



# BENEATH THE SURFACE:

Women and the Mine of the Future  
Global Report



Implemented by



SWEDISH ENVIRONMENTAL PROTECTION AGENCY



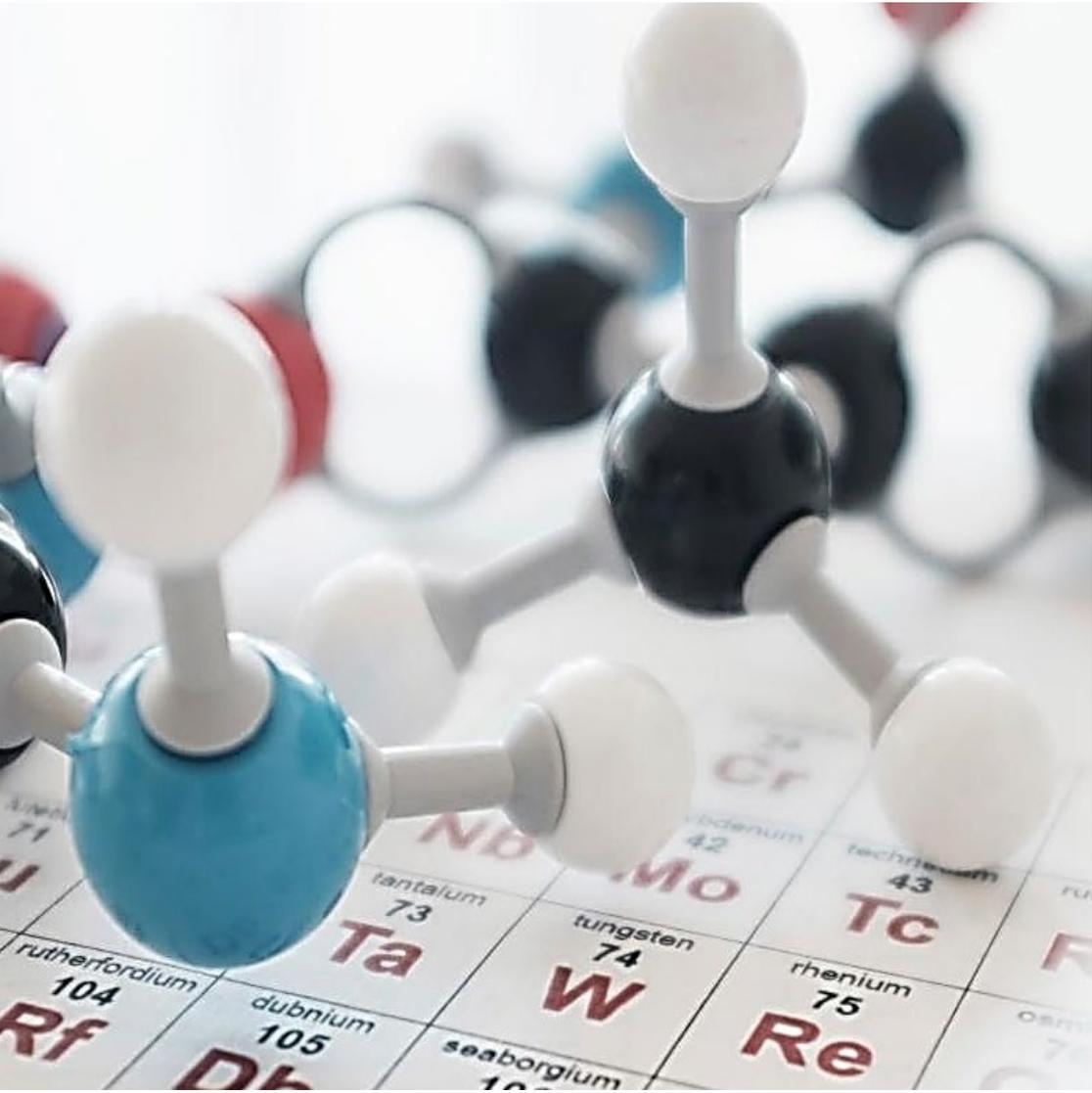
International Labour Organization



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# Future Trends in the mining sector



## Introduction of disruptive technologies

- Redundancy & reskilling & skills transfers
- Leaner, smarter mines with better conditions



## Increased demand for critical minerals

- Changes in skills demand
- New mine sites
- Opportunity to put lessons-learned in practice



