

8<sup>th</sup>

International Conference on Women in Physics

COUNTRY POSTER

**Gender Imbalance in Physics Education  
and Employment in Germany:  
Trends and Challenges**

**Germany**

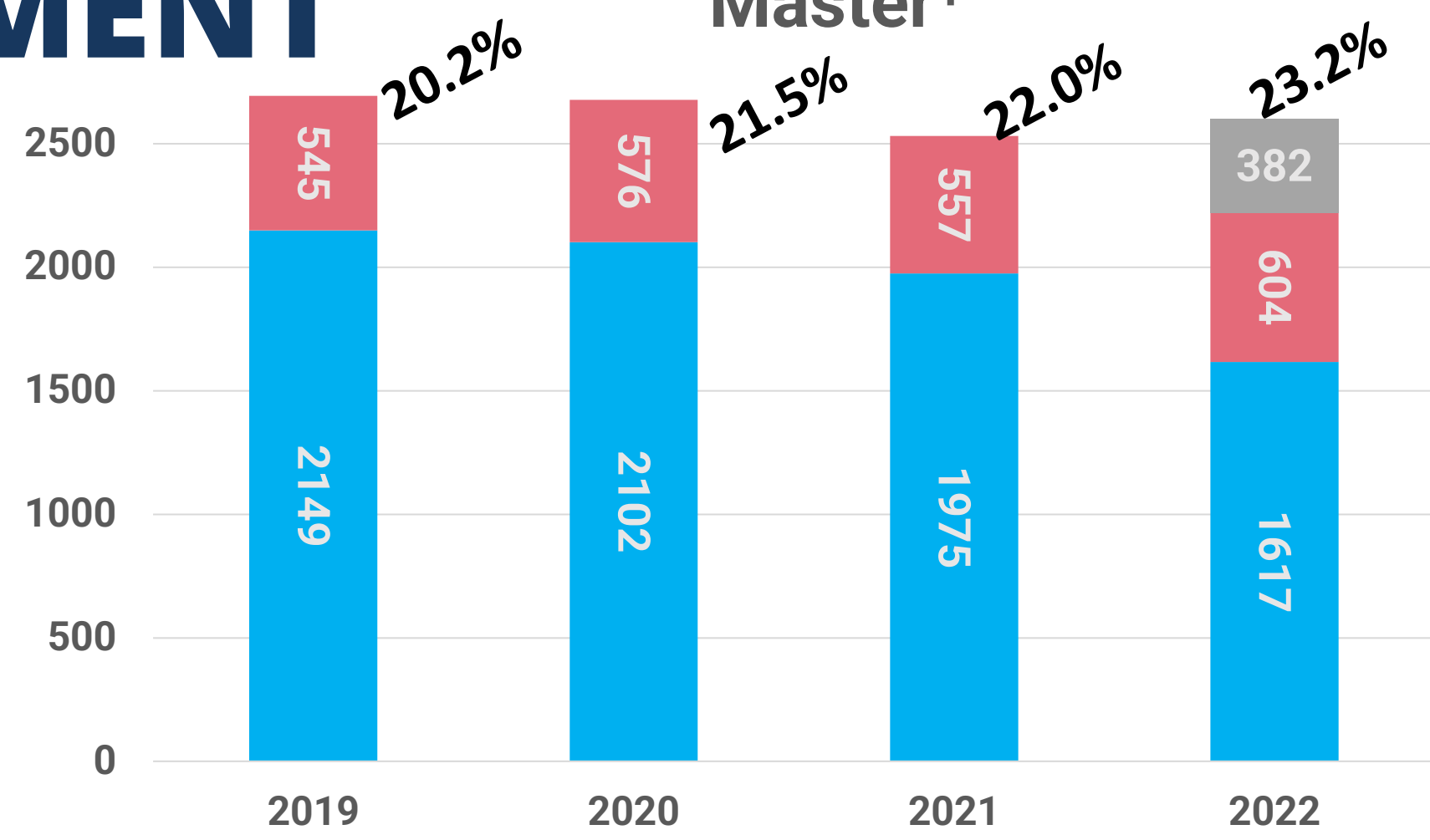
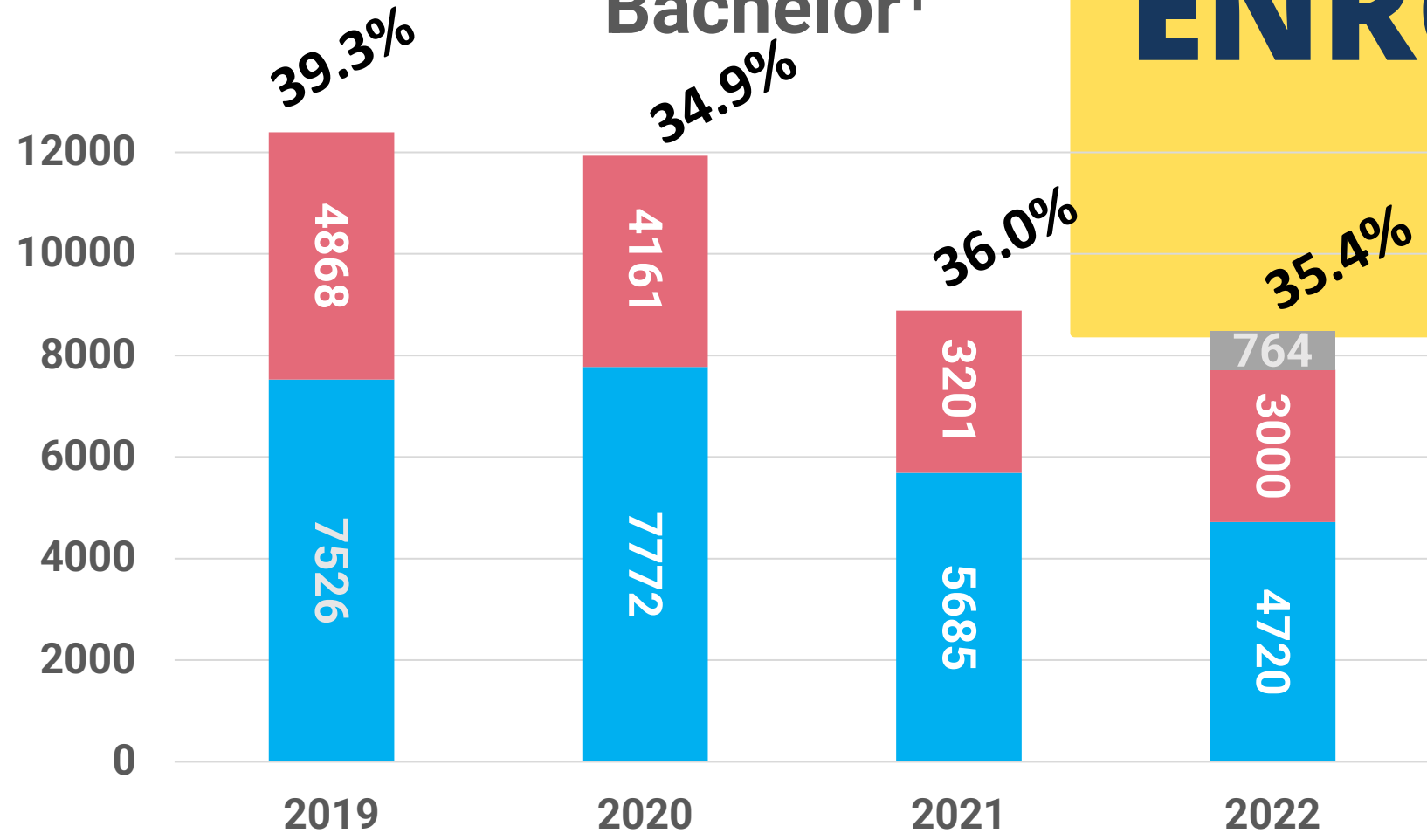
Agnes Sandner, Andrea Bossmann, Angelica Zacarias, Anja  
Metzelthin, Iris Traulsen, Ruzin Ađanođlu, Ulrike Böhmer

