

# Gender balance in Research Group Leadership at UiT:

The Research group's Basic Structure and Leadership roles

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Centre for Women's and Gender Research (SKK)

Prestige Project: Gender Balance in Research Leadership at the UiT

Report 02/2021



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## Preface

The overrepresentation of men in research leadership positions/functions within academia has long been highlighted as a problem in Norway and abroad. While women have gained more space within academia in recent decades, the gender gap has remained strong when it comes to the top positions. The Prestige Project has, over the past couple of years, monitored the advancements made at UiT The Arctic University of Norway precisely on the subject of such gaps in top positions.

Previous studies conducted by our team found that the gender gap in professor positions has become smaller at the university level despite significant disparities remaining in some fields, particularly in the STEM fields. We also found that at UiT, gender distribution in leadership positions at all levels — from rectorate (level 1), deans and pro-deans (level 2), and head of departments/centres (level 3) — is within an acceptable range given that women occupy at least 40% of these top positions.

Our goal in this report is to determine whether this pattern was reproduced at the level of research group leadership. We consider this as a fourth-level leadership function at the university due to the formalised status of the groups and their leaders. We were pleasantly surprised by the results, which showed that the rate of women in these leadership functions at UiT exceeded, though with a low margin, the 40W/60M gender distribution found among all other top positions.

Nevertheless, the positive discovery is puzzling. We could not determine whether the result indicates an actual decrease in the gender gap in research leadership or the formalisation of the research group leadership at the University created a more administrative, more service-oriented, and therefore less prestigious function.

In this report, we would have also liked to answer whether being a research group leader at UiT is a prestigious function. The answer remains unclear as the nature of the question requires a complementary qualitative research approach. Nevertheless, the information found in this report can be seen as a first step towards this goal. The question will be further addressed in work-package three (qualitative research) via in-depth interviews with research group leaders.

*Gender balance in research group leadership at UiT* is the second full preliminary report officially released by The Prestige Project: Gender Balance in Research Leadership at UiT. This report is an output of the work-package on quantitative research led by **Adrianna Kochanska**, Researcher at the Centre for Women's and Gender Research, in connection to the Prestige Project, and the BRIDGE Research Group at the Faculty of Biosciences, Fisheries and Economics.

The Prestige Project (RCN 281862/2018-2023) is financed by the BALANSE Program, which has a twofold goal: (1) to advance knowledge on how gender affects career opportunities and the distribution of power and resources in research at UiT; and (2) to inform and encourage the promotion of research-based organisational changes at UiT towards gender equality.

The Prestige Project is held at the Centre for Women's and Gender Research at UiT in close collaboration with the UiT's Equality and Diversity Committee. The project is led by **Kenneth Ruud**, the Vice-Chancellor for research and development and leader of the Equality and Diversity Committee. From 2018-2019, the project was coordinated by **Sigfrid Kjeldaas**, a current Postdoctoral Fellow at Genøk. It is now (2020-2023) coordinated by **Melina Duarte**, Associate Professor at the Department of Philosophy and Researcher at the Centre for Women's and Gender Research. In 2021, the Prestige project has been granted extra funding from the Norwegian Research Council in a new call from the Balanse program, which has extended its support to February 2023.

Melina Duarte, Adrianna Kochanska, Malin Rönnblom  
Tromsø & Umeå, March 2021.

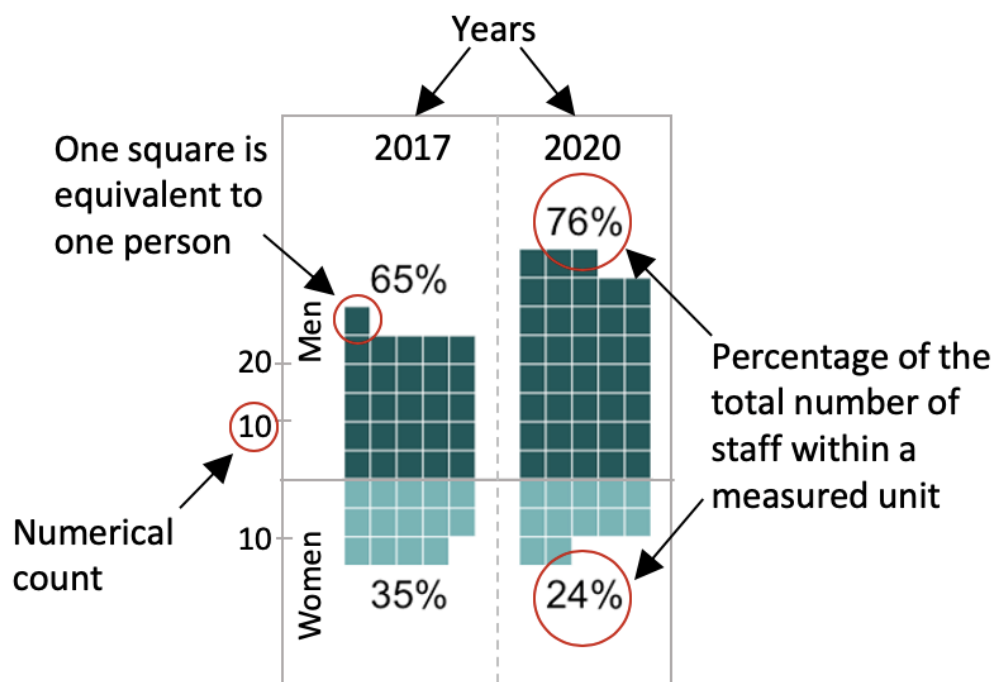
## Acknowledgements

The authors are thankful to participants from the BFE, HELSE, HSL, JURIDISK, UMAK, IVT and NT faculties for providing the names of the research group leaders in the various departments across the university. This data enabled the authors to create an inaugural gender-disaggregated map of the research group leaders at UiT and identify future lines of research. The authors would like to thank all the research group leaders who replied to the survey, which allowed the authors to gain valuable insights into the research group structures and practices at UiT. The authors are also grateful to Kenneth Ruud, Lilli Mittner, and Torill Nustad for important discussions during all phases of this study, from research design to feedback on a previous version of this report. Ann-Therese Lotherington, Vice Dean for Research at HSL faculty, has provided us with contextual information regarding the structuring of research groups at the HSL faculty. This report also benefits from the audience's feedback during a presentation in the DataLab Sharing, an activity hosted by the research group Contemporary Gender Research (ConGen) at the Centre for 'Women's and Gender Research (SKK) in 2020.

## Note on graphs

In the first part of the report, the graphs used to illustrate the data are called “diverging pips”. This type of graphs is designed to identify imbalances between two groups where both raw numbers and percentages are essential indicators (Morey, 2020). With each square representing one person, the following visual makes it easier to draw comparisons and monitor small changes over time. The illustration below indicates how the graphs should be read and interpreted.

Figure 1 Diagram explaining the meaning of the graph and its elements



The example graph shows a variation of the proportion between men and women in a specific unit from 2017 to 2020. The proportion of women decreased from 35% in 2017 to 24% in 2020 due to a reduction of two women and a higher increase in rate and absolute numbers of men among the staff during the period. Relatively, the graph shows the proportion of men increased from 65% in 2017 to 76% in 2020 due to an increase of 22 men among the staff and a reduction in rate and absolute numbers of women among the staff during the same period.

The code for reproducing “diverging pips” graphs in R can be found at <https://github.com/richarddmorey/divergingPips>.

In the second part of the report, we used standard pie charts and histograms charts.

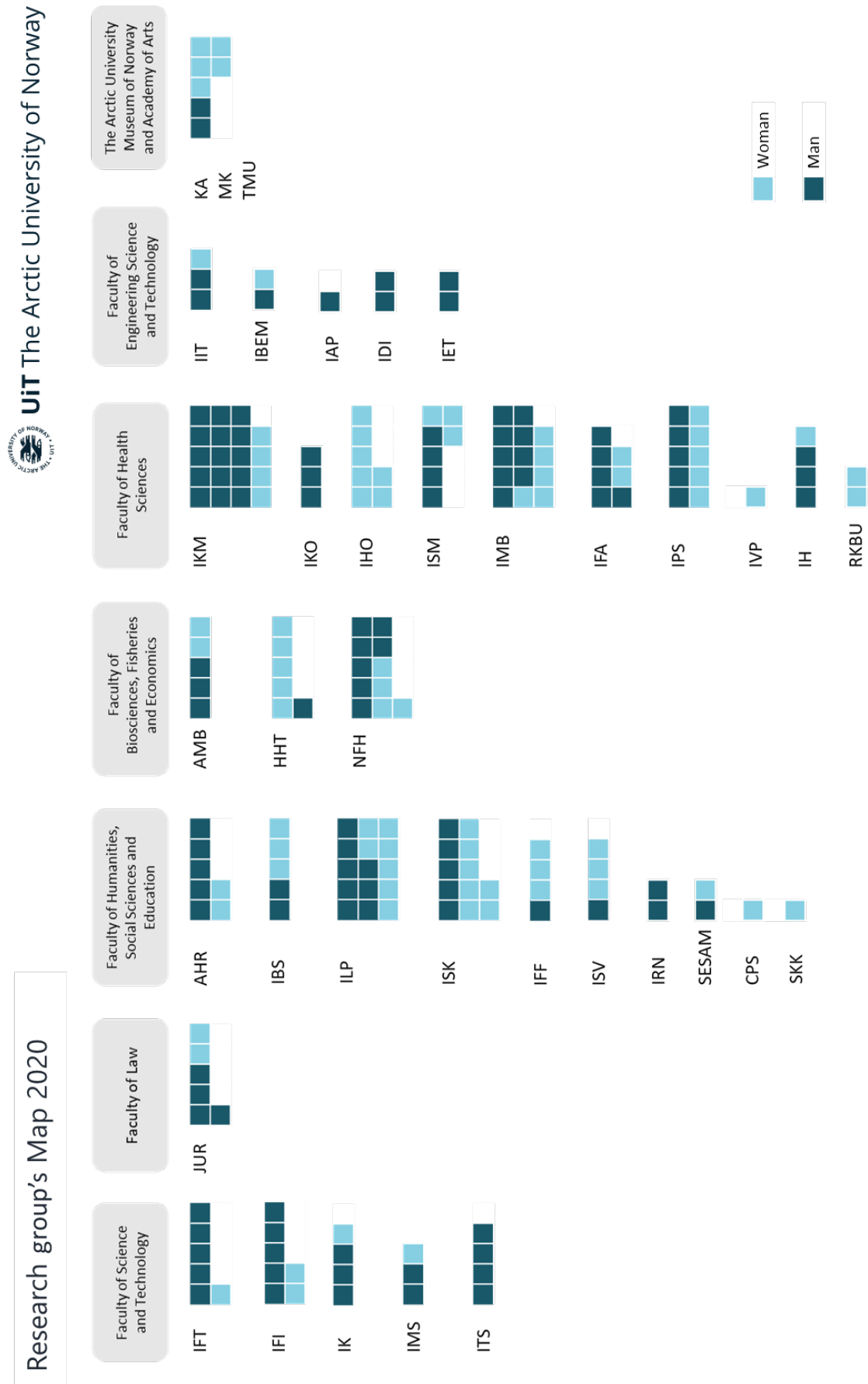


# List of Abbreviations

Table 1. Faculty and department/centres names, abbreviations, and English translations

