources are allocated and what the consequences are of the resource allocation. Within the project GenisLab the dimension of gender budgeting focuses on four areas:

- Internal faculty funds
- External research grants
- Time management
- Distribution of space resources

### 4.1 Gender Budgeting- Funding

#### 4.1.1. Background

The objective of highlighting funding, both internal faculty funds and external funds, is to increase the transparency of gender balance in the procedures and beneficiaries. The expectation for outcome is a report on gender differences in the procedures and a change of strategy to improve gender balance in fund allocation.

The Swedish Research Council presents in a report for 2009-2010 the objective of maintain the proportion of women and men seeking funds in proportion of approved applications by women and men the potential applicants. The Swedish Research Council found that women and men are equally likely to seek support, but men are more successful in awarded grants. The advisory committees for research applications in The Swedish Research Council are gender balanced (40 /60) in all areas, except the committee for the Natural and Engineering sciences. In 2009 to 2010 only 30 % of the members were women. The success rate for project grants in 2009 to 2010 was lower for women (24%) than the men (28.5 %) in the Natural and Engineering sciences. These figures are comparable with other disciplines, except the area of art research and development, where there was no difference at all between men and women in success rate. The Swedish Research Council proposes the monitoring of research grants should continue in relation to gender and frequently monitor grants to young researchers because of the strategic importance for the future development of Swedish research.

There is no sex-disaggregated statistics on research funding at the national level. Details of this must be worked out by each university and each university unit. Data on internal research grants (faculty grants) and external research grants at BTH may therefore be interpreted as well as reported in various ways depending on organizational culture or the research environment. This required that the data collection was also underpinned by information on how each school at BTH interpreted accounting, the processes that were running at the distribution of funding at each school etc. The main focus was to track where the resources came from, where they went and how the distribution looked like in gender perspectives?

A pilot study with the accountants at School of Design and Media Technology (DSN) identified the gaps that needed to be addressed before further steps. The main part of the data was collected from the payroll and accounting systems. Telephone interviews were made with each Dean to identify the procedures. Information on the distribution of funds from the Faculty Board's strategic initiatives was collected by the planning secretaries at BTH.

#### **4.1.2 Result**

For 2012, the preliminary allocation to BTH from the Ministry of Education was 81.4 million and after provisions it was divided as follows (according to the Faculty Board Minutes 110908, § 99 *Appropriation to BTH financial year 2012. Proposal for distribution*)

Table 1. The preliminary allocation by school at BTH per 2012

School	SEK in million
COM	28,00
ING	23,32
DSN	11,09
HAL	5,47
MAM	6,12
FAK-strategic (no section, see below)	2,40
<b>Total</b>	<b>76,40</b>

#### *The Faculty Board 's strategic initiative*

The funds from the Faculty Board 's strategic initiative, SEK 2.4 million, was awarded in accordance with revised and established guidelines (according to Faculty Board Minutes 120202, § 21 Determination of the faculty board 's strategic initiative in 2012 , and Annex Guidelines for application for funds from the Faculty Board's strategic initiative). The guidelines stipulate that an application can be submitted throughout the year, an application can only be applied to journal articles that have been indexed in the ISI database (the Web of Science) and an approved application may be rewarded a sum of SEK 30 000. No strategy to even out any misallocations between research groups, gender, service groups, or age has been found in the survey.

Approved applications was 64 in 2012, and of these the majority were distributed to those in service as PhD students or professors. In the total allocation of funds, 22 % was awarded to women and 78% to men. There is no data on rejected applications or if the resources have been allocated to other initiatives. As this distribution is only related to approved applications requiring ISI indexing, it is not reasonable to interpret this as a result of all the publications that have been produced at BTH. However this is an indication that there is a misallocation of resources between women and men, and a misallocation between research teams at BTH. The vast majority of the funds went to the sections COM, ING and HAL.

Interviews with the deans at BTH revealed there are large differences both in how the schools present their research and which strategies are behind the distribution of resources. There is both a lack of systematic information on research, and more in specific documentation in gender perspectives.

The distribution of funds differed significantly between the schools, which resulted in some of the schools having extremely small research resources, which, largely covered the doctoral students' salary. Other schools could cover up to 30% of research of staff with

doctoral degree. The two schools allocating the largest proportion of faculty resources, COM, and ING, could also present results such as strong external contacts, multiple approved projects with financial resources. These two schools also had a clear presentation of their research, not least manifested in a comparison of the applications for funding received by BTH's faculty committee. None of the schools could present specific strategies for achieving gender balance regarding research resources. There was an example of gender being discussed to some degree at COM. In the Score Card for COM in 2012 there was a goal to increase the proportion of female PhD students, though this was not a priority for the current year.

*Allocation of funding*

All schools of BTH were asked to report regarding how the funds were allocated for the fiscal year 2012 in relation to the academic position and the sex in the three categories faculty fund, approved external funding and applied external project funding. Two schools replied, HAL and DSN, and the informants were the accountants at each school.

The distribution of men and women in the schools HAL and DSN is not representative of BTH. HAL had a predominance of women (77%) in 2012 in the research positions and DSN had a relatively equal balance in the academic staff between men (52%) and women (48%). Academic service staff as project manager, project assistant, administrative or technical staff has not been included in the statistics, due to difficulty in comparing the academic experiences. Visiting professors are included in the category Professor. The persons, who have gone from graduate students to lecturers, have been included in the statistics as graduate students.

Table 2. Distribution of men and women per academic position in 2012

HAL & DSN	Women	Men	Total
<b>Graduate Students</b>	22	6	28
<b>Lecturer</b>	9	7	16
<b>Docents</b>	2	1	3
<b>Professors</b>	3	4	7
Total	36	18	54

Table 3 presents the funds from external funding agencies and internal faculty funds, separated by position and gender. The tranches of each project and research group are summed up and broken down to academic position and gender. The tranches do not represent the full amount for each service or gender, only what has been reported to the study. Some of the external projects have co-funding in kind (funded by internal faculty funds) and has been reallocated. A reallocation of funds has also been made for correction the previous financial year, which resulted in negative entries.

