



# **SHE FIGURES**

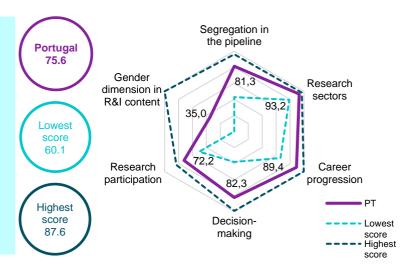
2024

The road to gender equality in R&I

**Portugal** 

The **She Figures Index** is a tool to measure the extent to which European Union (EU) Member States have achieved gender equality in the European Research Area (ERA). It draws on She Figures indicators across six dimensions: segregation in the pipeline, research sectors, career progression, decision-making, research participation, and incorporating a gender dimension in research and innovation (R&I) content (GDRIC).

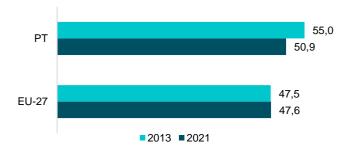
A score of between 0 and 100 is assigned to each dimension, as well as an overall score. A score of 100 denotes that gender equality has been fully achieved. Among the Member States, Portugal ranks 9<sup>th</sup> overall, with a score of 75.6. The breakdown indicates relatively high scores on the dimensions of research participation (6<sup>th</sup>), segregation in the pipeline (7<sup>th</sup>) and research sectors (7<sup>th</sup>), and moderate scores on GDRIC (15<sup>th</sup>), career progression (16<sup>th</sup>) and decision-making (16<sup>th</sup>).





#### Pool of graduate talent

Figure 1: Proportion (%) of women among Doctoral graduates (ISCED 8), 2013 and 2021



Notes: ISCED 8 = International Standard Classification of Education, Doctoral level or equivalent.

Source: Eurostat – Education Statistics (online data code: educ\_uoe\_grad02); Organisation for Economic Co-operation and Development (OECD) (Graduates by field).

She Figures 2024 shows that Portugal has achieved gender balance in terms of the proportion of women among Doctoral graduates. However, between 2013 and 2021, the share of women Doctoral graduates decreased from 55 % to 51 %. Portugal ranks 11<sup>th</sup> for the proportion of women among Doctoral graduates among the 27 European Union Member States (EU-27).

Since 2017, the Commission for Citizenship and Gender Equality and the Portuguese Association for Diversity and Inclusion have organised the initiative 'Engineers for One Day' (i). It encourages women students under 18 to pursue careers in science, technology, engineering and mathematics (STEM) by providing lab experience, showcasing role models, and fostering mentorship.



## Participation in science and technology occupations

Figure 2: Proportion (%) of women scientists and engineers among total labour force, 2013 and 2021



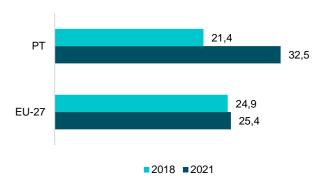
Notes: Break in time series for 2021 PT and EU-27 data. S&Es = scientists and engineers.

Source: Eurostat – Human resources in science and technology (online data code: hrst\_st\_ncat) and Eurostat – Labour Force Survey (EU-LFS) – Active population by sex. age and citizenship (online data code: Ifsa agan).

Women scientists and engineers (S&Es) account for 5.1 % of Portugal's total labour force, according to 2021 data, compared to 2.7 % in 2013. The latest data show that women S&Es represent a larger proportion of the total labour force in Portugal than in the average Member State.

Various awards acknowledge the role of women in science in Portugal. Since 2023, the Maria Helena Rocha Pereira Award has been granted by the Portuguese Association for Women in Science (ii). It is granted to women researchers who have made significant scientific and technological contributions.

Figure 3: Proportion (%) of women among self-employed S&Es and ICT professionals, 2018 and 2021



Notes: Break in time series for 2021 PT and EU-27 data. ICT = information and communications technology.

Source: EU-LFS Annual Average Quarterly data.