## ESG requirements

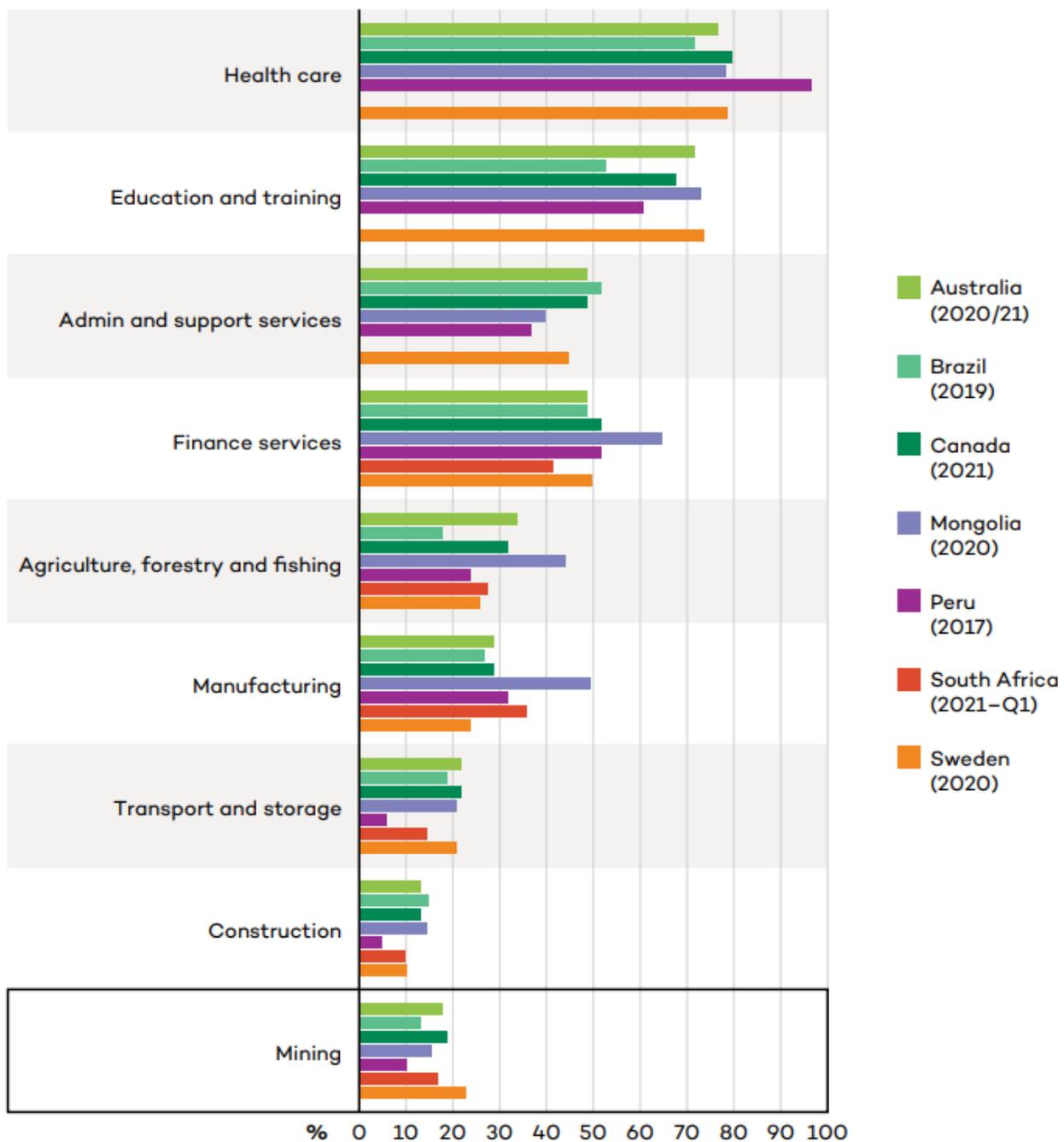
- Mine more responsibly and equitably
- Gender parity is a part of good governance!

**Key Findings**

**Women's participation in the mining workforce is trending upwards**

...but at a slow pace!