Table 3. Allocation of funding, men and women 2012

	Post graduate men	Post graduate women	Lecturer men	Lecturer women	Docent men	Docent women	Professor men	Professor women
External research funding	124 369	147 333	39 199	130 941	41 154	4 606	350 068	410 953
Internal faculty funding	445 442	284 011	209 755	102 268	318 777	190 355	386 082	83 624

Despite any shortcomings in the collected data, the result points to a difference in the allocation of funds between women and men. Women have less access to the internal faculty funds than what men. Women's research is to a larger extent than men's funded by external sources. On average women were awarded half as much of the internal faculty resources compared to men during the same period of time. The majority of the internal faculty funds go to graduate students, regardless of sex. However there are differences in the residual distribution of funds, where internal faculty funds go to male lecturers and professors.

Applied external funding in 2012 was reported by DSN. HAL reported there was no reliable documentation for these questions. The result for applied external funding strengthens the result that women are dependent on external funding. In 2012, DSN applied calls for eight projects, in a total amount of 18.6 million SEK. Information if any of the applications had been approved was not at hand during the time of the data collection. The majority of applicants were women in research positions, with duration of the projects ranging from 36 to 60 months and an average of 2.32 million SEK per project.

#### 4.1.3. Analysis

During the financial year 2012 the distribution of internal faculty funds and external project grants shows a significant misallocation. Men receive a significantly larger share of the internal faculty funds than women. The research activities by women are on the other hand funded by external resources. The result from DSN of applied research grants highlights the situation that research activities by women depend on sources of external funding. Taking into account the background of the Swedish Research Council report, which states that women are awarded research grants to a lesser extent than men in the field of natural and engineering sciences, it seems that it is a demanding financial situation for female researchers.

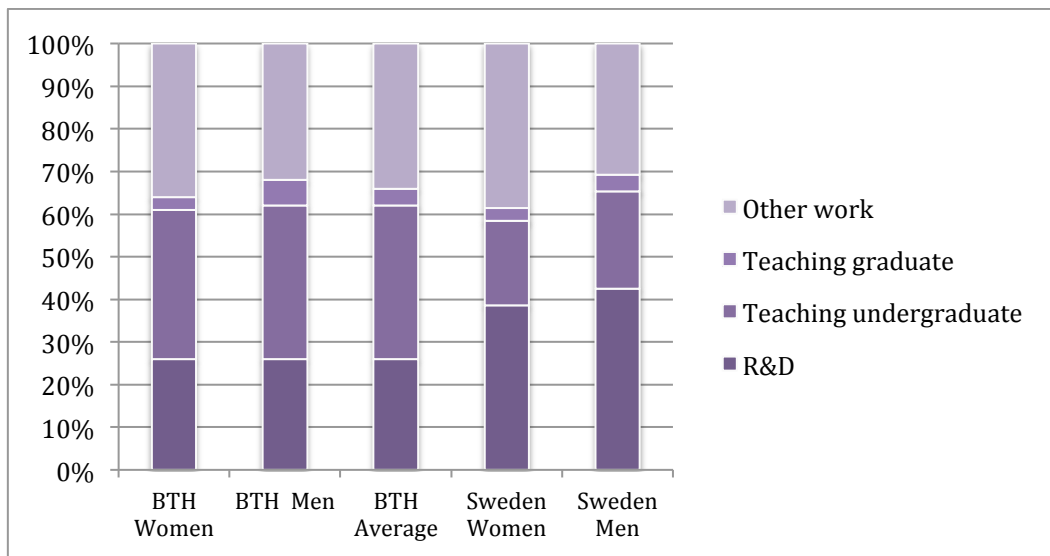
Due to the lack of data from the other schools at BTH, it is difficult to make any far-reaching analysis. However, the result confirms misallocation of resources to such an extent that there is no equal opportunity for men and women in doing research or for career development. The review of research strategies and interviews with heads of schools confirms a lack of gender perspectives. No school was able to present a current strategy or a commitment to equalizing resources between the sexes. However, most of the deans were open to such work. Several of the deans also raised questions of resources

from a broader perspective, on how to motivate researchers to apply for external funding. Without the external funding and external partnerships BTH would have a difficult time to assert itself as an academic institution in the future. This type of reasoning is not without obstacles. Some of the deans mention the "stubborn researcher" who does not share the view for the need of external funds or researchers who lack in experience in the process of applying for funds.

## 4.2. Gender Budgeting - Time

### 4.2.1. Background

Every two years statistics are presented on income and full-time equivalents for the higher education sector by the Statistics Sweden<sup>2</sup>. Full-time equivalents are based on the result of a survey, where the academic staff rates the time spent on activities for R&D, teaching, administration work, expertise consultation and positions and other work-related activities. In 2011 men performed overall the highest proportion of full-time equivalents in all higher education in Sweden. At BTH the proportion was 62% for men and 38 % for women. As for distribution of working hours, the statistics also show differences between the sexes. Men had a slightly higher proportion of their time spent on R & D activities than women had.



**Figure 2. Time share of activities, BTH compared to national figures<sup>3</sup>**

A report from The Swedish Agency for Higher Education from 2007 pointed out that the distribution of working hours differs between men and women, as men devoted more time to research than women. Female lecturers and research assistants spend less time on research and more time on other tasks compared to men. The Swedish Agency for Higher Education also found that female teachers and researchers at universities tend to add

<sup>2</sup> The Swedish agency for official statistics, SCB

<sup>3</sup> Statistics from SCB, UF 13 SM 1201 Table 13



more time to other activities than teaching and research compared to men. The analysis made stated that this can cause women to have fewer opportunities to obtain qualifications for positions as professor.

The study for GenisLab Time was designed as a pilot study for MAM and DSN at BTH, during the period June to November 2013. The group selected for the survey was the academic staff, namely graduate students, lecturers, associate professors and full professors. The survey was sent out via a web-based survey tool by e-mail to a total of 51 people. The survey was followed up by interviews with lecturers at each school. The questions in the survey were based on the issues regarding working hours at the national level. The questions were focused on estimated working hours and not the actual hours.

