

Talent at stake is designed to inspire everyone who wants to do something to increase diversity and promote greater gender balance within the research sector.

### THE BOOKLET CONSISTS OF:

INTERVIEWS with leaders at various institutions and in a variety of research communities who have confronted the gender-equality challenge and made a difference.

LETTERS from university rectors who present their experience with successful gender equality measures.

**REFLECTIONS** on gender equality and the modernisation of academic organisations.

**MEASURES** for solving specific problems. Advice and examples are provided.

FACTS about everything from the statutory framework and action plans to descriptions of reallife situations.

**STATISTICS** providing a comprehensive overview of the gender composition of the Norwegian research sector compared with the situation in the EU and the Nordic region.

**REFERRALS** to sources where you can read more about gender equality and gender balance in research.

This booklet is a revised, translated version of **Talenter på spill – eksempler på god forskningsledelse**, which was published in March 2010. The editors of the Norwegian version are Linda M. Rustad and Marte Ericsson Ryste.

HOTO: ERIK MARTINIUSSEN

PREFACE NORWAY HAS ONE OF THE HIGHEST PERCENTAGES OF women in Europe who are pursuing studies at higher education institutions, including at the doctoral level. This means that the Norwegian academic community has a huge recruitment potential. Unfortunately, these encouraging student numbers are not reflected in the percentage of female professors and researchers. This is a challenge that we share with countries all over the world.

As stated in Report no. 30 to the Storting (2008-2009): "Climate for Research" and in its platform, the Norwegian Government seeks to achieve gender equality in research at every level. Gender equality in research is an integral part of our fundamental responsibility to develop our knowledge society, meet global challenges, secure health and welfare, and create wealth.

Gender equality entails structural and cultural challenges. Leaders have a responsibility to incorporate gender perspectives into their strategic efforts, especially with regard to recruitment. We must facilitate organisational, cultural and professional change that incorporates the gender dimension. It is vitally important to understand the interdependence between research quality and gender equality if we are to recruit the most skilled researchers.

This is why the Norwegian Ministry of Education and Research is continually seeking out measures that make a difference. I recently announced the extension of the Committee for Gender Balance in Research 2010-2013 (KIF) for a third term. Since 2007, the Ministry of Education and Research has presented an annual award to institutions in the research sector that have excelled in their gender equality efforts. Higher education institutions that employ women in mathematics, the natural sciences and technology will also be eligible for an award beginning in 2012.

We must do everything in our power to address the challenges of gender balance today in order to shape the gender-equal society of tomorrow. I hope this valuable publication will inspire leaders across borders.

TORA AASLAND <sup>(5)</sup> MINISTER OF RESEARCH AND HIGHER EDUCATION

OSLO, 4 JUNE 2010

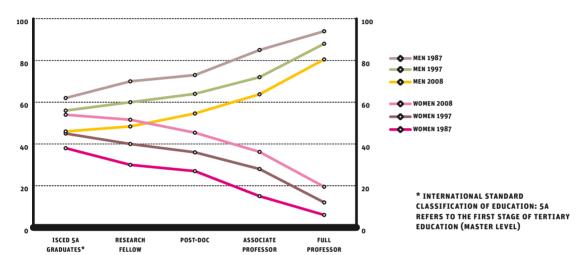
he research sector in Europe is facing a major generation shift. Universities, university colleges and independent research institutes are designing strategies for recruiting the best talent, strengthening researcher mobility and internationalising research.

TALENT AT STAKE Statistics show that many highly skilled women in Europe have long been ready to embark on a career in research, and Norwegian studies show that female research fellows want to work as researchers in the future. Despite this, the situation in Norway is the same as in other parts of Europe: Women do not have the same access as men to the highest positions in the research sector. In other words, talent is at stake, and an active effort is needed to achieve more gender-balanced recruitment.

Fairness is a key argument in support of gender balance in research – women and men should share the positions of power in society. However, gender balance also implies that the institutions need to secure a high level of expertise by recruiting researchers from the entire population. Ultimately, promoting gender equality enhances the quality of research. It is the responsibility of the leadership at the various levels of the institutions to ensure there is adequate understanding of the connection between research quality and gender equality. In concrete terms this means that the institutions, faculties, divisions and departments must include gender perspectives and gender equality objectives when recruiting researchers. They must enhance their

2

FIGURE 1. WOMEN AND MEN IN VARIOUS STAGES OF THE CAREER CYCLE IN 1987, 1997 AND 2008. IN PER CENT. SOURCE: NIFU STEP, REGISTER OF RESEARCH PERSONNEL, REGISTER OF ACADEMIC PERSONNEL.



working environments and their reputations as attractive workplaces where researchers can develop their expertise and their careers both individually and collectively.

NORWEGIAN RESEARCH SECTOR Norway has seven universities, all of which are public, two art academies, 9 specialised university institutions and 28 accredited university colleges. Norway has a total population of 4 873 000 inhabitants<sup>1</sup>, of which 222 920<sup>2</sup> are registered students and 41 772<sup>3</sup> are researchers/academic staff. One-third of the researchers are employed at independent research institutes, which means this sector is relatively large by European standards. The university and university college sector is administered under the auspices of the Norwegian Ministry of Education and Research but has

<sup>1</sup> FIGURES FROM 2010, SOURCE: STATISTICS NORWAY 2 FIGURES FROM 2009, SOURCE: STATISTICS NORWAY 3 FIGURES FROM 2007, SOURCE: NIFU STEP

a relatively high degree of autonomy. The Ministry is responsible for issuing allocation letters, organising dialogues on overall governance, and reviewing annual reports submitted by the institutions. The independent research institutes utilise a wide variety of ownerships forms, from limited companies and private foundations to publicly-owned institutes organised under various ministries. Consequently, the Ministry of Education and Research does not exercise the same control over this sector.

Some institutions of higher education have their own gender equality advisers or employees whose position includes gender equality as an area of responsibility. Several of the institutions have also appointed independent committees which are responsible for tasks such as developing action plans for gender equality and bringing attention to gender equality issues within the organisation. Additionally, some universities have prepared action plans specific to each faculty.

NATIONAL MANAGEMENT TOOLS Norway has a Gender Equality Act which requires all public and private employers to work in a systematic, active and targeted manner to achieve equality between women and men. The legislation also requires each institution to submit reports on the status of gender equality within its own organisation. All universities, university colleges and independent research institutes are obliged to comply with this provision. Norway's Act relating to universities and university colleges has incorporated some provisions from the Gender Equality Act as well. The Ministry of Education and Research follows up the legislation by, among other things, requiring institutions in the university and university college sector to prepare their own action plans for gender equality.

The Norwegian Government has strengthened its focus on gender equality, in part by launching an incentive scheme to encourage the institutions to appoint women to permanent academic positions in mathematics, natural science and technology. A total of NOK 10 million will be allocated in 2012

### 5

# "An important tool is to educate leaders about the factors that foster and deter women's careers."

REPORT NO. 30 (2008-2009) TO THE STORTING: "CLIMATE FOR RESEARCH"

for this purpose. For the fourth consecutive year the Ministry of Education and Research has presented the Gender Equality Award worth NOK 2 million to institutions or independent research institutes that have excelled in their gender equality efforts. National management tools are essential, but more than national measures and objectives are needed to achieve results at the local level. Therefore, the Ministry has established a national committee dedicated to raising awareness about the challenges in the area of gender equality.

Mainstreaming – Women in Science was established in 2004 for a period of three years. The committee is now in its third term, which lasts through 2013, and has recently changed its name to the Committee for Gender Balance in Research. The Ministry of Education and Research appoints the committee, determines its mandate and provides the funding. The secretariat is located at the Norwegian Association of Higher Education Institutions. A primary task of the KIF Committee is to provide recommendations on national and local measures to promote gender balance in research. Another task is to raise awareness about relevant issues related to gender equality. The committee is required to provide input and support to all research institutions, ministries and the Research Council of Norway, and it must incorporate an international perspective in its activities.

The eight-member KIF Committee is comprised of representatives from the universities, university colleges, independent research institutes, the Norwegian Student Organisation and the Research Council of Norway. Both the Ministry of Education and Research and the Information Centre for Gender Research in Norway (KILDEN) participate as observers.

In addition to providing input to the Ministry of Education and Research on gender equality policy issues, the committee also maintains an ongoing dialogue with various agencies and actors within the sector. The committee has made a special point of reminding the sector that the overall responsibility for promoting gender equality lies with the institutional leadership. Since 2004, the committee has held meetings with top-level administrators at the universities and university colleges, and later at the independent research institutes, which were incorporated into the mandate in 2007. These meetings have proven to be of great benefit to both parties. The committee members have gained valuable experience and knowledge about the various challenges related to gender equality, and the administrators have gained inspiration and insight from the experience that the members have acquired over time.

LEADERS ASK FOR ADVICE Through the years, more top-level administrators have come to understand the importance of their role in promoting gender equality. On several occasions they have handed the ball back to the committee, asking it to compile examples of effective leadership, advice and ideas about what administrators at the various levels within the sector can actually do. Talent at stake is a response to this challenge. We have interviewed leaders from a variety of subject areas, types of institutions and locations, gathered advice and asked individual rectors to describe successful measures they have implemented. We have also compiled facts and figures that place Norway in an international context. This handbook is a revised version of the Norwegian edition published in spring 2010. The Norwegian version has been very well

received, and several institutions have said they plan to use Talent at stake in their leadership training activities.

The recurrent theme of the interviews is that good leadership is predicated on the courage to take action, the resolve to change recruitment patterns and, not least, the willingness to encourage scientific and cultural change within the academic community. This is crucial for achieving better gender balance. Gender equality is more than statistics; it involves organisational and cultural change. It also requires a framework that fosters creative, high-calibre research.

On behalf of the entire KIF Committee, we would like to extend our thanks to everyone who agreed to be interviewed and who shared their experience and knowledge with us. We also want to thank the staff of KILDEN for providing outstanding assistance. Last but not least, we would like to thank the Research Council of Norway for financing the English translation of Talent at stake. We hope that our international contacts will find this publication to be beneficial as well as motivating!

PHOTO: MARTE ERICSSON RYSTE

This is the clear message from the President and CEO of the SINTEF Group, Unni Steinsmo.

"Gender equality is crucial for quality and creativity. It also leads to greater diversity and satisfaction in the workplace. Of course, it is also a matter of fairness," Steinsmo points out.

"As the leaders of SINTEF, we are responsible for our customers as well as for our scientific field, our employees and the quality of our operations. Quite simply, gender equality is essential for SINTEF," says Steinsmo.

### FEWEST WOMEN AT THE HIGHEST LEVEL

According to Steinsmo, when talking about

gender equality among researchers it is important to focus on the proportion of women.

"This is especially the case when we are recruiting to top-level scientific positions. This is where we still face the greatest challenge. If we look at all the centres for excellence in research and innovation which SINTEF and its partner the Norwegian University of Science and Technology are a part of, only two have female directors. This shows that it is essential to focus on

### SINTEF:

- The largest independent research organisation in Scandinavia;
- Number of researchers in 2009: 1 376:
- Expertise in technology, natural science, medicine and social science;
- A non-commercial organisation.

SOURCE: SINTEF, ANNUAL REPORT



UNNI STEINSMO PRESIDENT AND CEO

the numbers, because there are more highly skilled women out there," she says.

"However, there are still more men than women to choose among for these types of positions. This is why we need to implement measures to recruit more women as top-level researchers as quickly as possible. To be successful we need to focus on the working environment and the daily challenges of two-career families," Steinsmo continues.

She says that SINTEF gives priority to daycare and flexible work hours. The institute also provides close follow up of its employees' professional and personal development.

### MEN GET PRIORITY

The President and CEO is not averse to applying more targeted gender equality-promoting measures either.

"We are still women in male-dominated organisations. Here, men are often shown preference in the recruitment process, not because there is a lack of willingness to hire women, but because the men who make the hiring decisions know the men better than the women. So in practice, the men are given priority. For this reason I support the use of preferential treatment, provided that the women selected are equally qualified. The number of women in

the recruitment pool is increasing, and this needs to be reflected in the percentage of female employees," she states.