# STUDENT ENROLLMENT

Number of Students

Bachelor<sup>1</sup>

Master<sup>1</sup>



■ male ■ female ■ no gender input

Press release No. N004 of 23 January 2023

Record high: women accounting for nearly 35% of students in their first semester of STEM course in 2021

6.5% fewer students starting a STEM course in the academic year of 2021

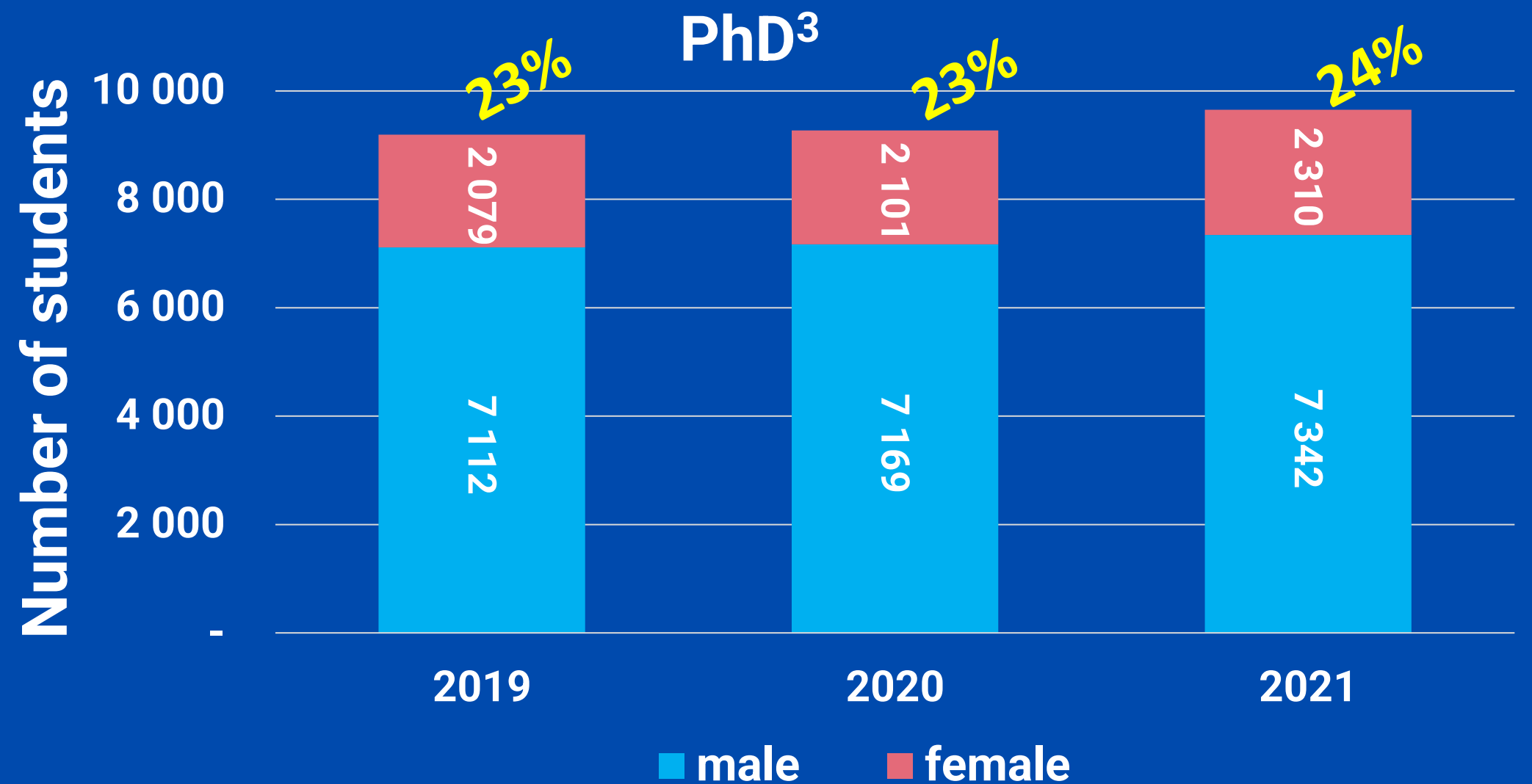
75 **STATIS**  
Statistisches Bundesamt

Slight reversal in female enrolment may be partly associated with the Covid-19 pandemic<sup>2</sup>.

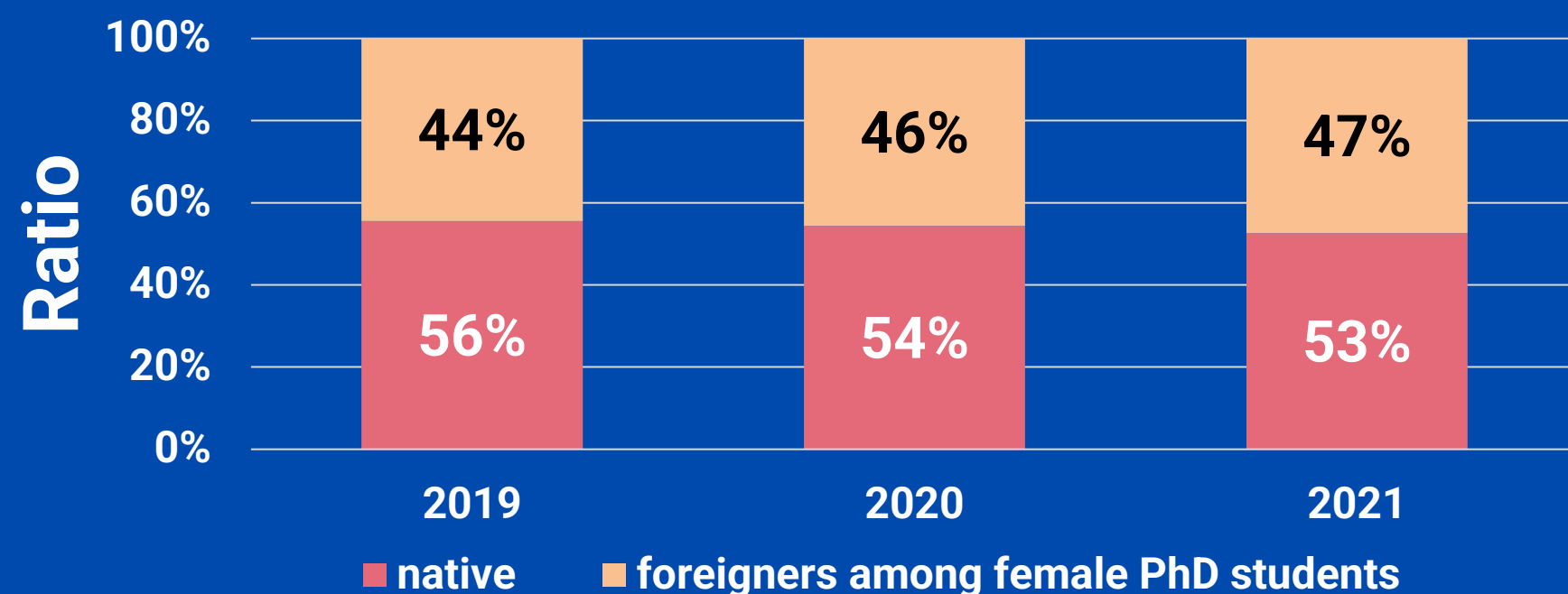
The ratio of female Bachelor graduates is about 25%, while the ratio of female Master's and Diplom graduates is approximately 20% between 2019 and 2021.