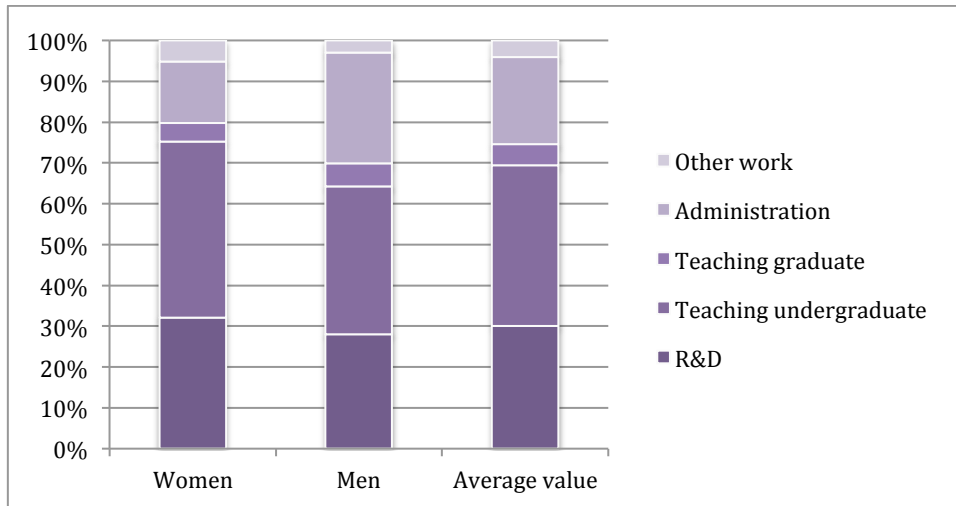
#### **4.2.2. Result**

##### *Survey*

The response rate in the survey was 55 % (28 of 51), and the respondents represented a relatively equal distribution between women (46%) and men (54%). There were a higher proportion of respondents from DSN (61%) than MAM (48%). Some of the respondents worked only part-time in 2012, but no differences were found in the responses compared to the staff working full time. Women estimated time allocated to research to a slightly higher degree than men (women 32% and men 28%) and women estimated to a significantly higher degree time spent on teaching undergraduates, 43 %, than men 36 %. However, there were large differences in the response group. A handful of the respondents did not allocate any time to research activities, while others spent a majority of their time on research activities.

To the question of estimated time spent on different activities (research, teaching at undergraduate and postgraduate level and other activities) the option administrative work was added. The reason was to examine whether it was possible to find any differences in allocation of time to administrative tasks.

Men estimated overall to a higher degree working time spent on administrative tasks than women. This does not mean men actually spend more time on administrative tasks than women, but the responding men, to a higher degree than the women, consider administrative tasks as a task separate from other activities, such as research or teaching.



**Figure 3. Time share of activities, BTH**

Overall the vast majority of respondents are unanimous regarding time allocated to research activities. There is too little time for research and too much time is spent on teaching at the undergraduate level and administrative tasks.

Women experience to a higher degree (69 %) than men (57%) that time allocated to research is not satisfactory. Another significant difference was the experience of the women to a lower degree than men being able to influence their work planning. Almost 30% of the women felt they could to a lesser extent influence their planning, with only 14 % of the men experiencing the same situation.

The free text fields in the survey gave opportunity to comment or elaborate answers. The responses indicate a pattern in the lack of time to research and too much time spent on administration.

*"The lack of time for research at BTH makes the work boring and monotonous, there is a great risk in people seeking for positions at other universities."*

*Female, from free text answers from the survey, June 2013*

*"There is a non-functioning management, administration and a lack of insight into research and teaching in higher education"*

*Male, from free text answers from the survey, June 2013*

*"The time is too fragmented to do serious research, the research is done during the summer break and long weekends"*

*Female, from free text answers from the survey, August 2013*

On the issues regarding invisible work, participating in internal working groups, committees or boards, there were no clear patterns found. But those respondents who had a commitment seem to devote a large share of their working time to this.

### *Interviews*

Four interviews were performed with two women and two men on MAM and DSN. The interviews were semi-structured and based on questionnaire items without any comparison with the previous answers. All four held a position as lecturer and had previously served at another university or college than BTH. None of the interviewees had answered in a protruding manner in the survey, as being either overly positive or negative. The interviewees were also asked to respond without assessment of the on-going reorganization at BTH.

Overall the persons interviewed performed a consistent representation of working and time planning at BTH. They all felt freedom to influence their working time at BTH. There seems to be a **confidence** from management that employees efficiently allocate their working time. However, there also seems to be a downside to that freedom. In situations of sick leave or extra administrative tasks no possibility of planning or support were found. An expectation of employees to perform tasks sometimes not directly related to their services was indicated. This should be done outside the regular working hours without possibility of compensation. One of the men described the situation at BTH as a top-down organization where the management gives information without caring about how it should be performed.

A clear difference between the interviewed men and women existed in how they manage their working hours. The women describe their work to be more than 40 hours per week, and appreciate it is up to 50 hours per week. One of the women said she has given up any fair compensation for the overtime, and just did the extra tasks causing the overtime. In contrast the men had a clear strategy where they "do not do that extra" just for the lack of compensation or any assistance to take leave. They all pointed to the lack of administrative support at BTH leading to expectations on the teaching staff to do tasks which do not always seem relevant or that the agendas of the administrative personnel govern the influence on time management.

A clear consequence of the situation described above is opportunity for research. None of the interviewed experienced they got enough time to do research, the students always come first. Two of the respondents hardly had any opportunity at all to do research during work hours, instead it is done in evenings and weekends. They also described the experience of negative pressure in seeking funding during unpaid time, knowing there are consequences for the rest of the teaching staff in overtime.

The work environment was experienced as non-stimulating by the interviewed, the social bonds were not as strong as they could be. There was a lack of spontaneous conversations and the opportunity in meeting other colleagues sometimes only occurred in situations where "information should be delivered" from the management. All of the interviewees pointed out they missed the collegial talk. They periodically and involuntarily were "isolated" in a bubble. One of the men described he had survival strategies to cope with the everyday work.

