European Commission

SHE FIGURES 2024

The road to gender equality in R&I

Estonia

She Figures Index 2024

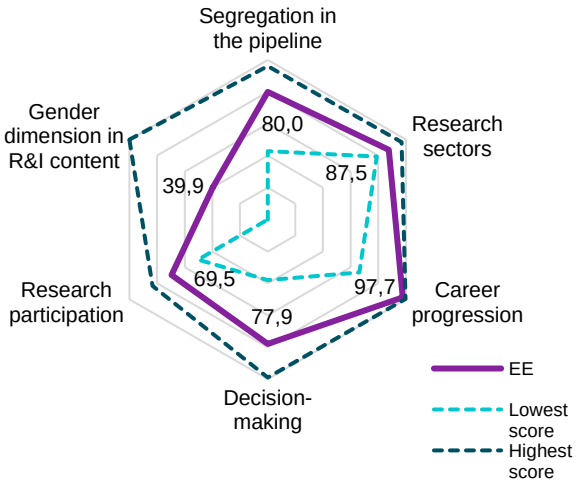
The **She Figures Index** is a tool to measure the extent to which European Union (EU) Member States have achieved gender equality in the European Research Area (ERA). It draws on She Figures indicators across six dimensions: segregation in the pipeline, research sectors, career progression, decision-making, 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, Estonia ranks 11th overall, with a score of 75.4. The breakdown indicates a relatively high score on the dimension of career progression (5th), moderate scores on segregation in the pipeline (10th), research participation (11th), GDRIC (12th) and decision-making (17th), and a lower score on research sectors (19th).

Estonia 75.4

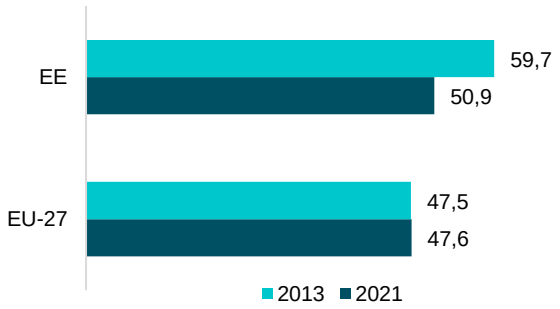
Lowest score 60.1

Highest score 87.6



Pool of graduate talent

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

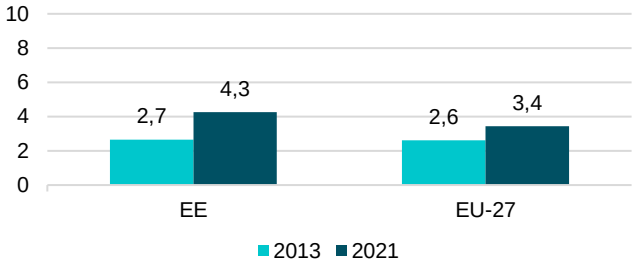


Notes: ISCED 8 = International Standard Classification of Education, Doctoral level or equivalent.
Eurostat – Education Statistics (online data code: educ_uoe_grad02); Organisation for Economic Co-operation and Development (OECD) (Graduates by field).

She Figures 2024 shows that **women account for approximately half (51 %) of Doctoral graduates,** according to 2021 data. This figure was even higher in 2013, when women comprised 60 % of Doctoral graduates in the country. Estonia performs better than the EU average in this area and ranks 12th among the Member States for proportion of women among Doctoral graduates.

Participation in science and technology occupations

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



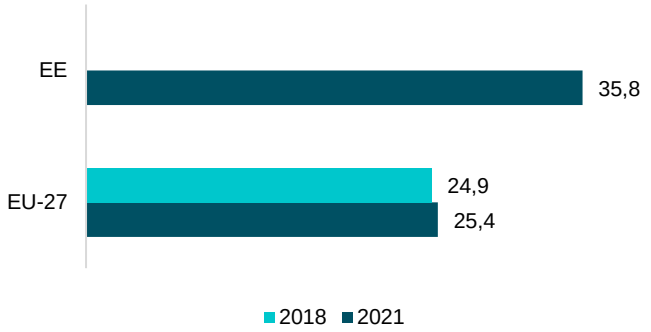
Notes: Break in time series: 2021 EE & EU data. S&Es = scientists & engineers.
Source: Eurostat – Human resources in science and technology (online data code: hrst_st_ncat) and Eurostat – Labour Force Survey (EU-LFS) – Active population by sex, age and citizenship (online data code: lfsa_agan).

Between 2013 and 2021, the proportion of women scientists and engineers (S&Es) among the total labour force increased from 2.7 % to 4.3 %. Estonia performs higher than the average for the 27 Member States (EU-27) (3.4 % in 2021).

Estonia's Gender Equality and Equal Treatment Programme (2024-2027) describes how European Structural Funds will be used to reduce gender segregation in education and the labour market ([i]). Activities primarily focus on preventing and

reducing gender segregation in the fields of natural sciences, technology, engineering, and mathematics (STEM).

