



Bridging

# THE TALENT GAP IN DENMARK

Insights from female representation in STEM

McKinsey&Company



Innovation Fund Denmark

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## CONTENT

GENDER DIVERSITY MATTERS	4-5
FOUR CRITICAL MOMENTS IN A WOMAN'S CAREER	6-7
ADDRESSING GENDER IMBALANCES	8-9
UNCONSCIOUS BIAS	10

## GENDER DIVERSITY BRINGS A NUMBER OF ADVANTAGES



### TALENT

Attracting top talent has become the number one source of competitive advantage for companies. Given the advancement of digital and automation, workers must be technologically literate, operationally agile, and globally rounded.

Expanding the talent pool through better inclusion of women in high-productivity sectors and the labor force more broadly represents an opportunity that ought to be seized.



### TEAMWORK

Greater diversity – both endowed (e.g., gender, race) and acquired (e.g., experience, cultural capital) – makes for superior team performance on measures such as innovation, collaboration, and critical thinking.

Different problem-solving approaches, complementary knowledge, skills, and strengths all serve to promote creativity and debate, ensuring more alternatives are considered and additional rigor is applied when identifying solutions.



### TECHNOLOGY

Due to the superior innovative capabilities and critical thinking facilitated by team diversity, the inclusion of both men and women in developing new technologies may lead to more innovative solutions.

Moreover, gender diversity ensures that digital products and services cater to the needs and interests of both genders, i.e., that the technology shaping our society and future is democratic.

## GENDER DIVERSITY THROUGH THE LENS OF STEM



### SCIENCE, TECHNOLOGY, ENGINEERING AND MATH

This report looks at science, technology, engineering and math (STEM) in an effort to distill evidence-based insights on how to promote gender diversity in Denmark throughout women's careers.

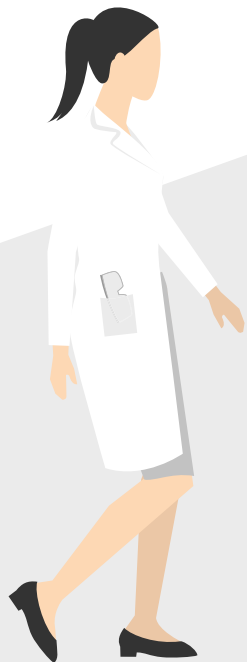
Based on the stated advantages of greater gender diversity, we have chosen STEM as a case study for the following reasons:

1. **Large imbalances persist**  
STEM is one of the education areas – in Denmark and most countries – with the largest gender imbalances in favor of men
2. **Increasing demand for STEM talent**  
As digitization and automation accelerate, demand for analytical talent is on the rise
3. **STEM defines new technologies**  
The representation of both men and women in STEM is paramount to designing inclusive technological solutions that do not perpetuate bias
4. **Tech skills essential for leaders**  
The technological developments of the global economy shape the necessary skill set for leaders
5. **Generalizable insights**  
Due to the persistent gender imbalances and pervasive impact of stereotypes in STEM, we believe that insights from a STEM case study may be applicable to other areas

## 4 CRITICAL MOMENTS IN A WOMAN'S CAREER

We use STEM as a case study in an effort to distill generalizable and evidence-based insights on how to promote gender diversity in Denmark.

Combining data from Statistics Denmark and LinkedIn we follow ~50,000 STEM graduates through their careers.



### INSPIRING



### ATTRACTING



### RETAINING



### ADVANCING

The problem is not the talent pipeline; it is **sparking young women's interest in STEM**. In 2018, the share of young women accepted into STEM Bachelor's programs was one-third, unchanged since 2011. **The female talent pool should be no smaller than the male talent pool**, however, as Danish PISA results for 15-year-old girls in science are not significantly different from those of boys. Inspiring young women to choose non-stereotypical fields of study such as STEM is more difficult in developed countries, since a high level of general gender equality has removed the financial necessity constraint from choice of education. We therefore need **to address the underlying stereotypes** that make these fields seem less of a fit for young Danish women.