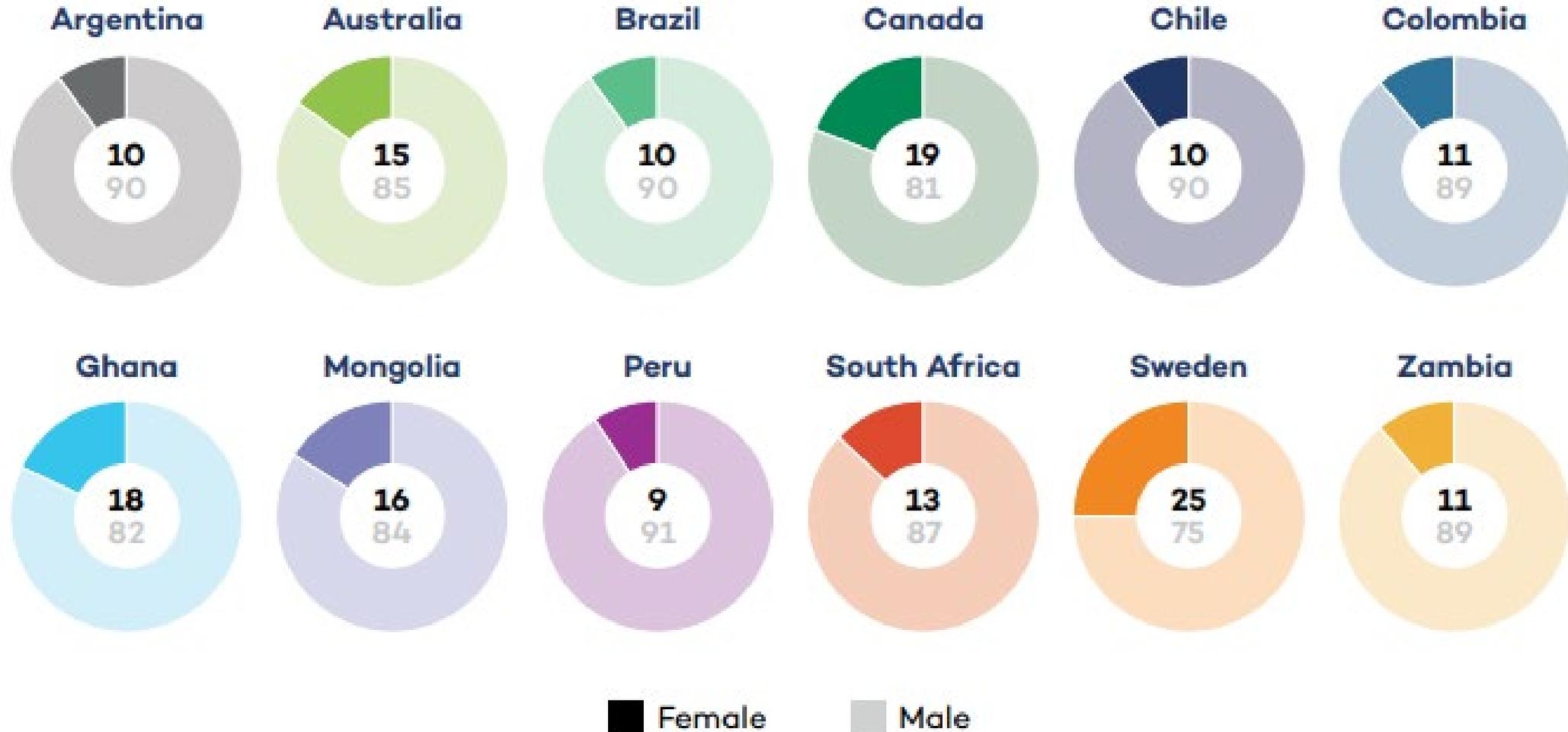
## Large-scale mining is a highly masculinized sector

Percentage of women employed in mining vs. other sectors



# Large-scale mining is a highly masculinized sector

Percentage of women employed in mining by country



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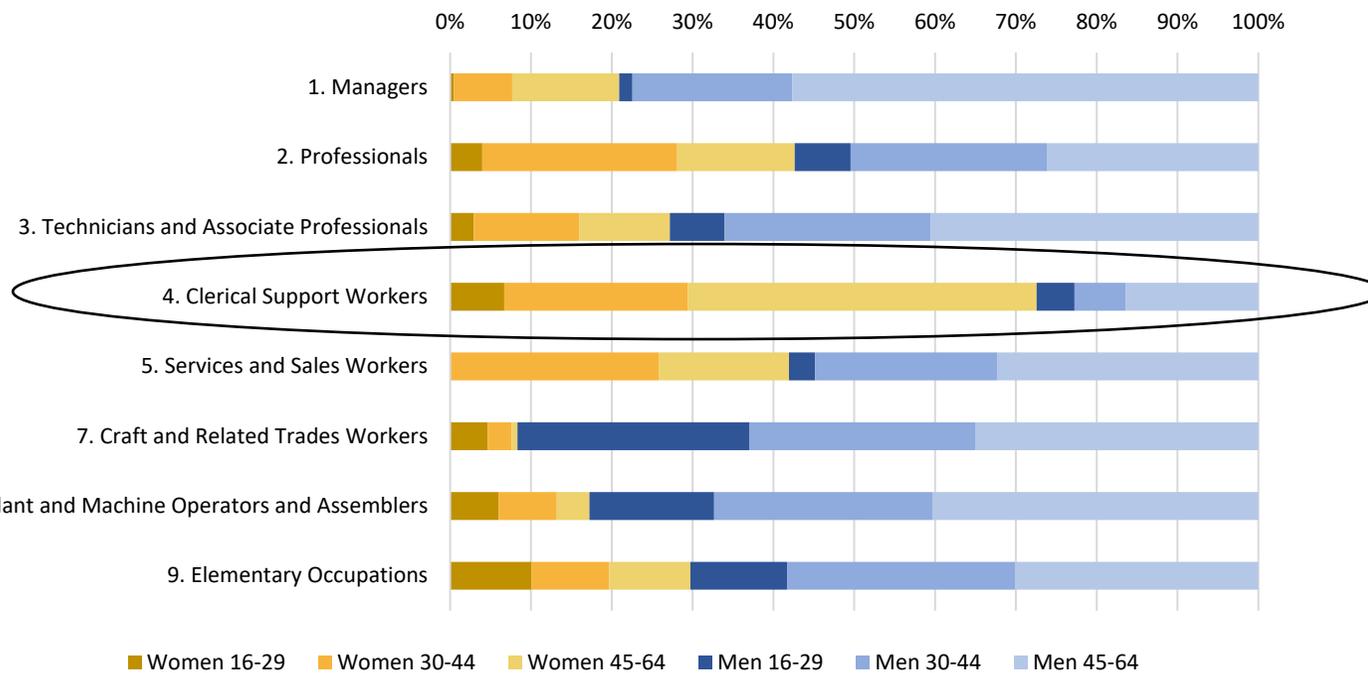
**However, deep structural inequalities remain!**