It is not a pleasant image of BTH that emerged in the interviews. The interviewees pointed out more than once that the situation at BTH hindering the development of both their own careers and the university. Another aspect in the interviews was the culture at BTH appearing to be stereotyped and difficult to change. One man pointed out BTH as a typical technical university - "the only thing that counts, no matter what it is, is whether the scientists have a technical background, otherwise they are met with arrogance". One of the women described when she herself had tried to participate or contribute to the development she was met with protectionism. Instead she had to go to another colleague for a constructive dialogue, but in confidence. One of the men described that the conventional attitudes at the university (campus Karlskrona), seemed to have its roots in the geographical placement of the university, a city with a military history.

### 4.2.3. Analysis

The differences between the results from the survey and the interviews show the importance of additional data and not "just counting heads" as in the survey. Some of the interviewed indicated they hardly make an effort in workplace surveys, as it does not lead to any changes. Another observation from the survey is that the opportunity to comment on their time and work planning led to answers that is also about the workplace in general and more specifically for the research role. Another observation from the survey is the comments generating replies on the workplace in general and specifically for research.

It is clear that the majority of the respondents are satisfied with their situation regarding teaching, but very unsatisfied with the situation to conduct research. More than half of the responses marked to some degree the work place to have flaws of such nature that it affects the work negatively.

The stories emerging in the comments and interviews described the work environment experienced as being unhealthy or unstimulating. Several respondents experienced a lack of transparency, between the management and the staff, and between colleagues from different schools. This questions the creativity and innovative capacity at BTH. How can this be created at BTH when there is no trust to meet at one's own work place for sharing experiences and ideas?

There are also clear differences between women's and men's opportunities for research and career development. The men in interviews responded that it rarely led to any consequences or reprimands (in addition to themselves) not doing extra work, for women it seemed to be the opposite. The women worked well over their 40 h per week for catching up and they missed compensation like sharing the burden or opportunity to leave. This makes a clear example of how men's and women's contributions are valued and handled differently in the organization. Regarding allocation of working hours and tasks there seemed to be a discrepancy between actual reported time. "It will look nice on paper " was one comment among the responses. There is a risk women's actual contribution is not reported correctly and the estimates of working time and the allocation of tasks is misleading from gender perspectives. In the longer term this may be a basis for women's opportunity to career developments. If women's actual actions are hidden, they

cannot refer to those actions in recruitments or research career situations. A more consistent documentation of men's and women's actual work efforts would demonstrate any differences more clearly.

### 4.3 Gender Budgeting- Space

#### 4.3.1. Background

The third part of the Gender budgeting was a study of possible differences between space allocation for women and men. A pilot study was made of the spatial resources of MAM. The main focus was to collect data on square meters per person and if it was possible to find differences between gender and position. Questions were also made of the patterns in typology as access to the views, position or the proximity to other spatial premises. The collection of data was done with a blue print of MAM's offices and an interview with the school coordinator.

#### 4.3.2. Result

Economic cutbacks at the department had led to a reorganisation of the office space. Efforts had been made for all staff to have their office space more "united" in order to free up space for another school at BTH.

It was unclear how many of the employees who actually had moved offices and to which extent each individual had the opportunity to influence which room to be assigned to. During the time of the study, there were 48 employees with an office, including 28 women (59%) and 20 men (41%). All offices, the front help desk, conference rooms and the staff room were located on the same floor. The majority of the rooms were in a line, side by side.

The department was open for students during "office hours". The lecture halls were on the floor below, but the conference room was available for teaching in smaller groups. There were eight rooms within the department for meetings or conferences. There was no "open space" with sofas or standing tables that could be used for more spontaneous meetings. This indicates most of the work to be done in the offices. A spacious staffroom with a sea view was centrally located on the same floor. A big number of the office rooms were empty, due to the economic cutbacks. The majority of the offices were of the same size (in number of square meters); they all had windows and a door.

The biggest rooms (per square meter) were held by the dean of school (a man) and the school administrator (a woman). Four men shared two large rooms due to their half- time employment. Two other men had extra space in addition to their offices.

The distribution of square meters differed between men and women. Men had a slightly higher proportion of square meters per person than women. The women had 8.5 m<sup>2</sup>/ person, and the men 10.5 m<sup>2</sup>/ person. No distinct relation in the distribution of square meters to a position was found, however the postgraduate student's offices were placed close together. The administrative staff had their offices close to another employee with administrative duties.

### 4.3.3. Analysis

There is a slight difference between men and women in the distribution of square meters. Two men had access to an additional room for their work respectively. This is the main reason why men on average had more square meters. If these rooms were not included, the gap between women and men would be 0.2 m<sup>2</sup> in advantage of men. The reason to why these men had this extra space is due to their research and teaching activities requiring more space. It is unclear if any woman at the department had asked for more spatial resources for similar needs. It is striking how the rooms standing out at the school are held by men as they hold the rooms with the worst view and proximity to other office resources such as staff rooms, copying room, and nearness to other colleagues. Another pattern that can be distinguished is the majority has offices next to another person of the same sex as themselves. Women sit side by side with women, men sit with men.

The result of Gender Budgeting Space was reported to the Equality committee. During the discussion with the committee many explanations and arguments in space allocation were revealed. However there seems to be a lack of a comprehensive strategy at BTH for space allocation from gender perspectives. In the discussion the history and culture of each school and department became clear playing a significant role in the space allocation, despite mergers and reorganisations. If any employee previously had access to a larger area or a better view, this worked as an argument to keep it that way during organisational change.

## 5 Human Resources

### 5.1 Background

The dimension of Human Resources is based on implementing gender perspectives in career and career development in the academy. The focus is on three areas of Human Resources (see Appendix 2 Tools for Gender Screening) namely recruitment (selection, induction and orientation), retention (performance management, pay and conditions, adapting work to family and private life, and career development) and release (conflicts and exit strategies).

Data for what is currently in place in the cycle of Human Resources (HR) was collected in a interview with the HR Manager at BTH and from reviewed documents and policies, selected by the department of HR.

### 5.2. Result

Except for the work of the Equality Committee and BTH Equal Treatment Plan, there is a lack of both work and explicit strategies of human resources with gender perspectives. The HR Manager argues this is an issue of resources. He gave examples of the lack of structure for future leaders, that the perspective on academic career development does not always include leadership.