"The top-level administration must pay attention to facts and figures, and focus on increasing the percentage of women, especially with regard to upper-level positions. We need to review the statistics and take action in weak areas. If the percentage of women is too low in an area, I as the leader should know whether or not there is a good explanation for this," she adds.

### POSITIVE WORKING ENVIRONMENT

Steinsmo is pleased to report that SINTEF has reached its targets set in 1992: the proportion of female researchers corresponds to the proportion of women at relevant educational institutions, and the number of women in leadership positions corresponds to the proportion of female researchers and engineers. SINTEF has also taken action to even out differences in salaries between men and women.

"However, gender equality is more than just equal pay and proportions of women. It is more than numbers. It has to do with how we work. Our achievements are determined primarily by the culture and our qualifications, by relationships and interactions, even structure and the formal organisation play a role."

"When I applied for my first job, I was asked if I planned to have children in the near future. It was obvious that answering 'yes' to that question would not have been well received. In contrast, when I was hired for the job I have now, I was pregnant in my third trimester and could not start work for eight months. I got the job anyway. In other words, it is a matter of the message sent by the workplace, about what adaptations we are willing to make and what we believe is positive," said Steinsmo.

### **EVERYDAY WORKING LIFE AT SINTEF**

Every other year SINTEF conducts a broadbased survey that examines the various factors of the working environment. All the employees are asked about their overall satisfaction at work, opportunities for professional development, their own work situation and their immediate supervisors.

"In general we have a good working environment at SINTEF, but when certain

areas need improvement, we address the problems that are uncovered. We have also conducted separate surveys of female researchers and engineers to find out how they perceive their everyday working life at SINTEF," says Steinsmo.

"What have you as a leader done to promote gender equality at SINTEF?"

"As I see it, gender equality is not only about women. It also involves viewing everyone as equals and valuing diversity. I'm proud to work in an organisation that is based on these principles. There are many people who have helped to promote gender equality at SINTEF."

"When it comes to my contribution, I hope that the effort to prioritise the professional and personal development of all the employees while remaining sensitive to the situation of women – and taking action if the conditions are unfair – has had a positive impact, and will continue to do so."

"A study conducted by NIFU STEP shows that researchers who work at independent research institutes are more satisfied with their top-level administration than are researchers at the universities. The researchers at independent research institutes report better communication and access to information than their counterparts at the universities."

NIFU STEP REPORT 9/2009

Women comprised 23 per cent of the researchers at the technicalindustrial research institutes in 2008. The same year at SINTEF, 27 per cent of the researchers were women.

SOURCE: NIFU STEP AND SINTEF
ANNUAL REPORT 2008

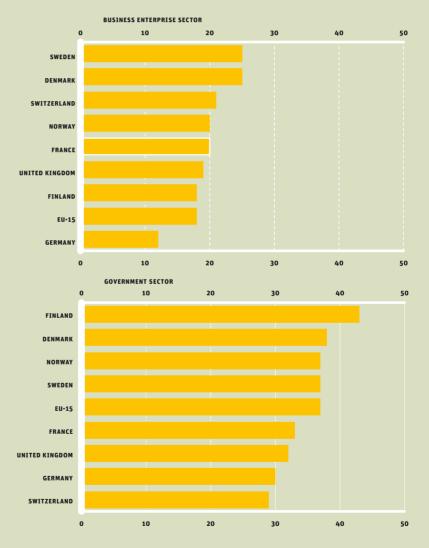
"Since Steinsmo became President and CEO in 2004, we have made a lot of progress on gender equality: We have more women in all fields and we work actively to ensure that women enjoy their work. There is now virtually no difference in pay between women and men, and women are guaranteed average salary development during maternity leave."

ERNST H. KRISTIANSEN, EXECUTIVE VICE PRESIDENT OF SINTEF

UNNI'S ADVICE: "It is important to establish a common goal for gender equality among all the employees, draw up a plan for achieving this goal and focus on the results that are achieved. It is also crucial to ask the employees about how they perceive their own work situation and the working environment in general."

• The Norwegian Government has drawn up an action plan for increasing entrepreneurship among women? The target is for women to comprise at least 40 per cent of all new entrepreneurs by 2013. The Research Council of Norway is now working actively to realise the objectives of this plan.

FIGURE 2. PROPORTION OF FEMALE RESEARCHERS IN THE GOVERNMENT SECTOR AND THE BUSINESS ENTERPRISE SECTOR IN SELECTED COUNTRIES AND THE EU-15: 2006. IN PER CENT. SOURCE: EUROPEAN COMMISSION, SHE FIGURES 2009.



IN NORWAY, THE BUSINESS ENTERPRISE SECTOR INCLUDES THE INDUSTRIAL SECTOR AS WELL AS NON-PROFIT RESEARCH INSTITUTES THAT SERVE ENTERPRISES. IN NATIONAL STATISTICS, THESE BUSINESS-ORIENTED RESEARCH INSTITUTES ARE INCLUDED IN THE INSTITUTE SECTOR, WHICH ALSO COVERS THE GOVERNMENT SECTOR AND THE PRIVATE NON-PROFIT SECTOR (PMP). THE PMP SECTOR IS RATHER SMALL IN NORWAY, AND IS THEREFORE MERGED INTO THE GOVERNMENT SECTOR IN PRESENTATIONS OF INTERNATIONAL STATISTICS.

11



### RECRUITMENT OF WOMEN TO ADJUNCT PROFESSOR POSITIONS

Since 2003, the University of Tromsø has systematically recruited women to adjunct professor positions. When the EFTA Surveillance Authority decided that earmarking positions for women does not comply with EU regulations, the university chose instead to focus on recruitment and set aside central allocations for a dedicated recruitment measure. Initially, a wage supplement of NOK 100 000 per position was allocated for a total of five positions per year, with each position consisting of a two-year appointment. The goal of the scheme was to increase the percentage of women in high-level positions .

The University Director now announces funding for this measure every other year. The faculties can then apply for permission to make direct appointments to professorships and for allocations to fund them. There has been good response from the faculties, and the number of applications consistently exceeds the number of positions available.

Altogether, 20 women have been appointed to adjunct professor positions under this scheme: 15 of them for two years and the most recent five for three years. Two of them were re-appointed following the two-year period, and one received a permanent professorship at the institution. Eleven of the 20 women were recruited from universities outside of Norway.

The Action Plan for Gender Equality at the University of Tromsø (2004-2010) was revised in 2008. At the time it was decided to strengthen the measure by increasing the wage supplement to NOK 120 000 per year and the appointment period to three years. We expanded the measure because we saw that it encouraged the faculties to actively seek out women who would be good candidates. The measure has also raised awareness within the faculties about the possibility of finding qualified women if they make an effort. Those appointed through this measure help to increase the visibility of women in high-level positions in general and serve as role models for younger women. They also facilitate the development of research cooperation with other institutions.

For more information please contact us directly.



Jole Hall

## A call for stronger leadership

BY: JOHANNE HANSEN KOBBERSTAD, MARTE ERICSSON RYSTE AND ANNE WINSNES RØDLAND

A lack of professional leadership is an obstacle to achieving gender equality in academia, according to Curt Rice, Vice Rector at the University of Tromsø. He is calling for stronger leadership and new ways of working. His first priority is to ensure that more women reach the top.

It is a stated objective of the University of Tromsø to raise the percentage of women in high-level positions to 30 per cent by 2013.

"We are in the midst of drawing up a new action plan for gender equality, and one of the measures we plan to include is to offer women in associate professor and senior lecturer positions a trial assessment of their qualifications," explains Curt Rice.

The idea is to simulate the promotion process by having the women prepare an application for promotion to professor. The application will then be assessed to determine the qualifications that are needed in order to be promoted.

In Norway, candidates can either apply for a vacant professorship or for a promotion to professor level. Up to now a national committee

### UNIVERSITY OF TROMSØ (UIT):

- The northernmost university in the world;
- Established in 1968:
- 1 358 academic employees in 2009, 358 research fellows in 2009, and 7 644 registered students in 2010;
- Gives priority to research in the fields of marine science, biomedicine, telemedicine, physics, linguistics, multiculturalism, and research related to the Sámi and other indigenous peoples.

SOURCE: UIT, DATABASE OF STATISTICS ON HIGHER EDUCATION



CURT RICE
PROFESSOR AND VICE RECTOR FOR
RESEARCH AND DEVELOPMENT

has assessed the candidates' qualifications. If the committee finds that a candidate has qualifications at professor level, his or her job title is changed to professor.

### **WOMEN WAIT LONGER TO APPLY**

"In my experience, men apply for promotion when they think they have a chance, whereas women wait until they are completely certain that they are qualified. We hope the trial assessment scheme will encourage women to apply for promotion at an earlier stage."

"We have tested out the scheme at one of the faculties. They conducted trial assessments of four to five female employees. All were informed that they were closer to promotion to professor level than they had thought," says Rice.

The university's administration has sent out a letter to the departments and asked them to find out who among their female employees will soon qualify for high-level positions.

"Promotion need not be the only way to increase the percentage of women at the top. We also want to recruit women through new appointments. We are therefore now recommending that a search committee be formed every time a vacant professorship is advertised. The committee's mandate will be to find qualified female applicants," adds Rice.

### STRONG LEADERSHIP FOSTERS GENDER EQUALITY

Rice points out that a focus on gender equality is part of the cultural framework at the workplace. That culture is shaped largely by the leadership. "We can't just state in the action plan that we want to have 30 per cent women in top-level positions and then sit down and wait for something to happen by itself. Nothing is going to happen that way. Instead we need to make a targeted, concerted effort to improve the gender balance. This requires commitment from the leadership."

He believes that many university employees have an unnecessarily sceptical view of leadership in general.

"When I was appointed head of department at the university many years ago, the duties of the position included preparing teaching plans and scheduling examinations – in other words, a purely administrative function which did not have much to do with leadership," he explains.

According to Rice, leadership as a concept is not adequately understood. He believes that being a leader involves giving employees advice and feedback so that they know whether they are doing a good job and so they can develop their expertise.

"I believe that when we focus on leadership development, we also give a boost to gender equality efforts. The Rector Management Group has launched an extensive leadership development programme involving many different groups within the organisation. We hope this makes the university a better place to work, for women and men alike, and that it has a positive impact on the gender balance," he continues.

### **BREAK DOWN THE HIERARCHIES**

The University of Tromsø's Rector Management Group plans to implement several specific gender equality measures to help

more women to attain higher positions. In addition, Rice believes that more action is needed at a fundamental level, and he would like to see a greater dismantling of the strong hierarchical structures in academia. Up to 2009, he directed the Center for Advanced Study in Theoretical Linguistics, a Norwegian Centre of Excellence at the University of Tromsø, where he introduced a work model in which researchers and students work together in groups.

"Organising people into groups plays a key role in breaking down traditional hierarchical structures. I think less hierarchy helps to make students feel more comfortable talking to senior researchers."

Rice believes that this will benefit female researchers in particular. He mentions the US sociologist Kjersten Whittington, who has compared men's and women's productivity by studying patents in the business sector and academia.

"Whittington's findings show that it is much more common to obtain patents in the business sector, regardless of gender. However, men patented their inventions more than twice as often as women in the university community, while gender was not a factor in obtaining patents in the companies she studied," explains Rice.

According to Whittington, the university's research groups tend to have one strong person in the middle and less direct communication between the 'satellite groups' around them. All communication is channelled through the hub, which has the overview and the knowledge. In the business sector's research groups, all the participants have contact with each other and there is no dominant power centre.

"As a result, the university's network becomes extremely hierarchical. The implication from Whittington's findings is that women in structures like this are less productive than they are in groups with flatter structures," says Rice.

He also believes that these findings implicitly show that women in the business sector are regarded as more equal among their colleagues than they are at the universities.

"Strong, skilful leadership can be an effective instrument in eliminating and changing the hierarchical structures in academia," says Rice.

"Workplace cultures serve two important social functions. First they oil the wheels of the job and the organisation. Second, they have the potential to shape who is included and excluded at work. This can have a subtle but significant bearing on whether one progresses within a company or occupation."