FACULTY		DEPARTMENT	
<b>BFE</b>	Faculty of Biosciences, Fisheries and Economics	<b>AMB</b>	Department of Arctic and Marine Biology
		<b>HHT</b>	School of Business and Economics.
		<b>NFH</b>	Norwegian College of Fishery Science
<b>HELSE</b>	Faculty of Health Sciences	<b>IFA</b>	Department of Pharmacy
		<b>IH</b>	School of sport sciences
		<b>IHO</b>	Department of Health and Care Sciences
		<b>IKM</b>	Department of Clinical Medicine
		<b>IKO</b>	Department of Clinical Dentistry
		<b>IMB</b>	Department of Medical Biology
		<b>IPS</b>	Department of Psychology
		<b>ISM</b>	Department of Community Medicine
		<b>IVP</b>	Department of Social Education
		<b>RKBU</b>	Regional Centre for Child and Adolescent Mental Health
<b>HSL</b>	Faculty of Humanities, Social Sciences and Education	<b>BAI</b>	Barents Institute
		<b>CPS</b>	Centre for Peace Studies
		<b>AHR</b>	Department of Archaeology, History, Religious Studies and Theology
		<b>IBS</b>	Department of Child Welfare and Social Work
		<b>IFF</b>	Department of Philosophy
		<b>ILP</b>	Department of Education
		<b>IRN</b>	Department of Tourism & Northern Studies
		<b>ISK</b>	Department of Language and Culture
		<b>ISV</b>	Department of Social Sciences
		<b>SESAM</b>	Centre for Sami Studies
<b>IVT</b>	Faculty of Engineering Science and Technology	<b>IAP</b>	Department of Automation and Process Engineering
		<b>IBEM</b>	Department of Building, Energy and Material Technology
		<b>IDI</b>	Department of Computer Science and Computational Engineering
		<b>IET</b>	Department of Electrical Engineering
		<b>IIT</b>	Department of Industrial Engineering
<b>JURIDISK</b>	Faculty of Law		
<b>NT</b>	Faculty of Science and Technology	<b>IFI</b>	Department of Computer Science
		<b>IFT</b>	Department of Physics and Technology
		<b>IG</b>	Department of Geosciences
		<b>ITS</b>	Department of Technology and Safety
		<b>IK</b>	Department of Chemistry
		<b>IMS</b>	Department of Mathematics and Statistics
<b>UB</b>	The University Library		
<b>UMAK</b>	The Arctic University Museum of Norway and Academy of Arts	<b>KA</b>	Academy of Contemporary Art and Creative Writing
		<b>MK</b>	Department of Music and Drama
		<b>TMU</b>	The Arctic University Museum of Norway

# Research groups' map



# 1. Introduction

**In this report, the term “research groups” refers to formally accredited groups of academics at UiT that have dynamic structures and networks, an unlimited duration, and a defined leader that centre on research concerning a common topic.** This definition does not include informal groups that, although sharing the same purpose, lack an officially recognised status granted by the university.<sup>1</sup> This definition of research groups also leaves out those groups of academics that gather together in externally funded research projects. One reason for this exclusion is that a formal research group accredited by the university can host several research projects with overlapping but not fully matching members. Another one is that research projects have, following the grant period, a defined start and finish date. In contrast, the formally accredited research groups have an indefinite duration tied only to the desire and capacity of their members to continue in this formation. The research project’s leadership and external funding are topics of a forthcoming Prestige Report (03/2021). Centres of excellence (SFF, SFU, SFI, and Aurora Centres) are left out of this study given the great differences in the establishment process in relation to ordinary research groups. Centres of excellence are highly dependent on external funding and their initial duration, though defined as long-term, is still limited.

A focus on formalising research groups at UiT started about a decade ago. The initiative emerged as a strategy for creating more robust research communities that would increase the research activity at the university. It was expected that the creation of formal research communities would boost publication rates, external funding, completion of doctoral degrees, and the international visibility of the research conducted at the university (Arkivref.: 2010/1851 JFO001/123.a). Between 2014 and 2015, some faculties had a mid-term performance evaluation of the initiative (e.g. Dyrstad et al. 2014, Grimsgaard et al. 2015). In 2016, the university released a normative-oriented report containing common guidelines regarding the role, structure, and financing of research groups (Refr. 2016/810 (gml sak 2015/5059)). In 2018, it was decided at the university level that research group leaders should, in agreement with the unions, receive compensation in the form of financial support and hour deduction for the service they provide to the group.

While the culture of research group organisation was already present at the HELSE faculty (09/3474-3), the formalisation of the research group at the university level meant that faculties such as HSL had to reorganise their research practices. The needs from the different units were very diverse, which gave different meanings to the formalisation process. The

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<sup>1</sup> It is reasonable to believe that unaccredited research groups with informal research leaders do exist at the UiT. They are, however, difficult to track from a perspective that is external to the units where they could be found. A more encompassing study about the gendered aspects of research group leadership at UiT would benefit from taking informal settings into account. While gender disparities have, over the years, decreased from the formal and accountable settings, the informal settings of the university are still largely unexplored. A study of these informal settings, however, would require a different methodology than the one we used for producing this report such as the observation of the group dynamics within the units of the university.

formalisation was more of a question about institutional accreditation for the units already containing several informal research groups. On the other hand, the formalisation had a founding function for the remaining units that prompted the creation of research groups and promoted a change from more individualised to more collective ways of conducting research. The guidelines and directives for research groups still vary across faculties, and some fields of inquiry remain firmly anchored in individualised forms of conducting research, even via research groups. The formalisation of research groups led to a standardisation of the regulations and expectations surrounding research groups over the whole university. Consequently, the tasks and expectations towards the research group leaders have become more evident and often described either in documents from the different faculties or additional work contracts signed between the research group leaders and the department leader (e.g., the BFE faculty).

The effects associated with the formalisation of research groups at UiT for women and other minorities within the gender spectrum remain largely unknown. The main goal of this report was not to investigate these particular effects but, in a two-step process, to present inaugural gender-disaggregated data on the research group leadership at UiT (step 1), and correlate that data with the current basic structure of these groups in order to promote future research on formalisation (step 2). We lacked access to comparable historical datasets that would enable us to monitor changes over time within the institution and comparable available data from other Nordic universities where the research groups have not been formalised. Drawing from studies on formalisation within gender and organisational theory, we believe formalisation tends to benefit women in terms of increasing their representation due to the higher accountability of formal procedures (Rees 2004; Ziegler 2001). However, it does not necessarily benefit them in terms of increased power and status (Van den Brick et al. 2010).

This report has the following structure: Section II explains the different methodologies used in step 1 and step 2 of data collection and analysis. Section III presents the results of step 1 and shows the gender distribution of research group leaders at UiT at three levels: university, faculty, and department/centres associated with the gender distribution in the relevant academic positions (associate professor and professor). Section 4 presents the results of step 2 and points to some gender trends associated with the role that the research group leaders play within these groups. Section 5 discusses the results of both steps and puts the significance of the data into perspective. Section 6 concludes the report.

The summary of the findings can be found in a factsheet at the end of this report. The factsheet can also be downloaded separately from our website ([www.uit.no/research/prestige](http://www.uit.no/research/prestige)). An additional tool for measuring gender balance in organisations within and across different groups is also available on our website ([www.uit.no/resources/balancinator](http://www.uit.no/resources/balancinator)). The tool is produced and enhanced by Mittner & Mittner 2020 based on the Prestige Report 01/2020.

## 2. Methods

This study was conducted in two steps. Step 1 consisted of gathering basic information about how many research groups currently operate at UiT and who leads these groups. Step 2 involved further inquiry on the structure of research groups and on the role that leaders play within their respective groups. The precise methodology used in each step is specified below:

### Step 1: Gathering basic information

Data regarding the research group leadership was collected in June 2020. Participants from the BFE, HELSE, HSL, IVT, JURIDISK, NT and UMAK faculties provided data containing information about the research groups, such as their names and their respective leaders. Data consisted of department names, research group names, research group leaders and, when applicable, research group levels. Although this information is public and available on the web pages of each research group, we opted for collecting the data directly from the faculties since we had no guarantees that the pages were up to date. Participants from the NT faculty provided information concerning the ITS, IFT, IFI, IK and IMS departments. According to our contact person, the IG currently does not have any research groups operating independently of research projects or centres of excellence<sup>2</sup>. UB faculty is not included in this study because we have not found any information about research groups on their web pages (even outdated). However, second-order research (enablement of research and meta-analysis of research activity) is visibly strong in UB's profile. For example, RESULT consists of organised workgroups with staff members active in research concerning teaching-learning processes. We have classified RESULT as a competence centre focused on training and developing teaching-learning abilities in general and not organised into research groups, strictly speaking. This selection criteria can also be seen as a shortcoming that could be addressed in future studies.

### Step 2: Survey

A short questionnaire investigating the basic structure of research groups was sent out in October 2020 via Nettskjema. The questionnaire, attached in appendix 1, consisted of nine informative and direct questions addressed to the research group leaders at UiT as of June 2020. The questions were designed to map out the size of each research group, their general composition and structure, the extent to which they report engagement in national and international networks, the level of activity in producing research outputs according to their self-evaluated potential, how one becomes a research group leader, and identifying the main roles of research group leaders. The survey was sent out to 196 research group leaders; 120 responses were collected, out of which three responses were removed from the data set due to duplication. Maintenance on the Nettskjema website two days before the expiration of the deadline prevented several people from submitting their answers. Some of them contacted

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<sup>2</sup> IG hosts, however, the CAGE centre of excellence.

us. However, we decided that re-opening the questionnaire was unnecessary due to an already high response rate.

Although personal or sensitive data was not collected during our study, we guaranteed the anonymity of participants in the data collection and presentation of results. Crossing gender-disaggregated data from step 1 with the data from step 2 involved creating a table at Step 1 that contained only the names of the research groups and the information on whether a woman or a man led these groups. The gender was not self-reported but deduced from their names. The names of the research group leaders were then deleted from our database. However, they might still be found individually on the institutional web pages from the research group themselves (if they are up to date). Furthermore, while the presentation of results at Step 1 goes into the department/centre level, Step 2 is more general and remains at the faculty level. When, in the discussion, we refer to the comments written by the research group leaders at the open field of the questionnaire, we do not connect the comment to any specific group or unit.

In this study, we have operated with a binary gender structure (woman/man) due to the structure of our datasets. However, we recognise this as a methodological limitation that needs to be overcome in future studies.

Since Jun 2020, some faculties have restructured the way that research groups are organised, and some research groups have already changed leader by the time of publication of this report. The changes we became aware of are indicated in the report.

### 3. Gender Distribution in Research Group Leadership

#### 3.1. University level

Data from June 2020 shows that UiT has 196 formally established research groups across the faculties. The distribution of the research groups across the faculties coincides with the size of the faculties with respect to the number of academic employees (see Research Groups' Map). Other factors playing a role in this distribution of research groups across faculties are the tradition of organising research into clusters and the nature of the research done within the different fields (individual vs collective)<sup>3</sup>. Resulting from one or more of these factors, the Faculty of Health Sciences (HELSE), Faculty of Biosciences, Fisheries and Economics (BFE), Faculty of Humanities, Social Sciences and Education (HSL) and the Faculty of Science and Technology (NT) have a greater number of research groups. The three remaining faculties included in this study have a relatively smaller number of research groups, namely: the Faculty of Engineering Science and Technology (IVT), the Law Faculty (JUR) and the Arctic University Museum of Norway and the Academy of Fine Arts (UMAK).

Our data shows that **women lead 43% of research groups at UiT (85/196)**<sup>4</sup>.



<sup>3</sup> A report from the HELSE faculty released in 2015, however, showed that individualism in academia is a problem even for fields that traditionally organise their research into clusters and that are highly dependent on cooperation for being competitive when applying for external funding. See: Grimsgaard et al. 2015. Kartlegging av forskningsgrupper ved Helsefak. Arkivref: 2015/4677/KKV010, s.14. A new report from the Research Council of Norway has stressed that in the humanities, individualized work has still a heavy weight. See: Norges forskningsrådet. 2019. Oppfølging av evaluering av humanistisk forskning i Norge. Available at: <https://www.forskningsradet.no/contentassets/8aa89cf713f2430e90e4e9a4a6aa1e88/rapport-fra-oppfolgingsutvalget-etter-humeval.pdf>

<sup>4</sup> For more information about the gender distribution in other leadership roles at UiT, see: Kochanska&Duarte. 2020. Gender Distribution in Leader Roles at UiT. Factsheet 01/2021. Prestige Project (RCN 281862): Gender Balance in Research Leadership. Available for download at: <https://doi.org/10.6084/m9.figshare.13661297.v2>

### 3.2. Faculty level

The Faculty of Biosciences, Fisheries and Economics (BFE) is the only faculty with a 50/50 split in gender distribution among research group leaders. The proportion of women formally exercising a research group leadership function at the Faculty of Health Sciences (HELSE) and the Faculty of Humanities, Social Sciences and Education (HSL) is 41% and 55%, respectively. At the Faculty of Science and Technology (NT), this proportion is 21%, which is not low considering the proportion of women in professor (16%) and associate professor (28%) positions at the faculty during the same period (Duarte et al. 2020)<sup>5</sup>. The proportion of women in research group leadership functions at the Faculty of Engineering Science and Technology (IVT), the Law Faculty (JUR) and the Arctic University Museum of Norway and Academy of Fine Arts (UMAK) are 20%, 33% and 71% respectively. HSL and UMAK have an apparent high rate of women leading research groups. While at HSL, this rate is consistent with the proportion of women in professor (52%) and associate professor (48%) positions, at UMAK, this rate exceeds the proportion of women in professor (47%) and associate professor (37%)<sup>6</sup> positions. However, at UMAK this difference is less significant due to the low number of research groups.