There is a large collection of documents and policies of staff issues, such as the Handbook for HR, an Accounting Manual and other regulatory documents. These documents are published at the BTH website and seem to be updated continuously, which facilitates transparency for the academic staff. The management at BTH has written policies for recruitment and career development. But there is an overall lack of monitoring and revision of these policies. The responsibility to manage and interpret the instructions lies in the hands of the management of each school, which could cause the schools to follow the culture of their own organisation, which in turn may be in conflict with overall strategies or visions. All of the reviewed documents, which form the basis for the analysis, are at the surface gender-neutral, with gender-neutral language, but they seem to be missing an underlying understanding of the concepts. The formulations may seem exclusionary. In one of the guidelines there are several formulations requiring the reader to understand certain concepts and terms, without definition of these words. This does not take into consideration newly hired staff or language problems.

#### *Recruitment*

There are several documents concerning the recruitment process, such as instructions by experts for selections, interview guides and position profiles. As mentioned above, there is non-existing gender perspectives throughout the cycle of recruitment. The success of recruitment seems to depend on individual aspects, from the selection of the employee to introduction to the workplace. According to the HR Manager there is a lack of transparency in how the introduction is performed at each school, except for the formalities of hiring. A strategy of supporting in-house recruitments seems to be absent. New employees are supposed to “know what to do” as they are already working in the organisation. This approach gives no opportunity for the employees to ask questions concerning their new position or limited access to the support, which is currently in place. This may create uncertainty for the employees.

#### *Retention*

In the cycle of career and career development, none of the documents supports gender perspectives. There seems to be a lack of an overall discussion. The issues regarding facilitation of family and personal life is fully supported by government commitments. Sweden has parental benefits for a total of 480 days including sickness benefits. There is no systematic work at BTH on how the parental leave affects the ability of work or whether a parental leave creates barriers in career development.

One issue of HR includes gender perspectives. BTH uses a salary survey tool that has gender as one of several analysis factors. The tool has shown differences in certain staff groups and work to address these inequalities has started. However, there is a risk that the assessments made by the wage determination (and possible benefits) are based on a difference how you value men's and women's tasks. According to the wages for 2013, female professors and lecturers had three to four per cent lower earnings in average than men. Male lecturers and professors had without any exception the highest salaries.

### *Release*

In the area of conflict and exit strategies there is a complete lack of data. Minor conflicts are managed locally at each school. More extensive conflicts are managed by the occupational health service and the HR department. Deans and heads of departments have some training in conflict management, but there is no information, if this training is given with gender perspectives. Upon release of staff, all governmental employees are contacted by the Security Foundation, which is supportive in both preventive measures and getting a new employment. No information was available, if there is on-going work of keeping competence and research related networks within the organisation.

### *5.3. Analysis*

The different aspects of HR take a comprehensive grasp of an organisation and perhaps particularly in an academic organisation. Without focus on the research staff there is a risk of not being taken seriously as a university. It is a bit extraordinary there is not only a lack of strategies regarding gender equality but also of overall strategies. The Gender screening tool highlights that the staff issues at BTH is not supporting gender equality. Each document reviewed in HR had initially a high ambition but seems to end up as paper products. The lack of insight from management in several areas allows the staff to create their own strategies and priorities without a perspective of gender equality.

All areas concerning Human Resources should not only have a clear focus on gender equality, but also be linked to BTH overall strategies, in order to secure a continuous monitoring and evaluation taking place. It is obvious that it is not only necessary to document the process of strategies and visions; there is also a need of continuous training and on-going discussion on gender issues.

It is important to give account to the fact that the head of HR department found the GenisLab Gender screening tool relevant and valuable for BTH and want to implement that tool at BTH.

## **6 Organisational Culture**

When discussing gender in sectors like technology and engineering, we often tend to count heads, i.e. how many women are present in which functions. By contrast, gender issues are much less seen as generating knowledge and technology in themselves. Here we touch upon the issue of academy seen as “the culture of no culture” (Traweek, 1988:162). The GenisLab BTH team is actively involved in the development of feminist technoscience as a knowledge and culture transforming agent at a technical university.

The history of feminist technoscience situated at faculties of technology and engineering has proceeded from the practice of counting heads (how many women) to fostering and advancing understandings and practices of knowledge production. This is not a linear process but more of a process in parallel. The gender equality work continues and is still far



from reaching its goal in sustainable 40/60 % representation of men and women at all levels. The academic story in Sweden within a time frame of more than three decades shows that we have moved from the gender equality question, over the woman question to the science question. This refers to the Harding turn (Harding, 1991) moving from the question of what science can do for women to what feminists can do for science. There are no simple or self-acting links between these general phases.

We have chosen to exemplify the GenisLab organizational culture dimension by giving our story being embedded in the development of a new university campus at the technical university BTH. Starting a new campus was a result of negotiations between the leadership of the university and the local Government of the town, where the campus was to be located. At the same time an innovation node or innovation system called NetPort was established. NetPort became later on an organization co-owned by the university, the local Government and the business sector of the three focus areas chosen. The development of the campus and of NetPort started in the year 2000.

Developing a new campus for a university of technology in a Triple helix context needs at least 4 starting conditions, namely

1. undergraduate students
2. graduate students
3. epistemological acknowledgement of mode 2
4. tolerance towards resistance always appearing in development processes, especially internal.

In the year 2000 the Vice Chancellor of BTH (later on Director General of VINNOVA, The Swedish Governmental Agency for Innovation Systems) approved the division of ICT and Gender Research at BTH, to take the main responsibility of starting to develop the new campus. This task was supported by BTH with a centrally appointed project coordinator. The division had competence to start bachelor programs in media technology and was already running a PhD program with a number of doctoral students. The division staff was strongly motivated to work with practicing Triple helix collaboration.

For his approval the VC had become convinced of condition 1 and 2 above. Condition 3 characterized the practice of the VC and seemed to be self-evident for him. The ambitions of the division to fulfil condition 3 were probably implicitly recognized by the VC as explicit interest was demonstrated in cooperation with stakeholders outside the university, of which the local Government of the campus city was the main partner.

