

Women in research – bringing all talents into play

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Foreword

Women have overtaken men at universities. More than half of new students enrolled on undergraduate degrees are women. And nearly as many women as men are being accepted to PhD programmes.

These are promising results. However, when looking further ahead on the research career ladder, the figures change drastically. Only 18 per cent of professors at Danish universities are women, which is noticeably lower than most other European countries.

It is a paradox. Denmark is often seen as a role model for the rest of Europe in the area of gender equality, but in the area of leadership roles within research, we unfortunately do not have much to boast about. We need to do better.

This publication describes the equality situation in Danish research and a number of significant initiatives being taken by Danish universities and public research councils and foundations to correct the gender imbalance in Danish research. It is clear that many are aware of the problem.

I hope therefore that this collated overview can help achieve further progress in correcting the problem. Our society has a vested interest in ensuring that all available resources are used optimally and our universities and research institutions should be attractive workplaces with a focus on developing the careers of both men and women.

My goal is to see more women in the upper echelons of Danish research. All talents must be brought into play. We are losing out on far too much valuable research if women are systematically opting out of a research career.

Sofie Carsten Nielsen
Danish Minister for Higher Education and Science

Introduction

In recent years the Danish government has prioritised research and education. This has led to a great increase in Danish research efforts and an increase in the number of researchers. The number of female researchers has also increased, but there continues to be an imbalance higher up in the research hierarchy.

Women comprised 56 per cent of new students enrolled on undergraduate degree programmes at universities in 2014. The female majority evens out at PhD level. For example, in 2013 the gender divide of those starting a PhD was fairly equal (men – 50.2 per cent, women - 49.8 per cent). Of course, it is not a given that all who pursue a PhD continue a research career at university. But that alone cannot account for the figures in 2013 that show women made up just a third of university researchers at the assistant professor, associate professor and professor-level.

This publication describes the gender equality situation in Danish research on the basis of the latest available statistics, statutory requirements, etc. The seven chapters cover:

1. The development of female research talents, focusing on the development of the number of female researchers at university, and how mentor schemes can help support the development.
2. Equal opportunities for research positions, focusing on gender balance at universities and how increased transparency in the advertising and occupation of positions can contribute to a more equal gender balance.
3. More women in research leadership positions and how universities and publicly funded research councils and foundations work with research managers.
4. The work environment and culture, focusing on how universities approach these topics.
5. More women in university boards and management, focusing on gender balance at the management level and how to achieve it.
6. More women in decision-making bodies in research councils and foundations, focusing on the gender balance of external evaluators used by the councils and foundations.
7. The integration of gender in research, focusing on how research councils and foundations attempt to integrate gender perspectives in research projects.

Each chapter begins with a factual status overview of the area. It then outlines a number of initiatives undertaken by the eight Danish universities and the three major Danish public research funding councils and foundations (the Danish National Research Foundation, the Danish Council for Independent Research, and Innovation Fund Denmark). In 2014, the Danish Ministry of Higher Education and Science asked the universities and the aforementioned foundations and councils for an update on the latest initiatives to promote gender equality among researchers and applicants to research positions at universities.

The overall efforts at universities

All eight universities are focused on gender equality and are actively making efforts in the area. This is true of scientific staff as well as management and boards. Several universities have

developed their own gender equality policies. A number of their concrete initiatives are described in the following chapters.

Similarly to ministries and agencies, the universities prepare equality reports for the Ministry of Children, Gender Equality, Integration and Social Affairs. The latest of these were compiled in 2013. The reports describe efforts to ensure gender equality among staff and in core services. For the first time in 2014, the universities included target figures and policies for the gender make-up of boards in accordance with gender equality legislation. Universities also reported the composition of their boards by gender in 2014.

The Danish Agency for Higher Education compiles annual inspection reports. In the 2013 report, the agency described the work of six universities in relation to gender equality and recruitment, employment and careers.

Universities can also choose to set equality targets in their development contracts. Two universities¹ have chosen to set gender distribution targets for applicants to scientific positions or staff in scientific positions in their development contracts for 2015-2017. The reasoning is partly due to a desire to see the gender balance of scientific staff better reflect the gender balance of students and society as a whole, so that all have the opportunity to develop their talent.

Overall efforts in research funding councils and foundations

The three largest public research funding councils and foundations have also had greater focus in recent years on how their policies and distributions affect the funding ratio for male and female researchers.

On the background of an international evaluation of the foundation in 2013, the Danish National Research Foundation looked at gender equality and integration of gender perspectives as a separate topic at its annual follow-up meetings with its Centres of Excellence in 2013/2014. A total of 500 women and 100 men were invited to discuss two main themes; "Is there a problem?" and "What can we do about it?" Feedback from these meetings was gathered and a publication produced (*Getting all Talents in Play - The Danish National Research Foundation, 2014*), which also lists initiatives that the foundation is considering implementing in the area. The publication was released to coincide with the foundation's annual meeting in November 2014, which had the theme "The Gender Gap in Research".

The Danish Council for Independent Research implemented a gender equality policy in 2013 to help ensure the better use of talents in Danish research. To avoid barriers, structures and career paths that may inadvertently favour male researchers, the council wanted its gender equality policy to focus on how both sexes can not only achieve equal opportunities, but also see a more equal representation within all levels of research. The gender equality policy outlines the overall principles for gender equality in the council and also concrete initiatives which are mentioned in this publication. The council has also incorporated gender categories in its annual statistics, showing the breakdown of applicants and grants to women and men. In 2012, the council asked the Danish Centre for Studies in Research and Research Policy to carry out an analysis of barriers to female research careers and the use of the council's funding instruments by female researchers (*Gender and Equality in the Danish Council for Independent Research, 2013*).