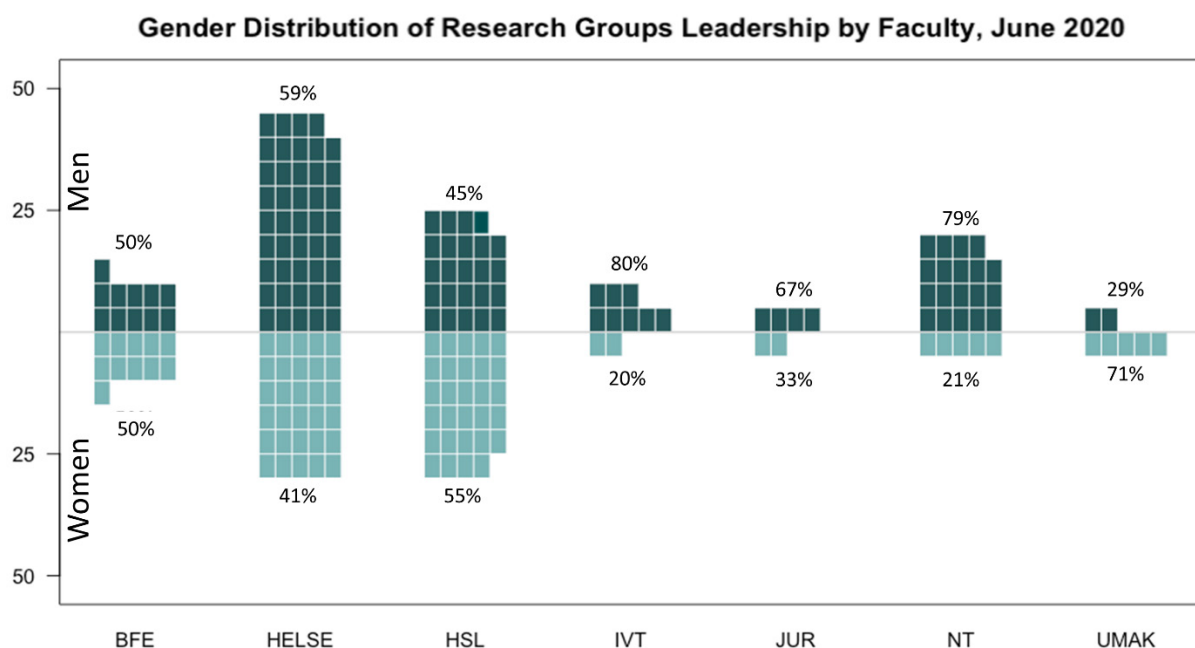


Figure 2 Gender Distribution in Research Group Leadership Roles by Faculty, June 2020

<sup>5</sup> A comparison between the rates of women in professor and associate professor positions with the rates of women in research group leader roles is possible since our data shows that, on the whole, most research group leaders are either professors or associate professors. A very small number are researchers (five at HELSE and one at HSL), docents (one at HELSE and three at HSL), and university lecturer (one at HELSE).

<sup>6</sup> See comment at footnote 3.



### 3.2.1. The Research Group Levels at the HSL and JUR

Only two faculties at UiT reported, as of June 2020, that they follow a levelled structure that ranks research groups based on their level of development. The most established groups are ranked at the top (level 2), while consolidated groups under development are ranked at the bottom (level 1). The level of development is determined according to records and future potential. Records primarily include the amount of external funding received, quantity and quality of publications by its members, and scope of established international cooperation. At HSL, a third category includes networks, but these are no longer considered research groups. A more precise definition of such classification can be presented as follows:

“Level 2: Research groups that can be denoted as top research environments. They are mainly composed by senior researchers that: assert themselves nationally and internationally, publish well, have experience with project leadership, and partake in an established robust international network. Research groups in this phase will work for a clear international profile and for a broad cooperation with external partners.

Level 1: Research groups that are consolidated within a defined academic community and that have regular activities. They are composed by researchers who: publish regularly, have experience with applications for funding, and have a concrete plan for increasing quality of the research outputs as well as increasing internationalization. Research groups in this phase will prioritize finding a niche where they can become more specialized. These groups will have a common goal and build a strategic network for gaining international visibility and influence.

Networks: Groups that are newly established and that are under an early consolidation stage. They are composed by researchers that seek to find a common ground for the establishment of a research group. These groups will gain experience with applications for funding, build a critical mass, and create a forum for the development of ideas and projects.”<sup>7</sup>

The Faculty of Law has three research groups at each of the levels. At the higher level (level 2), the proportion of women is 67%, whereas at the lower level (level 1) there are no women in research group leader roles. The research groups at the Faculty of Humanities, Social Sciences and Education, are also divided into two levels. A third level, which is not accounted for here, is that of networks. At the higher level (level 2), the proportion of women in research leadership functions is 55%, whereas, at the lower level (level 1), the proportion of women is 51%. Although only these two faculties reported following a ranking structure, other faculties (e.g. Grimsgaard et. al 2015) and external research institutions (e.g. NIFU, RCN) have used similar criteria for periodical evaluations of research group performance. Furthermore, the fact that not all faculties have a levelled system for research groups does not imply that the groups are not recognised or aware of their different levels of development.

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<sup>7</sup> This presentation of the classification of research groups into levels is a translation and adaptation of the categories as described by HSL in 2014. At the time, networks counted as research groups and the top ranked groups were classified as level 3 (See Arkivref.2014/2153). All categories were financed by the faculty and the ranking was used to determine the amount of funding. The goal was to strengthen the quality and quantity of research done at the faculty. Although the ordering and funding model have changed since then (see Olsen&Larsen 2019: SAK FS-26/2019), these are still the most precise definitions we found of the level structure. Rasmussen (2014, pp. 217-219), which was used as inspiration for this model, divides research groups into four similar phases of development ranging pedagogically from phase 0 to phase 4.

At HSL, women lead more research groups than men and lead more groups classified as top research groups. Whereas men lead more research groups at the JUR faculty, the only two research groups led by women are classified as top research groups.

Gender Distribution in Research Group Leadership at two levels HSL & LAW Faculties, June 2020

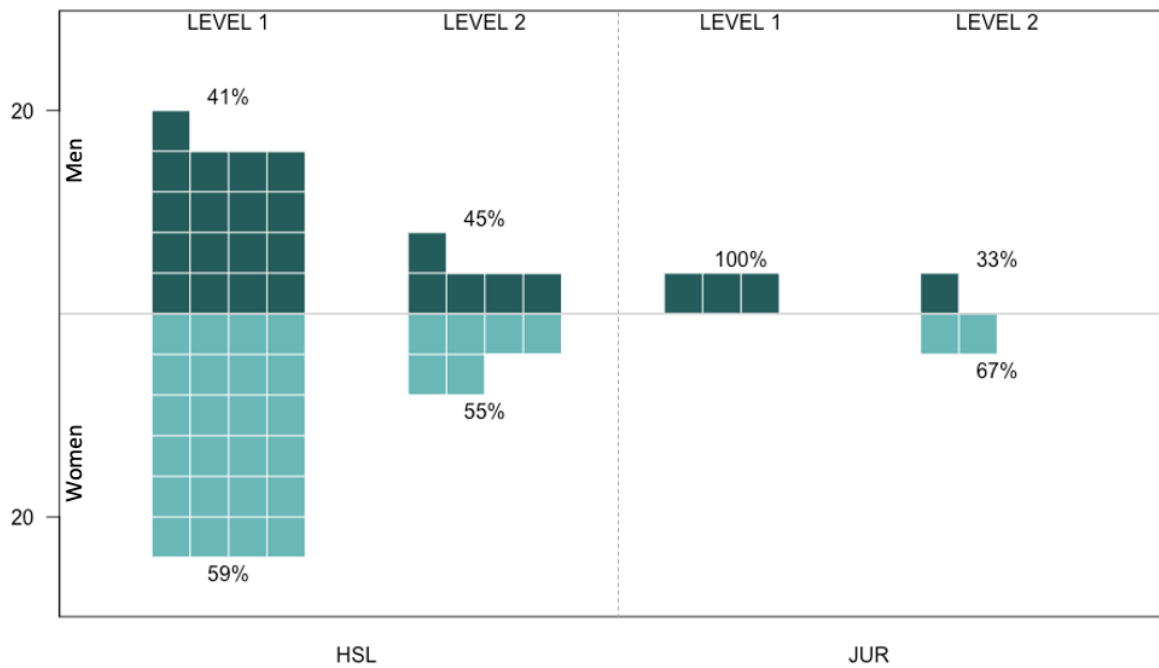


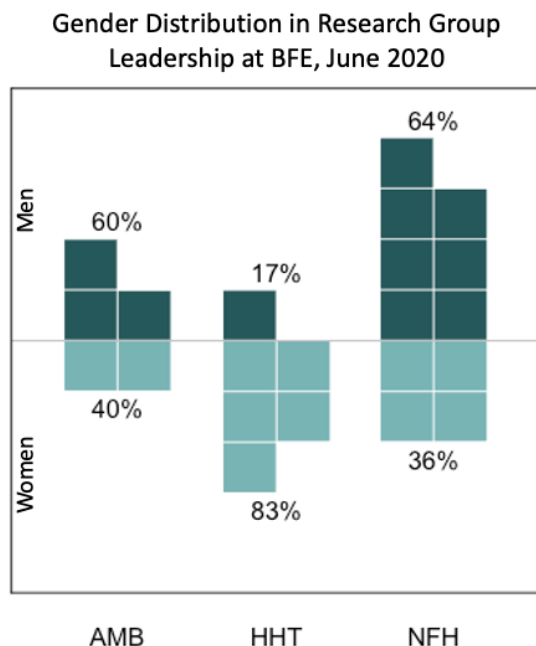
Figure 3 Gender Distribution in Research Group Leadership at two levels at the HSL & LAW faculties

During the second half of 2020 and beginning of 2021, UMAK has implemented a levelled structure for its research groups. One of UMAK’s research groups have been upgraded for level 2 and this group is led by a woman.<sup>8</sup>

<sup>8</sup> Thank to Lena Aarekol for the update.

### 3.3. Department level

#### 3.3.1. Departments at the Faculty Biosciences, Fisheries and Economics (BFE)



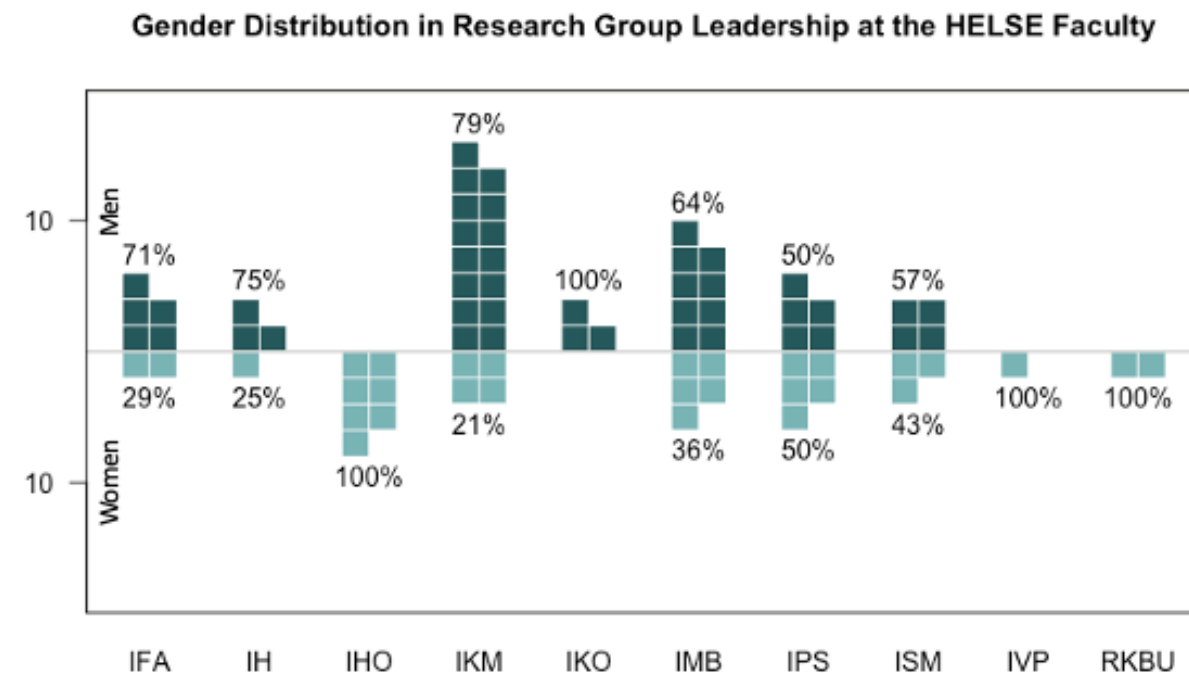
**The BFE faculty displays a 50/50 gender distribution among the research group leaders.**

However, a closer look at the department level reveals some variations, especially concerning HHT. The proportion of women in research group leading positions at the Norwegian Fisheries College (NFH) is 36% and the Department of Arctic and Marine Biology (AMB) is 40%. The Tromsø University Business School (HHT) has a less balanced gender distribution. The proportion of women in the research group leading functions is 83%, which effectively drives up the gender balance at the faculty level.