Concerning condition number 4 the division had great help of understanding different kinds of resistance manifestations by the experience of Bo Ahrenfeltd (2001). Peter Ekdahl (2005) stresses resistance in development and transformation processes to be important and energy creating, even though resistance is momentarily experienced as destructive and energy sucking. Without resistance the possibilities to focus the own direction of the development work is obstructed. The sectors mobilizing the strongest resistance are often sectors where transformation work is mostly needed. In addition resistance helps to detail

and clarify what kind of development and transformation terms you need and in addition fosters dialogue.

After almost 15 years the university campus is firmly established mainly thanks to the sustainability strategy of NetPort and an understanding of Triple Helix collaboration to be dynamic, to pass different phases during expansion and the necessity to be nurtured all the time in continuous dialogues.

One may ask why is gender research a knowledge and culture transforming agent at a university campus formation,. Some answers are to be found in the theoretical and methodological work of the actual feminist technoscientific research in

- expanding the knowledge frames and practices for technology development in increasingly complex realities
- opening up preferential rights of interpretation in selections of e.g. standards, which are always reality producing activities
- emphasizing the importance of power relations and their impacts, including complex understanding of gender structures
- process-oriented development through a broader understanding of transformation practices
- enforcement and integration of situated knowledge and technology development
- developing epistemological infrastructures relevant to a society heavily dependent on research and technology
- establishing new arenas for developing understanding of relations between research, political sector and industry.

## 7 Conclusions

At BTH there is a skewed distribution of women and men in research positions. Of the approximately 8,800 undergraduate students in 2012 44% were women, PhD students 30% women, lecturers including post-docs and research assistants 33% women and professors including visiting professors, adjunct professors and research leader 15% women.

It is only expressed officially in a few documents that BTH wants to even out the distribution of women and men including in the Annual Report 2012. Additionally, there are requirements based on the government's appropriation to the recruitment of professors with at least 26% women. From the documents analysed and the interviews performed it has not been possible to discern how the process of recruitment is done or how BTH equality work is linked to other strategies.

The results show a misallocation of resources between men and women, where men have the advantage in access to the available resources. The lack of overall work in gender

equality reinforces the results. And so does the information about stereotypic views at BTH on gender equality and women's actual opportunities and conditions as well as a lack of insight in how this can be managed.

#### *Gender Budgeting, funding*

The breakdown of actual amounts regarding internal faculty funds and external funding in 2012 showed misallocation between the sexes. Men received a significantly higher share of internal faculty funds than women, and women must depend on funding from external sources. This result is strengthened by a pilot study of applied research grants, where women were in absolute majority behind the applications, both in numbers and the distribution of resources. Interviews with deans confirm the absence of research strategies in perspective of gender equality. The result shows that there is an uneven distribution to such a degree that the ability of doing research and career development are not equal for men and women. It is revealed in the results that there is a certain type of research, which is rewarded and which is executed mostly by male researchers at BTH.

#### *Gender Budgeting-Space*

A pilot study was designed with the aim of measuring differences between men and women's access to physical facilities. The result showed that men had an average of 2 square meters per person more than women. This is despite of a standardized measure of the office rooms. There were no major differences in the typology, however, the rooms were arranged so that PhD students sat together and the majority of staff sat side by side with another of the same sex. Discussions highlighted the history and organisational culture of each school that play a role in the allocation of space, despite mergers and reorganisations.

#### *Gender Budgeting-Time*

The result of estimated time share of different work activities showed differences between women and men. Women estimated their time mainly spent on teaching to a higher degree than men. Several respondents experience a lack of transparency, both between management and the academic staff as well as between colleagues from other schools. The result observes differences in opportunities available regarding research or career development. Additional results showed that the performances of men and women were valued and managed differently. There is a risk women's actual contribution is not fully reported and the estimating of work time and performance is misleading in gender perspectives.

#### *Human Resources*

The Gender screening highlights that staff issues at BTH do not support gender perspectives. The documentation seems on the surface to be gender neutral, with a strong ambition of supporting development at the university. However, there is a lack of monitoring and links to other strategies. Focusing on gender issues seems only to take place at the initiative of individuals. The GENISLAB Gender screening tool was identified as relevant and valuable for BTH and ready to be implemented at BTH.

### *Organisational culture*

The impacts out of the GenisLab work with the gender audit, analysis and implementation of gender budgeting and human resource management has started a transformation process of the organisational culture. It is thus by focusing the efforts on gender budgeting and HR issues the BTH team is actively doing culture transformation at BTH. There is however another culture transforming activity, which the GenisLab BTH team are involved in since 15 years. This activity will as well be published in a book as a result of the GenisLab project. Included in the book is also a presentation of an externally funded R&D&I project concerning gender stereotypes called *A norm-critical game culture*.

## **8 Reflections**

It seems to be difficult to talk about gender equality at BTH. The report shows lack of gender perspectives in the BTH policies. The policies are gender neutral on surface, but indicate that something is not quite right. In the interviews and discussions during the period of data collection, several individuals seemed to be uneasy when discussing the questions of gender equality. Some expressed shortcomings of their arguments and called for support and further discussion, while others dismissed the subject altogether. The lack of willingness to prioritize the work on gender equality has also been uttered in the lack of communication from some school management during the data collecting. Several times request for sufficient data have been neglected, despite the official support for the project. This has resulted in missed opportunities for a deeper analysis.

During the process, the staff has expressed a general and limited experience in gender equality. The lack of practice, training and discussions indicates non-activity in the work of gender equality at BTH. This seems to result in a stereotypical view on gender and as a result relevant perspectives on the area is missing. Several times arguments have been uttered to confirm this, like "I cannot hire a less qualified woman". This kind of argument and reasoning show limitations in the access to current research and studies. There seems to be a lack of understanding of the underpinning mechanism of the uneven distribution between men and women in higher education.

However, there are several persons, who have spoken in favour of a future progress on gender equality. They will take part in training and discussions in order to create better conditions for both men and women.

## 9 Recommendation

The situation of the inequality between women and men at BTH will not alter by itself. The lack of strategies, clear objectives, discussions, and especially an agenda from the management, leads to an assumption that there is a risk that the current situation will be unchanged or worse -if no one takes action.