¹The two universities are the University of Southern Denmark (SDU) and Copenhagen Business School (CBS)

In autumn 2013, the board of the Danish Council for Strategic Research discussed how the council could work on gender equality. The council efforts already included having both men and women represented on steering groups of projects and alliances. It decided to supplement these efforts with a number of further initiatives, which are mentioned in this publication. On 1 April 2014, the Danish Council for Strategic Research was disbanded and together with the Danish National Advanced Technology Foundation, and part of the portfolio from the Danish Council for Technology and Innovation, was integrated into the new Innovation Fund Denmark. Innovation Fund Denmark is still under development and has therefore not yet developed its own policy for gender equality.

1. Development of female talents in research

Today, there are fairly equal numbers of women and men beginning research education programmes, but the number of women reduces significantly along the path from PhD student to professor.

In 2013, men accounted for 50.4 per cent of students beginning a PhD, while women accounted for 49.6 per cent of the total. Women account for the majority of students in fields such as health sciences, agricultural and veterinary sciences, social sciences and the humanities. Meanwhile the majority of students in natural and technical sciences are men.

The gender balance already changes by the end of the PhD programme. In 2013, 46 per cent of PhDs were awarded to women, while 54 per cent were awarded to men, and this difference has remained relatively unchanged since 2009.

By the end of 2013, there were at least 3,200 women out of a total 10,200 researchers in university positions as assistant professors, associate professors and professors. There were 400 female professors², 1,360 female associate professors (associate professors and senior researchers) and 1,460 female assistant professors (assistant professors, researchers and postdocs).

Women accounted for 18 per cent of professors, 31 per cent of associate professors and 41 per cent of assistant professors. In other words, 32 per cent of the total scientific staff at professor, associate professor and assistant professor level.

From the end of 2007 to the end of 2013, the number of women in professor-level positions has increased 118 per cent. The number of male professors in the same period has increased by 41 per cent. At assistant professor-level, the number of women increased by almost 90 per cent, while the number of men increased by 67 per cent. And at associate professor-level, the number of women increased by 25 per cent, and men by 3 per cent.

The figures are shown in the following tables.

² In professor positions, the number of women among professors with special responsibilities is much higher than among ordinary and clinical professors.

Table 1
Number of women and men in positions as professor, associate professor, and assistant professor 2007-2013

		2007	2008	2009	2010	2011	2012	2013	Growth 2007-2013
Professor	Women	182	208	262	286	294	342	397	118%
	Men	1252	1334	1428	1512	1516	1678	1760	41%
Associate professor	Women	1090	1130	1188	1195	1218	1281	1358	25%
	Men	2996	2948	2959	2942	3051	3028	3085	3%
Assistant professor	Women	773	789	983	1111	1216	1332	1462	89%
	Men	1279	1357	1642	1744	1783	1966	2136	67%
Total	Women	2045	2127	2433	2592	2728	2955	3217	57%
	Men	5527	5639	6029	6198	6350	6672	6981	26%

Source: Ministry of Higher Education and Science, based on statements from the universities

The total number of female researchers at professor, associate professor and assistant professor-level between 2007 and 2013, increased by almost 5 percentage points, from 27 to 32 per cent.

The number of female professors increased by almost 6 percentage points from 13 to 16 per cent. While the number of female researchers at associate professor level increased by 4 percentage points from 27 to 31 per cent. And the number of female assistant professors increased by 3 percentage points from 38 to 41 per cent.

Table 2
Percentage of women in positions as professor, associate professor and assistant professor 2007-2013

	2007	2008	2009	2010	2011	2012	2013
Professor	12.7%	13.5%	15.5%	15.9%	16.2%	16.9%	18.4%
Associate professor	26.7%	27.7%	28.6%	28.9%	28.5%	29.7%	30.6%
Assistant professor	37.7%	36.8%	37.4%	38.9%	40.5%	40.4%	40.6%
Total	27.0%	27.4%	28.8%	29.5%	30.1%	30.7%	31.5%

Source: Ministry of Higher Education and Science, based on statements from the universities

The gender distribution among scientific staff varied noticeably between universities. By the end of 2013, 9 percent of professors at the Technical University of Denmark (DTU) were women, while the figure was 25 per cent at Roskilde University (RUC), but there were no female professors at the IT University of Copenhagen (ITU). The percentage of female associate professors was lowest at DTU, where only every fifth researcher was a woman. And figures for assistant professors show that 31 per cent of assistant professors at DTU were women, compared to 46 per cent at SDU, 49 per cent at RUC and 52 per cent at Copenhagen Business School (CBS).

Table 3

Percentage of women among scientific university staff in positions of professor, associate professor and assistant professor in 2012 and 2013, by university and position.