WENDY FAULKNER, SCIENCE STUDIES
UNIT AT THE UNIVERSITY OF
EDINBURGH

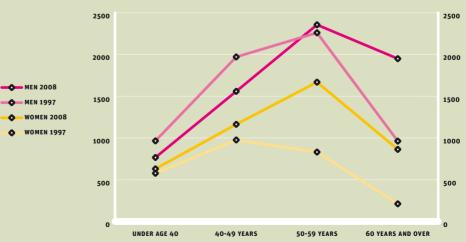
READ MORE ABOUT KJERSTEN BUN-KER WHITTINGTON'S FINDINGS IN HER ARTICLE ENTITLED "PATTERNS OF MALE AND FEMALE SCIENTIFIC DISSEMINATION IN PUBLIC AND PRIVATE SCIENCE" (2008).

CURT'S ADVICE: "Assume a leadership role. People become uneasy when they hear the word leadership because they think it means someone is going to tell them what to do. That is an old-fashioned notion. Leaders should be seen as a resource, offer support and share their experience with others. Leadership is nothing to be afraid of."

### DID YOU KNOW THAT...

- Norway has adopted a Gender Equality Act which requires all public and private institutions to work actively and systematically to achieve gender equality? The Act also permits the use of preferential treatment as long as it promotes equality between the genders.
  - The Office of the Equality and Anti-Discrimination Ombud in Norway has written a hand-book to help Norwegian research institutions to comply with the Gender Equality Act?
    The Ombud also monitors the institutions to ensure that they are fulfilling their obligations under the Act.
    - A network for everyone working with gender equality issues at research institutions
      has been launched in Norway? This network has proven to be an effective tool for
      knowledge sharing and transfer.

FIGURE 3. PERMANENT SCIENTIFIC/ACADEMIC PERSONNEL IN THE HIGHER EDUCATION SECTOR IN 1997 AND 2008 BY AGE. SOURCE: NIFU STEP, RESEARCH PERSONNEL REGISTER, ACADEMIC PERSONNEL REGISTER.



17

### BY: MARTE ERICSSON RYSTE AND LINDA M. RUSTAD

"We now have a unique historical opportunity to do something about the gender imbalance in Norwegian research," says Professor Hanne Haavind, who has recruiting advice for leaders who want to seize the day.

The golden age of gender equality

"We are facing a radical generation shift at the universities in the coming decade. Many researchers will retire and vacant positions will be filled by younger people. This will give us the chance to use the hiring process to redress the gender imbalance."

Hanne Haavind is a professor of psychology at the University of Oslo, and has followed the efforts to promote gender equality in academia closely for many years. As a former vice-dean of the Faculty of Social Sciences and member of the Coordination Group for Gender Equality at the university, she also has practical experience in the field. Currently she is serving on the university's board.

Haavind wants to ensure that gender equality activities are carried out today under completely different conditions than they were a few decades ago.

### UNIVERSITY OF OSLO (UIO):

- Norway's largest and oldest institution of higher education;
- Established in 1811:
- 3 237 academic employees in 2009, 1 042 research fellows in 2009, and 25 917 registered students in 2010.

SOURCE: UIO, DATABASE OF STATISTICS ON HIGHER EDUCATION



HANNE HAAVIND PROFESSOR DEPARTMENT OF PSYCHOLOGY

"From an academic standpoint, there have never been better reasons for promoting gender equality," she says.

"The argument that we have too few qualified female applicants does not hold water. The women are out there, and as a group they are just as qualified as men. If we continue the same gender-biased recruitment practices within the sector, we will be cheating all the women who are dedicated to their disciplines and who have worked hard to acquire expertise as researchers."

### IT WON'T HAPPEN BY ITSELF

"But doesn't the fact that so many more women have doctoral degrees mean that the percentage of women in permanent positions will rise automatically in the future?"

"No, it won't happen by itself. The hiring process has a striking and unfortunate tendency to reproduce a pattern that favours men. Take my own department as an example. In 2005, I counted all the appointments to professor or associate professor positions since 1998. During that period the department had hired 17 men and only three women, despite the fact that 70 per cent of the students pursuing doctoral degrees in the department were women. Nobody, including me, could believe it. This shows that we must take

concerted action to address the problem," says Haavind.

"What can be done to ensure more genderbalanced recruitment?"

"There is only one measure that works, and it forms the basis for the strategy for gender equality at the University of Oslo: appointments to permanent positions must reflect the gender distribution of the recruitment pool. This means, among other things, that the academic field must be defined in a way that appeals to women who might be potential applicants. It also means that someone must make direct contact with qualified women and encourage them to apply."

"You can make gender equality assessments at all stages of the hiring process: when you write the job advertisement, when you recruit applicants, and when you assess the candidates." (Read Haavind's advice on the next page.)

### SEE THE BIG PICTURE

"As the vice-dean you were responsible for drawing up an action plan for gender equality for the Faculty of Social Sciences. What did you emphasise in that plan?"

"We paid particular attention to planning for academic positions. We looked at the ages of the staff at the faculty and how many would retire in the near future. This gave us an idea of what we could do in terms of new appointments. We also looked at the recruitment pool and its gender distribution. In this way the plan enabled us to keep gender equality in mind when hiring because we could see the individual appointments in relation to the bigger picture."

Haavind does not know whether this plan was followed up since she stepped down as vice-dean of the faculty shortly after it was adopted.

### TAKING ACTION

"What can be done to put gender equality on the agenda? Is it possible to instruct leaders at various levels to give it priority"?

"Yes. There are many guidelines for what the leaders at the university must do, and they can also be given guidelines in the area of gender equality."

However, whether this will work depends on the ability to build legitimacy around gender equality efforts within the organisation.

"Positive incentives have been shown to work well. A few years ago, for instance, a scheme was introduced in which the units competed for funding to promote female associate professors. As a result the leaders made more effort, and they drew up lists of all the talented women who should be promoted to the professor level."

"We should take this approach in other situations as well. Incentive models can be an effective way of lighting a fire under gender equality efforts."

The Coordination Group for Gender Equality at the University of Oslo is headed by the Vice-Rector and comprised of all the deans.

"The University of Oslo has benefitted tremendously from Hanne Haavind's expertise on issues related to gender equality and gender perspectives. She has contributed her social science-based insight in showing how conscious and unconscious stereotypes about gender shape academia, and she has taken a creative approach to measures and proposals that can break the glass ceiling."

INGA BOSTAD, VICE-RECTOR,

INGA BOSTAD, VICE-RECTOR, UNIVERSITY OF OSLO

The plan at the Faculty of Social Sciences also contained measures to prevent a predominance of men in adjunct professor positions.

Every time a man was recruited for a position, a woman had to be recruited as well.

HANNE'S ADVICE: "Just get started. The university leaders who make a conscious, well thought-out effort in this area run no risk of being met with opposition or difficulty. It is ineffectiveness that remains the great danger and gives gender equality efforts a bad name. We know that the outcome will be positive. The women who are appointed will not have a hard time. We now know this."

# HANNE HAAVIND RECOMMENDS FOLLOWING THESE PROCEDURES IN THE HIRING PROCESS:

- Establish an active search committee to identify the women who are qualified for the position. If necessary, get help with finding potential female applicants.
- Define the academic field in relatively broad terms, preferably stating which subject areas are given priority. Ensure that neither the definition of the field nor the prioritised areas excludes female applicants or favours certain men.
  - The search committee encourages relevant applicants to submit a simplified application with a CV and a list of scientific publications. In this phase it is not necessary to conduct an academic assessment of all the applicants.
    - The search committee selects the most relevant and well-qualified applicants viewed in relation to the unit's academic needs and future plans for academic positions. The selected applicants are then invited to submit a complete application.
      - When only strong, relevant applicants are being considered, a more in-depth assessment of their academic qualifications can be made. The most crucial factor in this process is not how the applicants are ranked but rather the presentation of their academic profile and expertise. If there are well-qualified female applicants, it is important to seize the opportunity and focus on what they can bring to the position.
        - The assessment of academic qualifications must be followed up with personal contact, interviews and departmental seminars. Small, insignificant differences between good applicants will become less pronounced, while their potential for participating in the academic community and their scientific expertise will hopefully come to the fore.
          - Consideration must be given to gender equality in all phases of the process, and careful records should be kept of how this has been done.

21

Only a small number of young women apply to technology programmes, which is a general problem at all the institutions of higher education in Norway. To remedy the <u>lack of gender balance</u> in technology programmes – and consequently in the technology professions – the University of Agder has launched some very creative initiatives. These are gender equality measures that I believe work well and that other institutions are welcome to adopt.

Each year the University of Agder organises the Girls and Technology fair in cooperation with the Norwegian Society of Engineers and Technologists, the Norwegian Society of Graduate Science and Technical Professionals, the Confederation of Norwegian Enterprise and the Norwegian Labour and Welfare Administration. On this day, girls attending upper secondary school in Agder County are given a unique form of career counselling through direct contact with our technology programmes staff, as well as entertaining presentations and the chance to meet with female role models.

This career counselling initiative has directly benefited the University of Agder by boosting the number of young women who apply for engineering and technology programmes. The project has led to a dramatic rise in the percentage of women enrolled in engineering programmes in Grimstad in the past three years. We believe that the higher percentage of women has also been a factor in the pronounced increase in applications to engineering and technology programmes as a whole in recent years, and especially for 2009 admissions.

As early as 2007, the Norwegian Ministry of Education and Research took note of the results at the University of Agder in Grimstad, and several staff members from the university were invited by the ministry to share their experience with and results from the Girls and Technology initiative at a seminar on the mathematics, natural science and technology fields.

In 2007, the Girls and Technology initiative received the Agder Council's Gender Equality Award .

The University of Agder plans to launch a similar project for recruiting women to academic positions in subject areas where women are underrepresented. Because the project has such an amazingly high success rate, it is exciting to try to transfer the know-how to other recruitment arenas so we can increase the number of women among our academic staff.

	2004		2008		2009
TOTAL NO. OF WOMEN:	100	TOTAL NO. OF WOMEN:	250	TOTAL NO. OF WOMEN:	338
TOTAL NO. OF STUDENTS:	1004	TOTAL NO. OF STUDENTS:	1257	TOTAL NO. OF STUDENTS:	1208
PERCENTAGE OF WOMEN:	10 %	PERCENTAGE OF WOMEN:	20 %	PERCENTAGE OF WOMEN:	28 %



### BY: MARTE ERICSSON RYSTE AND LINDA M. RUSTAD

Think long-term

It is pointless to start a search for female applicants one week before the application deadline. If you want to increase the number of women in a male-dominated field, you have to make long-term plans. This is according to Tor Grande, who recently stepped down as head of the Department of Materials Science and Engineering at the Norwegian University of Science and Technology (NTNU).

### "That's pure rubbish!"

Tor Grande gives us a broad smile. We asked him if the problem is that there is a shortage of qualified female candidates for researcher positions in male-dominated fields. He does not agree.

"In my experience, most of my colleagues start thinking about recruiting women when they have a vacant position. But then it's too late. Then you take a look around and you tend to see only men. You must have already laid the groundwork; otherwise you will tend to end up with too few qualified female applicants."

### MINU.

- Norway's primary institution of higher education in engineering science and technology;
- Established in 1910:
- 2 877 academic employees in 2009, 1 187 research fellows in 2009, and 18 433 registered students in 2010.

SOURCE: NTNU, DATABASE OF STA-TISTICS ON HIGHER EDUCATION



TOR GRANDE
PROFESSOR
DEPARTMENT OF MATERIALS SCIENCE AND
ENGINEERING

Tor Grande has served as head of the Department of Materials Science and Engineering since 2005. During his term, he has worked actively to recruit women to a highly male-dominated field, and the results testify to his efforts. In 2008, the department recruited four women and one man. No surprise that Grande received the university's Gender Equality Award this year.

### CLEAR SIGNALS

"What have you done to make this happen?"

"We have many talented students, especially women, yet they choose other career paths. It seems to me that female research fellows and researchers in our field might need a little more acknowledgement that they are doing a good job."