There is nothing indicating that the reorganization of BTH would affect the underlying mechanisms causing inequality. During a change of organizational structures and merging of staff, there may be an opportunity for implementing gender perspectives. This was uttered during the interviews with deans and other staff members. There is at least a chance to do something. It is important to have the ability to move from plain words and ideas to action.

### ***Clear prioritisation***

First and most important for any success of the issue, the management of BTH need to make gender equality priority. Without putting gender equality on the BTH agenda, there is nothing supporting the work with gender mainstreaming. This includes gender perspectives in all decisions and requires monitoring and improvement at all levels and positions of the organisation. The limited work in the Equality Committee and the Equal Treatment Plan is not sufficient. Counting heads or only allocating resources based on sex does not give a true picture. Instead there is a need of relevant goals to monitor. The correlation between gender equality and growth has been highlighted in several studies in business and the public sector, which could justify the objectives.

### ***A continuous work with training and discussions***

The lack of training and discussions of gender equality can be improved. However, it is crucial this is not performed as short term projects. All staff members should have access to the training and discussions.

### ***Support for integrating gender mainstreaming***

The report describes different methods in collecting data on sex-disaggregated statistics in higher education. The objective has been to implement the methods at BTH in order to create structural changes. All of the methods have been based on existing settings at BTH, but need to be incorporated and developed in order to make a proper toolbox for gender mainstreaming.

### ***Cooperation with external partners***

The consortium in GenisLab, seems to result in getting international perspective on methods, results and tools in gender mainstreaming. This type of consortium is partially missing at the national level. An initiative by BTH for continued cooperation with other external actors, both national and international, should be regarded for further development.

The GenisLab team at BTH propose the following strategies for implementing gender mainstreaming:

- A)** A clear prioritization of gender issues by Top management with requirements and monitoring linked to incentives / sanctions
- B)** Implementation of methods for yearly systematic mapping on gender mainstreaming, with procedures and processes regarding
  - 1. research funding, time resources and space resources
  - 2. Human Resources for recruitment, career development and exit strategies
  - 3. Innovation and stereotypes
  - 4. Making visible the variation of priority cultures at the departments, analyse and propose measures.
- C)** The Activity Assignments of BTH
  - 1. Focus of active promotion of gender equality in the departments including monitoring incentives and sanctions
  - 2. Each department will have its own scorecard with gender perspectives, linked to BTH scorecard, and monitoring the practical implication for gender equality
  - 3. Mandatory training in gender equality, 7.5 credits to all permanent employees, in collaboration with Academia Syd, with the HR manager at BTH being responsible.

## 10 Implemented Recommendation

At BTH the GenisLab project has a double strategy. The GenisLab interventions according BTH TAP includes

- 1) development activities (based on an extensive and detailed study of relevant facts about BTH) as well as
- 2) an intertwined implementation/transformation process.

Concrete results of this double strategy is

- a new equality committee (Likabehandlingskommittéen in Swedish)
- a new BTH equality strategy and plan 2104 – 2016 mainly based on GenisLab TAP for BTH
- GenisLab TAP included in BTH score card,
- an externally funded R&D&I project concerning gender stereotypes called *A norm-critical game culture*.

Besides above the following activities can be reported;

- Execution of the R&D&I project *A norm-critical game culture*. The purpose is to identify norms and attitudes of future game developers among BTH students, increase the knowledge of a norm-critical perspective and experiment with the concept games in

collaboration with the industry and the public sector. The pilot study is based on the project participants being the catalysing assemblages.

- Follow up activities specifically concerning BTH score card and BTH leadership course
- Disseminate information in the BTH information publication Intranytt.

Dissemination material available is

- GenisLab Report From Blekinge Institute Of Technology, Sweden / Gender Budgeting, Human Resources, Organisational Culture - Development Of Methods
- BTH Equality Strategy 2104 – 2016 Equal Rights and Possibilities (to be translated to English)
- Report from the R&D&I project A norm-critical game culture
- BTH score card (the new version after reorganisation of the whole university to be finalized)
- to be published the book titled *Change @Campus Karlshamn / OUR STORY- CULTURE, NORMS and GENDER at Blekinge Institute of Technology.*

## 11 References

The majority of the reports and studies are in Swedish, but they often have a comprehensive summary in English.

Alberius, L (2011), *Främjande av kvinnors akademiska karriär*, Dnr 09/110, Sveriges universitets- & högskoleförbund

Berg, C et al.,(2012) *Jämställda fakulteter?- En studie av arbetsfördelning och normer hos lärare och forskare vid två fakulteter vid Göteborgs universitet*, Göteborgs universitet

Blekinge Tekniska Högskola (2012), *Fakta om BTH 2012 (Power Point presentation)*, downloaded at <http://www.bth.se/for/marknadsavdelningen.nsf/sidor/fakta-om-bth---presentationer> 130219 at 14.15 pm

Blekinge Tekniska Högskola (2013). *Årsredovisning 2012 Blekinge Tekniska Högskola*, Blekinge Tekniska Högskola

Budlender, D & Hewitt, G, (2002), *Gender Budgets Make More Cents, Country Studies and Good Practice*, London, The Commonwealth Secretariat

Danilda, I & Hallgren, E (2012) *Horisontell och vertikal könssegregering inom it. Ett hinder för tillväxten i Skåne*. Winnet Kristianstad & Winnet Sverige. Rapport 3 Pedagogik för jämställd IT.