	Professor		Associate professor		Assistant professor		Total	
	2012	2013	2012	2013	2012	2013	2012	2013
KU	19.8	22.6	33.2	33.6	43.2	43.6	33.7	34.8
AU	15.2	16.7	31.1	32.2	41.8	41.4	31.3	32
SDU	13.7	16.6	31.6	32	47.2	46.5	31.4	33.2
RUC	26.7	25.4	36.4	38	54.7	48.7	38.5	38.7
AAU	19.4	19.4	26	27.2	36.6	36.9	28.1	28.6
DTU	9	8.9	19.5	20.1	31.6	30.8	23.6	23.3
CBS	16.4	17.3	35.2	35.3	42.5	51.6	31.5	34
ITU	33.3	0	42.1	39	31.6	35.5	38.1	35.1
Total	16.9	18.4	29.7	30.6	40.4	40.6	29.5	31.5

Source: Ministry of Higher Education and Science, based on statements from the universities

The gender balance differences between university research staff should be viewed in connection with the differences between composition of faculty and subject areas at the universities, and that gender balance among staff can vary between the areas.

At the end of 2013, the percentage of female professors varied from ca. 10 per cent within technical and natural sciences, to 33 per cent within the humanities. The percentage of female associate professors was less than 20 per cent within natural sciences, 40 per cent within health sciences and 42 per cent within the humanities.

The percentage of female assistant professors varied from almost 30 per cent within technical and natural sciences to over 50 per cent within health sciences and agricultural and veterinary sciences.

Table 4

Percentage of women among scientific university staff in positions of professor, associate professor and assistant professor in 2012 and 2013, by scientific field and position.

	Professor		Associate professor		Assistant professor		Total	
	2012	2013	2012	2013	2012	2013	2012	2013
HUM	29.6	32.9	40.3	41.8	51.6	49.6	41.5	42.5
SOC	18.7	19.8	34.9	35.2	45.4	49.1	33.1	34.6
NAT	11.4	10.8	17.5	17.5	27.7	29.2	20.8	21.7
AGRI	17.4	21.6	36.2	35.5	59.8	53.0	40.5	39.2
HEALTH	16.6	19.4	38.7	39.8	53.7	55.0	36.2	38.1
TECH	10.3	9.6	19.7	20.1	30.5	29.6	22.9	22.6
Total	16.9	18.4	29.7	30.6	40.4	40.6	30.7	31.5

Source: Ministry of Higher Education and Science, based on statements from the universities

Percentages of male and female research staff differ between the various scientific fields. 40 per cent of female research staff were in the humanities and social sciences, while the same areas accounted for 30 per cent of male staff. The opposite was true of the technical and natural sciences fields, which accounted for almost 30 per cent of female research staff, while almost half of male researchers (47 per cent) were found in these fields.

The universities are aware of the gender imbalance and are therefore working to support talent development including mentoring and role model initiatives. Similar examples to promote development of female research talent can also be found within research funding councils and foundations.

INITIATIVES:

Copenhagen Business School (CBS) has established a voluntary mentor programme for scientific staff. The scheme involves a mentee being assigned a mentor from another institute, and regular training seminars are held. According to CBS, more and more female mentees are availing of the scheme.

IT University of Copenhagen (ITU) has supported participation in national female mentor networks e.g. via financial support. Several of ITU's female board members have acted as mentors for female researchers.

University of Copenhagen (KU) is creating clear career paths, and developing its current mentor programme to cover talent development for men and women, pre-leadership programmes and integration of gender into general HR tasks.

Aarhus University (AU) has established a voluntary mentor scheme "Strengthen talent". A total of four departments are represented in varying degrees. The scheme involves staff at assistant professor-level being matched with more experienced colleagues at the associate professor level or above.

Danish National Research Foundation (DG) has introduced a process whereby leaders of their Centres of Excellence must now include a gender breakdown of researchers at their centre in the annual status report. The foundation can thereby monitor the gender balance development from year to year. DG will also ask the centres to provide a short account of the recruitment policies, including eventual considerations in relation to the gender balance of staff at the centres.

Board of the Danish Council for Strategic Research (now Innovation Fund Denmark (IF)) decided to reformulate its core principles in late 2013 to reflect that it now "places due emphasis on good research management, including equal opportunities for men and women". Furthermore, the board decided to inform the council's programme committees that there should be focus on ensuring equal opportunities for men and women in the application process and in conducting research projects. The programme committees were asked to evaluate, if at their follow up meetings with grant recipients, there was a need to discuss if research management has sufficient focus on leadership development for both male and female PhDs and postdocs.

Danish Council for Independent Research (DFF) has stated in its last two annual reports that the council wishes to support the balanced development of leadership resources for both men and women at Danish research institutions. The council therefore recommends that if possible, applications demonstrate an approach to scientific practice that can promote professional diversity and equal opportunities for male and female researchers. When applying for support for research groups or similar collaborative projects, the applicant must include considerations for gender balance within the group. It is a requirement that this information be made available, but the actual gender composition of the group will not factor into the evaluation. The requirement was introduced to ensure the applicant's focus on contributing to equal research opportunities for men and women.

2. Competition on equal terms

Universities have made efforts to motivate women to pursue a research career and have asked research leaders to be aware of the gender balance within their research groups. But they have also increased focus on ensuring transparency about the competition process for research positions as well as making sure it is carried out on an equal footing.

When vacant research positions are filled, figures show that there is not an equal gender spread of applicants for many positions. The following tables show that 42 per cent of all positions filled in 2001-2013 did not have qualified female applicants, while 15 per cent of positions filled in the same period did not have qualified male applicants. There was a choice between male and female candidates in only 23 per cent of professor positions. And two out of every three professor positions were filled by a male candidate, because there was no qualified female applicant.