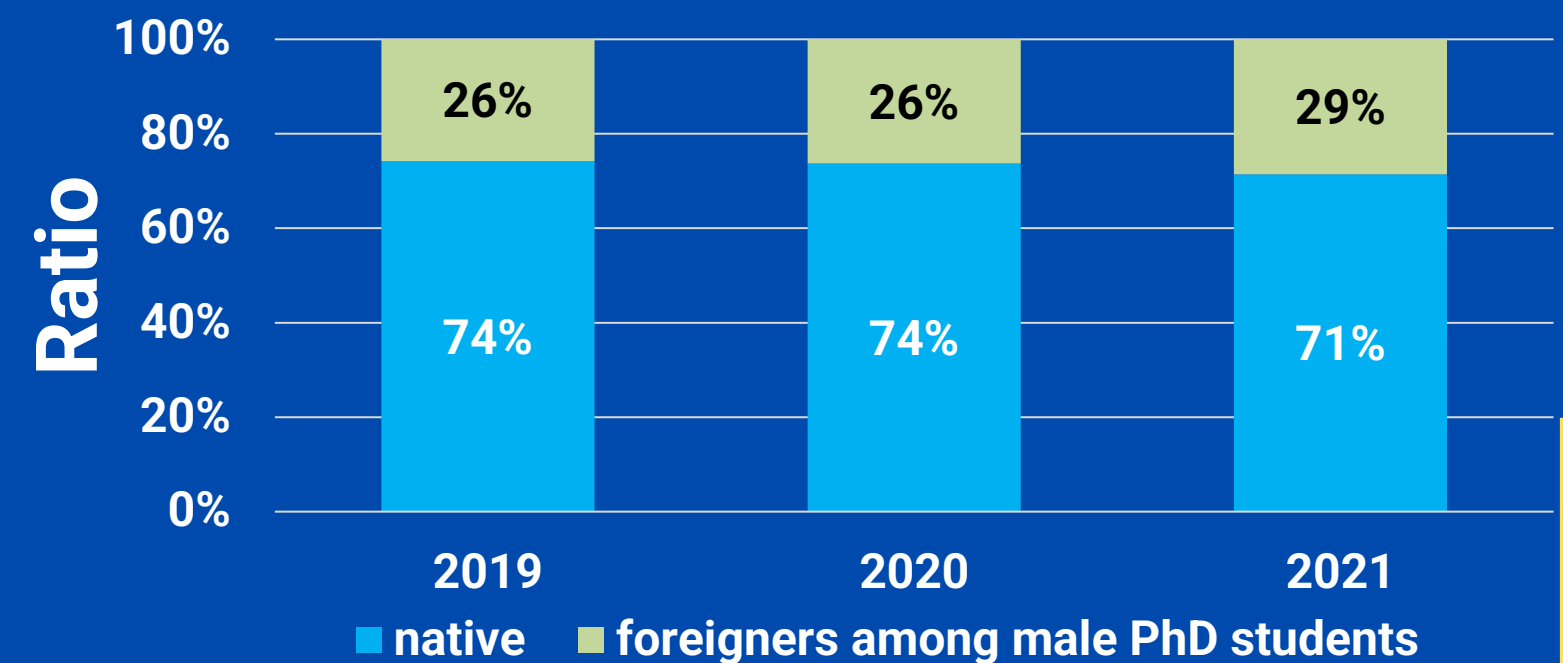
# TREND TOWARDS DIVERSITY IN THE PHYSICS PhD POPULATION



### Female PhD students<sup>3</sup>



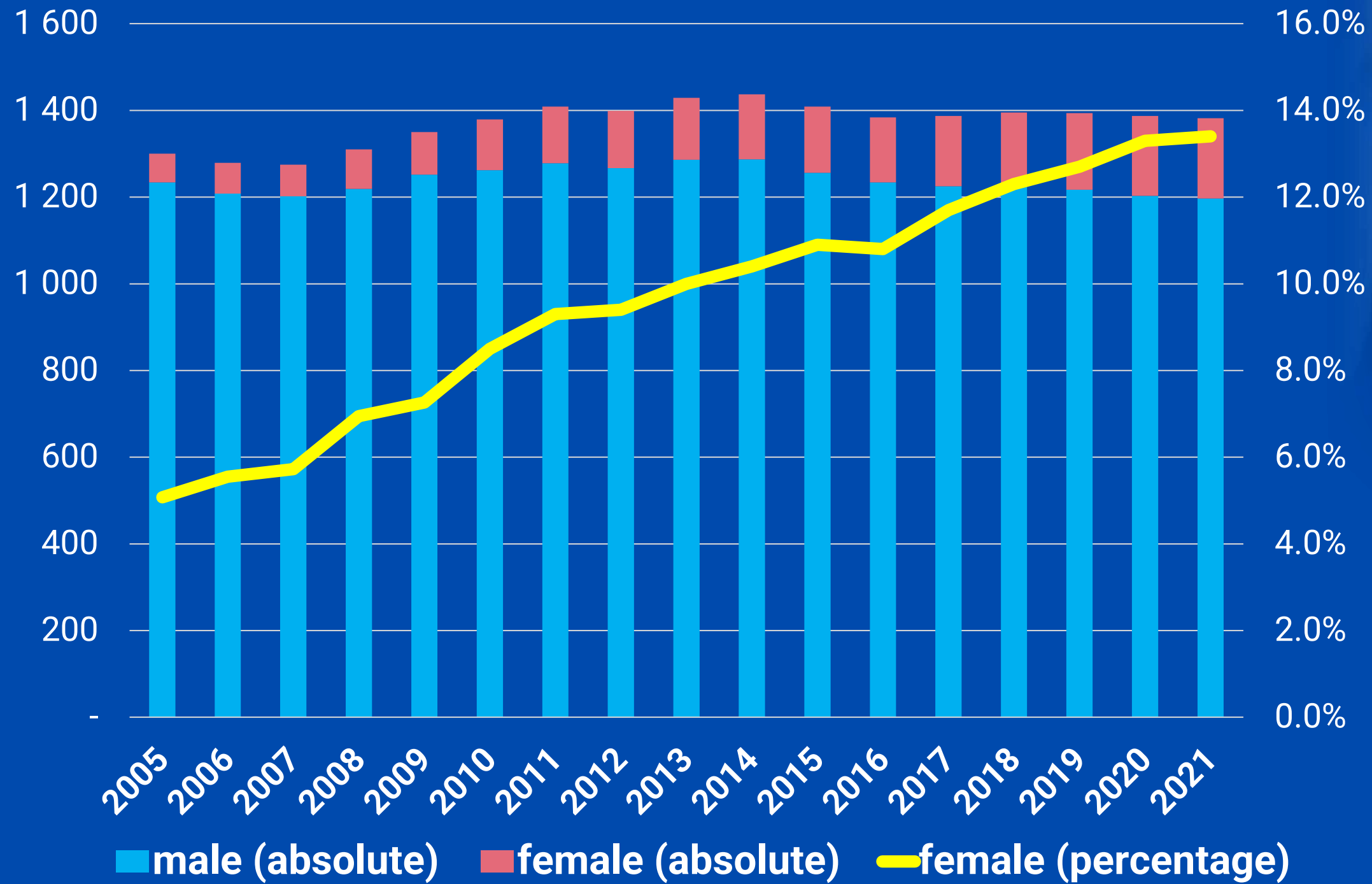
### Male PhD students<sup>3</sup>



# FEMALE RESEARCH

# LEADERSHIP