Ekdahl, P (2005) *Medieteknik i en Senmodern Tid – digital teknik, estetik och gestaltning (Media Technology in Late Modern Time)*, BTH, Dissertation Series No 2005:07

Eurochambres (2009) *Break Gender Stereotypes, Give Talent a Chance, Tips and Tools for Smart HR Managers*, European Commission

Eurostat (2011) *Population and social conditions, Statistics in focus*, 54/2011, Eurostat  
[http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-SF-11-054/EN/KS-SF-11-054-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-11-054/EN/KS-SF-11-054-EN.PDF)

GENISLAB,(2011)*Participatory Gender Audit, Blekinge Institute of Technology, Gender in Science and Technology*

Hyenstrand, Per, et al (2012) *Jämställdheten i Vetenskapsrådets forskningsstöd 2009-2010- Vetenskapsrådets lilla rapportserie 6:2012*, Stockholm, Vetenskapsrådet

Högskoleverket (2011) *Forskarkarriär för både kvinnor och män? – statistisk uppföljning och kunskapsöversikt*. Stockholm: Rapport 2011:6 R Högskoleverket

Högskoleverket (2010), *Lärares och forskares arbetstid – en studie baserad på statistik*, Högskoleverket, Rapport 2010:4 R

Högskoleverket (2012) *Universitet och högskolor Studenter och examina på grundnivå och avancerad 2010/11*. Sveriges officiella statistik. Statistiska meddelanden UF 20 SM 1202: Högskoleverket och SCB

Högskoleverket (2012), *Slutrapport av regeringsuppdrag att genomföra en förstudie i fråga om anslagen till forskning och forskarutbildning ur jämställdhetsperspektiv*, Högskoleverket, Rapport Dnr 6187-11

Jordansson, Birgitta et al (2010), *Hans Excellens : om miljardsatsningarna på starka forskningsmiljöer*, Stockholm, Delegationen för jämställdhet i högskolan (DJ)

Kungliga Tekniska Högskolan (2006) *Jämställd IT-utveckling för ökad tillväxt. Handlingsplan för att främja jämställdheten inom IT-området med fokus på akademien*. Stockholm: Kungliga Tekniska Högskolan

Osika, Ingrid, et al (2005) *Tvättsäcksprojektet - genuskillnader in på bara skinnet. Olika behandling för män och kvinnor vid några vanliga hudsjukdomar*. *Läkartidningen* 102(40), 2846-2851.

Osika, I & Klerby, A (2008). *Pengar nu! En handbok i gender budgeting*, Sveriges kvinnolobby.

Sjons, Johanna, (2010) *Doktorander vid matematiska institutionen och institutionen för informationsteknologi vid Uppsala universitet. En undersökning av upplevelse av arbetsmiljö med fokus på kön och jämställdhet*, Uppsala, Uppsala University



Statiska centralbyrån (2011), *Forskning och utveckling inom universitets- och högskolesektorn 2011*, Sveriges officiella statistik, Statistiska meddelanden, UF 13 SM 1201

Statiska centralbyrån (2012) *Utbildning och forskning: Sökande och antagna till högskoleutbildning på grundnivå och avancerad nivå*. Tabell: Behöriga förstahandssökande och antagna till program efter inriktning höstterminerna 1998–2011. Korrigerad 2011-11-23.

Statiska centralbyrån (2012) *Universitet och högskolor. Doktorander och examina på forskarnivå 2011*. Sveriges Officiella Statistik. Statistiska Meddelanden. UF 21 SM 1201

Tillväxtanalys (2012) Uppföljning av handlingsplanen Jämställd IT-utveckling för ökad tillväxt. Östersund: Tillväxanalys Working paper/PM 2012:05

Traweek, Sharon (1988) *Beamtimes and Lifetimes. The World of High Energy Physicists*, Harvard University Press, Cambridge, Massachusetts & London.

Utbildningsdepartementet (2012), *Regleringsbrev för budgetåret 2013 avseende Blekinge tekniska högskola*, I:36, U2012/5616/UH, U2012/6996/SAM (delvis), U2012/7053/UH, Regeringen

## Appendix

### 1 Desk Reviewed Documents

Most of the documents are only available in Swedish

#### *Applications for faculty funding*

Ansökan om forskningsmedel inför budgetåret 2012, Sektionen för hälsa

Ansökan om forskningsmedel Sektionen för datavetenskap och kommunikation (COM)

Ansökan om forskningsmedel Sektionen för Ingenjörsvetenskap

Ansökan om forskningsmedel Sektionen för management (MAM) 2012

Ansökan om forskningsmedel Sektionen för planering och mediedesign (DSN) 2012

#### *Documents for Gender budgeting*

Bilaga kvalitetsplan Målsättningar och aktiviteter 2012 Slutgiltig (Excelfil) (COM)

FAK fördelningsmall ING 2013 120530 ink prel värden (Excelfil)

Fakultetsnämndens protokoll 110908

Fakultetsnämndens protokoll 120202

ING Strategi 2012-2015

ISI 2012 doktorander seniorer ati (Excelfil)

Policy för fördelning av forskningsmedel vid Sektionen för hälsa från den 1/1 2012

Utvecklingssamtal

Lönelista BTH 2013

#### *Documents for Human Resources*

Arbetsordning för Blekinge Tekniska Högskola, Dnr: BTH-1.2.1-0023-2013

Arbetsordning för Sektionen för planering och mediedesign, DSN, version 1.3 111030

Befattningsprofil, Titel/Nivå: Lektorat, Lektorat i Fysisk planering, Placering: Institutionen för fysisk planering, Omfattning: 100%

BTH – mall för befattningsprofiler version 1.3 (2012-06-05)

Handledning inför utvecklingssamtalet

#### INTERVJUGUIDE

Ledigkungörelse 2013-05-??, Universitetslektor i Programvaruteknik/Senior lecturer position in Software Engineering, med för närvarande placering vid Sektionen för datavetenskap och kommunikation. Diariernr BTH 3.1.1-0056-2013

## 2. Gender Screening Tool

### Gender screening<sup>4</sup>

Recruitment	What is currently in place?	Does this help promoting equality? Does this reinforce inequality?	Which data/information do we need to monitor change?	Suggested Measurements and Changes
Aspects of Selection				
Aspects of Induction				
Aspects of Orientation				
Retention	What is currently in place?	Does this help promoting equality? Does this reinforce inequality?	Which data/information do we need to monitor change?	Suggested Measurements and Changes
Performance Management				
Pay & Conditions				
Work & Family/ Private life Reconciliation				
Training & Career Development				
Release	What is currently in place?	Does this help promoting equality? Does this reinforce inequality?	Which data/information do we need to monitor change?	Suggested Measurements and Changes
Conflict Management Staff Relations				
Exit Strategy				

<sup>4</sup> Adapted from EC (2009) Break Gender Stereotypes, Give Talent a Chance, Tips and Tools for Smart HR Managers