He believes that often the challenge lies in increasing women's interest in having the jobs that are advertised. Three of the women hired in the department in 2008 were encouraged to apply. Grande believes it was important that they received a clear signal that they were well qualified and had a good chance of being appointed to the positions.

"The idea to apply for an academic position has to develop within the person. It is crucial to understand that some women who are qualified job applicants need some persuasion."

### **BUILDING A STABLE ENVIRONMENT**

The Department of Materials Science and Engineering primarily recruits students to two educational programmes: materials technology, in which 20 per cent of the students are women, and chemical engineering and biotechnology, which consists of 60 per cent women. In other words, there is no shortage of potential female applicants for researcher positions.

"I have taken an active role in gender equality efforts because I see that our staff has not reflected the student pool. Although we have had a lot of female students over several programme generations, our department was still very male dominated when I took over."

"So you are saying that the potential to recruit women has been there, but that people in the department have not managed to take advantage of it?"

"Exactly - we haven't. By the same token, we have seen how important it is to recruit women for the social aspect of the working environment. We have a very good working environment among the students, and I think this is because we are not so dominated by one gender."

Grande believes that the larger number of women in permanent academic positions has made a difference. Above and beyond the social aspects, it helps to build a stable environment.

"A few years ago, we had fewer women in the recruitment pool at the research fellow level, and this concerned us. Fortunately the number of women has risen again. I think the women who have begun as research fellows in our department have felt welcome. There is comfort and a sense of security in numbers. It shows how essential it is to develop an environment with several women."

### NO MAN IS AN ISLAND

Grande believes we need to show students that the university is a potential career path.

"The university is often presented as a place where everyone is his or her own island. We need to tear down this image and make it clear that this is a place where we work together in groups. Each person's success depends on the greater whole."

He is also concerned about preventing staff burn-out at research institutions.

"With today's quantified system of achievements the demands on performance are very great. It is easy to set one's sights too high and end up being disappointed time after time. I think we need to send the signal that it is all right if things go slower in some periods – life is long. This is especially true for researchers in the vulnerable phase between the ages of 30 and 40 when many of them have small children."

### "What have you as a leader been able to do about this?"

"I have tried to put things into perspective somewhat, such as during performance appraisals with employees, and make sure that their level of ambition is manageable so that the younger researchers take a more relaxed approach to research."

"I have also encouraged male employees to take parental leave to assure them it is all right to do so. We need to take care of our children. We now have several younger men who have chosen to take a leave, and I think that is important."

### SIGNALS CHANGE

"The top-level administration at the Norwegian University of Science and Technology has taken the lead on gender equality. Has this trickled down to the lower levels of the organisation?"

"I think it is very positive that the institution is concerned about this issue. I am also sure that the various departments will have access to a larger recruitment pool as more and more women pursue technology studies."

He believes it is crucial to show that there is room for change in the various fields. Otherwise the university will not be perceived as an attractive place to work.

"We must convey the message that it is OK to be different – you can be yourself. The researchers we recruit need not be card-carrying members of the 'old boys' network'." "Grande's enormous success in recruiting women to academic positions in fields with very few women in the recruitment pool is due in large part to his ability to identify potential applicants, whom he then motivates and encourages to apply."

PROFESSOR MARI-ANN
EINARSRUD, DEPARTMENT OF
MATERIALS SCIENCE AND
ENGINEERING

The Department of Materials
Science and Engineering had no
women in associate professor
positions in 2007. In 2009, 60
per cent of these positions were
held by women. The percentage
of women in professor positions
increased from 9.8 per cent in
2007 to 15.7 per cent in 2009.
SOURCE: DATABASE FOR STATISTICS

TOR'S ADVICE: "Take note of talented women at the student level. Watch those who excel, find them good mentors and encourage them to apply for research fellowships. In five to eight years you will reap the benefits."

### DEAN INGVALD STRØMMEN IN AN EDITORIAL IN THE NORWEGIAN NEWSPAPER ADRESSEAVISEN ON 15 DECEMBER 2009.

The action plan for the organisation and resources drawn up by the Faculty of Engineering Science and Technology specifies gender equality efforts as one of three main focus areas. The objective for 2010 is that women will comprise 50 per cent of the new appointments to positions that require a doctoral degree. To achieve this, the faculty will implement the following measures:

- compile statistics on the proportion of women in certain position categories over the past five years;
- investigate why female researchers choose the faculty and what needs to be done so that other women do the same:
  - hold dialogue meetings with female researchers about recruiting more women to the faculty;
  - establish search committees prior to advertising all permanent academic positions;
  - take advantage of the generation shift to make room for more women;
  - make use of privately-funded professorships;
  - assess the potential for redistribution of coming vacant positions and creation of new positions using external sources of funding, with an eye to making room for more women;
    - establish post-doctoral research fellowships in key areas where the potential for recruiting women is especially great;
      - give women who are appointed as professor or associate professor a research fellowship position (in addition to the university's start-up package).

27

### BY: ANITA HASLIE AND LINDA M. RUSTAD

Why is it that some male-dominated research communities manage to recruit a large number of women without implementing a single gender equality measure? Kjersti Aas at the Norwegian Computing Center believes it is a result of an open-minded working environment, cooperation and high scientific quality.

Cooperation and a flat structure

Kjersti Aas is Assistant Research Director of the Department of Statistical Analysis, Image Analysis and Pattern Recognition (SAMBA) at the Norwegian Computing Center. She has a success story to share: her department has achieved gender balance in a traditionally male-dominated field. At SAMBA, 12 of the 26 full-time employees

are women, and all of these women have a master's-level education in either statistics or mathematics.

Even though more women pursue degrees in statistics than in other mathematics subjects, no other Norwegian research community in statistics can compare

### NORWEGIAN COMPUTING CENTER:

- One of Europe's strongest institutes within applied statistics;
- A private, independent, nonprofit foundation established in 1952:
- 67 researchers at the close of 2009.

SOURCE: NORWEGIAN COMPUTING CENTER, ANNUAL REPORT 2009



KJERSTI AAS
ASSISTANT RESEARCH DIRECTOR
DEPARTMENT OF STATISTICAL ANALYSIS,
IMAGE ANALYSIS AND PATTERN
RECOGNITION (SAMBA)

to SAMBA when it comes to gender balance.

### ATTRACTIVE TO WOMEN

"What do you think is the reason that you have a gender-balanced staff?"

"I believe the key is that we have high scientific quality and a good, social working environment. We have never implemented any specific gender equality measures to recruit women."

Aas also thinks that the combination of applied projects and basic research at SAMBA is an important factor in recruiting women.

"The difference between us and a university is that in addition to basic research, we also work a lot with applied research questions and have close contact with industry. We believe this is why many researchers see us as a dynamic workplace and why we are especially attractive to women," she explains.

Aas confirms that many of the women who are hired at the Norwegian Computing Center remain at the institute. All the employees have permanent positions, and the institute has a stable financial situation.

"Compared with the business sector, our workplace is financially secure. This fact may attract more women than men."

### WORK TOGETHER

The emphasis on cooperation may be another reason for the gender balance, according to Aas.

"Compared to a university, we probably have more cooperation and a stronger team spirit here. At many universities the professors sit in their own offices and work on their own projects. It's not like that here."

# "How do you encourage cooperation among the researchers?"

"We try to have at least two people cooperate on projects and to have each person work on at least two different projects at the same time. We strive to involve everyone in both applied projects for companies and basic research projects. We believe it is important to work together to solve problems."

Aas explains that the institute's leadership is responsible for acquiring the projects, but the individual researchers are required to submit timesheets based on the projects and earnings.

"Those of us in leadership positions are responsible for the business side, but the researchers often help to prepare the project applications as well as take part in meetings with the companies. We do not always know beforehand who will be

involved in a project, so it is the entire department rather than an individual researcher who applies for projects," she explains.

### REALISTIC PARAMETERS

The leadership also tries to ensure that all the employees' earnings are as equal as possible.

"It is not profitable for us as a company if we have some employees who have nothing to do and others who work on far too many projects. We don't have strict earnings requirements because the researchers also sometimes have other tasks, such as preparing project applications and the like. But of course we rely on a certain level of income. In addition, we use an open process to distribute the projects: at our departmental meetings we discuss which projects we have and who is working on them."

Aas explains that they take care not to put too much pressure on their employees and that they try to set realistic parameters for the projects.

### ASSIGNED A MENTOR

"How do you recruit researchers?"

"The first criterion is good marks, but sometimes people with good marks are not suited to work on applied projects or in groups. For this reason, interviews are an important part of the hiring process. We usually conduct two interviews. At the first interview we try to get an idea of the applicant's personal characteristics, such as their ability to cooperate with others. In the second interview our goal is to test whether the applicant can solve applied problems."

"Do you have a strategy for following up new employees?"

"We have a mentor scheme. One person is responsible for looking after the new employee, teaching him or her various practical things and ensuring that the newcomer comes down and eats lunch with the others. The mentor can also give advice about the best person to ask about various problems of a scientific nature. We also try to find a suitable project in which the new employee can work closely with a senior researcher for a period of time."

"Significantly more female researchers employed at independent research institutes say that their institution has an inclusive research environment than their female counterparts at universities."

NIFU STEP REPORT 9/2009

#### SUCCESS FACTORS

According to SAMBA, the following factors contribute to the high percentage of women in the department:

- Open-minded, inclusive working environment;
- Flat structure:
- High degree of cooperation on projects;
- Socially beneficial work with extensive customer contact:
- High level of scientific expertise among researchers;
- Potential to work flexible hours and to work from home;
- Good leave-of-absence schemes:
- Female role models;
- Financially sound workplace.



Gender equality and the modernisation of academic organisations

ØYSTEIN GULLVÅG HOLTER



One might thus expect Norway's high ranking in gender equality comparisons to be reflected in a high proportion of women in top academic positions. However, in 2009 only 20 per cent of professors in Norway were women, which is only slightly ahead of the EU average. Obviously, general social schemes and support for gender equality are important, but they appear to be insufficient for helping women to attain top positions. Gender balance also depends on internal factors, in this case within academia.

A new study, "Gender and power" (2010), shows that gender equality is in fact

developing very unevenly in Norway and the Nordic region. In recent decades, the political sphere has become much more gender balanced than the economic sphere. Private business in particular is still a male bastion, although the recent boardroom reform in Norway (which requires the boards of all publicly traded and public limited companies in Norway to have at least 40 per cent female representation) may change that situation. Academia falls somewhere in between the political and the economic spheres. The uneven development can help us understand why the proportion of women in top academic positions is not higher.

Let us look at the economy first. From the point of view of the market, what counts is what is accomplished at work, and obligations related to care-giving and welfare are easily downgraded or devalued. These activities do nothing to promote top job performance, even if they make good sense when viewed in the context of the economy and society as a whole, for instance in terms of ensuring sustainable fertility. In practice, however, there is often a conflict between the demands for efficiency in working life and welfare goals, e.g. that adults should provide good parenting.