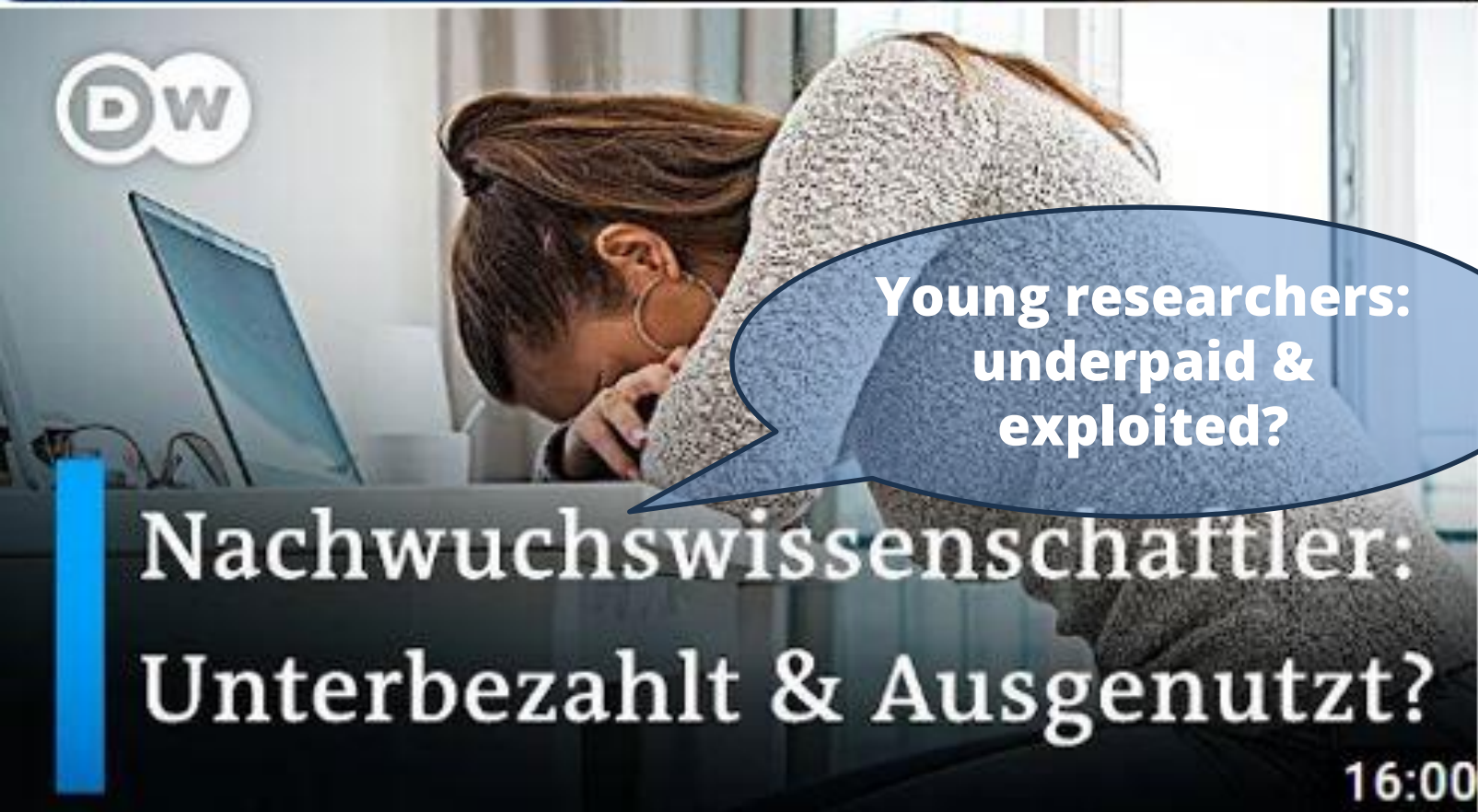
## Professors of physics & astronomy<sup>4</sup>





Forschende protestieren

Researchers protest



Young researchers: underpaid & exploited?

Nachwuchswissenschaftler: Unterbezahlt & Ausgenutzt?