This means that 77 per cent of advertised positions for professors, 60 per cent for associate professors, and 49 per cent for assistant professors (or a total of 57 per cent for all advertised positions) during 2011-2013, were selected without competition between qualified male and female candidates. The gender distribution among non-advertised positions³ for professors, associate professors and assistant professors in 2011-2013, saw that the percentage of women was 3 percentage points higher among non-advertised positions than those advertised. This means that the percentage of women among the total number of those employed (advertised and non-advertised positions) was just 1 percentage point higher than those employed in advertised positions.

Universities have recognised this challenge and implemented a number of initiatives aimed at supporting a better gender balance when filling positions, including through increased transparency, action plans and gender balance in selection committees.

³Positions could be filled without advertisement because a researcher has been called to a professor or associate professor position, or an external funding body provided funding for the employ of a person of their choosing. Unadvertised positions could also occur if an assistant professor is promoted to a permanent position as an associate professor, following evaluation.

Table 5
Share of positions occupied at professor, associate professor and assistant professor level in 2007-2009 and 2011-2013, where there were both male and female qualified applicants

	Positions with both male and female qualified applicants		Positions with only male qualified applicants		Positions with only female qualified applicants	
	2007-2009	2011-2013	2007-2009	2011-2013	2007-2009	2011-2013
Professor	16%	23%	69%	62%	15%	14%
Associate professor	35%	40%	48%	41%	17%	18%
Assistant professor	40%	51%	41%	35%	19%	14%
Total	33%	43%	49%	42%	18%	15%

Source: Ministry of Higher Education and Science, based on statements from the universities

The gender balance of occupied positions, where there were both male and female qualified applicants, can also be illustrated by comparing the success rate of each gender. Of the 1,549 positions filled during 2001-2013, 46 per cent of positions were occupied by women, despite each position having an average of 8.3 per cent qualified male, and 4.2 per cent qualified female applicants. 40 per cent of professor positions, 45 per cent of associate professor positions and 47 per cent of assistant professor positions went to women (see table below).

Table 6
Gender balance among those employed as professor, associate professor and assistant professor in 2011-2013, where there were both qualified female and qualified male applicants

	Employed				Average number of qualified applicants per position	
	Men		Women		Men	Women
	Number	Share	Number	Share		
Professor	99	60%	67	40%	3.5	1.7
Associate professor	239	55%	193	45%	5.8	2.7
Assistant professor	503	53%	448	47%	10.3	5.4
Total	841	54%	708	46%	8.3	4.2

Source: Ministry of Higher Education and Science, based on statements from the universities

The table below shows furthermore that the success rate among female applicants is higher than that of male applicants. In reality, a greater share of qualified female applicants get the position they sought, compared to men. The success rate at professor level was 24 per cent among female applicants and 17 per cent among men. While at associate professor level, 16 per cent of female applicants got the position they sought, compared to just 10 per cent of male applicants. The success rate for qualified applicants at assistant professor level was 9 per cent for women and 5 per cent for men.

Table 7
Employment success rate among male and female applicants at professor, associate professor and assistant professor level in 2011-2013, where there were both male and female qualified candidates

	Men			Women		
	Qualified applicants	Those employed		Qualified applicants	Those employed	
		Number	Percentage		Number	Percentage
Professor	579	99	17%	283	67	24%
Associate professor	2492	239	10%	1178	193	16%
Assistant professor	9791	503	5%	5103	448	9%
Total	12,862	841	7%	6564	708	11%

Source: Ministry of Higher Education and Science, based on statements from the universities

The statistics for new positions filled in 2011-2013 clearly show that more talented women are in contention for scientific positions, but there is still a way to go before they break through to the echelons of Danish research.

INITIATIVES:

Copenhagen Business School (CBS) is working to create transparency and equal access for researchers to all research positions. Efforts include a website where qualification and other requirements are clearly described.

Technical University of Denmark (DTU) makes data (with a gender breakdown) available to managers and annual management reports. DTU is working on an advertising concept aimed at both men and women. DTU is looking to increase transparency through detailed career paths and diagrams, as well as salary structures and policies.

University of Copenhagen (KU) is focused on providing equal opportunities regardless of gender. For example, there is a recruitment requirement that calls for an active search of possible national and international candidates for assistant professor and professor positions. The undertaking of this search must be documented in the recruitment process.

University of Southern Denmark (SDU) has, after it was documented that 30 per cent of evaluation committees are made up solely of men, stressed that the committees should involve both men and women. If not, then reasons must be given. The SDU action plan for equality involves a systematic overview of research and other possible areas that could attract highly qualified female applicants.

Aarhus University (AU) strives towards equal representation/gender balance on evaluation committees and emphasis is placed on productivity ahead of production. That is, consideration should be given to the time that has actually been available for research.

At **Aalborg University (AAU)**, the deans and Academic Council have responsibility for ensuring the general assessment criteria and procedures for filling scientific positions are open and transparent, and that the evaluation committee relates explicitly to these criteria. In 2013, AAU passed new evaluation rules, including that the university's evaluation and employment committees should have both male and female members. Since 2012 AAU has had a job portal, which contains branding and transparency on processes and evaluation criteria internally and externally.

CASE: Minister for Higher Education and Science's dispensation for the University of Copenhagen

In November 2014, the Minister for Higher Education and Science approved the University of Copenhagen's application for dispensation from the regulations on equal treatment of men and women in relation to employment (equal treatment law).

