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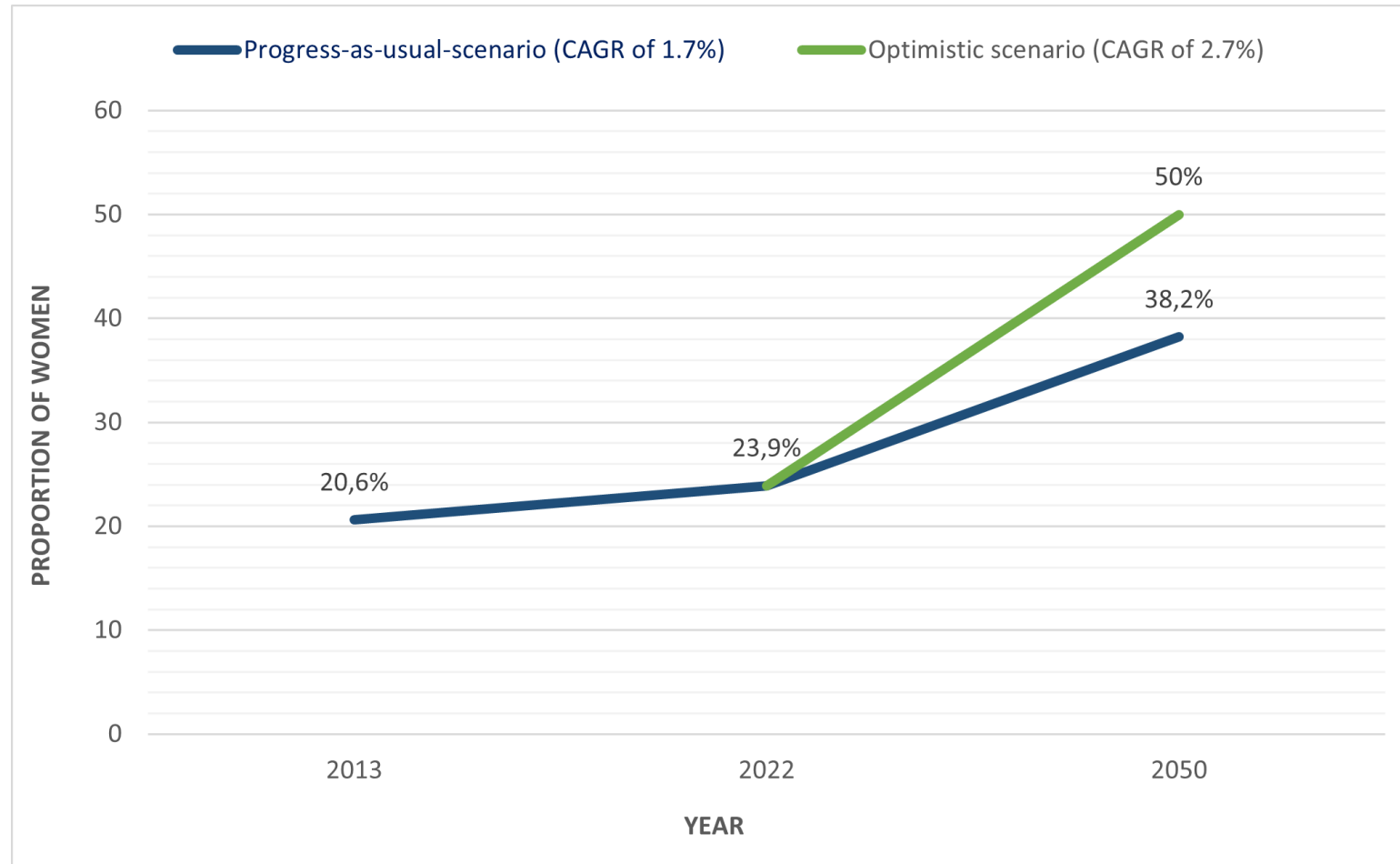
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# Parity in Energy in 2050 – A Self-Fulfilling Prophecy?

Dr. Clemens Striebing, Nathalie Voigt

# Projected Share of Women among Employees in the Energy Industry

We won't reach the goal if we don't speed up.



Source: Own calculations, based on Eurostat data (Labour Force Survey, NACE Rev. 2 sectors B05, B06, C19, D35).