16:00

# WissZeitVG

WISSENSCHAFTSZEITVERTRAGSGESETZ

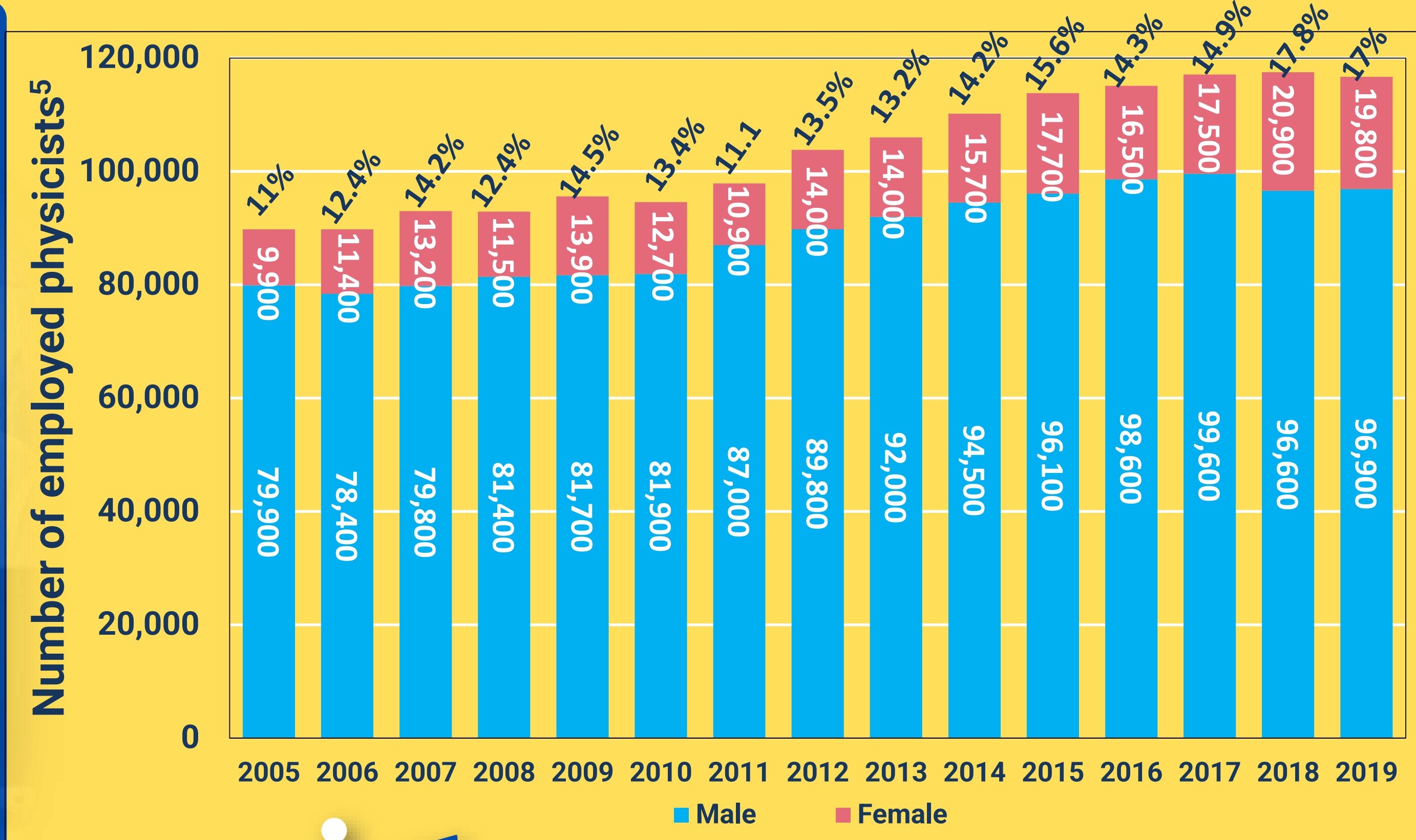


## Current Regulation

6 years before PhD + 6 years after PhD

## Upcoming Regulation

6 years before PhD + 4 years after PhD



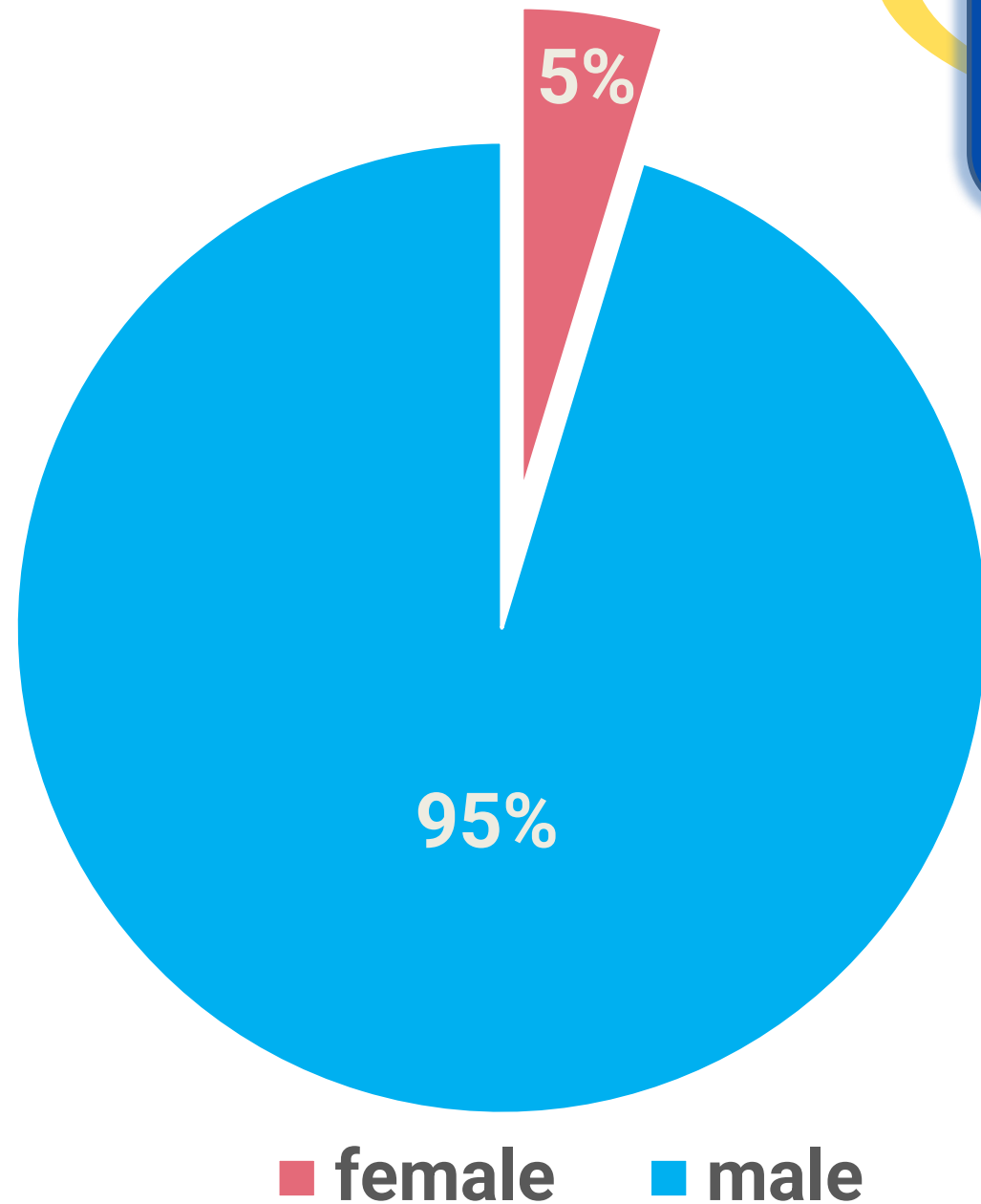
# EMPLOYMENT



Severe gender imbalance in public and private sectors.