*Figure 4 Gender Distribution in Research Group Leadership at Department Level of the BFE Faculty, June 2020*

#### 3.3.2. Departments at the faculty of health sciences (HELSE)

**The proportion of women in research group leading positions is 41% at the HELSE faculty level.** However, once again, there are some variations across the departments.



*Figure 5 Gender Distribution in Research Group Leadership at Department level of the HELSE Faculty, June 2020*

**Women make up 100% of the research group leaders in three out of the ten departments:** the Department of Health and Care Sciences (IHO), Department of Social Education (IVP), and the Regional Centre for Child and Adolescent Mental Health (RKBU). **The Department of Psychology (IPS) is the only one with a 50/50 gender distribution among research group leaders.** A similar gender distribution occurs at the Department of Community Medicine (ISM), where women lead 43% of research groups. The remaining five departments are below the 41% mark of the HELSE faculty. Starting with the Department of Medical Biology (IMB), the proportion of women-led research groups is 36%. Next in line are the Department of Pharmacy (IFA), the School of Sport Sciences (IH) and the Department of Clinical Medicine (IKM), with 29%, 25%, and 21%, respectively, of research groups led by women. **There are no women in research group leading positions at the Department of Clinical Dentistry (IKO).** Despite the significant variations between the proportions of women in research group leader functions, it is essential to acknowledge that the absolute numbers are relatively low. None of the departments has more than 20 research groups in total.

### 3.3.3. Departments at the faculty of humanities, social sciences and education (HSL)

**The HSL faculty is the only faculty where the proportion of women in research group leading positions is larger than that of men (with a 55%/45% split).** This is apparent across most departments, where women in research group leading positions make up 50% or more of the proportion in eight out of ten departments. The only two departments that fall below the 50% mark are the Department of Archaeology, History, Religious Studies and Theology (AHR), where women lead 29% of the research groups and the Department of Tourism & Northern Studies (IRN) where men lead the two research groups.

**Gender Distribution in Research Group Leadership at the HSL Faculty**

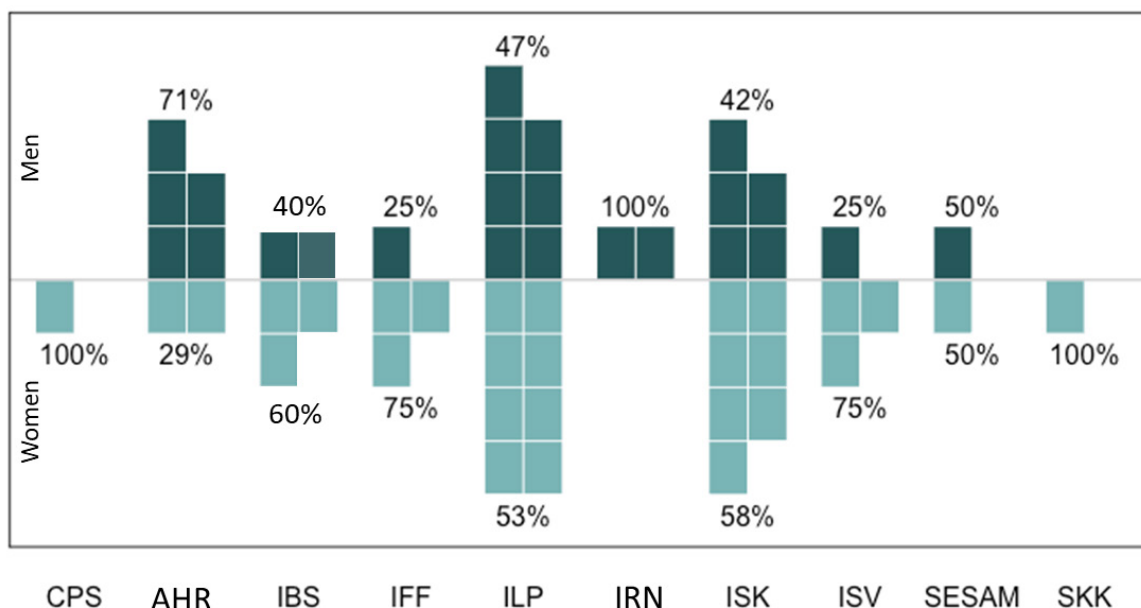
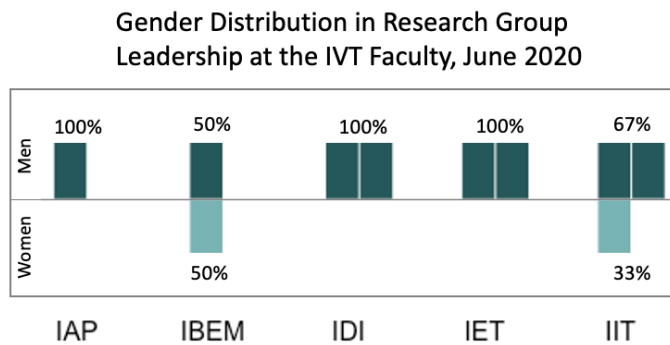


Figure 6 Gender Distribution in Research Group Leadership at Department level of the HSL Faculty, June 2020

### 3.3.4. Departments at the faculty of engineering science and technology (IVT)

The IVT faculty has the highest proportion of men in research group leading functions out of all faculties at UiT at 80%. However, it is also one of the faculties with the smallest number of research groups (IVT(10), UMAK (7), JUR (6)) and one of the faculties with the lowest representation of women in associate professor (18%) and professor positions (24%) (Duarte et al. 2020). There are two departments with a research group led by a woman: the Department of Building, Energy and Material Technology (IBEM) and the Department of Industrial Engineering. Men lead all the remaining eight research groups found at the IVT.

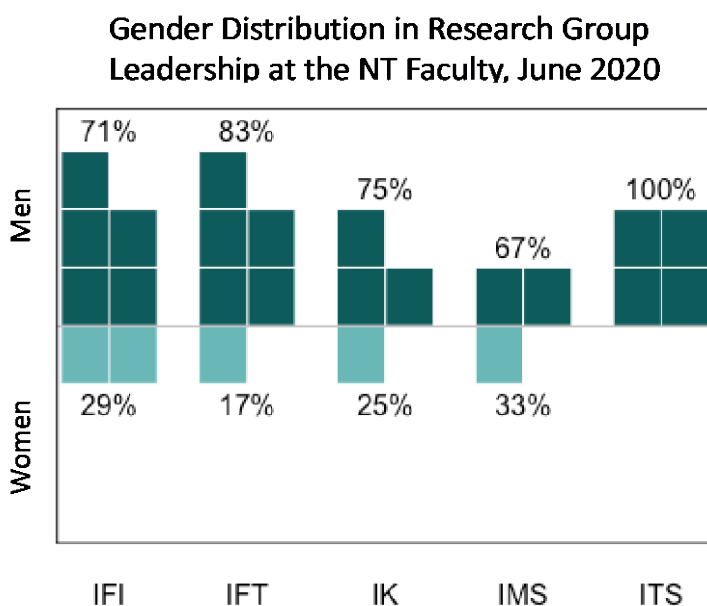


*Figure 7 Gender Distribution in Research Group Leadership at Department Level of the IVT Faculty, June 2020*

### 3.3.5. Departments at the faculty of science and technology (NT)

**At the NT faculty, men lead 19 out of the 24 research groups; this has resulted in 79%/21% gender distribution.** Four departments at the NT have women in research group leader functions. The Department of Mathematics and Statistics with 33% of research groups led by women, the Department of Computer Science (IFI) with 29% research groups led by women, the Department of Chemistry with 25% of the research groups led by women, and the Department of Physics and Technology with 17% of the research groups led by women. Men

lead all research groups in the Department of Technology and Safety (ITS). Currently, the Department of Geosciences (IG) does not have any research groups.



*Figure 8 Gender Distribution in Research Group Leadership at Department Level of the NT Faculty, June 2020*

### 3.4. Academic Positions of the Research Group leaders

**Academic positions of the research group leaders are occupied by professors and associate professors in 94.3% of the research groups.** Only a handful of research groups at UiT are led by docents (4), researchers (6), or lecturers (1), and such cases can only be found at HELSE and HSL. Professors lead 124 research groups, whereas associate professors lead 61 research groups. The only faculty with more associate professors as research group leaders is the IVT. Regarding gender distributions and academic positions, the HSL faculty has substantially more women research group leader in associate professor positions than men. The split is almost 50/50 among research group leaders who hold professor positions. A similar pattern takes place at the BFE faculty. Women make up 60% of research group leaders who are associate professors and 42% of the leaders who are professors. At the HELSE faculty, women make up 41% of research group leaders who are associate professors and 35% of the leaders who are professors. For the JUR faculty, women make up 41% of research group leaders who are associate professors and 35% of the leaders who are professors. For the JUR faculty, women make up 33% of both associate professors and professors. The NT faculty has the lowest number of research group leaders in associate professor positions.

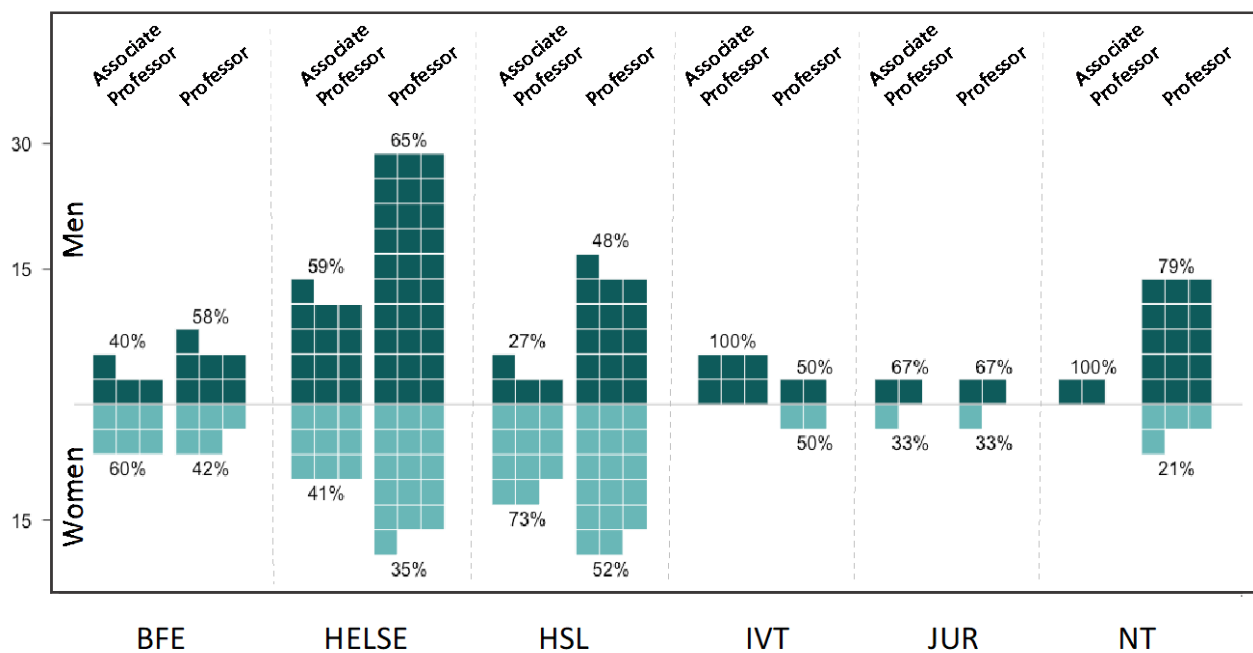
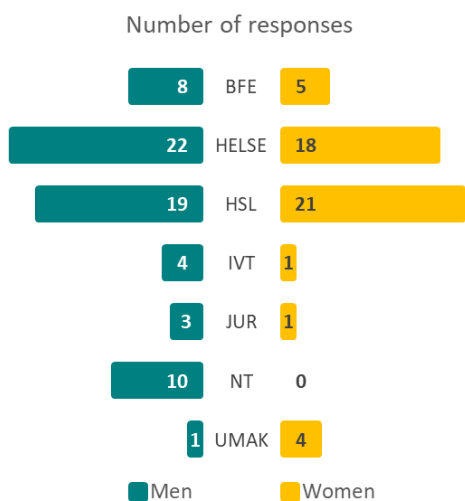