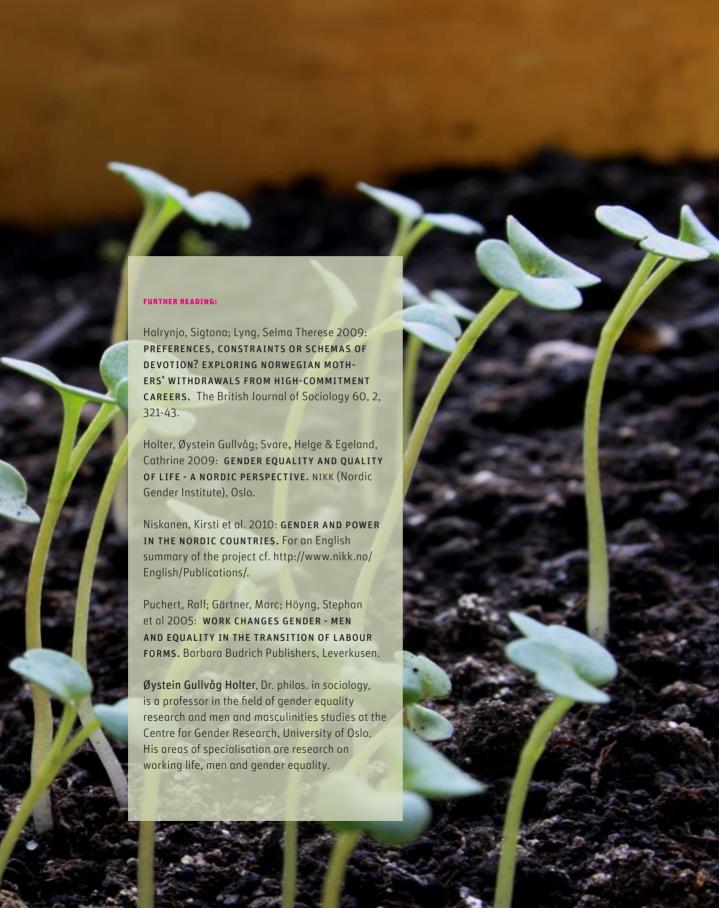
In academia, some of the job demands resemble those in the economic sphere, although achievements are quantified through academic-oriented schemes, such as the awarding of credit points for publication in recognised journals, rather than through company profits. Again, care-giving obligations are viewed as a drawback in the competition for jobs; as long as these obligations are primarily shouldered by women, as is still the case in Norway, women will end up in a weaker bargaining position. As an example, studies show that women use more time than men to complete their doctoral theses, which is probably related to the longer parental leaves that they take. However, the fact that women have greater care-giving obligations is not the only reason why men more often become professors. Studies show that the average age of men and women when they pursue their doctoral degrees and get hired in permanent university positions varies widely among disciplines. Disciplinary traditions and academic cultures are also a determining factor in men and women's career opportunities.

From a historical perspective the genderrelated changes in Norway in recent decades have been remarkable, especially in the political sphere. Even though the economic sphere lags behind, changes are occurring there as well. How can the research community learn from the successes and setbacks in other areas? One common starting point is the need to combine reforms and regulations with internal social and cultural change processes. Researchers have argued that gender regulations and quotas have worked well, especially when linked to broader patterns in civil life. The paternity quota in Norway is an example of this. Approximately 80 per cent of eligible fathers use the quota, and studies show that both the fathers themselves and their









#### BY: ANITA HASLIE AND MARTE ERICSSON RYSTE

By promoting gender equality in research, we enhance the quality and relevance of research, according to Arvid Hallén, Director General of the Research Council of Norway.

Equality enhances research quality

#### THE RESEARCH COUNCIL OF NORWAY:

Norway's official body for the development and implementation of national research strategy.

"High-quality research requires a diversity of ideas and perspectives. To ensure this, we must utilise the talent found throughout the entire population. When very few women choose a career in research, this weakens the quality of research. And then there is also the matter of fairness and democracy," states Hallén.

Hallén has served as the head of the Research Council of Norway since 2004,

which makes him one of the most influential individuals in the Norwegian research community. He has no doubt about the role that the leadership plays in promoting gender equality.

"The leadership has the primary responsibility in this area. It is their task to ensure that research institutions are developed in such a way that the researchers enjoy their work, develop their scientific knowledge



ARVID HALLÉN DIRECTOR GENERAL

and skills, and produce good results. To achieve this, we need to focus on research management," he believes.

#### **WOMEN WANT RESEARCH MANAGEMENT**

Hallén points to a recent study conducted under the auspices of the Research Council in which more than 1 000 researchers were asked about their attitude towards research management. A total of 80 per cent of the women responded that research management is important, whereas only 66 per cent of the men said the same.

"I am not surprised that women value leadership somewhat more than men do. I would guess that women both see the need more clearly and are more concerned with developing well-functioning research communities," says Hallén.

# "What can the leadership do in practical terms to promote gender equality?"

"Two things are especially crucial: They must work to make the research institutions attractive places to work, and they must develop effective systems for career development. The leadership must see to it that each individual employee is acknowledged and receives the necessary follow up. They must also have a clear recruitment strategy."

"If a research institution recruits more men than women or more female researchers decide to leave, then the leadership needs to think about why this is happening," says Hallén.

#### THE ROLE OF THE RESEARCH COUNCIL

The Research Council of Norway is the strategic body that identifies thematic priority areas for Norwegian research, allocates research funding and provides key input to the authorities on research policy issues. Each year the Research Council awards approximately NOK 6.2 billion for research-related purposes.

# "How can the Research Council help to put gender equality on the agenda?"

"We can play a pivotal role. This lies most obviously in how we design our funding instruments, such as what criteria we set when we announce research funding. For example, we did this when we changed the criteria in the funding announcement for the Outstanding Young Investigators scheme"

In 2003, only four of the 26 applicants who were awarded funding under the Outstanding Young Investigators scheme were women, and most of the recipients were in the natural sciences and technology. The subsequent funding announcement specified that women in particular were encouraged to apply, that all subject areas were welcome and that the applicants need not be top-level researchers

yet. The application assessment process was changed as well. Rather than each application being assessed by a single referee, panels of referees conducted a joint assessment of the applications. Preferential treatment was also introduced into the process, giving female applicants priority when all other factors were equal.

These changes yielded positive results. In the next funding round, the number of women granted funding rose to 40 per cent.

## INCORPORATING GENDER PERSPECTIVES

Hallén wants to ensure that the Research Council provides funding to gender research and that in general it promotes the incorporation of gender perspectives into Norwegian research. The Research Council's strategy states that "gender perspectives must be integrated closely into all of the different greas."

"We will include gender perspectives in our programmes when relevant. I know that in some programmes this is a matter of course, such as the Research Programme on Welfare, Working Life and Migration (VAM). In other programmes the gender dimension is less apparent and in still others it is absent. There is still a lot we can do better," says Hallén.

He emphasises that the Research Council has shown good compliance with the "40 per cent rule", which requires that all appointed committees and panels consist of at least 40 per cent of each gender. Very few exceptions to this rule are made.

"This is actually the easiest of all the gender equality measures to implement, even though it was difficult enough in the beginning," he says.

"What is harder is to be observant and to successfully include gender perspectives in the substance of the research. The expectations we can bake into the work programmes are one thing; the grant applications that the researchers and the various research communities actually submit may be quite another."

#### UTILISING THE BEST RESEARCH TALENT

"What can you do as Director General of the Research Council of Norway to promote gender equality?"

"I can ensure that we give priority to our gender equality efforts and to integrating the gender dimension into research. I can see to it that staff members are assigned responsibility for our activities in this area. We will now be discussing these issues at central management meetings at least twice a year. At these meetings the leadership will address issues related to statistics on the gender distribution of participation in research as well as methods for achieving better integration of gender perspectives into research."

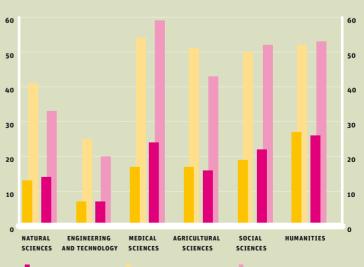
"I am quite certain that this is important for utilising the best research talent and for ensuring that the substance of our research attains sufficiently high quality," he concludes. "When very few women choose a career in research, this weakens the quality of research. And then there is also the matter of fairness and democracy."

- The percentage of women in post-doctoral positions in mathematics and natural science in Norway has declined from 39 per cent in 2005 to 33 per cent in 2008? (NIFU STEP)
  - The Research Council of Norway is making it a requirement that all initiatives and programmes must incorporate gender equality plans and must introduce the gender dimension into measures in mathematics, natural sciences and technology? (Research Council of Norway: Policy for gender equality and gender perspectives in research 2007-2012)

### PROBLEM: Do male researchers receive more funding than female researchers? MEASURE: Follow the money trail.

Gender testing of budgets, known as "gender budgeting", is a means of following up policy objectives for gender equality in budgeting and reporting activities. Budgets are reviewed and the various line items are analysed to shed light on how funding is being distributed between men and women with regard to e.g. scientific initiatives and research funding. This information is then used to rectify unwanted biases.

FIGURE 4. PROPORTION OF FEMALE FULL PROFESSORS AND FEMALE DOCTORAL CANDIDATES IN NORWAY AND THE EU-27: 2007. IN PER CENT. SOURCES: NIFU STEP, REGISTER OF RESEARCH PERSONNEL, DOCTORAL DEGREE REGISTER; EUROPEAN COMMISSION, SHE FIGURES 2009.



41



# POSITIVE EXPERIENCE WITH MENTORING PROGRAMME FOR FEMALE POST-DOCTORAL RESEARCH FELLOWS

The University of Oslo is now in its fourth year of the mentoring programme for female post-doctoral research fellows. The purpose is to increase the recruitment of women to research and teaching. There is a high percentage of women who drop out of the career cycle between a post-doctoral position and a permanent academic position. This poses an obstacle to gender equality efforts, and the mentoring programme is therefore one of the university's most important gender equality measures.

The goal of the programme is to support female researchers in their career trajectories and competence-building so that they become more highly motivated to seek a permanent researcher position and have access to assistance in relation to their further career planning. The programme is designed to encourage reflection, provide information about the internal organisational and cultural framework, and facilitate network-building.

We have appointed a separate project group which is responsible for implementing the programme. A consultancy firm provides the professional material for the seminars. An average of 20-25 research fellows have participated each year in the mentoring programme at the university. A solid foundation is laid prior to and during the process of matching the research fellow and mentor. This includes an interview to ascertain the research fellow's learning and competence-building needs, her expectations for the programme, potential challenges related to her workplace or work situation, and the kind of background her mentor should have. The project period lasts about one year and includes five to six seminars which participants are required to attend. Both the mentors and the research fellows agree to have 10-12 one-on-one conversations during the programme.

When the mentoring process is successful it is seen as useful and constructive by everyone involved – research fellows, mentors and others within the organisation. The research fellows receive attention, advice, feedback and – not least – time and help to reflect on their role as a researcher in academia. Many female post-doctoral researchers have insecurities about their own ability to achieve higher positions in research, and they point to the following positive aspects of participating in the mentoring programme: the importance of being seen and acknowledged, greater awareness about career choices, and help with "decoding" the culture.

The mentors find that they also benefit from participating in the programme. They gain more insight into their own organisation, a new perspective on their daily activities and an understanding of the importance of providing support to female research fellows in temporary appointments. They also become more aware of the mechanisms related to gender bias, power structures and gender equality. Their participation becomes part of a feedback loop that enhances gender consciousness within the entire organisation.

"Women need to believe in themselves and have their self-esteem boosted through feedback and encouragement. Only when they are completely secure in themselves, their position and their choices will they be able to perform their best. Before they make crucial choices, they may find it useful to discuss the basis for their choices, identify the challenges and analyse the potential consequences. I think younger female researchers benefit greatly from having a dedicated sparring partner." (statement from a previous mentor)

OLE PETER OTTERSEN ® RECTOR ® GUNN-ELIN AA. BJØRNEBOE ® UNIVERSITY DIRECTOR

### BY: MARTE ERICSSON RYSTE AND LINDA M. RUSTAD

New academic perspectives will pave the way for more women in the discipline, according to Professor of Theology Halvor Moxnes. He has worked hard for the inclusion of gender perspectives in theology, and sees this as important for the recruitment of female researchers.

Changing the discipline will attract women

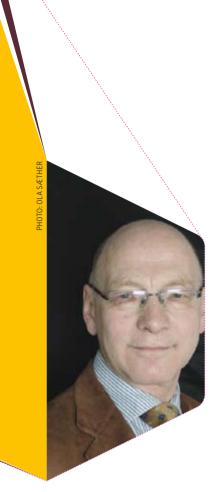
In 1990 a woman completed a doctoral degree in theology for the very first time in Norway. Today the majority of both research fellows and students at the University of Oslo's Faculty of Theology are women. Nevertheless, the percentage of female professors amounts to only 8.3 per cent.