Understanding the structural barriers impeding gender equality is the key for policy making

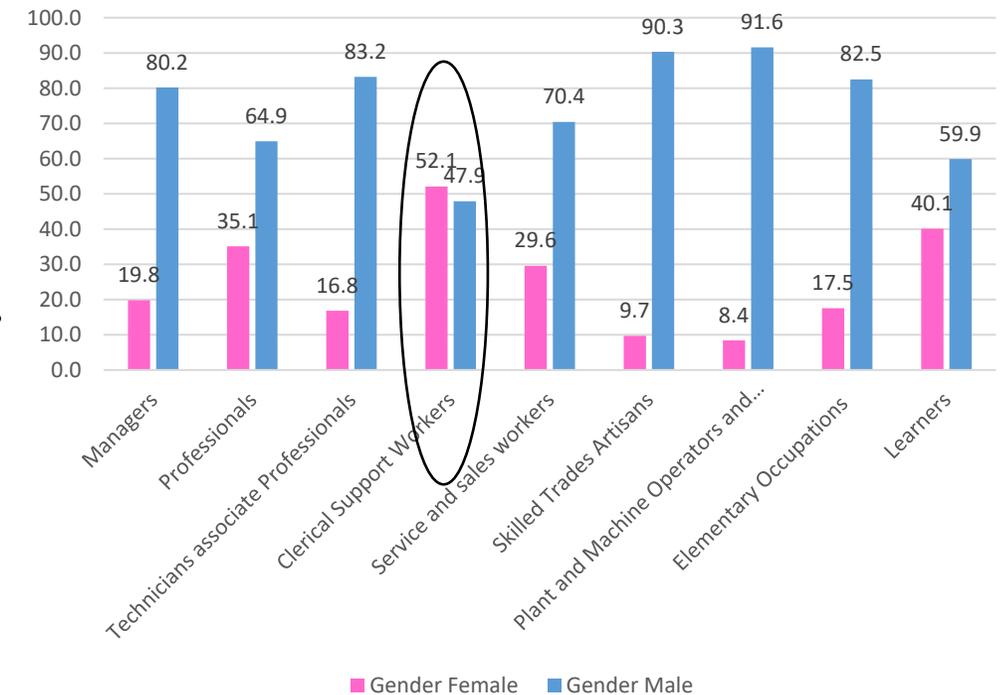


# Women are generally concentrated in clerical and support positions

Level of occupation by sex and age, Sweden (2019)