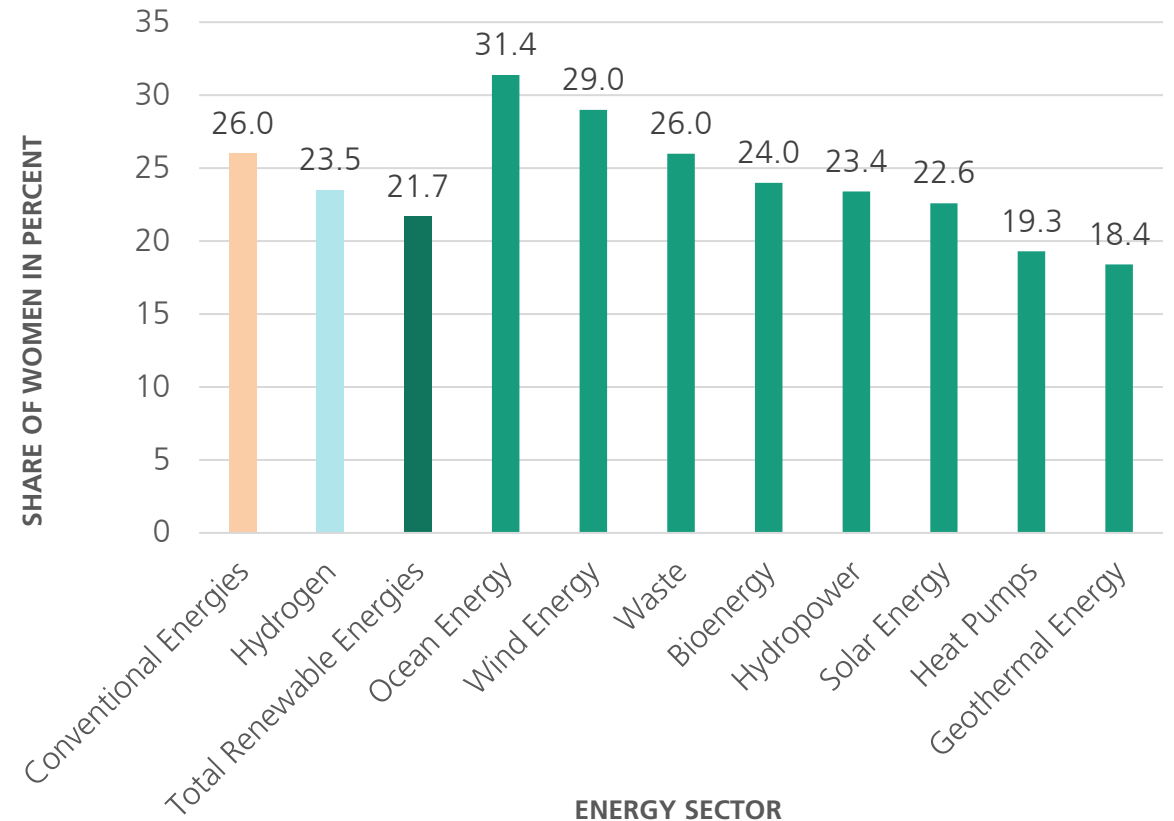
# More Green Energy – More Women?

Not really... The opposite could be the case.

- The expansion of renewable energies **does not** lead to more women in the energy sector.
- Emerging energy sources often require workers from fields with traditionally low female participation.
- Hydrogen energy relies on a high proportion of white-collar jobs for **research** purposes, while heat pumps heavily rely on **manual labor**.

While already almost one in five employees in Germany worked in the heat pump sector in 2021, in other countries such as Croatia, Slovenia and Belgium, just 1 per cent of employees worked in this sector.

Average percentage of women in company



n =2483; Data from our own Europe-wide survey (2023) of HR staff at companies in the energy sector