Figure 9 Academic positions of the research group leaders

## 4. Research Group Structures at UiT



**As of June 2020, 196 research groups exist at UiT. Women lead 43% of these research groups.** A short survey regarding the research group structures collected 117 responses, out of which 42.7% were submitted by women. The number and distribution of responses between the two gender groups provide a reasonable basis for analysis. Nevertheless, it is crucial to bear in mind that several faculties have a low number of research groups. The low number of responses does not mean that the faculty is not well represented.

Figure 10 Number of responses by faculty and gender

### 4.1. Research group size

It is known that the size of the research groups can affect the quality of the research that their members produce and their chances of achieving international recognition (Meld. St. nr 18 (2014-2015)). The optimal size of the research groups varies largely across faculties and fields of inquiry. It is intuitive to think that relatively small groups might not provide the members with a stimulating environment, and very large groups might pose interaction problems that result in group fragmentation. It is hard to prescribe an optimal size for research groups.

**The average research group at UiT is comprised of 12.6 research group members.** There are significant differences between the faculties, with research groups located at BFE consisting of as many as 17.4 members on average. In comparison, the smallest research groups can be found at UMAK, with 7.4 members on average. When considering the gender of the research group leader, it has been found that at the university level, **the research groups led by women are larger by approximately four members than those led by men.** This pattern is consistent across most faculties, meaning that generally, **men lead smaller research groups than women.** A noteworthy difference can be found at the BFE faculty, where on average, women lead research groups that consist of 26.8 members. In contrast, men lead groups that consist of 11.5 members. A large difference in research group sizes between men and women leaders can also be found at the HSL faculty, where women lead research groups that are on average larger by almost five members. At the HELSE faculty, women lead groups larger by two and a half members on average.

Compared to BFE, HELSE and HSL, fewer responses were collected from the IVT, JUR and UMAK faculties. Nevertheless, as mentioned above, these faculties have a relatively low

number of research groups. Therefore, some conclusions can be derived despite the seemingly low number of responses. **The JUR faculty is the only of all faculties where men lead larger research groups than women, 11.7 versus eight on average.** The largest research groups led by men can be found at the NT faculty (13.2). Unfortunately, data concerning female group leaders was not collected from this faculty, meaning a gender-disaggregated comparison cannot be drawn. In contrast, one response from a woman at the IVT faculty indicated that women lead significantly larger research groups than men: 20 versus 11.5 on average. It is important to remark that few responses from women were collected from the faculties with less than or equal to 21% of research groups led by women (e.g., IVT and NT). Similarly, few responses from men were collected from the faculties with more than 70% of women as research group leaders (e.g., UMAK).

In NT and IVT faculties, the rate of women in research groups leadership functions coincides with the proportion of women in professor and associate professor positions (Duarte et al. 2020).

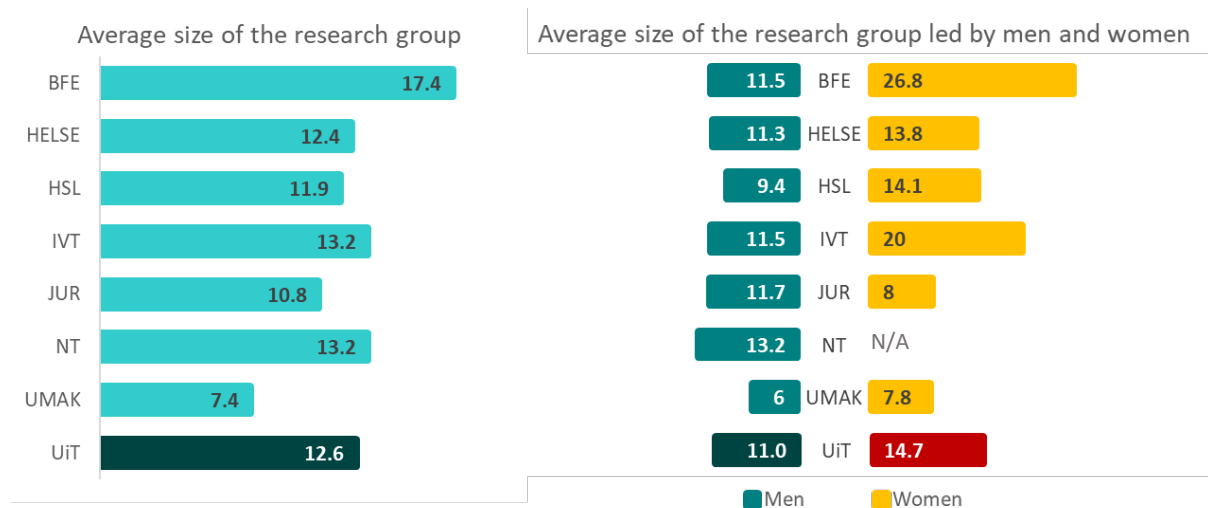


Figure 11 Average size of the research group by faculty and by faculty and gender of the leader

## 4.2. Composition of the Research Group

The proportion of research group members enrolled in 50% or more research contracts can affect the number of research outputs produced by the group. Research groups with a higher proportion of full-time researchers (PhDs, postdocs, senior researchers) and researchers on 50% or more research contracts (professors or associate professors) have, in total, many more hours dedicated to research in comparison to research groups with a higher proportion of members with no or minimal research contracts (e.g., university lecturers or those in 80/20 teaching contracts). Therefore, assessments of the performance of the research groups should take this aspect — i.e., the total number of research hours in the group — into consideration to make fairer evaluations of a group's potential. **It has been found that research groups led by men have a higher proportion of members enrolled in research contracts of 50% or higher.** Fifty-six percent of the research groups led by women have more



than 75% of their members enrolled in research contracts, while 18% of groups have between 50 and 75% members enrolled in research contracts and 26% of the research groups led by women have less than 50% of members enrolled in research contracts. Sixty-seven percent of the research groups led by men have more than 75% members enrolled in research contracts, whereas 18% of groups have between 50 and 75% members enrolled in research contracts, and 15% of the research groups led by men have less than 50% of members enrolled in research contracts.

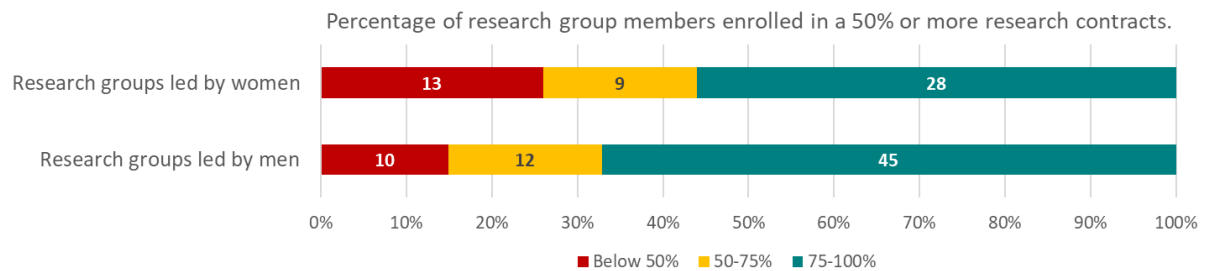


Figure 12 Proportion of research group members enrolled in 50% or more research contracts in research groups led by men and women

### 4.3. Structure of the Research Group

From a previous report released in 2016 about the organisation of research groups at UiT (Refr. 2016/810 (gml sak 2015/5059)), we have learned that the structure of research groups used to vary considerably across faculties and fields of inquiry. Following their mandate, the committee discussed possible models to evaluate which structure would work best in different contexts but did not map the existing research group structures at UiT. Their framework for analysis was based on Rasmussen’s model that distinguishes research groups into two main types known as “stjerneklubben” and “raketten”. According to Rasmussen, two of the main aspects used to divide these types of research groups are the leadership style (centralised/decentralised) and research focus (narrow/broad). Research groups organised into a “rakett” (rocket) formation are centralised around a leader whose authority is derived from the expertise in the field in which the group specialises. In comparison, research groups organised into a “stjerneklubb” (club of stars) formation have a more decentralised academic leadership in which the authority of the leader is derived from their function in the group. Such organisation makes “rakette” groups more focused and goal-oriented and “stjerneklubbe” groups more flexible (Rasmussen 2014, 225-231).

**The great majority of the research groups at UiT have a “stjerneklubb” structure.** This means that most research group leaders at UiT are one of the key researchers composing the groups, where the members share a common infrastructure while working on numerous research fronts/projects. Out of 50 research groups led by women, only 8% have a “rakett” structure. Out of 67 research groups led by men, 17.9% have a “rakett” structure. Such a structure is most common at the HELSE faculty, where 7 out of 40 groups are organised in this way. The

second research group structure, “raketten”, refers to the research group leader as the person whose research interests are essential to the research activities within the group.

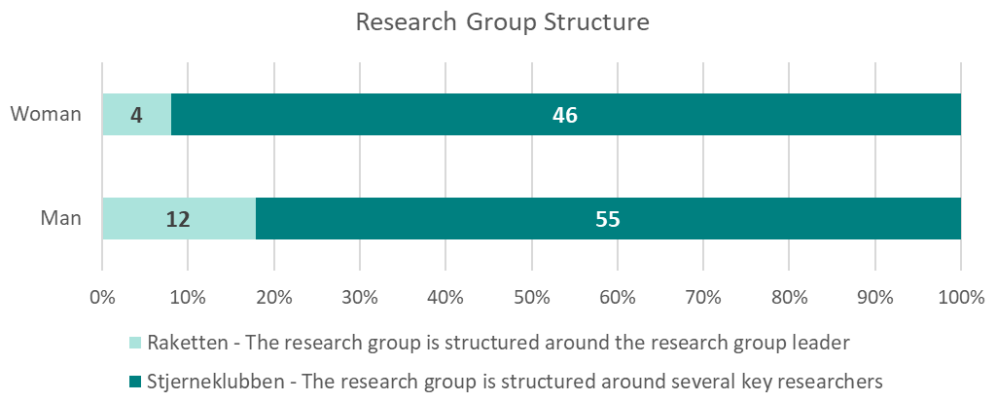


Figure 13 Research group structure at UiT, divided by gender of the leaders

#### 4.4. National and International Networks

Engagement in national and international networks can be considered an essential activity of the research community. It has been found that 57% of men research group leaders reported engagement in maintaining these networks to a high extent, 37% to a moderate extent, and 6% to an insignificant extent. Compared to women research group leaders, **men reported engagement in maintaining national and international networks noticeably more than women.** Forty-two percent of women research group leaders reported engaging in maintaining these networks to a high extent, 50% to a moderate extend, and 8% to an insignificant extent.