# VISIBILITY

Ratio of Physics Prize Recipients(2021)<sup>6</sup>

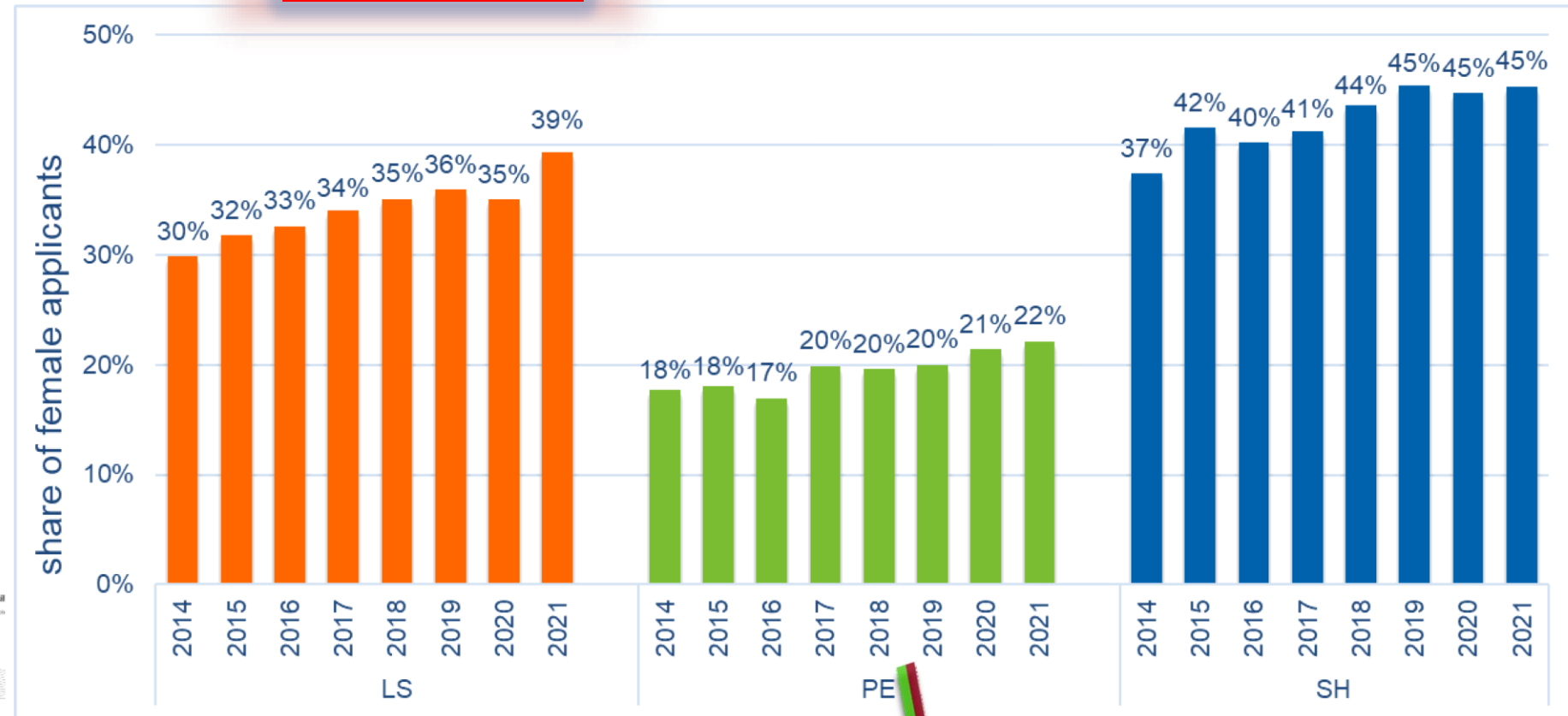


During the ERC calls between 2014 and 2021, only 19.5 % of the applications received are from women working in the Physical Science and Engineering (PE) fields.<sup>7</sup>