The dispensation involves the University of Copenhagen, and in relation to available positions as assistant professor, associate professor and professor, requiring that there should be at least one applicant of each gender before the position can be filled.

The dispensation stems from the university's equal opportunities action plan for careers, gender and quality, where the board has outlined its intention to increase gender balance among researchers and management at the university.

3. More women in research management

Research management can take many forms and is present in many levels of the university organisation: central, faculty, institutional and on the research team. A research manager helps make strategic decisions, develop staff and the organisation, ensure a professionally stimulating environment, and help qualify younger researchers for their future roles.

Being a researcher is no longer an isolated job. Most researchers are working in cross disciplinary and international teams. And it is often through collaboration that the individual researcher realises their potential and is inspired. Research management must promote this way of working, while also leading the researchers, create a trusting work environment and ensure excellent research results.

It is important that more women gain research management experience as it provides a skills boost and a personal/professional network to help qualify oneself for employment as a professor, while also providing opportunity to contribute to how decisions are made. The possibility for diversity, new aspects to research projects and the opportunity to avail of all talents is limited without more women in research management.

Universities as well as publicly financed councils and foundations are focused on including more women in research management, including leading research projects. Some examples of initiatives carried out by universities, councils and foundations are listed below.

INITIATIVES:

Copenhagen Business School's (CBS) action plan for 2013 regarding gender diversity in management sets targets and procedures with a view to equal gender distribution among deans and department heads. They are also working towards an equal gender balance in employment committees.

Technical University of Denmark (DTU) has implemented a gender neutral management programme. Heads of departments are aware of encouraging women to participate in management courses.

University of Copenhagen's (KU) board has adopted an action plan entitled Career, Gender and Quality – Equal opportunities in research and management. The plan contains many initiatives, both on a central level, but also locally within departments and faculties. Gender balance is a fundamental part of the value-based management and the subject is therefore involved as part of management development at KU. Furthermore, the action plan set targets for the percentage of the underrepresented gender in upper management and has a number of initiatives such as pre-management courses, mentor schemes, additional education on gender perspective in research, etc.

University of Southern Denmark (SDU) follows on from its 2010-2011 management candi-

date programme and offers courses for aspiring management candidates. They have offered a total of three courses.

Aarhus University (AU) has had requirements in place since 2009 that all main areas have equality action plans and set targets for the percentage of women in associate professor and professor positions.

Aalborg University (AAU) is working to ensure the best management talent – regardless of gender, successfully secure management positions. This is facilitated through mentor schemes, networks, employee policies and employment procedures.

The Danish Council for Independent Research (DFF) provided DKK 110 million in 2014 through the YDUN programme, which aims to encourage more female researchers who are associate professors to continue on a research management career path. It will improve the use of talent in Danish research and promote gender diversity in Danish research environments. The programme was planned as a one-year programme offered in 2014. YDUN research projects were open to both male and female applicants, but DFF received dispensation from gender equality legislation to choose female candidates over male candidates in instances where two applicants had equal qualifications. By the application deadline, DFF had received a total of 553 applications, of which 527 were from women and 26 from men. DFF provided funding to 17 female researchers. The programme was arranged so that applicants, who did not receive YDUN funding, could still make the application deadline for DFF's other grants in late 2014.

The Danish Council for Strategic Research (now Innovation Fund Denmark) decided in 2008 that when funding strategic research alliances and strategic research centres, a steering group with male and female members should be assembled. As of 2014, this continues to be listed as a requirement in the council's call.

4. Work culture and working environment

The research world is characterised by a strong work culture, with a high degree of competition for results, publishing and funding. Such a work environment can be a challenge for young researchers and their wish to also have a social and family life. Focus on organisation, conditions and development opportunities at work is of great significance for both women's and men's career opportunities and work-life balance.

A poll of universities shows that they are working systematically on gender equality in relation to the work culture and environment at the university. There is focus on a family-friendly employee policy that comprises the formal framework, but in the end, it is the culture that creates the actual framework. Which people are expected to use the family-friendly initiatives, and who actually uses them? This can influence consideration on the individual researcher's career and work-life balance.

Many universities focus on equality in connection with the workplace evaluation and have also set up committees and composed follow up action plans.

The focus of the universities and the Danish Council for Independent Research also encompasses the work-life balance.

INITIATIVES:

Copenhagen Business School (CBS) has a central funding pool established in 2012 to finance costs associated with parental leave taken by researchers who are financed by external research funds.

Technical University of Denmark (DTU) informs that the university has a distinct degree of flexible self-management and the university promotes a considerate work environment, including job satisfaction surveys with gender-specific questions.

University of Copenhagen (KU) has a work-life balance as a fundamental part of its employee policy. KU has developed a folder with ideas on how to discuss balance. KU requires local management to agree with the assistant professor/associate professor before the end of their parental leave how the time after the leave period finishes will be used. There are also opportunities to apply for funding for activities to ensure an employee is well prepared for teaching and research following their leave.

Roskilde University's (RUC) development contracts for 2015-2017 continue to focus on employee satisfaction, supplemented with a particular focus on the concept of collegiate spirit. The objective includes strengthening a healthy employee culture characterised by good cooperation, trust and satisfaction. In this regard, RUC will carry out projects that support the establishment of a work culture and environment that also appeal to women to a greater degree.