Female STEM graduates are **less attracted to core STEM** jobs such as engineering and software development. Men dominate private sector IT jobs in particular. Moreover, despite younger STEM cohorts of both genders increasingly taking their first job in the private sector, significant **female overrepresentation in the public sector** persists. This compounds the female talent shortage in high-productivity STEM companies. **Gender gaps in wages and working hours** between graduates with the same educational backgrounds appear from the outset of their careers, even after controlling for sector distribution.

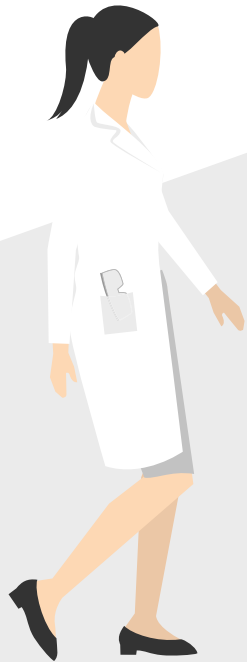
While attrition rates for men and women in STEM jobs are not very different over time, we find that **women are set back in their careers in terms of pay and other factors upon having children**. New research has established a causal connection between pregnancy and a decline in pay, which never recovers. In the **private sector we see a widening wage gap** between men and women over time, and this discrepancy correlates closely with the average birth rate. In the public sector, on the other hand, a smaller pay gap is relatively stable over time. These dynamics point to a need for organizations to provide for more flexible work environments.

The career setbacks experienced by women result in significantly more male than female STEM graduates advancing into management, and the differences are particularly pronounced in the public sector, despite overrepresentation of women. **Only one in 50 of the STEM women in STEM jobs make it to a management position in the public sector, whereas the corresponding number for male STEM graduates is one in ten**. This suggests that advancement of women cannot be improved simply by increasing female representation in the organization overall.

# ALL 4 CRITICAL MOMENTS NEED TO BE ADDRESSED BY MULTIPLE ACTORS

The analyses reveal that women face hurdles at every step in the career journey for reasons that are social, cultural and economic.

Action should therefore be taken at each of the four critical moments, and multiple actors are required, including parents, educational institutions, the communities, workplaces, government, and broader society. An important principle is that both men and women actively engage in driving change.



INSPIRING



ATTRACTING



RETAINING



ADVANCING



PARENTS, EDUCATIONAL INSTITUTIONS AND COMMUNITIES



THE WORKPLACE



GOVERNMENT AND SOCIETY

- 1 PROVIDE FEMALE ROLE MODELS
- 2 SPEAK TO WOMEN

3 COMMIT AND MAKE YOUR OWN BUSINESS CASE

4 REDUCE BIAS IN RECRUITMENT PROCESSES

5 PROMOTE AN INCLUSIVE WORK CULTURE

6 ADVANCE FEMALE TALENT THROUGH MENTORSHIP AND SPONSORSHIP

7 TAKE THE STRUCTURAL DEBATE – INSPIRED BY PEER EXPERIENCE

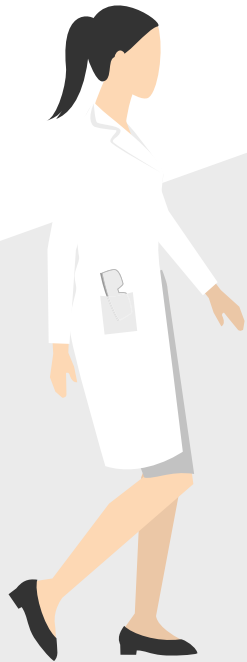
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## UNCONSCIOUS BIAS IS A MAJOR BARRIER TO CORRECTING GENDER IMBALANCES

Unconscious biases are cognitive shortcuts; automatic and instinctive associations that help the mind process information.

Shortcuts related to people – or the tendency to put people into boxes based on their gender, appearance or behavior – are known as stereotypes.

Biases matters in the context of gender diversity, because stereotypes and instinctive decision-making may negatively affect women throughout their career journeys.



### INSPIRING

**Stereotypes** hold young women back due to constraining associations about the “right” gender for certain occupations



### ATTRACTING

**Affinity bias** may compel men to prefer male candidates due to their perceived similarity to themselves



### RETAINING

**Stability bias**, which is a preference for the status quo, may be an impediment to creating a more inclusive work culture



### ADVANCING

**Assimilation bias** may make women adapt their behavior to align with the general expectations of what it takes to “fit in”