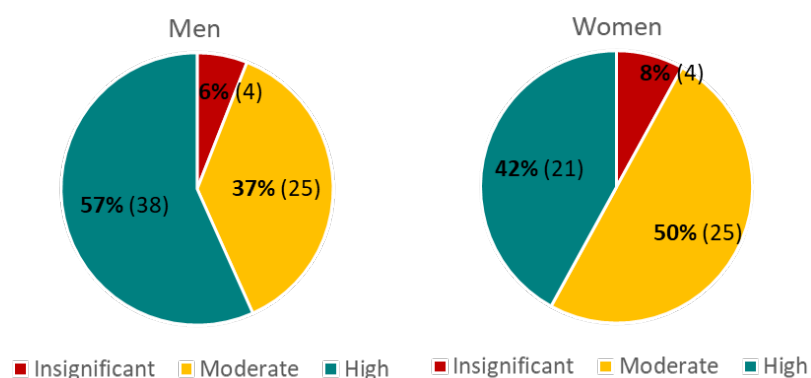
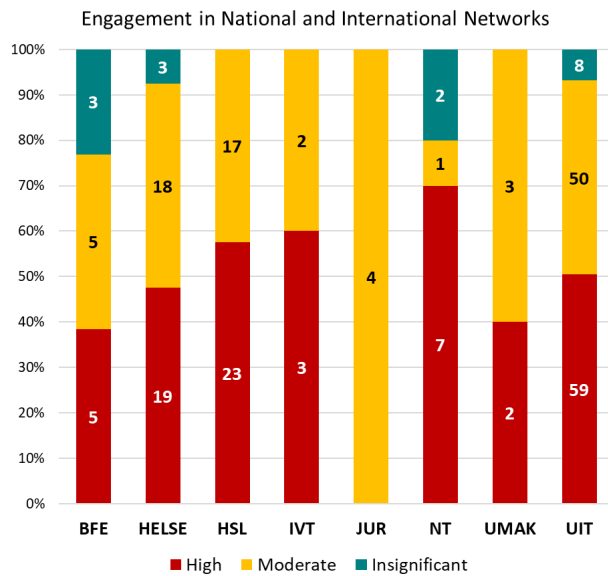


Figure 14 Reported engagement in national and international networks in research groups led by men and women.

The extent to which research group leaders report engagement in maintaining national and international networks further differs across the faculties. The highest proportion of research group leaders that report maintaining national and international networks to the highest extent come from the NT (70%) and IVT (60%) faculties. This is closely followed by the HSL faculty, where 57.5% and the HELSE faculty with 47.5% of research group leaders reported maintaining a high engagement. Approximately 40% of respondents from BFE, HELSE, HSL, and IVT reported engaging in international and national networks to a moderate level. While 60% of UMAK's respondents reported a moderate level of engagement, all JUR respondents indicated a moderate level of engagement. The NT faculty had the lowest proportion of respondents (10%), which indicates a moderate engagement level. The BFE faculty has the highest proportion of research group leaders (23%) who reported engagement in maintaining national and international networks to an insignificant extent. Only two other faculties had respondents who indicated their international and national networks' engagement to be insignificant: NT (20%) and HELSE (7.5%).



respondents (10%), which indicates a moderate engagement level. The BFE faculty has the highest proportion of research group leaders (23%) who reported engagement in maintaining national and international networks to an insignificant extent. Only two other faculties had respondents who indicated their international and national networks' engagement to be insignificant: NT (20%) and HELSE (7.5%).

*Figure 15 Reported engagement in national and international networks in research groups separated by faculty*

#### 4.5. Research Outputs in Relation to Group's Potential

The importance of recognising research outputs other than the journal publications has been highlighted in recent years (Haustein & Larivière 2015). The idea behind this question was to observe what research outputs are being produced by the research groups and see how the production of these research outputs is evaluated by the leader relative to the research group's potential. The figure shows how the research group's leaders evaluate the group's performance in terms of a broad range of research outputs. It is assumed that the answer "very active" indicates that the group is at full capacity regarding the production of given research outputs, whereas the answers "active" and below can indicate that, from the perspective of the leader, there is room for improvement. It is important to remark that these results were not correlated with the factual performance of the groups as registered on, for example, Cristin or other platforms. This means that, for example, small groups with few research outputs can still appear

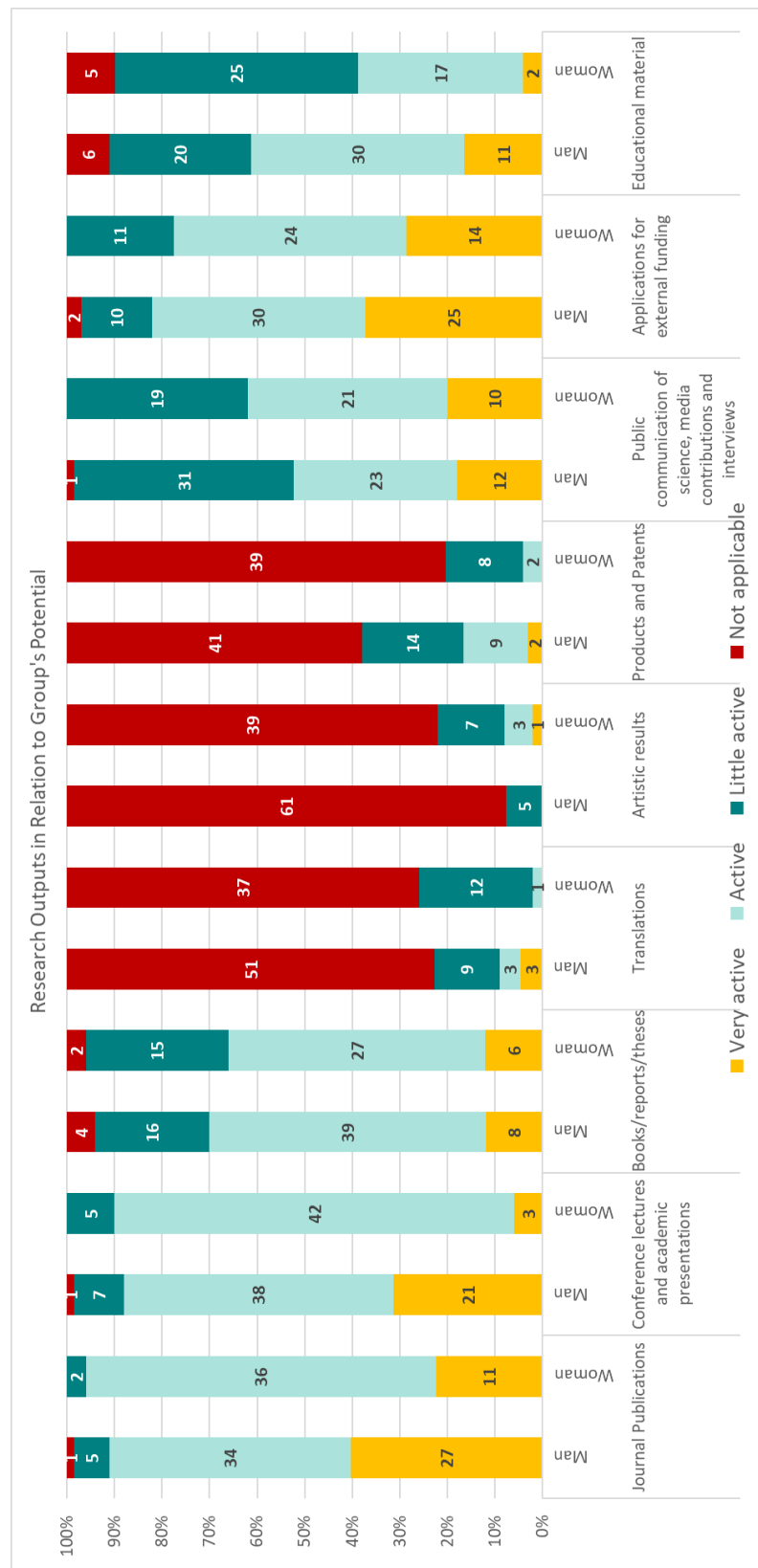


Figure 16 Research groups' leader's perception on research outputs in relation to group's potential

here as being “very active”. Different groups have different capacities, and the authors wanted to measure whether they, according to the leader's view, are achieving their maximal potentials.

For journal publications, 40% of men indicated that their group is very active, 50.7% active and 7.4% not very active. Whereas women indicated that 22.4% are very active, 73.4% active and 4% not very active. A similar pattern appears for the conference lectures and academic presentations. Of the men who responded, 31.3% indicated that they are very active in contributing to such research outputs, whereas only 6% of women indicated high activity. **The proportion of women who indicated their group is active is larger than the proportion of men at 84% and 56.7% respectively.** The difference in producing research outputs such as books, reports, and theses was not significant. Both men and women indicated approximately 12%, 55% and 30% in being very active, active, and not very active in producing these research outputs. For translations, artistic results, and products and patents, both men and women indicated that these research outputs are not applicable with at least 60% of the votes. **Research groups led by women appeared to be slightly more active in producing artistic results, while men reported to be more active in producing products and patents. A higher proportion of women indicated that they are very active (20%) and active (42%) in the public communication of science, media contributions and interviews comparing to men (very active 17.9%, active 34.3%). Men indicated a higher activity in producing applications for external funding, where 37.3% pointed to very active and 44.8% to active, while 28.6% of women indicated very active and 49% active.** Of the men surveyed, 16.4 indicated that their research groups are very active in producing educational material, while only 4.1% of women indicated high activity. **Furthermore, 10% more men indicated that they are active in producing educational material than women.**

#### 4.6. Leadership

When considering the gender of the research group leader, it has been found that there are noticeable differences in the way a research group leader is appointed. The most common way for men to become a research group's leader is through the appointment from the head of the department or centre. **Forty-nine percent of male research group leaders received an appointment from the university management.** In comparison, only 28% of female research group leaders were appointed by the head of the department/centre. The most common way for women to become a research group leader is through an appointment from their research group colleagues. **Thirty-six percent of women research group leaders were appointed by the members of their research group.**

While most men group leaders are appointed by the head of the department or centre, a relatively large proportion of men have been appointed by their colleagues (33%).

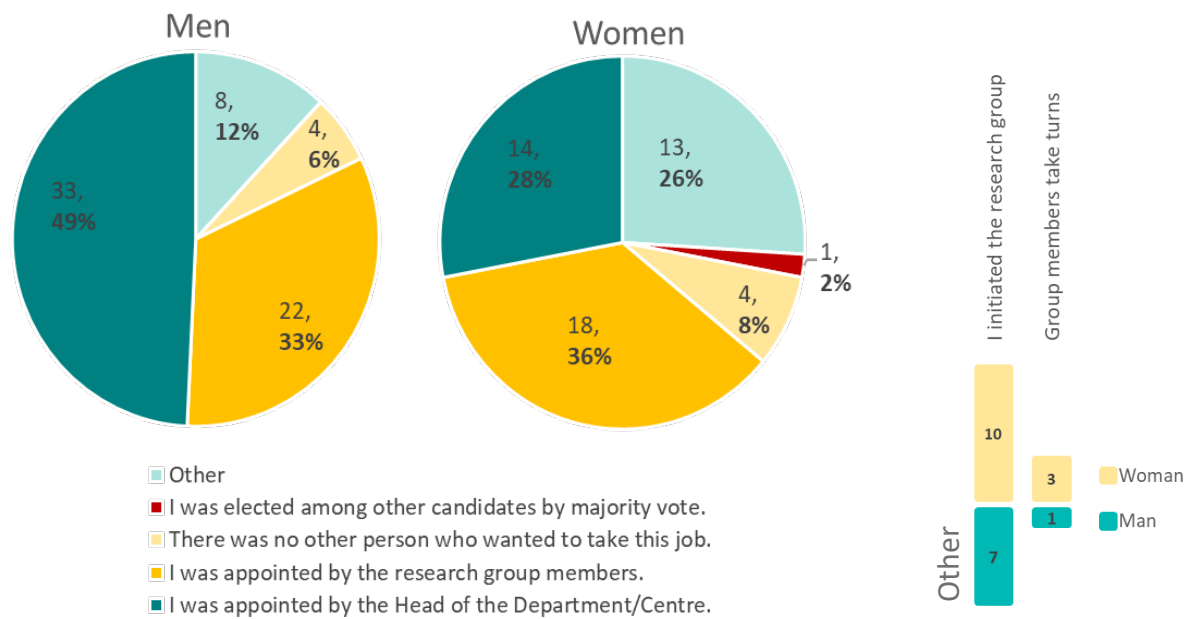


Figure 17 Becoming the research group leader, divided by gender

A similar proportion of men (6%) and women (8%) indicated that they became the research group leader because no other person wanted to take this job. Both men and women indicated other ways of becoming a research group leader, with two distinctive categories emerging from the data. **Twenty percent of women and 10.4% of men reported that they had initiated the research group themselves, and 6% of women and 1.4% of men indicated that group members take turns holding the leader position.** These two newly-identified categories point to a shortcoming in the questionnaire design and a new pattern in practice. While the emergence of the category “I initiated the research group” is a shortcoming of the questionnaire, and it is possible that more research group leaders initiated their research groups but chose another answer for simplicity reasons, the second category, “Group members take turns”, does not strictly point to a different leadership style. It could be argued that taking turns to lead the group occurs through the appointment by the research group members.