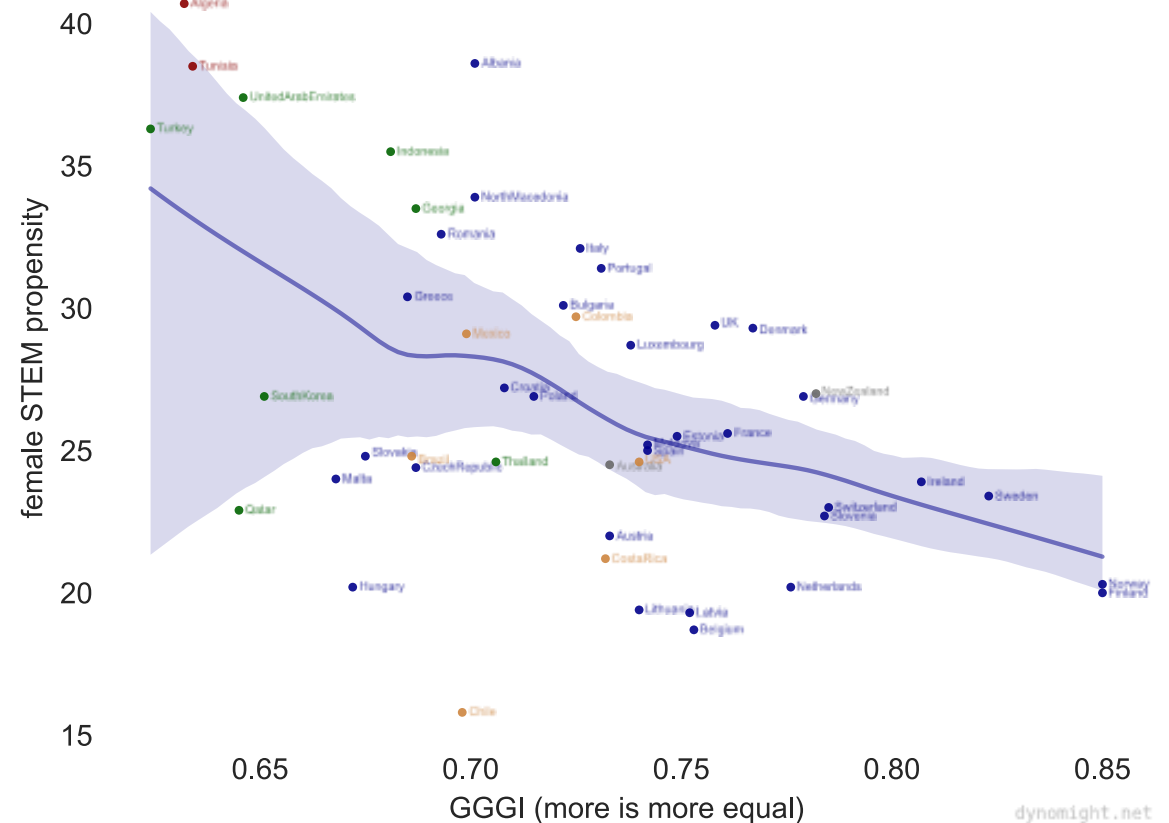
# Does Prosperity Lead to More Women in STEM?

No... More prosperity leads to less women in STEM.

- The **Gender Equality Paradox**: societies with a high degree of gender equality have stronger gender stereotypes regarding the choice of study field (Breda et al, 2020).
- One possible explanation: those countries usually have higher **prosperity** → young people have a freer choice
- → choice is based on interests and therefore stronger influenced by **gender stereotypes**

In general, there are very pronounced gender-related STEM biases in the EU27, least of all in Romania and (by some distance) other Eastern and South-Eastern European countries.

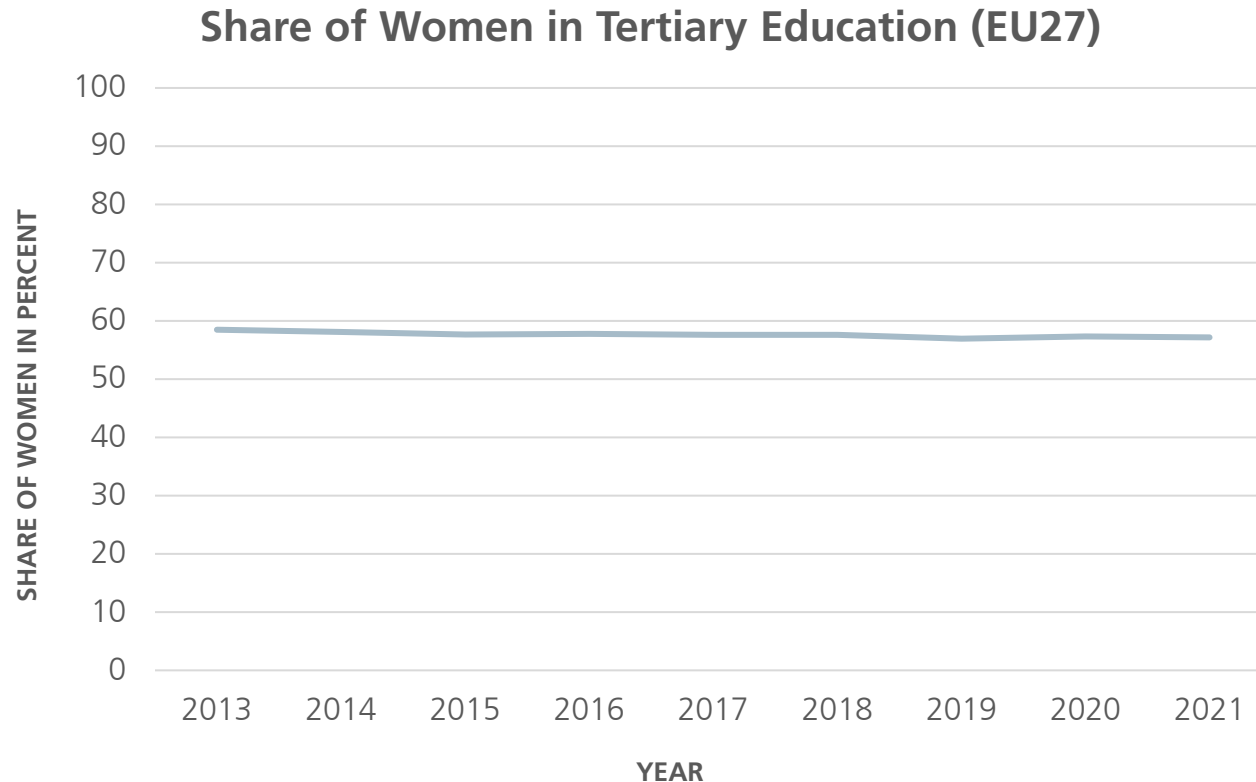
Relationship Between the Global Gender Gap Index (GGGI) and the Share of Women in STEM