Moxnes can point to a long list of achievements. He has served as the head of the doctoral degree programme at the Faculty of Theology, and he has led the internationalisation activities at the faculty since the early 1990s. Not least, he has worked actively to promote the role of women in the discipline, both in academic

#### UNIVERSITY OF OSLO (UIO):

- Norway's largest and oldest institution of higher education;
- Established in 1811:
- 3 237 academic employees in 2009, 1 042 research fellows in 2009, and 25 917 registered students in 2010.

SOURCE: UIO, DATABASE OF STATISTICS ON HIGHER EDUCATION



HALVOR MOXNES PROFESSOR FACULTY OF THEOLOGY

positions and in terms of representation in the curriculum.

#### FEMINISM IN THE CURRICULUM

"How does revising the curriculum correlate with the efforts to promote gender equality?"

"It's all about forming a platform for the increased recruitment of women in the coming years. We have to combine measures to achieve gender equality with academic development that opens up new perspectives," says Moxnes.

"Many female students are interested in feminist perspectives. Their studies must allow them to pursue this, for example when writing term papers. Students draw on their own experiences and ask their own questions when working on Christian texts, and feminist theories are important for the understanding and preaching of these texts today."

Moxnes believes that feminist perspectives must be given academic relevance at the faculty. This means, for instance, that feminist theory must be mentioned specifically in job descriptions. Otherwise women who have this focus will not be given credit for their expertise.

"This is extremely relevant for us since we already have a professorship in feminist

theory. This position was earmarked for the faculty when it was introduced, and was intended to promote a greater academic focus on this area. Feminist theory must also be reflected in other work and other positions at the faculty," he maintains.

#### NETWORKS AND CONTACTS

"You are also strongly committed to ensuring that women researchers have access to academic networks. What have you accomplished in this regard?"

"I have put a lot of effort into ensuring that existing networks are of interest to women. One example is the Nordic network for the study of early Christianity targeted at doctoral research fellows, which I have chaired. This is an interdisciplinary network which is open to all research fellows with relevant research topics."

"The network has focused on inviting female researchers when we bring in international speakers for courses and seminars. They function as role models, and they can help students with contacts and networks. We have also encouraged female doctoral research fellows to present their own research at international conferences."

"The main thing is to use general measures to give women access to the same type of experience and network-building activity as men," Moxnes explains.

#### **DIVERSITY IS IMPORTANT**

"Why have you chosen to become actively involved in gender equality efforts?"

"In my opinion, exposure to a variety of experiences and perspectives provides a broader basis for research."

According to Moxnes, equality means more than employing more women in key positions. It is also relevant for ethnic, cultural and sexual minorities.

"It's a matter of acknowledging that people with different backgrounds are a resource for research and teaching. Greater diversity is important for research-based renewal".

"What has been difficult? Have you encountered resistance?

"Not personally. But generally I believe that at our faculty, and indeed at many other institutions, there has been little awareness of the need for long-term initiatives to give women opportunities. For example, it means making more targeted efforts to recruit women when there are vacant positions."

"What has been your greatest success?"

"I think rather than talking about success, it's more accurate to say that I've been very lucky to have female colleagues – research fellows and students – who have not allowed me to forget that they are there and that they expect to be treated as equals. For me this has been an important source of inspiration academically while it has also posed many challenges."

"Moxnes has played a key role in recognising a field of inquiry that many women are interested in and ensured that gender research at the Faculty of Theology has become accepted. He has also been a tireless watchdog when position vacancies are advertised, actively asking whether there are any qualified women."

MARIANNE BJELLAND KARTZOW,
RESEARCHER AT THE FACULTY OF
THEOLOGY, UNIVERSITY OF OSLO

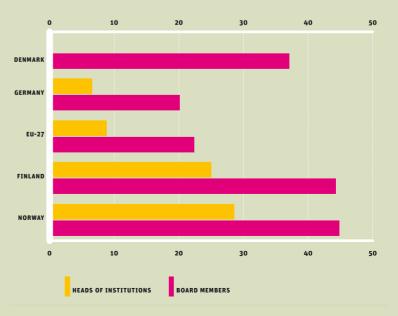
In 2009, women comprised 72.5 per cent of the doctoral students at the Faculty of Theology at the University of Oslo. The same year, 7.7 per cent of the professors were women.

SOURCE: DATABASE FOR STATISTICS
ON HIGHER EDUCATION, 2009

#### DID YOU KNOW THAT...

- The Gender Equality Committee at the Norwegian School of Sport Sciences is chaired by the rector?
- The Ministry of Education and Research requires Norwegian universities and university colleges to prepare internal action plans for achieving equality between women and men?
- Gender equality is considered to be an aspect of educational quality and is therefore incorporated into the activities of the Norwegian Agency for Quality Assurance in Education?
- The Gender Equality Act prohibits gender-based harassment and sexual harassment? Employers and the management of organisations and educational institutions are responsible for preventing and seeking to preclude the occurrence of harassment.

FIGURE 5. PROPORTION OF WOMEN IN LEADING POSITIONS IN THE HIGHER EDUCATION SECTOR IN THE EU-27 AND SELECTED COUNTRIES: 2007. IN PER CENT. SOURCE: EUROPEAN COMMISSION, SHE FIGURES 2009.



47

### BY: MARTE ERICSSON RYSTE, LINDA M. RUSTAD AND ANNE WINSNES RØDLAND

A challenge for the university colleges

Gender equality activities lie dormant at many university colleges. Ingrid Guldvik, a driving force behind gender equality efforts in the research sector, has advice for leaders who want to increase their focus in this area. Bergen University College is ready to take on the challenge.

"The university colleges lag 10-15 years behind the universities in their efforts to promote gender equality," says Ingrid Guldvik, Associate Professor in the Department of Health and Social Work at Lillehammer University College. She has both conducted research on gender equality in politics and actively worked to promote gender equality efforts in the research sector.

Although many of the state university colleges in Norway have a large percentage of female students, very few women hold high-level positions at these institutions.

"Why haven't the university colleges made more progress on the gender equality front?"

#### BERGEN UNIVERSITY COLLEGE (HIB):

- Established in 1994 through the merger of six university colleges;
- 449 academic employees in 2009, 16 research fellows in 2009, and 5 844 registered students in 2010;
- Three faculties Education,
   Engineering, and Health and Social
   Sciences

SOURCE: HIB, DATABASE OF STATISTICS ON HIGHER EDUCATION

#### LILLEHAMMER UNIVERSITY COLLEGE (HIL):

- Established in 1971;
- 178 academic employees in 2009, 17 research fellows in 2009, and 3 584 registered students in 2010;
- Norway's primary institution of higher education for film and television studies.

SOURCE: HIL, DATABASE OF STATISTICS ON

HIGHER EDUCATION



"The problem is that much of the activity in this field is too ad hoc. Measures are implemented when someone points out that an institution has shortcomings in the gender equality area, but these don't have sufficient backing from the top-level administration nor are they planned from a long-term perspective," says Guldvik.

#### GENDER EQUALITY OVERSHADOWED

She believes that gender equality principles are often overshadowed by other concerns. There may be a general consensus that more female researchers should be hired, but this is not followed up in specific situations, such as when recruiting for a professorial position. Then it is men who are "recruited" instead.

"When the initiatives come in waves without a cohesive approach by the leadership, they quickly grind to a halt. Usually the problem lies in translating plans into action. The gender equality committees can draw up action plans, but they can't implement them," emphasises Guldvik.

"Situations often arise in which certain individuals within the organisation become advocates for gender equality and take on the role of watchdog. But a few ardent souls are not enough to change the situation. As long as nobody in the Rector's group views gender equality as an important value – a value that might even take precedence over other values – we won't see any change."

## MUST PRIORITISE OUALIFYING MEASURES

"What can we do to ensure that more women qualify for high-level positions at the university colleges?" "In my opinion, we need to support the individual researchers in their efforts to acquire more qualifications over time. This will be more effective for increasing the percentage of women in high-level positions. We must take note of which women are ready to advance. Then the leaders at the various levels must make conditions more conducive to achieving higher qualifications."

"What would you like to see happen as regards gender equality in the university college sector?"

"I would like to see more knowledge-based leadership in this area. At present, there is a lack of expertise throughout the sector. Many people think that gender equality is not a problem because there are so many women at the university colleges. But they are not looking at where the women and men are at the institution, at the conditions they are working under and at the impact this has for their academic development and ability to gain higher qualifications."

"I would also like to see the gender equality efforts firmly reflected in the strategic focus of the top-level administrations, with regard to concrete measures as well as budgets."

#### THE WORK HAS BEGUN

Rector Eli Bergsvik of Bergen University College is very familiar with the picture Ingrid Guldvik paints of the stagnant gender equality efforts in their sector. Now, however, the university college in Bergen is addressing the problem.

"We have had specific plans to promote gender equality since 1994, but clearly the

challenge has been to make these plans a reality," she explains.

The university college has begun to put more focus on gender equality in recent years, and next year it plans to allocate about NOK 2 million to various gender equality measures.

#### "What has happened?"

"We have wanted to do more in this area for a long time. We found that our gender equality activities gained new momentum when the university college established a separate division for research. Since then, we have put more emphasis on research management and this has had a positive impact on our ability to enhance gender equality," says Bergsvik.

#### **FOCUS ON RESEARCH**

Bergen University College has drawn up separate action plans for research, development and innovation. These emphasise measures to boost women's level of expertise, such as providing payroll compensation so women can acquire professor-level qualifications.

"We have also changed some of our work methods. We encourage the establishment of research groups so that the researchers can support one another in developing their research careers. We have also prepared a plan for more systematic follow up of our research fellows."

"Ingrid Guldvik emphasises that the leadership must assume responsibility for gender equality efforts. What can you as the Rector do to ensure that gender equality principles are given a central role within the organisation?"

"We have arenas where the leadership can address issues that we want to convey to the grassroots of the organisation. Gender equality is a topic for discussion at management meetings, and we also plan to put it on the agenda of meetings involving leaders from all levels. We must also adopt the attitude that gender equality must be an integral part of our work. Here we must focus on the long term; short-term measures are useless."

"The female-dominated educational programmes at state university colleges have far fewer professorships than the male-dominated programmes, according to the Norwegian Social Science Data Services. The professorships that do exist are held primarily by men."

SOURCE: BASED ON FIGURES FROM THE DATABASE OF STATISTICS ON HIGHER EDUCATION 2007

In 2002, Bergen University

College launched a programme
designed to qualify women at the
level of senior lecturer in various
subject areas, including health and
social work. Many women have
acquired senior lecturer qualifications, and several have completed
a doctoral degree. Some of them
are now in the process of pursuing
professor-level qualifications.

"It is crucial to have leaders and supervisors who see you and can help to lay a foundation for you to succeed."

PROFESSOR MONICA NORDTVEDT,
BERGEN UNIVERSITY COLLEGE

**ELI'S ADVICE:** "Find out what is preventing the women at your institution from pursuing a career in research, determine what kind of framework they need and implement measures to address this."

**INGRID'S ADVICE:** "We must keep track of the statistics at our own institutions, point out the gender biases and demand measures to rectify the situation. We must discuss what our ambitions are and how we can achieve our goals. What promotes women's participation in research projects and publication through recognised channels, and what prevents women from qualifying for higher positions?"

# BERGEN UNIVERSITY COLLEGE RECOMMENDS THE FOLLOWING MEASURES TO INCREASE THE PERCENTAGE OF WOMEN AT VARIOUS LEVELS:

- Provide payroll compensation so women can focus their energies on obtaining professor-level qualifications.
  - Recruit women in adjunct professor and adjunct associate professor positions to serve as mentors in the engineering sciences.
  - Encourage women at the bachelor's degree level to pursue a master's and doctoral degree in the engineering sciences by establishing networks of mentors and students.
    - Provide payroll compensation so that associate professors of the underrepresented gender who have demonstrated high quality in their doctoral work may be exempted from teaching duties.
      - Establish mentor networks for women to develop their research expertise.
        - (Bergen University College will allocate NOK 2 million to encourage the implementation of gender equality measures in 2010.)



#### START-UP PACKAGES ALLOW TIME FOR RESEARCH

For several years the Norwegian University of Science and Technology (NTNU) has been offering "start-up packages" designed to recruit women to male-dominated research fields and to encourage them to remain there. I believe this gender equality measure works very well and I would recommend it to other institutions.