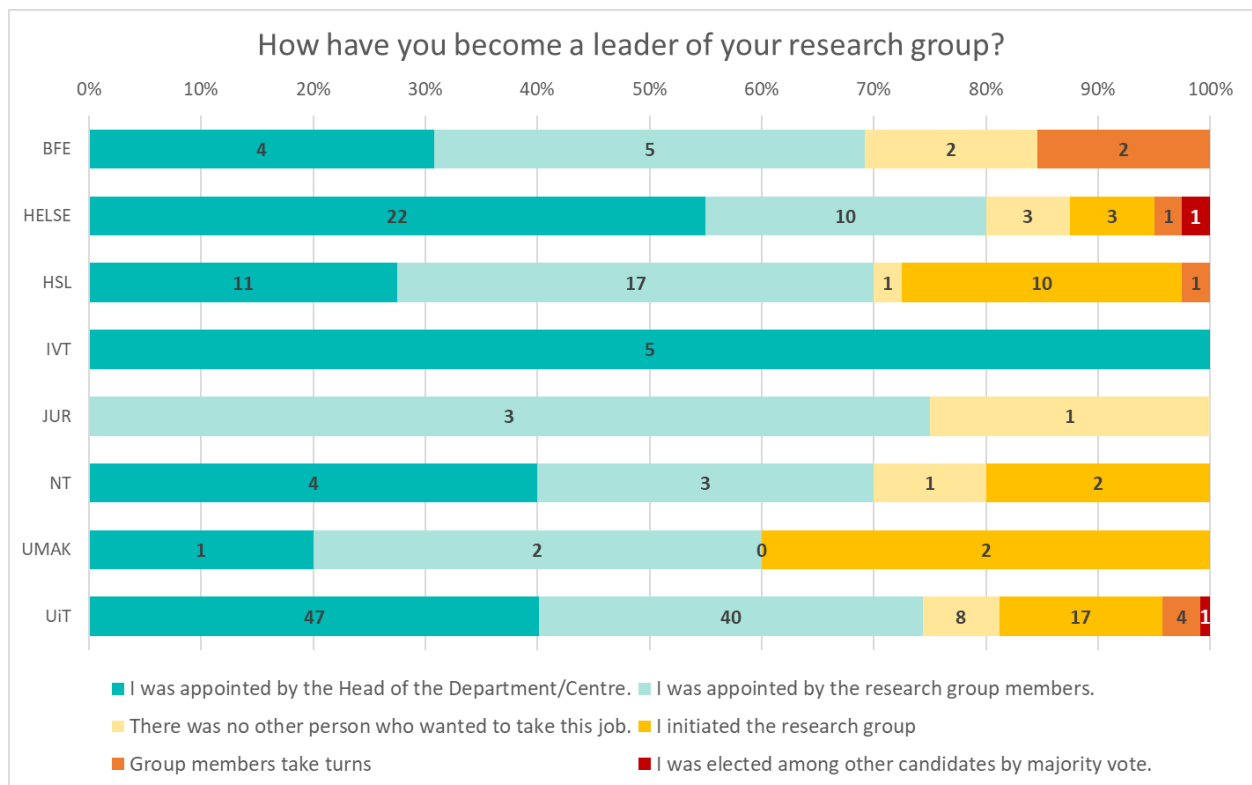


Figure 18 Becoming a research group leader, divided by faculty

There are apparent differences between the faculties in how a research group leader is appointed. **Male-dominated faculties such as IVT and NT had a significant proportion of research group leaders appointed by the head of the department or centre: 100% and 40%, respectively.** While the research group leadership at the HELSE faculty is more balanced than IVT and NT (Figure 2), 55% of respondents from HELSE were appointed by the head of the department or centre (15 out of the 22 were men). **Appointment from members of the research group was very common at JUR, HSL, and BFE with the numbers respectively being 75%, 42%, and 38%.** At UMAK, 40% of research group leaders were appointed by their colleagues. However, 40% also indicated they had initiated their research group, bearing in mind that 40% of UMAK responders is equivalent to 2 people. A relatively high proportion (25%) of research group leaders at HSL indicated that they had initiated their research group, with 7 out of the 10 being women. At the NT and HELSE faculties, 20% and 7.5%, respectively, reported they had initiated their research group. JUR and BFE faculties had the highest proportions (25% and 15%, respectively) of research group members who became the research group leader because no other person wanted to take the job. Furthermore, BFE had the highest proportion of groups where members take turns (at 15%).

## 4.7. Role of the Research Group Leader

The role of the research group leader and the tasks that they perform can vary depending on the culture within the research group. This question aimed to find out whether gender plays a role in the tasks performed by the research group leader. The questionnaire answers provided six tasks commonly associated with the responsibilities of the research group leader (Figure 20). Based on a branch of leadership theory that divides management from leadership (e.g. Liphadzi et al. 2017; Nienaber 2010), we have clustered these tasks in order to capture variations between these two main categories. Three tasks were related to administrative/managerial roles and three to leadership roles. Management is procedural and goal-oriented, while leadership is visionary and socially influential. Each correspondent had three options to indicate three main tasks they perform as a research group leader. The first three tasks with dark-coloured bars intended to capture management, while the last three intended to capture leadership (Figure 20). According to Nienaber (2010), leadership often includes all the managerial tasks in addition to tasks commonly attributed to leadership only.

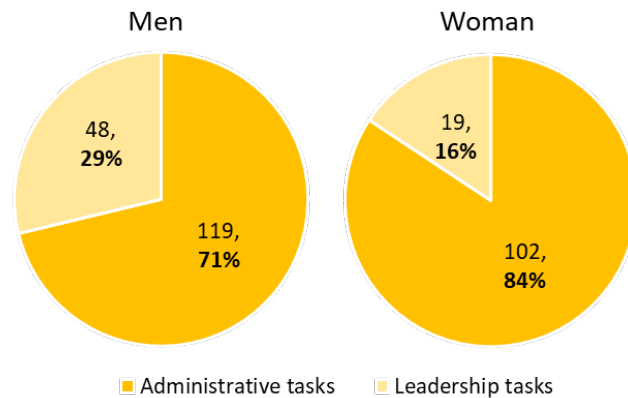


Figure 19 Proportion of men and women performing administrative and leadership tasks as part of their role as the research group leader (administrative tasks combined together and leadership tasks combined together)

**It has been found that while men and women engage in managerial tasks to a similar extent, men tend to perform more of the leadership tasks. Two of the main questions clustered in the leadership category were more representative of tasks performed by men (I set the research agenda for the group; I control the workflow of delegated tasks).**



Figure 20 Detailed breakdown of the roles performed by the research group leaders. (Top three - roles associated with administrative tasks. Bottom three - roles associated with leadership tasks)



## 5. Discussion

In this section, our ambition is to highlight some of the trends in the material that could indicate whether and, if applicable, how gender interplays with research group leadership. To summarise, **men lead 57% of the research groups**. The proportion of men as research leaders corresponds largely with the proportion of men as professors and associate professors at the faculties. Some faculties — like IVT, JUR, and UMAK — are smaller and thus have a low number of research groups, making it more difficult to draw conclusions regarding how the proportion of male research leaders corresponds with the proportions of male professors and male associate professors. Nevertheless, when it comes to these faculties, the trends in gender balance in research leadership mirror the trends regarding the proportions of men and women at top academic positions (i.e., Professors and Docents). As of June 2020, two faculties, HSL and JUR, have implemented a levelled structure for the research groups and rank more established groups as level 1 and groups under consolidation as level 2. At the JUR faculty, with six research groups, the two ranked as level 2 were all led by women. At the HSL faculty, most research groups, 41, are ranked as level 1 (11 groups were ranked as level 2), and 24 of these had a female research leader. The HSL faculty was the only faculty where most of the research group leaders were women, and this faculty also has a majority of women professors and a large majority of women as associate professors. Overall, the gender composition in research group leadership functions could be seen as following the gender composition at top academic positions. Hence, this function could be understood as carrying not a higher or lower status than the academic positions.

Based on the mapping of the research group leaders, we sent out a survey to all research leaders at UiT. The aim of the survey, presented in this report, was to gain knowledge of the organisation and the activities of formal research groups at UiT. These included the undertakings and responsibilities of their research group leaders, aiming to explore whether it is possible to discern gender differences regarding research group leadership. In analysing the results, we believe that it is possible to identify some potential gendered trends, which we will highlight in this discussion. We, nevertheless, want to start this part of the discussion with a disclaimer. Although we had a good response rate on the survey, when the numbers are broken down into two or more categories, they are oftentimes too low to draw conclusions that have statistical significance. Thus, our aim in this discussion is to point to potential trends that we believe could be used in further discussions on the gendered dimensions of research leadership that should be explored in future studies. We start with discussing three themes that we have recognised as pointing to potential gender differences: the composition of the research groups, the activities of the research groups, and the research leadership.

### *The composition of the research groups – group size and research time*

As already stated, the gender distribution of research group leadership at the different faculties mirrors, to a large extent, the gender distribution at these faculties. This means that the faculties with a higher representation of men in academic positions (i.e., associate professors and professors) also have a higher representation of men in research group leadership roles. However, there are relevant gender differences concerning the size of the groups and the research time of their members. **Men tend to lead smaller groups than women, which is visible in almost all faculties, even if the differences are more prominent at the BFE, the IVT, and the HSL faculties. Men also tend to lead research groups with a larger proportion of members enrolled in 50% or more research contracts.** Here, the difference is quite large. Forty-five percent of the men lead research groups where researchers have more than 50% research in their contracts, while the percentage for the women is only 29%. A tentative conclusion that could be drawn from this result is that women research leaders are to a larger extent responsible for supporting colleagues who have less time for research. This can mean that they assume a more supportive role in their research leadership and include colleagues more broadly in the research groups. Research on formal leadership in the academy shows that women are often faced with stronger expectations on being supportive as leaders than men (Andersson and Amundsdotter 2013).

### *The activities of the research groups*

Two questions in the survey addressed the activity level of the research groups in different perspectives: networking and research output. **Concerning the engagement in national and international networks, 39% of male leaders reported that their research group has a high engagement in national and international networks, compared to 21% of the female leaders. A similar trend is seen regarding the research output from the groups.** One example is the journal publications. In that category, while 40% of men indicated that their group is very active, the percentage for women was 22%. A similar pattern appears for the conference lectures and academic presentations. It is interesting to note that when the categories “high” and “moderate” regarding networking and “very active” and “active” regarding research output are put together, the gender differences practically disappear. Here, we believe that it is essential to mention that it is not possible to draw an exact line between “high” and “moderate”, or “very active” and “active”. The differences between these categories are also subjective estimates of the researcher leaders. Thus, a relevant question emerges from these results is whether men and women make different estimations. One way of approaching this question would be by controlling these estimations against factual differences between the relevant groups. However, from earlier research on the subject, we know that men tend to overestimate and women tend to underestimate their achievements (c.f., Moss-Racusin 2012).

Furthermore, the expectations on men and women as leaders could hinder the confidence women have as leaders (c.f. Wahl et. al. 2018). We do not discard the possibility that the differences found in this survey could also be related to the difference in the numbers of researchers comprising the various research groups. In this sense, groups with higher research time have a higher capacity to perform these activities, more extensive international networks, and more research outputs. In either case, we believe that networking and research output differences are important themes for further study.