<https://dynamight.net/gender-equality-paradox/>

# Women Lead in Tertiary Education...

...but the growth has stagnated and doesn't result in more women in STEM anymore.



- The growth of the share of women in tertiary education has **stagnated**.
- No trend towards more STEM degrees
- It is not expected that the proportion of women will increase again.
- The focus must therefore be on attracting women **away from other fields** and towards STEM fields.

In all EU27 countries, women already make up the majority of graduates with tertiary education qualifications, with a minimum of 54 per cent in Luxembourg and a maximum of 65 per cent in Poland and Latvia.

Own calculations based on Eurostat dataset "Graduates by education level, programme orientation, sex and field of education" (online data code: educ\_uoe\_grad02)

# More Care – More Share

Fathers need to be equally involved in childcare as mothers.

- Expanding care provision and achieving equal sharing of care responsibilities between genders seems unlikely.
- Substantial investments in the care system as well as change in attitudes towards gender roles is required.
- → doesn't seem achievable in the near future

Across all EU27 countries, the proportion of young children who are cared for only by their parents has decreased only marginally in the last decade.





# The Most Accurate Predictors of the Share of Women in Energy Companies

It's not all the companies' fault.

- **Sector-specific characteristics** (such as emphasis on STEM research, sales activities or manual labor) have the strongest impact on the share of women in the workforce.
- Gender equality measures (such as flexible work arrangements) implemented by a company seem to only minimally explain the low representation of women.
- This could be due to unfulfilled requirements from the business, higher education and policy sectors, without which the measures cannot take effect.



# How to Achieve Parity in the Energy Sector by 2050?

Supportiveness, transparency, flexibility

## Overcoming Structural Barriers

To support women's professional development, companies should implement mentorship programmes integrated into reward systems.

## Promoting Inclusive Corporate Culture

By making organisational processes and practices transparent and linking the corporate mission with public interests and needs.

## Facilitating Work-Life Balance and Non-Linear Career Pathways

Flexible work models for supporting working parents and breaking silo careers based on gender-stereotyped decisions

## Counteracting a Competitive Culture

In addition to ensuring flexibility, it is also important to avoid an excessive competitiveness, as these two factors strongly influence women's decision to work in a particular field.



# How to Achieve Parity in the Energy Sector by 2050?

Collaboration, inclusivity, visibility

## Fostering Interest in STEM Careers

Educational institutions and the energy industry should work together on mentorship programs to encourage female students to pursue careers in STEM.

## Creating Gender-Sensitive Study Environments

A gender-inclusive curriculum recognizes and acknowledges that males and females bring different cultural experiences to their learning.

## Increasing the Attractiveness of Higher Technical Degree Programmes

By highlighting their social impact and by making them more interdisciplinary.

## Increasing the Visibility of Non-Engineering Jobs

Career preferences are often formed in childhood and are difficult to change later on.

## Challenging Gender Stereotypes

Awareness campaigns challenging stereotypes in media and society can encourage women to pursue STEM careers.

# Contact

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# Literature

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Breda, T., Jouini, E., Napp, C., & Thebault, G. (2020). Gender stereotypes can explain the gender-equality paradox. *Proceedings of the National Academy of Sciences*, 117(49), 31063-31069.

<https://doi.org/10.1073/pnas.2008704117>