The share of women among self-employed S&Es and information and communications technology (ICT) professionals increased between 2018 and 2021. However, women still comprise just one-third (33 %) of self-employed professionals in these fields, based on 2021 data. Of the Member States with available data, Portugal ranks 4<sup>th</sup> for the proportion of women among self-employed S&Es and ICT professionals.



#### Labour market participation as researchers

Figure 4: Proportion (%) of women among researchers, by sector of the economy, 2013 and 2021



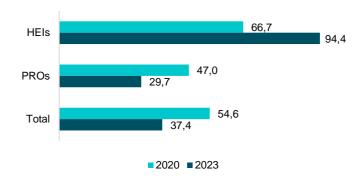
Notes: HES = higher education sector; GOV = government sector; BES = business enterprise sector. EU-27 data for 2021 are estimated.

Source: Eurostat – Research and development statistics (online data code: rd\_p\_persocc) and OECD-R&D personnel by sector and function.

She Figures 2024 shows that women represent 43 % of researchers in Portugal, based on 2021 data. Gender balance is achieved in the higher education sector (HES) and the government sector (GOV), where women represent over half of researchers. However, women are underrepresented in the business enterprise sector (BES), comprising just 30 % of researchers.

#### Working conditions of researchers

Figure 5: Proportion (%) of research organisations taking actions or measures towards gender equality, by type of organisation, 2020 and 2023



Notes: HEI = higher education institutions; PRO = public research organisations. Source: Web-scraping of HEI and PRO websites using SerpAPI, informed by ETER, Cordis and input from the national Statistical Correspondents of EU Member States and countries associated with Horizon Europe.

Approximately one-third of research organisations show information about their actions towards gender equality on their websites. Between 2020 and 2023, the proportion of research organisations carrying out these measures decreased from 55 % to 37 %. This information is more commonly showcased on the websites of higher education institutions (HEIs) than public research organisations (PROs).



### Career advancement and participation in decision-making

Figure 6: Proportion (%) of women among Grade A positions, 2013, 2016, 2019 and 2022

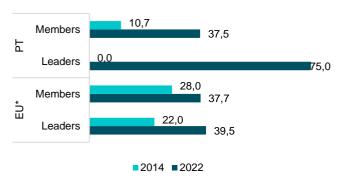


Notes: PT data for 2022 refer to the reference year 2021; \*EU-level data for 2013 refer to the EU-28 (EU-27 plus the United Kingdom (UK)), while EU-level data for 2019 and 2022 refer to the EU-27. The data for PT refer to Grade A researchers, while the data for the EU refer to Grade A researchers and academic staff. Grade A is the single highest grade/post at which research is normally conducted within the institutional or corporate system.

Source: Women in Science (WiS) database, Directorate-General (DG) Research and Innovation - T1\_questionnaires.

The proportion of women holding Grade A positions has improved since 2013 (22 %), but women continue to hold less than one-third of these positions (28 % in 2022). Portugal is below the EU-27 average for this indicator.

Figure 7: Proportion (%) of women on boards of research organisations (members and leaders), 2014 and 2022

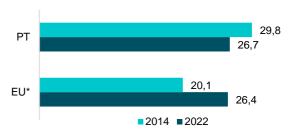


Notes: \*EU-level data for 2014 refer to the EU-28, while EU-level data for 2022 refer to the EU-27

Source: WiS database, DG Research and Innovation - T5 & T6\_questionnaires.

She Figures 2024 shows that gender balance is not achieved in the proportion of women members on boards. However, from 2014 to 2022, this figure increased from 11 % to 38 %, in line with the 2022 EU-27 average. Conversely, compared to 2014 when women were not represented as board members, the latest data show that women represent 75 % of leaders on boards of research institutions in Portugal in 2022.

Figure 8: Proportion (%) of women among heads of institutions in HES, 2014 and 2022



Notes: The PT data for 2022 refer to 2021; \*EU-level data for 2014 refer to the EU-28, while EU-level data for 2022 refer to the EU-27. Source: WiS database, DG Research and Innovation – T7\_questionnaires.