University of Southern Denmark (SDU) aims to ensure project progress/ongoing professional upskilling during maternity leave as well as providing the opportunity for periods free from teaching following a longer period of leave as well as partial (parental) leave following return from maternity leave. Since 2012, SDU has offered the opportunity for children of all staff to participate in a summer camp in weeks 27-32.

Aarhus University (AU) formed a diversity committee in 2011 with a particular focus on dealing with recruitment and retention challenges. AU has increased focus in its workplace evaluation action plan on collegial behaviour and tone.

At AU it is possible to order meals at most of the university canteens in the evenings and weekends.

Aalborg University (AAU) is focused on the work environment and satisfaction. For example, since 2009 the university has developed central workplace evaluations, and as a result, carried out an analysis and process regarding AAU's work environment efforts, which led to a restructuring of the area. During the evaluation periods in 2012-2015, AAU developed a new performance appraisal concept, whereby satisfaction and cooperation, including the work-life balance, are standard interview topics.

AAU has made heads of departments responsible for researcher fathers being aware of their possibilities to take parental leave. The university's HR department has made resources available for providing guidance on leave. AAU has made deans responsible for ensuring that parental leave is excluded from the calculation of the completion time of PhD programmes by researchers. PhD recipients, assistant professors and postdocs have the right to extend their employment period corresponding to the amount of leave taken. AAU monitored the use of parental leave in 2009-2011 and can state that fathers employed in scientific positions took more leave than fathers employed in technical-administrative positions.

Danish Council for Independent Research (DFR) has increased the council's compensation for leave and family-related absence from a factor of 1.5 to a factor of 2.0 in relation to that actual absence, in connection with applications for instruments, limited by the years since achieving the PhD.

5. More women in university boards and management

The Danish government finds it important to ensure actual progress in the development of the percentage of women in institutions and companies that fall under the auspices of state administration. The latest change to equality legislation aim to support this development (Act of equal treatment of men and women cf. Consolidation Act no. 1678 of 19 December 2013) aimed at gender balance in boards and other upper management levels.

Universities are, as state financed self-governing institutions within public administration, covered by the Gender Equality Act § 11, part. 1. University boards should therefore have an equal composition of men and women, which under law means a gender balance ratio of at least 60/40.

Nearly all, apart from two⁴, university boards currently fulfil this requirement.

The Gender Equality Act § 11 states that companies and institutions, including universities, which fall under public administration, and which have a collective management body (a board) must:

- *Report gender composition* in the highest management body (the board), if the company or institution does not have an equal gender balance in the board, which means there is not a 60/40 gender divide.
- *Set a specific target* for the underrepresented gender in the highest management body (the board) and provide a time period, in which the university expects to achieve its target.
- *Develop a policy for equal gender composition* in the upper levels of management if the company or institution does not have equal gender balance in management in general (not applicable for institutions with less than 50 employees).

Universities must report once a year to the Ministry of Higher Education and Science. The ministry received the first reports from universities in May/June 2014.

When examining the distribution of men and women in university management, it can be confirmed that while there has been development in gender composition since 2008, the total percentage of women in upper university management is still only 21 per cent. Upper university management includes rectors, vice-rectors, university directors, deans and heads of departments.

⁴ The two boards are at Copenhagen Business School and the University of Copenhagen.

Table 8
Gender composition in university management in 2008 and 2014

	2008			2014		
	Men	Women	Percentage women	Men	Women	Percentage women
Rector	7	0	0%	7	1	13%
Pro-rector	4	3	43%	5	2	29%
University director ⁵	7	0	0%	6	1	14%
Dean	28	3	10%	18	5	22%
Head of department	131	27	17%	116	32	22%
Total	177	33	16%	153	40	21%

Source: Danish University and Property Agency (2008), ISOLA (2014)

Table 9
Gender composition among department heads at universities 2008 and 2014

	2008			2014		
	Men	Women	Percentage women	Men	Women	Percentage women
KU	24	11	31%	29	8	22%
AU	38	3	7%	22	5	19%
SDU	23	5	18%	18	8	31%
RUC	4	2	33%	4	2	33%
AAU	19	3	14%	15	4	21%
DTU	14	0	0%	16	2	11%
CBS	8	3	27%	11	3	21%
ITU	1	0	0%	1	0	0%
Total	131	27	17%	116	32	22%

Source: Danish University and Property Agency (2008), ISOLA (2014)

If universities do not have an equal gender balance in upper university management, i.e. a composition of less than 40 per cent women or less than 40 per cent men, then they must develop a policy for equal gender balance in upper levels of management.

The policy must describe the university's efforts to increase the number of the underrepresented gender in upper management levels. Management positions in this context are understood to be all those apart from the executive level such as directors, heads of division and team leaders.

Four out of eight universities⁶ have reported that they have developed policies for equal gender balance in upper levels of management.

⁵ Aarhus University employed a woman as university director as of 1 January 2015

⁶ The four universities are: Copenhagen Business School, University of Copenhagen, Aarhus University and Aalborg University. RUC has reported that almost all management levels meet the 60/40 requirements for gender

INITIATIVES:

Among the four universities that have a policy for gender balance in upper management bodies, some of the particular initiatives include:

Copenhagen Business School's (CBS) equality policy emphasises promotion of gender equality by stimulating a development where both men and women have equal development and career opportunities. CBS is currently developing recruitment procedures that support the policy.