It takes time for researchers to establish themselves. They must obtain external funding for their own research activity and build up a circle of expertise. To save time and resources, NTNU offers funding to women in the early phase of their careers at the university. We call this a start-up package. A start-up package consists of funding for key needs such as scientific equipment, research assistance and laboratory space, allowing the women to spend less time on administrative tasks and more on research activity right from the start.

"It was difficult to get a positive response to applications in another way because I was not well known within the research community, so the start-up package I received was a great help," says one of the researchers who received a package. Other recipients emphasise that the start-up packages gave them inspiration and helped them to develop their scientific expertise. The feedback we receive suggests that the funding also benefits the departments in the form of positive ripple effects for the academic communities and the establishment of new cross-disciplinary projects. Many researchers use the start-up packages for network-building vis-àvis industry and relevant partners, both nationally and internationally. This leads to higher quality in teaching and facilitates the incorporation of industry expertise into research projects.

For women newly appointed to research positions at NTNU, network-building within their own academic communities is critical. "It has been very important for me to strengthen my professional network because as a new employee at NTNU I have a new role within the academic community and I need to carve out a place for myself," says one researcher. In addition, start-up packages are an easier means of funding good projects. They make women in male-dominated fields more visible, and they can foster new lines of thinking among research colleagues.

We have limited this scheme to departments that have less than 20 per cent women in permanent academic positions. When the departments apply, they list the measures for which funding is sought in order of priority along with the specific amount requested and an explanation of why the funding is needed. When assessing the applications, priority is given to the applicant's research-related needs and to how the application will help to realise the department's research strategy, including its strategy for recruiting women to academic positions and convincing them to stay. If the faculty applies for start-up packages for more than one woman, it must rank the applications. When funding is granted, we ask for feedback on how well the measure has worked.

To date, we have allocated start-up packages amounting to NOK 8.3 million to 29 women here at NTNU. It has been money well spent.

Do you think this measure could work well at your institution? Feel free to contact us!

TORBJØRN DIGERNES 🥑 RECTOR

#### BY: MARTE ERICSSON RYSTE AND LINDA M. RUSTAD

Wants to be a role model

"It's possible for women to be managers in male-dominated research fields. Just come to SINTEF and see for yourself," says Marie-Laure Olivier. She should know what she is talking about. Marie-Laure has always been surrounded by men.

"I'm pleased when I receive good applications from women," says Marie-Laure Olivier and smiles.

Olivier is Research Director in the Department of Seismic and Reservoir Technology at SINTEF Petroleum Research in Trondheim, and she hopes that women in leadership positions can help to attract more women to a male-dominated field.

"I would like to see women being motivated to work in all areas of society. There is no reason that some professions or fields should be dominated by one gender."

#### SURROUNDED BY MEN

Olivier, who has a degree in physics, is used to working at places where female researchers are few and far between.

#### SINTEF PETROLEUM RESEARCH:

- Owned by the SINTEF Foundation;
- Aims to improve the mapping and recovery of national and international oil and gas reserves in a profitable, environment-friendly and safe manner:
- Number of researchers in 2009: 79.

SOURCE: SINTEF, ANNUAL REPORT 2009



MARIE-LAURE OLIVIER
RESEARCH DIRECTOR
DEPARTMENT OF SEISMIC AND RESERVOIR
TECHNOLOGY

She is French, and before coming to Norway she worked at FRAMATOME (now AREVA), a company that designs and constructs nuclear power plants. She came to SINTEF in April 2002 to work as a researcher in reservoir technology. Not entirely surprisingly, she found herself to be the only female researcher in the department.

In 2009, SINTEF Petroleum Research had 94 researchers. Of these, 15 per cent were women. The department headed by Olivier had 26 employees, five of whom were women.

"Why do you think there are so few female researchers?"

"I don't know why this field is so dominated by men. I have always liked physics, and I couldn't understand why the other girls at school didn't choose the same subject as me," says Olivier.

She is pleased that one of the groups in her department has achieved a good gender balance: three of the eight researchers in the seismic technology group are women.

"For some reason there are more women working in seismic than in reservoir technology, and it has been easier to recruit women to this field. Maybe it's because seismic technology is a more mathematics-based subject."

#### HIRE WOMEN

According to Olivier, there is no good reason to give preference to men when filling positions.

"When you are responsible for the scientific, financial and administration aspects of the department, you are naturally concerned that people take responsibility for their own work and do their job. But luckily in Norway, it's not so important whether an employee is a man or women with regard to issues such as parental leave and taking care of small children."

She believes this also helps to improve gender equality in working life, and she emphasises:

"Don't hesitate to employ women because you think they will be absent from work due to maternity leave and the like. I never think like that. In my experience, women are not absent from work more than men."

#### FLEXIBLE SCHEDULES

Olivier wants to ensure that the employees are given flexibility.

"For instance, I never say no when somebody needs to stay home to look after a child. We have flexible work hours, and as long as everything with the projects that people are working on is proceeding according to plan, they have complete freedom to organise their day as they like, and they have the opportunity to work at home during certain periods. It's important not to put too much pressure on people and that the leadership makes sure employees know the door is open so they can come and discuss things when they need to."

Olivier is not convinced that this is more important for female employees. In her experience, men and women place equal value on flexibility.

#### **GOOD CAREER POSSIBLE**

"Do you think that you as a woman are more open to seeing other women's qualifications than male managers are?"

"Yes, I think I might have fewer qualms about recruiting women. And I know the universities and research circles where I can find qualified female researchers."

Hiring more women is crucial to future recruitment, according to Olivier.

"It's important to show that women do work in these research fields and that it is possible to make a good career for themselves here." SINTEF Petroleum Research AS: At SINTEF Petroleum Research AS, 94 employees were researchers as of 1 January 2009. Of these, 14 were women, which accounts for 15 per cent of the total. The management group consists of a president and vice-president – a woman and a man, respectively – as well as six research directors, of which two are women. The Department of Seismic and Reservoir Technology consists of 26 employees, five of whom are women. In the seismic technology group, three of the eight employees are women.

• In Norway, women comprise almost 50 per cent of the recruitment pool for academic positions in all subject areas? The percentage of women in technology fields has increased rapidly as well, with women comprising 35 per cent of those who defended their doctoral thesis in technology fields in 2008. (NIFU STEP)

#### TRIED AND TRUE MEASURES

PROBLEM: We have too few female applicants for researcher positions.

#### MEASURE: Use search committees.

A lack of female applicants does not necessarily mean that no women are qualified for the position. At the Norwegian University of Science and Technology (NTNU) the administration encourages the faculties to form search committees to actively seek out female researchers for academic positions. Search committees identify potential female applicants before the position is advertised.

#### PROBLEM: Female researchers do not participate extensively in networks.

#### MEASURE: Provide financial incentives for network-building.

The KIF Committee has allocated funding to 15 networks for female researchers. Many of these are newly established. Several institutions provide support for networks for female researchers in male-dominated subject areas. The networks may target women within a specific subject area, at a particular institution or at the national or international level.

FIGURE 6. WOMEN AND MEN WHO HOLD DOCTORAL DEGREES PER MILL. CAPITA IN NORWAY AND THE EU-27: 2002 AND 2006, AND IN NORWAY: 2009. SOURCES: NIFU STEP, DOCTORAL DEGREE REGISTER; EUROPEAN COMMISSION, SHE FIGURES 2009.



57

Change from the top down

What does it take to change the gender balance in the most male-dominated physical sciences? This is something that Jan Petter Hansen of the University of Bergen knows a lot about. Under his leadership, the percentage of women in the Department of Physics and Technology is finally on the rise.

"I have taken gender equality into account ever since I started in my position six years ago," says Jan Petter Hansen, head of the Department of Physics and Technology at the University of Bergen.

At that time only one woman was employed as a professor in the department.

Today four more women have been hired in academic positions, and new, promising female doctoral and post-doctoral research fellows are in the pipeline.

"It's clear to me that if we want to recruit the researchers of the future, the best researchers, we have a much better chance

#### UNIVERSITY OF BERGEN (UIB):

- Established in 1946;
- 2 047 academic employees in 2009, 668 research fellows in 2009, and 13 042 registered students in 2010:
- Major focuses; marine research and cooperation with developing countries.

SOURCE: UIB, DATABASE OF STATISTICS ON HIGHER EDUCATION



JAN PETTER HANSEN PROFESSOR AND HEAD OF THE DEPARTMENT OF PHYSICS AND TECHNOLOGY

of finding them if we can choose from among the entire population. And for that to work the students who come here need to see that we have female lecturers who teach the subject and that physics is not a discipline for only half the population," he continues

#### **ACADEMIC STRATEGY**

"What will it take to increase the percentage of women in the hard sciences such as physics and technology?"

"One thing is clear: efforts to improve the gender balance in the field of physics, and in most of the physical sciences, often conflict with academic initiatives. These have a tendency to be in areas where men dominate"

#### "What have you done to change this?"

"We have taken gender balance into consideration when there have been vacant positions in areas that we wanted to develop, and we have actively sought out talented women and encouraged them to apply. We are also in the process of creating a network for women in adjunct professor positions from related academic communities with whom we will establish an affiliation."

"Won't the scientific quality suffer if objectives for gender balance are included in the strategy?"

"No, not necessarily – and I doubt there is scientific evidence showing this to be the case. If both scientific quality and gender are important, perhaps this means that we need more open calls for proposals and broader academic strategies in general."

#### **OPPOSITION**

In reality, it can be difficult to recruit female applicants, regardless of how well qualified they are considered to be. Hansen thinks it is important to be prepared to face opposition and challenges within the academic community.

"We can agree in principle to put focus on gender equality, but when it comes to making concrete choices about which candidate to hire, principles don't apply any more. An academic group will not easily accept losing good candidates when there is a sense that gender equality considerations are the reason why."

In highly male-dominated academic groups, male candidates from the same group often compete against women from outside groups. In such cases it may be extremely difficult to select the woman from the outside even though she is equally qualified. When the budget allows, two people can be hired instead of one. When this is not possible, some difficult choices have to be made, he points out.

#### **UNPOPULAR CHOICES**

Hansen himself has made some controversial choices as head of the department, and he knows that some think he has not involved the staff enough in his decisions.

"It's difficult to change the gender balance in a conservative democratic system. There comes a point when the majority does not support the choices that must be made in order to recruit more women. This is quite simply because we are starting from a highly male-dominated level, and before we achieve a more balanced group, we must make some choices that can be hard to swallow."

"Without a clear mandate from the leadership that makes it possible to sustain these principles, I think it is difficult to make any progress."

"In other words, you are saying that in this field it is not possible to change from the bottom up?"

"That's right. Change will not take place from the bottom up."

#### SUPPORT FROM THE TOP LEVEL

Hansen feels that he has gotten good support from the top-level administration, noting it is crucial that the leadership backs up the efforts of the department heads who are "in the trenches on a daily basis".

"What is enacted at the highest level, what the Rector says, is all-important. A clear signal must be sent about the leadership's vision on practical policy, and the University of Bergen has done this. I perceive gender equality to be an integral part of all the university's activities, from the top-level administration to the faculties to the academic departments."

The university's central action plan states that all faculties must have their own action plans for gender equality.

"If gender equality is not on the list of things to include in the ongoing dialogue with the faculty, as it has been throughout my entire term, then the momentum will be lost." "Jan Petter Hansen has been effective at using the opportunities available at the university to promote gender equality. He has actively sought out female applicants for permanent positions, gotten funding for extra research fellowships for women and obtained payroll compensation to exempt female researchers from teaching duties. He has also worked to achieve a more positive atmosphere around this issue at the department."

ANNA LIPNIACKA, PROFESSOR
AT THE DEPARTMENT OF PHYSICS
AND TECHNOLOGY, UNIVERSITY OF

In 2009, women comprised 10.5 per cent of the professors at the Department of Physics and Technology. Among post-doctoral research fellows, 23.1 per cent were women.