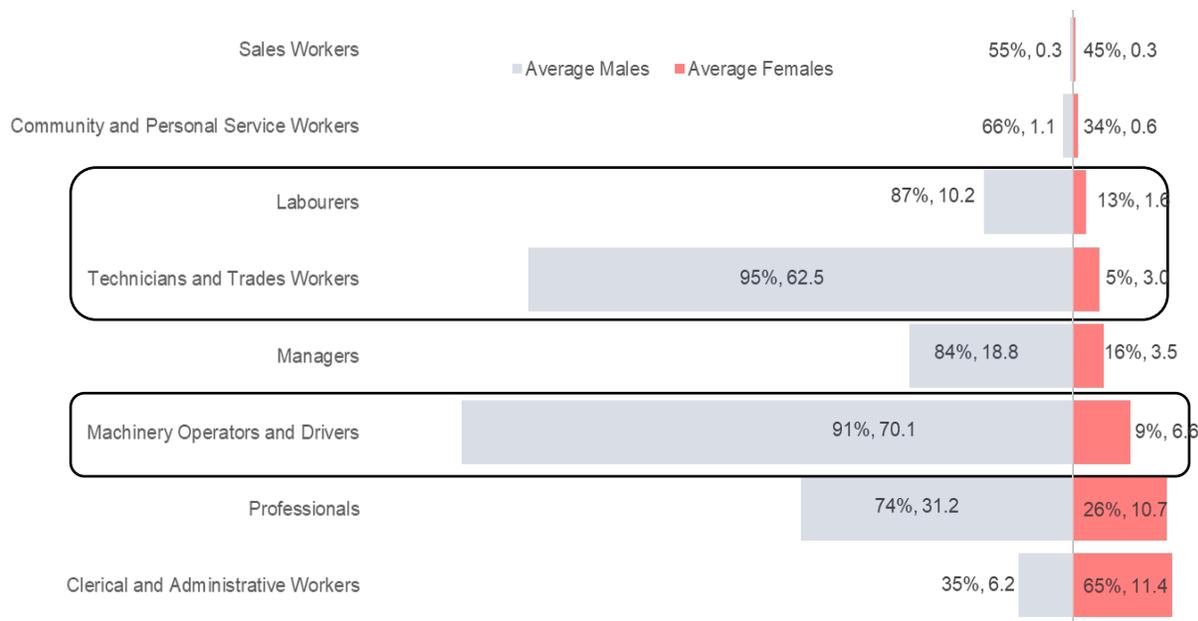


South Africa: Occupation by sex (2019-2020)

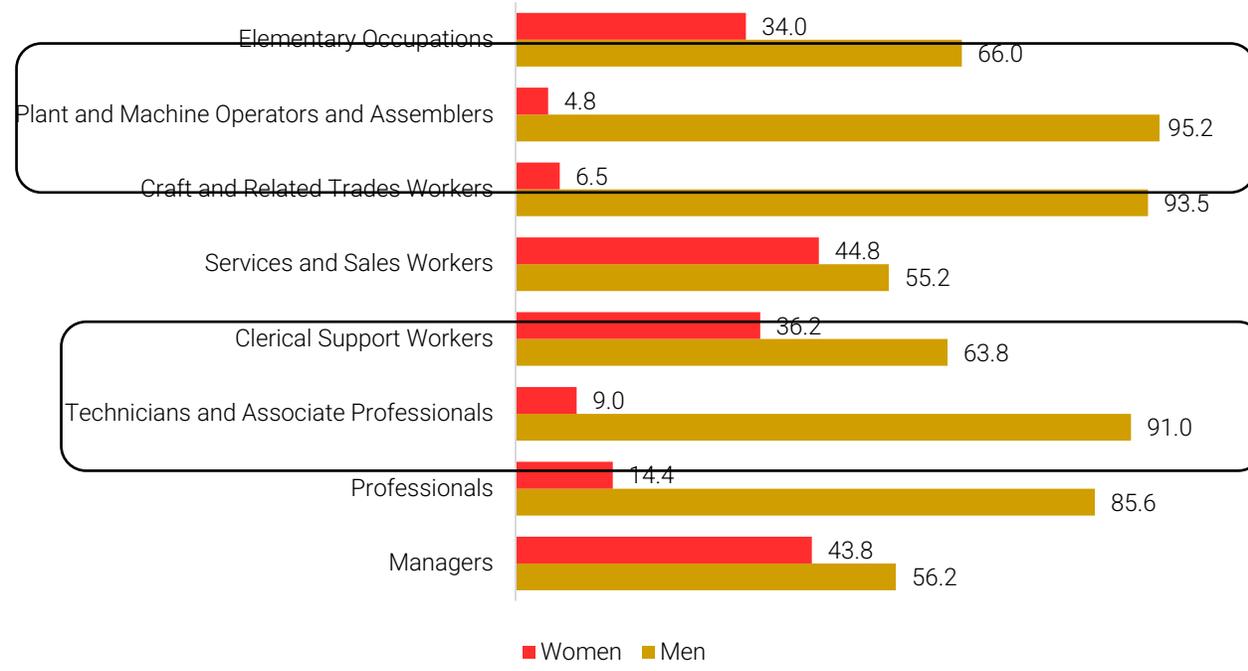


# Women are largely absent in most other occupations

Occupation by sex, Australia (2010/11 to 2020/21)



Occupation by sex, Mongolia (2010/11 to 2020/21)



# Barriers impede women from obtaining mining-specific skills and education



Women are underrepresented in science, technologies, engineering, and mathematics (STEM) education programmes.



Some women in STEM such as environmental scientists, geologists and data processors have relatively higher representation in mining.