In 2014, the executive board reorganised the equality work of CBS by establishing a "Diversity and Inclusion Council". The council has a 4-year mandate and the rector is chair of the council. The council is to advise CBS management on initiatives to promote diversity and inclusion for scientific and administrative staff and CBS students. The council will contribute to creating dialogue and debate, and highlight the importance of diversity among staff and students. The council has a particular duty to monitor all initiatives and policies already implemented and provide recommendations to university management. Finally, the council must develop a prioritised action plan identifying a few and hopefully effective proposals for actions.

Aalborg University's (AAU) board has adopted a Strategy for Equality (2012-2015). The strategy focuses on equal opportunities, regardless of gender, age or background, as well as breaking with gender-specific employment and educational patterns. The strategy includes eight objectives:

- AAU will take care of and support talent development, irrespective of gender and background
- AAU will recruit talent among students and staff
- AAU will provide equal opportunities for career development, irrespective of gender and background
- AAU will make a focused effort to recruit talent and support talent development among international staff and students pursuing full Master's programmes
- AAU will ensure information is made available to all, including international students, about possible career paths within and outside the university sector
- AAU will work to break down the gender specific patterns in the labour market
- AAU will encourage cross-disciplinary involvement to create better solutions
- AAU will develop its work in the gender equality area based on evidence

A standardised monitoring tool has been developed to support the strategic equality work at AAU, so that AAU management can follow the gender balance of staff and students within their own unit.

composition. The Technical University of Denmark has reported that the university is working to develop a policy.

6. More women in research councils and foundations

Public councils, commissions, etc. that are established by a minister to improve how rules are set or planning of societal importance, should have an equal gender balance of men and women according to the Gender Equality Act. The law also states that when authorities and organisations have to propose a member to one of these boards, then there should be both a male and female candidate for a newly open position. The minister responsible decides who will be appointed as a member and in this regard must endeavour towards an equal gender composition. The minister is also required to report the proposed composition to the gender equality minister before the appointment is confirmed.

These rules apply to board of the Danish Council for Independent Research (DFF), as well as its thematic research councils, to the board of the Danish National Research Foundation (DG) and to the board of Innovation Fund Denmark (IF).

Boards and other collective management bodies, which do not have an equal gender composition, must set targets for the future representation of the underrepresented gender on the board and lay out a timeframe for when this target must be achieved (Gender Equality Act § 11). This is also a requirement when members of the board are appointed by the minister. The rules are also applied to boards which have independent management responsibility, which currently include the boards of the Danish National Research Foundation and Innovation Fund Denmark.

Evaluation panels, expert groups and sub councils, which the aforementioned councils and foundations establish, are not covered by the Gender Equality Act's rules on gender composition of public councils, commissions, etc. as they are not established by the minister.

Gender balance in research councils and foundations

The gender balance of the boards of the Danish National Research Foundation (DG), the Danish Council for Independent Research (DFF), and Innovation Fund Denmark (IF) contains four women and five men on each of the three boards as of 1 January 2015. The chair of the Danish National Research Foundation is a woman. The Danish Council for Independent Research has a woman as its vice-chair, as does Innovation Fund Denmark.

Table 10
Board members as of 1 January 2015

	Men	Women	Percentage women
Danish National Research Foundation	5	4	44
Innovation Fund Denmark	5	4	44
Danish Council for Independent Research	5	4	44

When examining the five research councils under DFF, the percentage of women as of 1 January 2015 swings from 17 per cent in the Danish Council for Independent Research | Medical Sciences to 50 per cent in the Danish Council for Independent Research | Humanities. In total, the five research councils (as of 1 January 2015) have 75 members, of which 22 (corresponding to 29 per cent) are women.

Figure 11
Gender balance among the five councils under DFF as of 1 January 2015

Councils under DFF	Men	Women	Percentage women
DFF Humanities	6	6	50
DFF Natural Sciences	10	5	33
DFF Social Sciences	9	3	25
DFF Medical Sciences	15	3	17
DFF Technology and Production Sciences	13	5	28
Total	53	22	29

Innovation Fund Denmark had a number of sub councils in 2014. The percentage of women in the sub councils is generally lower than that of the board. The percentage of women in the fund's sub committees totals 39 per cent (as of 1 December 2014). Innovation Fund Denmark is in a period of restructuring and the sub councils are expected to be developed further in 2015. The Danish National Research Foundation has no sub councils.

In a number of cases, DG, DFF and IF send applications out for external evaluation. Despite attention given to gender balance among external evaluators, all three councils and foundations have problems finding as many female evaluators as male. The percentage of female external evaluators is therefore relatively low. The percentage of female external evaluators in DG in 2014 was 12 per cent, while it was 13 per cent in IF and 22 per cent in DFF.

Figure 12
Gender balance among evaluation panels and external evaluators as of 1 December 2014

	Men	Women	Percentage women
Danish National Research Foundation	79	11	12
Innovation Fund Denmark	231	33	13
Danish Council for Independent Research	1440	411	22

INITIATIVES:

The boards of the **Danish National Research Foundation**, the **Danish Council for Independent Research**, and **Innovation Fund Denmark** are appointed by the Minister for Higher Education and Science. All three councils and foundations also state that they themselves think it is important to have an equal gender balance on the board. The Danish Council for Independent Research for example, states in its equality policy that they will strive to have an equal gender composition in the council and have an objective that there should be at least 40 per cent of the underrepresented gender on the board, in the thematic councils and sub committees, as well as within groups of external evaluators.