Between 2014 and 2022, the proportion of women among heads of institutions in the HES decreased from 30 % to 27 %. As the latest available data indicate, Portugal performs below the EU-27 average value (26 %) for this indicator.



#### **R&I output**

Figure 9: Research funding success rate differences (pp) between women and men, 2017 and 2022

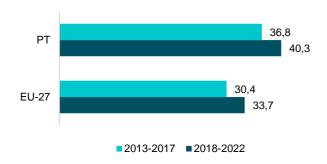


Notes: A positive difference means that men have a higher success rate. \*EU-level data for 2017 refer to the EU-28, while EU-level data for 2022 refer to the EU-27. PP = percentage points.

Source: WiS database, DG Research and Innovation – T3\_questionnaires.

In Portugal, women are more likely than men to be successful at obtaining research funding. In 2022, the difference in research funding success rates between men and women was -1.4 percentage points (pp), compared to 0.2 pp in 2017. Portugal performs better than the EU-27 average for this indicator.

Figure 10: Average proportion (%) of women among authors on publications in all fields of R&D, 2013-2017 and 2018-2022

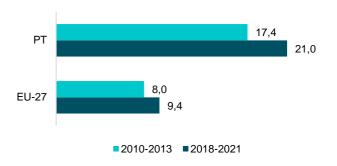


Notes: R&D = research and development.

Source: Scopus.

The average share of women among authors of publications in all fields of research and development (R&D) in Portugal between 2018 and 2022 is 40 %. This figure has increased since 2013-2017, when women represented 37 % of authors on publications when all fields are considered. According to the latest data, Portugal performs above the EU-27 average for this indicator and ranks sixth among the Member States for this indicator.

Figure 11: Proportion (%) of women among inventors, 2010-2013 and 2018-2021



Source: Computed by using European patent applications (kind codes A1 and A2) in PATSTAT.

Women are underrepresented among inventors on patent applications in Portugal and in the EU more

broadly. Data from 2018 to 2021 show that women submit 21 % of patent applications in Portugal, and 9.4 % in the EU-27. Nevertheless, this figure has improved since 2010-2013, when women represented 17 % of inventors on patent applications in the country. Overall, the latest data show that Portugal has the highest proportion of women among inventors across the Member States.

Overall, She Figures 2024 finds that Portugal performs above the EU average for several indicators, including the proportion of women among Doctoral graduates (Figure 1), the proportion of women scientists and engineers among total labour force (Figure 2), the proportion of women among self-employed S&E and ICT professionals (Figure 3), the share of women among researchers (Figure 4), and the R&I outputs of women (Figures 9-11). However, further efforts are needed to increase the proportion of women among researchers in the business enterprise sector (Figure 4) and to increase women's opportunities for career advancement and participation in decision-making (Figures 6-8).

#### **About She Figures 2024**

Gender equality – in all areas of life, and specifically within R&I – is a priority for the EU. She Figures is one of the flagship publications of DG Research and Innovation. Produced every three years, it presents comparable statistics on the state of gender equality in R&I across Europe. The publication provides data for more than 100 indicators to support the European Commission's policy initiatives promoting gender equality in R&I and the ERA. The chapters follow the 'chronological journey' of women and men, from graduating from Doctoral education to participation in the labour market and in decision-making roles. The publication also considers women's and men's relative working conditions and R&I outputs.

### **Gender Equality in Research and Innovation**

Explore She Figures 2024 interactive report and Gender equality in research and innovation

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#GenderEquality

**#UnionOfEquality** 

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<sup>(1)</sup> Commission for Citizenship and Gender Equality and the Portuguese Association for Diversity and Inclusion, Engineers for One Day, 2017, https://engenheirasporumdia.pt

<sup>(</sup>ii) Portuguese Association for Women in Science, Maria Helena Rocha Pereira Award, 2023, https://amonetpt.wixsite.com/amonet/premioamonet