**Women in mining:**

achieve higher education attainment than men

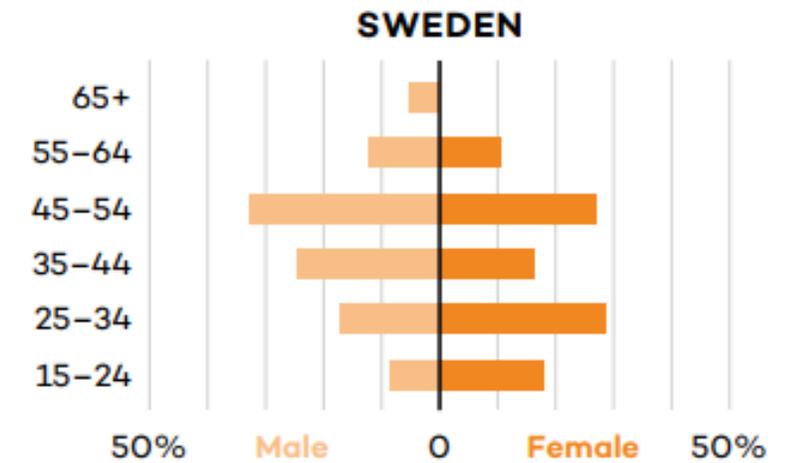
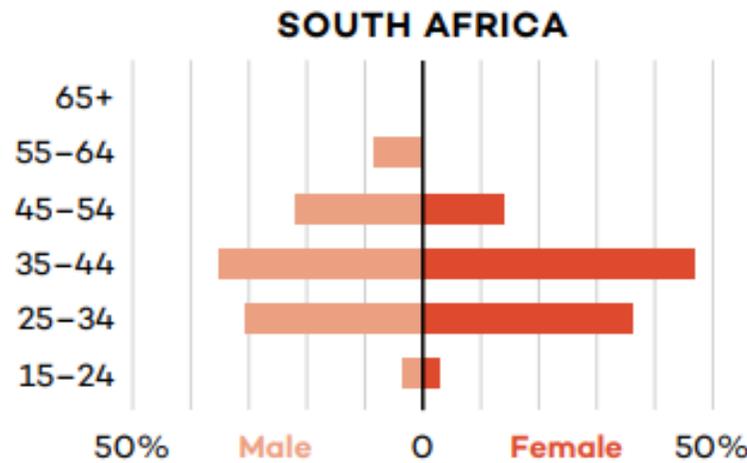
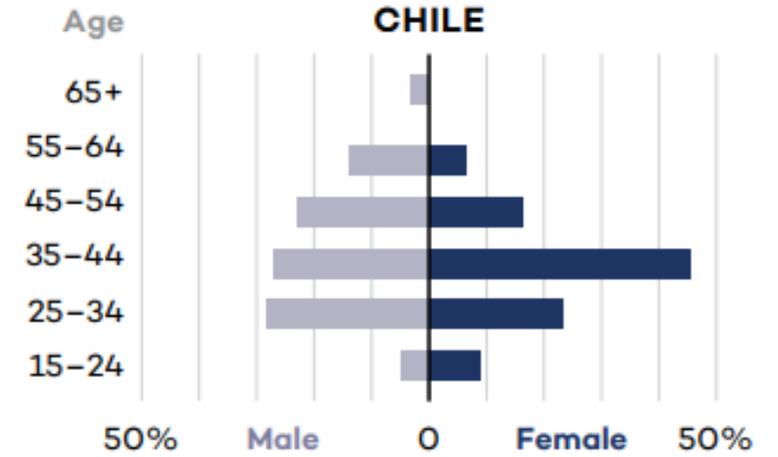
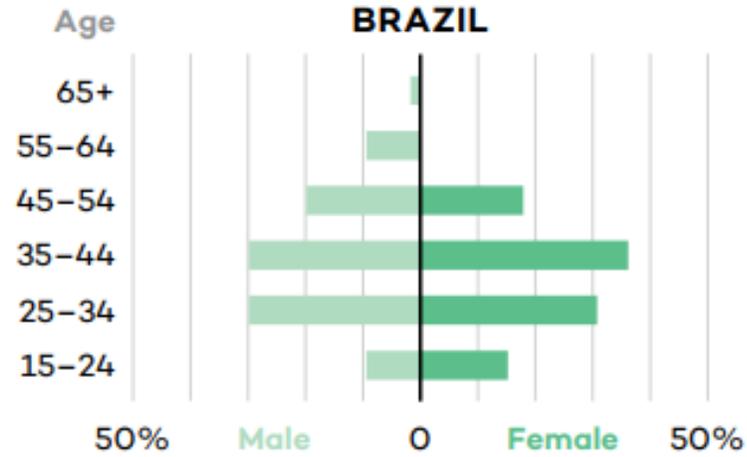
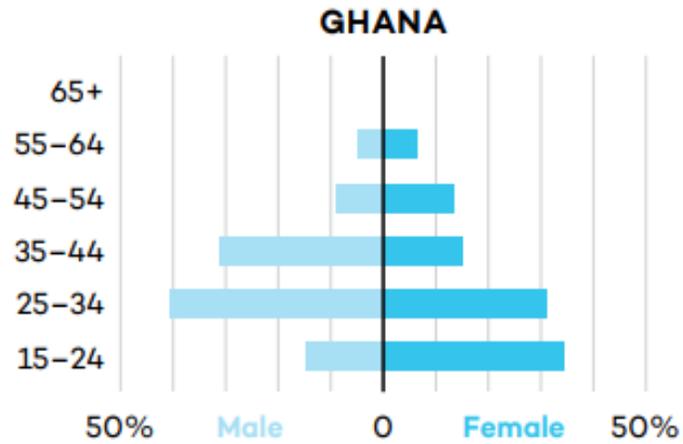