### *The research leadership*

Two questions in the survey specifically addressed research leadership: how the actual leaders became leaders of the research groups and their main roles as the research group's leader. **Regarding the appointment to the leadership function, men are to a higher extent than women appointed by the head of the department or centre, while women are more often appointed by the members of the research group. Looking at the concrete tasks and responsibilities of the research group leaders, men tend to decide on the research agenda and control the workflow of delegated tasks to a higher degree than women, while there are no differences between men and women regarding other administrative tasks.** Referring back to research on gender and leadership, this difference could be pointing to different expectations of men and women as leaders. While men are still expected to steer, women are expected to have a more collaborative leadership style (Wahl et al 2018). Here, we want to encourage a discussion on why research group leaders are appointed in different ways and if there are pros and cons regarding being appointed by the head of the department or centre versus research group colleagues.

In summary, the differences between male and female research leaders could be systematised by the following two pictures – or stereotypes – of men and women as research leaders at UiT:

*Men are often appointed as research group leaders by the head of the department or centres, they lead smaller groups with a larger proportion of researchers with more than 50% research time in their positions, and they report a higher degree of research activity and to a larger extent decide on the research agenda.*

*Women are often appointed as research group leaders by their peers, they lead larger groups with a larger proportion of researchers with less than 50% research time in their positions, they report a moderate degree of research activity and let the research group to a larger extent decide on the research agenda.*

Several questions could be drawn from these pictures:

- Do different kinds of research groups fill different purposes? Do larger groups with a more collegial research agenda and fewer researchers with more than 50% research time in their positions function as space where research is initiated, while smaller and more steered group are in a more consolidating phase?
- Do the heads of departments or centres regard men as more self-evident research leaders than women and members of other gender groups?
- Do women, to a larger extent than men, promote collaborative research? What about members of other gender groups?
- Do men and women assess research outputs and research activities differently? What about members of other gender groups?

Organisation studies have shown how men and women are perceived differently in leadership roles, the different expectations they have in these roles, and which attributes related to leadership are also attributes related to men (c.f., Höök 2001, Wahl et al 2018; see also, Mohr et al. 2019). At the same time, a dialogue (qualitative study) with informal research leaders at a Swedish university showed how men and women in research leadership roles were strong bearers of the academic culture and thus were essential targets for implementing cultural change (Rönblom et al. 2014). The questions systematised above have great potential for a qualitative assessment of the gendered dimensions of research leadership at UiT, including defining good research leadership at the institution.

## 6. Conclusion

In this report, we have mapped the gender distribution of the research group leaders at UiT (step 1) as well as the basic structure of these research groups (step 2) with the goal of investigating whether and, if applicable, how gender correlates with variations in the type of research groups and the role of the leader. We have found that men exercised 57% of the research group leadership functions as of June 2020. **While this result indicated a good gender balance at the fourth level of leadership, additional data gathered in this study through a survey suggested that gender plays a moderate role in shaping different patterns in research group leadership at the university.** This means (A) that a reasonable gender balance has been achieved at the research group leadership level at UiT and (B) that some relevant gender differences remain in relation to the basic structure of the research groups and the role that leaders play in these groups. It is important to mention that these two conclusions (A, B) are not to be here understood in terms of either (1) adversity<sup>9</sup> or (2) causality<sup>10</sup>. Our dataset does not enable us to derive conclusions from the relation between A and B.

The different gender patterns found in the survey related to the basic structure of research groups and leadership roles do not indicate a causal link in either negative or positive direction. It could be that these observed differences exist due to persisting undesirable gaps of power and social influence between women and men (negative). But it could also be that these observed differences exist because women and men perform their research leadership roles in different ways, indicating that increasing gender balance also increases the diversity of approaches at the university (positive). It could be the case that women lead research groups in a more inclusive, more democratic, and less hierarchical manner, while demonstrating a slightly higher awareness of a research group's potential for improvement and operate with a larger range of research outputs beyond the standard. In that case, it seems that these differences are far from negative. They are rather exemplary. These differences have to be further investigated to enable us to articulate significant connections.

What we have accomplished in this report can be said to be the equivalent of scraping a wall to evaluate the conditions of a building. We have operated only on the surface. Rather than fixing ourselves to the results of the work done at the surface, we should be aware of their limitations. We see the results presented in this report both as indicators for our future work in the Prestige Project and as material that can be used more broadly in internal discussions at UiT. We hope that the trends discerned in this report might inspire further discussions among researchers, research group leaders at UiT, the administrative, staff and the senior leadership in charge of laying out the strategies for organising research leadership at UiT.

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<sup>9</sup> (1) Although gender balance has been achieved, gender still plays a moderate role in shaping different patterns in research group leadership.

<sup>10</sup> (2) Because gender balance has been achieved, gender plays a moderate role in shaping different patterns in research group leadership.

## 7. Abstract

UiT The Arctic University of Norway has a decade-long tradition of channelling research through formally accredited research groups. These research groups have dynamic structures and networks, unlimited duration, a defined leader, and gather academics of all levels to pursue research on a common topic of interest. The formalisation of research groups at the institution followed strategies aimed at supporting the creation of more robust and resilient research communities and boost cutting-edge research produced at the university.

Ten years after initiating the formalisation process, UiT has around 196 research groups distributed fairly evenly across faculties by their size. HELSE and HSL are the largest faculties and also the ones with the largest number of research groups. As of June 2020, 57% of these research groups were led by men. This shows that gender balance has been achieved in research group leadership at the university level in terms of numerical parity. While the formalisation of the research groups may have contributed to achieving this balance, data collected for this study represents an inaugural attempt to map gender-disaggregated research group leadership at UiT.

This report shows that the gender distribution in research group leadership across faculties and departments or centres follows the remaining disparities existing in top academic positions (professor and docent) as they were observed in former studies conducted by the Prestige Project. This result is consistent since 93% of all research groups at UiT are led either by associate professors or professors. BFE, HELSE, and HSL are the most gender-balanced faculties, while IVT and NT are the least balanced. At IVT and NT faculties, 80% of the research groups are led by men. At the faculties that follow a level system for research groups (HSL and JUR), women currently lead more top-level groups than men.

Despite the achievement of gender balance in research group leadership functions at UiT, a survey conducted by the Prestige Project that complements the dataset showed that gender shapes relevant differences regarding the basic structure of research groups and their leadership roles. Highlights of these differences can be systematised as follows:

(1) The average size of research groups at UiT is 12.6 members. Men tend to lead smaller groups with a higher proportion of members holding 50% or more research contracts. (2) Most of the research groups at UiT follows a “stjerneklubb” structure, in which leaders are one of the several key researchers within the group. Three times more men than women reported leading a group with a “rakett” structure, in which the leader is the group’s key researcher. (3) Concerning the reported activity level following each groups evaluated potential from the leader’s perspective, men reported a higher maximal achievement of the group’s potential. At the same time, women indicated greater room for improvement. (4) Finally, regarding leadership and leadership roles, men have been more often appointed as leaders by the head of departments or centres, while women have more often been chosen

by the group members. Furthermore, while both men and women in leadership roles engage equally in managerial tasks in their functions as research group leaders, men reported performing more of the tasks associated with a leadership role. Twice as many men reported that they set the group's research agenda and control the workflow of delegated tasks.

We do not claim that these differences are necessarily negative since they can also be seen as a sign that gender balance increases the diversity of approaches in leadership at the university, which is a desirable aim in fostering excellence. The meaning of these differences has to be investigated further in future research.

**Keywords:** Gender Balance; Research Leadership; Research Groups; Diversity.

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*\*All links were last accessed in June 2021.*

## 10. Appendix

### Mapping the basic structure of research groups at UiT

UiT has around 196 research groups. This questionnaire aims at mapping the differences in structure and research traditions among the research groups at UiT. As a research group leader as of June 2020, we would like to ask you to participate in the short questionnaire below (5-7 min). No personal data or sensitive information is collected. The results will be published in a report about the organisation. **Deadline for replying to the questionnaire is 15.11.2020.** Thank you in advance for your collaboration!

#### Department \*

What is the name of your department?

#### Name \*

What is the name of the research group you have led as of June 2020?

#### Size \*

What is the number of women and men in the research group? (consider only UiT employees both temporary and permanent)

(Men/Women)

#### General Composition \*

Approximately, how many of the research group members are enrolled in a 50% or more research contract?

#### Structure \*

Which of the descriptions below best represents your research group? (Rasmussen 2014)

- The research group is structured around the research group leader (me) and I set the research agenda for the group ("rakketten")
- The research group is structured around another established researcher in the field that sets the research agenda for the group ("rakketten")
- The research group is structured around several key researchers, including myself, that share a common infrastructure, but develop their research independently from each other ("stjerneklubben")
- The research group is structured around other key researchers, excluding myself, that share a common infrastructure, but develop their research independently from each other ("stjerneklubben")
- Other

### National and International Networks \*

To what extent do you, as a leader, engage in building or maintaining national and international partnerships for the group?

- To a very high extent
- To a moderated extent
- To a small or insignificant extent

### Activity level in relation to potential

How active is the research group in terms of research outputs in relation to the group's own potential?

	Not applicable	Little active	Active	Very active
Journal publications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conference lectures and academic presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Books/reports/theses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Translations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artistic results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Products and Patents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public communication of science, media contributions and interviews	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Applications for external funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educational material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Leadership \*

How have you become the leader of your research group?

- I was appointed by the Head of the Department/Centre.
- I was appointed by the research group members.
- I was elected among other candidates by majority vote.
- There was no other person who wanted to take this job.
- Other

### Leader role \*

Which are the three main tasks you perform as a research group leader?

- I organize workshops, conferences, and events
- I set the research agenda for the group
- I control workflow of delegated tasks
- I perform all or most of the administrative tasks related to the groups functioning
- I make the final decisions regarding how the reserch group's budget is distributed
- I facilitate the research activity within the group by providing support to individual members

### Additional comments \*



# 11. Factsheet 02/2021



Factsheet 02/2021

## Gender distribution in research group leadership at UiT The Arctic University of Norway: from basic structure to leadership roles

### Research Group Leadership at UiT



#### Research group's basic structure & leadership role

- Size: The average research group at UiT is comprised of 12.6 research group members. Men lead smaller research groups than women.
- Composition: Research groups led by men have a higher proportion of members enrolled in research contracts of 50% or higher than the groups led by women.
- Structure: The majority of the research groups at UiT have a "stjerneklubb" structure. Most research group's leaders are one of several key researchers composing the group.
- National & International Networks: Men report engagement in maintaining national and international networks to a higher extend than women.
- Research outputs in relation to the group's potential: Men reported overall higher activity than women.
- Leadership: Men are to a higher extent than women appointed by the head of the department/centre, while women are more often appointed by the members of the research group.
- Leadership role: Men and women engage in administrative tasks to a similar extent, but men tend to perform more tasks associated with leadership. Twice as more men have reported to set the research agenda for the group and to control the workflow of delegated tasks.

- UiT has, as of June 2020, 196 accredited research groups. Men lead 57% of these research groups.
- BFE (50F/50M), HELSE (41F/59M) and HSL (55F/45M) are the most gender balanced faculties regarding research group's leadership.
- IVT (20F/80M) and NT (21F/79M) are the faculties with largest representation of men in research group's leadership functions.
- At HLS and JUR, faculties that operated with a leveled system for research groups, women leads more top level research groups than men.
- 94.3% of the research group leaders at UiT are occupied by professors and associate professors.

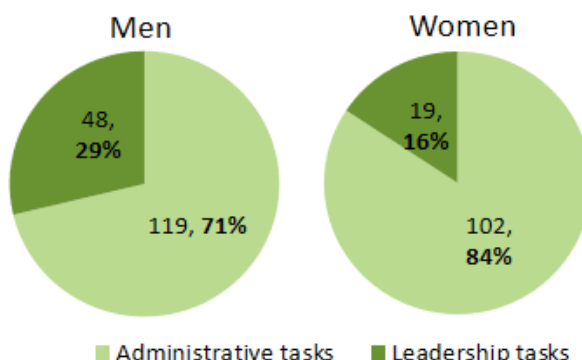


Figure 1 Proportion of men and women performing administrative and leadership tasks as part of their role as the research group leader (administrative tasks combined together, leadership tasks combined together)