The board of **Innovation Fund Denmark** is still in its consolidation phase after its establishment on 1 April 2014. The board's discussions on the fund's future have already focused on the fund's role in responsible research and innovation – including gender and equality.

Both the **Danish National Research Foundation** (DG) and the **Danish Council for Independent Research** (DFF) are aware of gender balance when establishing evaluation panels and appointing external evaluators. Both DG and DFF confirm that they are working on ensuring a more equal gender distribution among external evaluators, but that there is a problem internationally attracting enough highly qualified researchers (both men and women) to evaluation panels and as external evaluators. Evaluators are often sought among professors, which is why the number of female candidates is limited. There is also great demand for external evaluators and many requests are rejected. Therefore it is often not possible to ensure equal gender representation when appointing evaluators.

7. Integrating gender in research

Good research is research that takes all relevant factors that are important to the research area into account. It is therefore important that in research we remember that men and women are not always alike.

There are biological differences between men and women which could mean for example, that illness develop in different ways depending on gender or that men and women need different types of treatment. There are also social and cultural differences which could for example impact our relationships with each other and experience of society.

If we do not pay attention to gender differences in research, when relevant, then we risk missing significant research and innovation potential and in the worst case, we risk drawing the wrong conclusions. Including gender aspects in research, when relevant, helps ensure high quality research and also helps ensure the societal relevance of the research.

INITIATIVES:

The **EU** in its latest research framework programme "Horizon 2020" has taken a number of important steps towards ensuring greater focus on including gender aspects where relevant in the chosen research themes of the work programmes. 99 themes in the first work programme under Horizon2020 (2014-2015) are noted to show that it is particularly relevant for applicants to consider gender perspectives in their applications. Applicants are also encouraged to account for how gender plays a role in their project application, and attempts are made to ensure that all evaluation committees include at least one evaluator with knowledge of gender research. The European Commission will conduct ongoing evaluations on the effect of their efforts and in 2015, collect statistical information on how much gender perspectives are part of the funded projects.

In cooperation with Stanford University in the USA, the **EU** carried out a project to develop a number of new research methods aimed at the evidence-based inclusion of gender aspects in research (Gendered Innovations). The project has developed research methods in e.g. the use of animal testing and stem cells in research, in environmental research, and in food, transport, health and pharmaceutical research. The methods are available via the website:

<http://genderedinnovations.stanford.edu/>

The Danish National Research Foundation considers the inclusion of relevant methodical considerations, including gender perspectives, when evaluating project applications. A number of the foundation's centres work with gender as a natural parameter of their research focus (see cases below).

The Danish Council for Independent Research expects applicants to account for possible relevant gender perspectives in their project descriptions, in line with other relevant perspectives. Under the Danish Council for Independent Research | Social Sciences, gender research is

named as one of the areas supported by the council. There are no overall statistics for the area, and therefore it is not possible to account for how many projects under DFF include relevant gender perspectives.

The board of the **Danish Council for Strategic Research** (now part of Innovation Fund Denmark) asked its six programme commissions to consider if it would be relevant to include wording on gender and diversity perspectives in the text of their calls for 2014. As a result, the Programme Commission on Peace and Conflict included text in their call, outlining that support could be given to projects that included gender dimension considerations in conflict and peace processes. The commission granted funding to the project CODE – Conflict and Democratisation which has gender perspectives as part of one of the projects four work packages. The project will look at how political changes and democratisation affect different social groups – including men and women – in different ways. The women’s network organisation KVINFO is part of the project’s advisory practitioner panel.

University of Copenhagen (KU) has implemented further education and hold workshops aimed at spreading knowledge of gender perspectives in research and increasing awareness about gender bias in research.

CASES: Gender perspectives in centres of Danish National Research Foundation

Center for Vitamins and Vaccines (CVIVA)

Center Leader Christine Stabell Benn:

A central research area at the Center for Vitamins and Vaccines (CVIVA) is the understanding that boys and girls have different immune systems and could need different vaccinations and vitamins. Generally speaking, the centre works from the idea that we should treat boys and girls differently to provide the same treatment. One of the centre's objectives is to achieve a more general acceptance of men and women / boys and girls responding differently to different vaccines and vitamins and that there is a need for gender specific tests and treatments.

Center on Autobiographical Memory Research (CON AMORE)

Center Leader Dorthe Berntsen:

Research projects in the Center on Autobiographical Memory Research (CON AMORE) study gender differences in memory and prediction in Denmark and in Qatar. Gender and cultural differences in personal objectives are also studied, to see how much these differences come from outside (e.g. from culture) or inside (from oneself).

Center for Language Change in Real Time (LANCHART)

Center Leader Frans Gregersen:

Gender has been shown to be often relevant in the centre's research projects, and gender is always one of the variables when studying speakers. Other variables include class, age and regional location. There are two particular research results that include a gender perspective: The first was published in the leading international journal *Language in Society* in February 2014 in an article on the meaning of the so-called projected S among young people in Copenhagen. The article shows that gender is part of a complex interaction with ethnicity. The centre is also working on showing that the variable ENG (the difference in how one pronounces the letter E in Danish) is strongly connected to gender.

Center for Textile Research (CTR)

Center Leader Marie-Louise Nosch:

The centre, which focuses on textile history, always adopts a gender perspective in the development and response of research questions that the centre works on.