have fewer technical and vocational qualifications



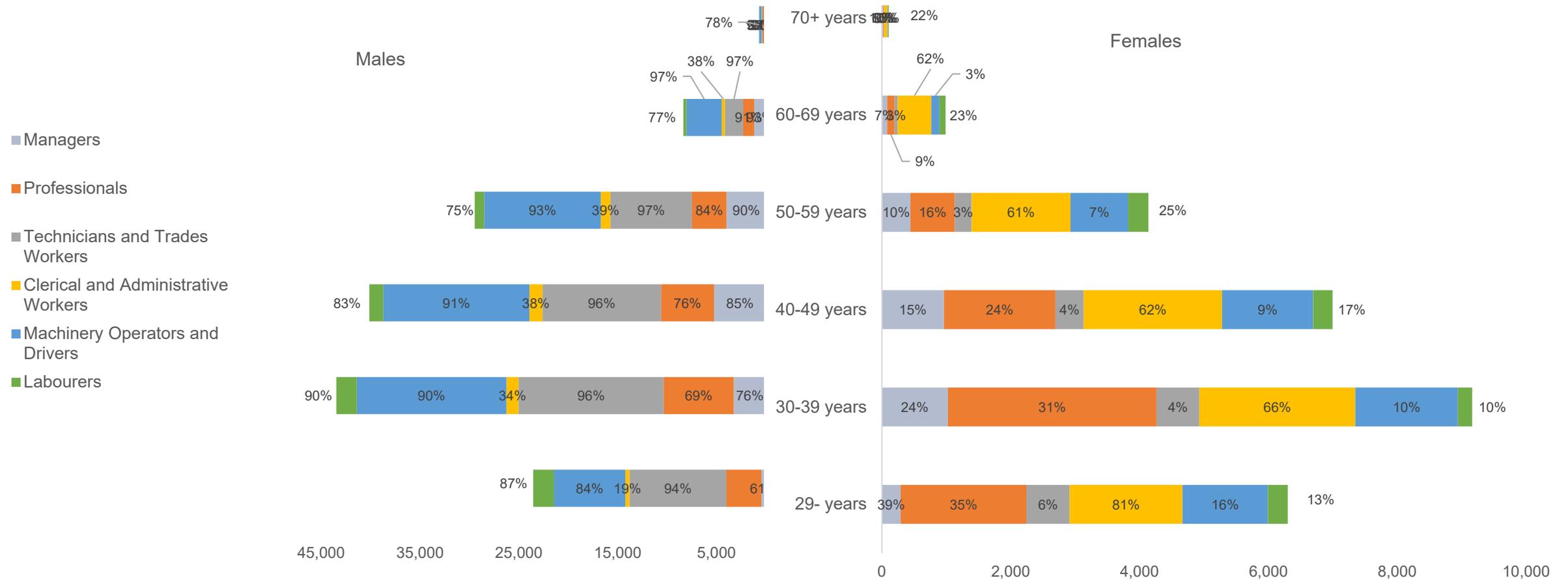
are less likely to receive on-the-job training and apprenticeship opportunities than men

# Leaky pipeline is not a myth!



# Women's drop out is related to their occupations and work

Employment by occupations, sex and age, Australia, 2016



# The gender pay gap stubbornly persists in the mining workforce

Women work fewer hours on average.



Despite their higher education attainment, women in large-scale mining still earn less than men.



The pay gap is higher for better paid occupations which have fewer women participating.



Women employees in large-scale mining earn lower wages.

# Working conditions in the mining sector are not conducive to women's employment

Basic facilities and equipment are still designed for male needs in several countries.

Parental leave provisions often go beyond minimum national requirements, but sector-specific challenges such as discrimination and lack of childcare impede their full implementation.

Sexist attitudes, harassment and gender-based violence are prevalent.

Women in mining are mostly employed in urban areas.



## Key Findings

**Women's participation in the mining workforce is trending upwards**

...but with a slow pace!



**However, deep structural inequalities remain!**

Understanding the structural barriers impeding gender equality is the key for policy making



**Global trends affecting large-scale mining require upskilling, reskilling and new skills**

....with a specific focus on women



# Gender Equality and Future of Work

## 01

### REDUNDANCY

- Which jobs are at stake?
- Who holds these jobs?
- What is the gender pay gap?