## Share Female Applicants by Domain

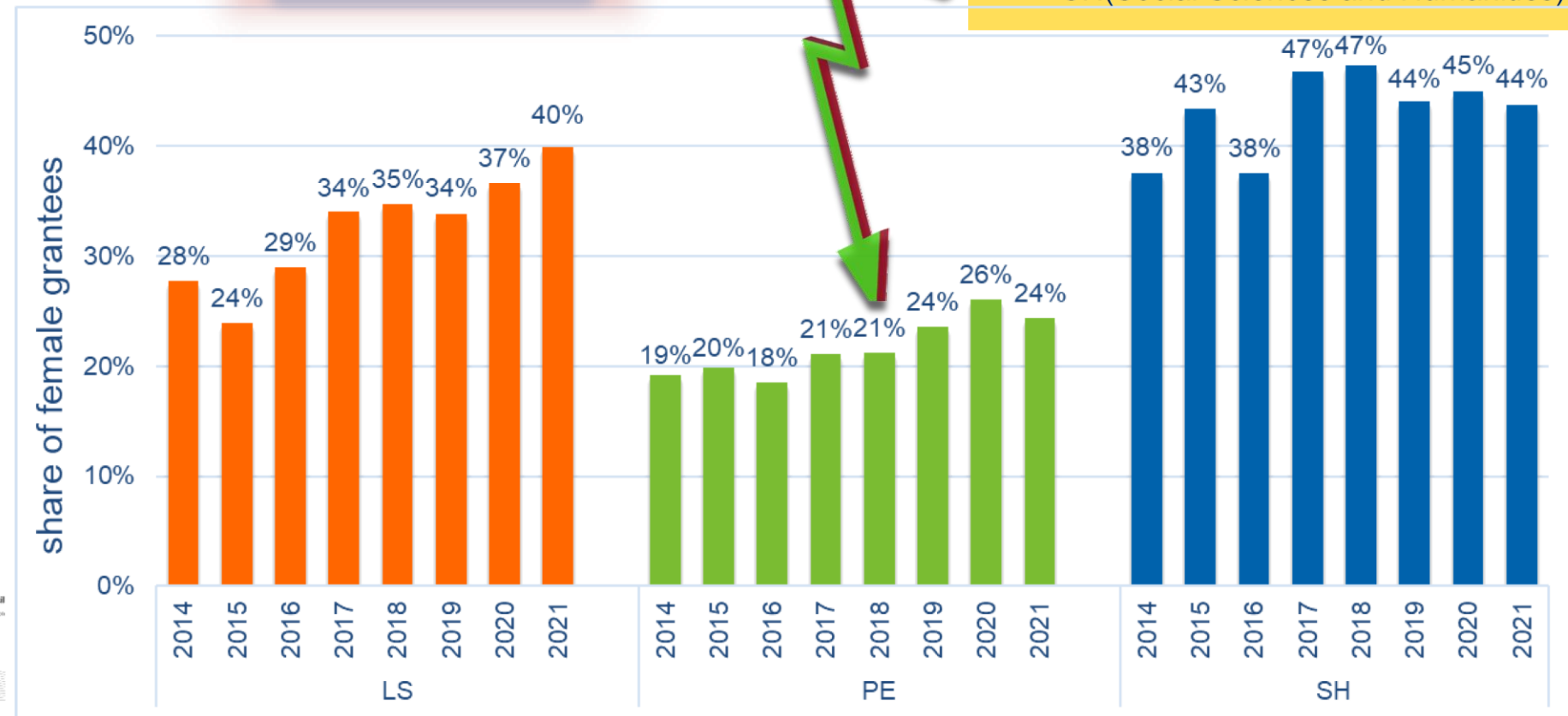
LS(Life Sciences)  
PE(Physics and Engineering)  
SH(Social Sciences and Humanities)



## Share Female Grantees by Domain

LS(Life Sciences)  
PE(Physics and Engineering)  
SH(Social Sciences and Humanities)

From the total of ERC submitted grant applications, female scientist working in PE fields have a success rate of only 3.4%.<sup>7</sup>



# REFERENCES

1. Düchs, G. and Mecke, K. (2019, 2020, 2021, 2022), “Statistiken zum Physikstudium an den Universitäten in Deutschland”, Physik Journal.
2. Ağanoğlu, R., Klösigen, B., Sandner, A., & Traulsen, I. (2023), “Managing Work-Life Balance During the COVID-19 Crisis: A survey with more than 1,500 participants” AIP Conference Proceedings Series, 1-4. <https://doi.org/10.48550/arXiv.2303.05447>.
3. German Federal Bureau of Statistics, “Statistik der Promovierenden” 2019, 2020, 2021.
4. German Federal Bureau of Statistics, “Fachserie. 11, Bildung und Kultur. 4, Hochschulen. 4, Personal an Hochschulen” , 2005-2021.
5. Metzelthin, A. “Arbeitsmarktstudie”, German Physical Society.
6. DPG Awards, German Physical Society, the calculation excludes the Hertha-Sponer-Preis which is solely given to female physicists, <https://www.dpg-physik.de/auszeichnungen/dpg-preise>.
7. The European Research Council, Gender Statistics, data as of June 2022, [https://erc.europa.eu/sites/default/files/2022-11/Gender\\_statistics\\_June\\_2022.pdf](https://erc.europa.eu/sites/default/files/2022-11/Gender_statistics_June_2022.pdf).



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**THANK YOU**