SOURCE: DATABASE OF STATISTICS
ON HIGHER EDUCATION, 2009

JAN'S ADVICE: "Obtain a clear leadership mandate which makes it possible to follow up the gender-equality plans – including when difficult decisions between applicants must be taken. Without this, no progress on gender equality can be made."

#### DID YOU KNOW THAT...

- According to She Figures 2009, Norway is the only country in Europe where the glass ceiling has become thicker – that is, in recent years it has become more difficult for women to obtain professorships? (She Figures 2009)
  - In 2006, the percentage of female professors in Norway was just as low as the average in the EU-27 member states? At that time the figure was 18 per cent. Norwegian statistics from 2009 show that the percentage of female professors has risen to 20.5 per cent. (She Figures 2009 and NIFU STEP 2009)

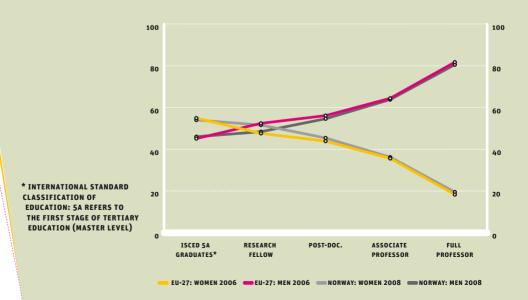
#### TRIED AND TRUE MEASURES

### PROBLEM: We have not been successful in recruiting women to top-level positions.

### **MEASURE:** Award qualifying grants.

A number of institutions offer qualifying grants to their female researchers. These funds are often used to exempt them from teaching and other duties. NTNU is one of the institutions that utilises this measure. In total, the university has awarded qualifying grants to 69 female researchers, and 48 per cent of these have now become professors. The University of Tromsø incorporates qualifying grants into its mentor scheme, while other institutions have established them as an independent measure.

FIGURE 7. PROPORTIONS OF MEN AND WOMEN IN A TYPICAL ACADEMIC CAREER, STUDENTS AND ACADEMIC STAFF IN THE EU-27: 2006 AND IN NORWAY: 2008. IN PER CENT. SOURCES: NIFU STEP, REGISTER OF RESEARCH PERSONNEL, DOCTORAL DEGREE REGISTER; EUROPEAN COMMISSION, SHE FIGURES 2009.



61



## ACHIEVING GENDER EQUALITY IS DEPENDENT ON STRONG BACKING

Since the 1970s, the University of Bergen has been conscious of the role of the university as an institution at the forefront of the efforts to achieve gender equality in society. However, 30 years after we drew up the first action plan for gender equality, the gender balance in academic positions shows that the university still remains a male bastion. This is a situation we want to rectify. We have therefore launched a systematic initiative involving clear objectives, and not least, concrete measures. These efforts represent a new chapter in our efforts to lead the way on gender equality.

Our experience shows that gender equality principles must be firmly reflected in the strategies of both the administration and the academic community if they are to take hold. Without the leadership's ongoing support, it will be difficult to break the patterns ingrained in the highly male-dominated fields. By the same token, without legitimacy in the academic community, the efforts to improve the gender balance will face an uphill battle since it is here where research is conducted and where the recruitment of new researchers takes place. As a consequence, we put special focus on how the faculties prioritise measures to improve the gender balance within their own ranks.

In our view, the generation shift we are now experiencing provides a good opportunity to improve the gender balance – especially among professors – and we have set a target that women will comprise at least 50 per cent of all new appointments to academic positions. To achieve this, we have drawn up a central action plan for better gender balance and independent plans for gender equality measures at each of the faculties based on their individual challenges and opportunities. The measures extend across a wide range of activities and are funded partly by central

gender-equality allocations and partly by the faculties' own budgets. NOK 21 million has been used over a three-year period to implement the measures in the Action Plan for Gender Equality at the University of Bergen (2007-2009).

A gender equality adviser in the central administration and a gender equality officer from each faculty comprise the **Gender Equality Forum**, which is responsible for ensuring that the plans are followed up and that there is productive dialogue between the leadership and the academic community. We also have a **Gender Equality Committee** which monitors the gender equality activities throughout the institution. The committee, which is appointed by the board and includes both student and employee representatives, is consulted and provides input on all appointments. The committee is also the consultative body for all planning and policy documents prepared by the university, and it plays a key role in the preparation of action plans for gender equality.

Reliable statistics are an important management tool, and each year comprehensive statistics on gender equality are compiled and submitted to the university's board along with a status report for the action plan. Gender equality activities are evaluated and adjusted accordingly each year by the university's highest governing body, and this forms the basis for allocations during budget planning later in the year. Of course, gender equality is also part of the dialogue meetings between the university's administration and the faculties.

For more information about our efforts to promote gender equality at the University of Bergen, visit our website at www.uib.no/poa/en/field-of-work/equality.



#### BY: ANNE WINSNES RØDLAND

In order to achieve gender equality, we must change the structures in academia. This requires a systematic effort in which the top-level administration at each institution takes active part, according to Linda Marie Rustad, Senior Adviser for the Committee for Gender Balance in Research (KIF).

Individual measures not enough

"The Norwegian School of Sport Sciences is a shining example of how gender equality efforts should be conducted. Since its establishment in 1968, the school has worked systematically to achieve gender balance among its students and staff. The Rector chairs the gender equality committee, which bases its activities on concrete target figures,

and the committee has effective routines for reporting to the board on the action plan for gender equality," says Rustad.

As a result, the top-level administration is clear about the major gender-equality challenges facing the school, and they can work in a more systematic manner, she believes.



LINDA M. RUSTAD

SENIOR ADVISER

NORWEGIAN ASSOCIATION OF
HIGHER EDUCATION INSTITUTIONS
(SECRETARIAT FOR THE COMMITTEE FOR
GENDER BALANCE IN RESEARCH)

"The school has also made an effort to focus on the connection between gender perspectives in research and the recruitment of women. They now have a large percentage of female professors and considerable expertise in gender research in their discipline."

The Norwegian School of Sport Sciences received the Gender Equality Award in 2009 from the Ministry of Education and Research. The award is given to an institution in the research sector that has introduced active, targeted, systematic activities to promote gender equality and that has taken significant steps to increase the percentage of women in academic positions.

"The institutions need leaders who demand results in addition to those who do the hands-on work. An effective internal organisation is required in order to successfully implement gender equality activities," says Rustad.

#### PLAYERS AT ALL LEVELS

The Committee for Gender Balance in Research (KIF) is appointed by the Norwegian Ministry of Education and Research, and is charged with the task of supporting the efforts to achieve gender equality in the research sector. The committee's mandate is to mainstream the topic and raise the level of knowledge about what gender equality entails.

"We work on three different levels: vis-à-vis national strategies and national stakeholders, vis-à-vis the top-level administration at the individual institutions and vis-à-vis those responsible for the gender equality activities at the institutions. For instance, we look at whether the rectors adopt the Government's recommendations and whether they actually implement their own

action plans. We also organise meeting places, such as seminars, conferences and networks, that bring together these various levels," says Rustad.

The committee's activities clearly reflect a desire to reach out to the actors at various levels. Since 2005, the committee has administered the website Gender Balance in Research – Norway, which targets practitioners in the field. The website serves as a resource for those who work to improve the gender balance in the research sector as well as for those who are interested in issues related to gender equality in science. The KIF Committee has also implemented measures targeted directly towards female researchers. In spring 2009, the committee allocated NOK 600 000 in funding for network-building and networking activities for female researchers throughout Norway. Out of 58 applicants, 15 received various forms of network support. Reports from the recipients show that these measures have been highly successful. The committee has also provided input on the Government's national measures and strategies for research and has been a driving force behind the Research Council of Norway's efforts to enhance its focus on gender equality. The results have been positive: Everyone involved is now working more systematically with gender equality issues.

#### A SPECIALISED FIELD OF KNOWLEDGE

Rustad reminds us that promoting gender equality is a specialised field of knowledge.

"There are two important things to be aware of in this regard. Firstly, we have managed to compile reliable statistics, but we still lack knowledge about the academic culture and about academia as an organisation. We need more studies on these topics. Secondly, the situation with regard to gender equality is relatively similar in many places. Knowledge from other countries is therefore relevant to us in Norway. It is crucial that the leaders at the various institutions have access to the knowledge available and that they benefit from the experience of other countries."

"The institutions must ensure that their gender equality efforts are based on knowledge," she emphasises.

"By enhancing the expertise within their own organisations, they can more precisely target their gender equality activities and more easily steer clear of the gender stereotypes that in many contexts have a deterrent effect on gender equality."

Rustad would also like to see a closer link between research quality and gender equality.

"Although a great deal is being done to improve the gender balance in the research sector, it remains difficult to achieve the general integration of gender equality perspectives into national strategies, research programmes and funding systems. Instead, gender equality is often more of an added entity. I think this is because we still do not view gender equality as an important component of the quality of research," she says.

"We know that women can document excellent results both as students and as research fellows and that their numbers are large, so it is a serious matter for the institutions if they are unable to access this quality through their recruitment process. Quality in research entails not only recruitment of the best talent, but also innovation and creativity – recruiting from a diverse pool is therefore essential."

#### MAKING AN IMPACT

"What have you learned after several years as Senior Adviser for the KIF Committee?"

"One very positive experience is that many people who used to resist the efforts to promote gender equality have gradually changed their minds and become interested. I believe that the top administrators in the Norwegian research sector today generally realise that responsibility for gender equality lies with the leadership. This gives us a good starting point for further mainstreaming. Feedback on the Norwegian version of this handbook shows that many people who have not worked with gender equality as a topic before find it to be interesting reading."

Rustad also believes that the KIF Committee has been successful in pushing for more thorough and more extensive gender equality efforts.

"It is much easier to establish individual measures than to change an entire culture. During the years the committee has been in existence, we have nonetheless managed to convince the administrators at the various institutions that cultural and structural changes are needed and that individual measures for achieving gender equality in the workplace are not sufficient. We are very satisfied with the progress we have made," she concludes.

"It is much easier to establish individual measures than to change an entire culture."

"I believe that the top administrators in the Norwegian research sector today generally realise that responsibility for gender equality lies with the leadership. This gives us a good starting point for further mainstreaming."

### More resources

**THE GENDER BALANCE IN RESEARCH – NORWAY WEBSITE** regularly publishes news articles highlighting the challenges and achievements in the area of gender balance in the research sector. The website is a core activity of the Committee for Gender Balance in Research. Here you will find information about the committee and its publications, action plans to promote gender equality and combat sexual harassment, relevant statistics, news about the Gender Equality Award presented by the Ministry of Education and Research, and much more. Subscribe to the English newsletter! **eng.kifinfo.no** 

**THE RESEARCH COUNCIL OF NORWAY** has been given national responsibility for implementing research policy-related activities that analyse and develop gender research as well as promote gender perspectives and gender equality in research. **rcn.no/gender** 

**THE GENDER IN NORWAY WEBSITE** compiles information and resources on gender equality and gender research in Norway. The website is an English-language information service about official gender equality activities, gender research, and gender statistics. Here you will find links to issues relevant to the field of gender at organisations such as: • The Ministry of Education and Research • The Research Council of Norway • The Equality and Anti-Discrimination Ombud • KILDEN Information Centre for Gender Research in Norway **gender.no** 

**SCIENTIFIC CULTURE AND GENDER ISSUES UNIT, DG RESEARCH** is responsible for promoting women in science under the EU Seventh Framework Programme for Research and Technological Development.

**THE HELSINKI GROUP ON WOMEN AND SCIENCE** is comprised of national representatives who are responsible for issues related to women and science in the member states and other countries involved in the framework programme. The group was established by the European Commission in 1999 to stimulate dialogue on national policies, measures and best practice aimed at promoting the participation of women in science.

#### **PUBLICATIONS**

**Recommendations for Action on the Gender Dimensions in Science.** qenSET – Gender in Science. Portia, 2010.

**She figures 2009. Statistics and Indicators on Gender Equality in Science.** Luxembourg: Publications Office of the European Union, 2009.

Mapping the Maze: Getting more women to the top in research. European Commission, 2008.

For links to the EU resources mentioned above, please see the Gender Balance in Research website: eng.kifinfo.no