## 02

### RESKILLING

- Key to success: digital skills & infrastructure
- Caution: Digital gender divide
- Time, availability and access to reskilling is gendered!

## 03

### SKILLS TRANSFER FROM OTHER SECTORS

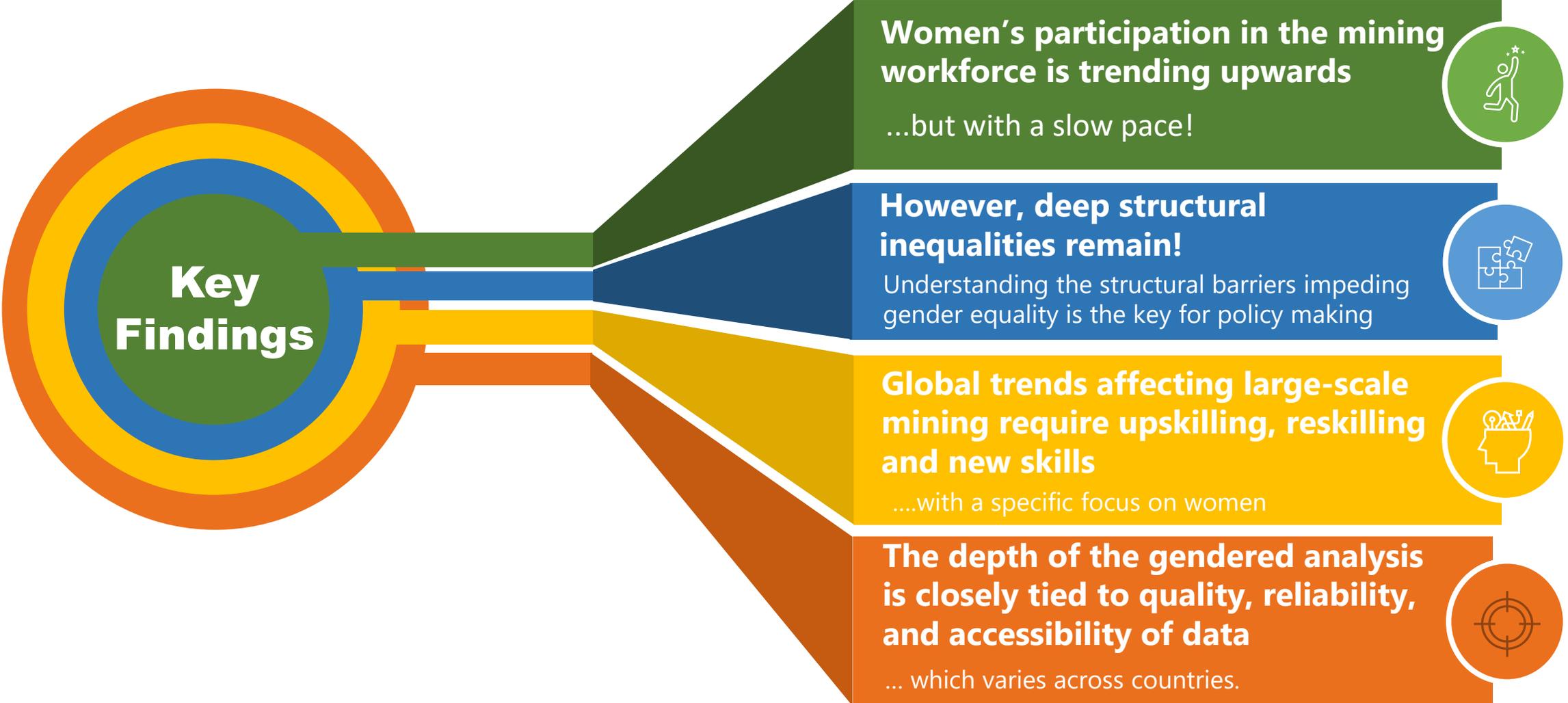
- Demand for critical minerals and ESG requirements offer opportunities for women with STEM and social degrees
- Do women from other industries want to shift to the mining sector?

## 04

### SKILLS IMPORT

- Some technologies will have different implications for different countries and contexts
- What does this mean for local women and women in mining communities?





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**The depth of the gendered analysis is closely tied to quality, reliability, and accessibility of data**

... which varies across countries.





## Availability of sex disaggregated data

- ✓ Responses from labour force / household surveys are not always sex-disaggregated / equally granular
- ✓ Data might be collected by several agencies
- ✓ Data might be available but not accessible
- ✓ Companies do have data but not always filter & analyze it



## Lack of qualitative and gender-responsive analysis

- ✓ Companies' sustainability reports often do not provide gender / sex specific data
- ✓ Qualitative data to complement quantitative data is often unavailable



## Gender-disaggregated data does not exist!

- ✓ Even at its best the data is disaggregated by sex – not gender, making trans and non-binary persons totally invisible

# Looking ahead!





**IGF**



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