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

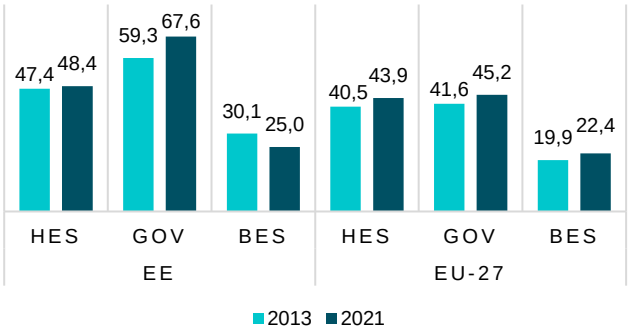


Notes: 2021 Data for EE refer to 2020; Break in time series for 2021 EU-27 and EE data. ICT = information and communications technology.
Source: EU-LFS Annual Average Quarterly data.

Women account for approximately one-third (36 %) of self-employed S&Es and information and communications technology (ICT) professionals in Estonia, based on 2021 data. Of the 22 Member States with available data, Estonia ranks third for the proportion of women among self-employed professionals in these fields, although gender balance has still not been achieved.

Labour market participation as researchers

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



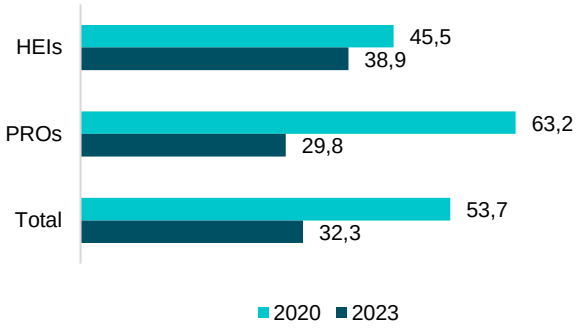
Notes: HES = higher education sector; GOV = government sector; BES = business enterprise sector. EU-27 data for 2021 are estimated.
Source: Eurostat – Research and development statistics (online data code: rd_p_persocc) and OECD-R&D personnel by sector and function.

She Figures 2024 shows that **women comprise 42 % of researchers in the country**. Data from 2021 show that women represent more than half of researchers in the government sector (GOV) (68 %), and nearly half of researchers in the higher education sector (HES) (48 %). Conversely, women account for just one-quarter (25 %) of researchers in the business enterprise sector (BES), according to 2021 data.

In 2019, the Ministry of Education and Research of Estonia launched the Research and Development (R&D), Innovation and Entrepreneurship Strategy (2021-2035) ([ii]). It includes measures to support research institutions and higher education institutions (HEIs) to develop and implement flexible career models that take into account equal opportunities (including gender equality).

Working conditions of researchers

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

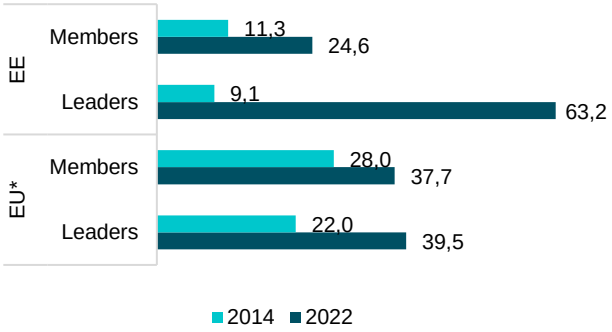


Notes: PRO = public research organisations.
Source: Web-scraping of HEI and PRO websites using SerpAPI, informed by ETER, Cordis and input from the national Statistical Correspondents of EU Member States and countries associated with Horizon Europe.

Approximately one-third (32 %) of research organisations show information about their actions towards gender equality on their websites. Between 2020 and 2023, the proportion of public research organisations (PROs) displaying these actions on their websites decreased from 63 % to 30 %, while the proportion of higher education institutions (HEIs) doing so dropped from 46 % to 39 %.

In 2022, the Estonian Research Council hosted an annual conference to convene with other consortium members and partners carrying out the 'GEARING-Roles' project on gender equality in research and higher education' ([iii]). It explored best practices to implement gender equality plans (GEPs) at research institutions and discussed how to improve the gender dimension in Estonian research.

Figure 6: Proportion (%) of women on boards of research organisations (members and leaders), 2014 and 2022

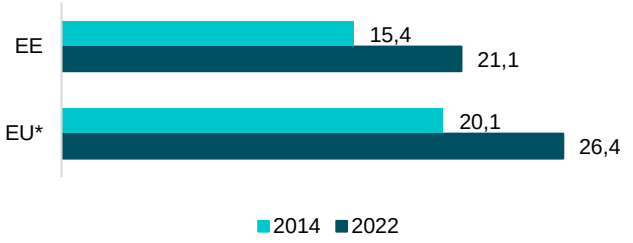


*Notes: *EU-level data for 2014 refer to the EU-28 (EU-27 plus United Kingdom (UK)), while EU-level data for 2022 refer to the EU-27.*
Source: Women in Science (WiS) database, Directorate-General (DG) Research and Innovation - T5 & T6_questionnaires.

Estonia has made considerable progress in the past decade in women's access to leadership and decision-making positions. As data for 2022 illustrate, **women represent 25 % of board members,** compared to 11 % in 2014. The latest data show that women represent 63 % of board leaders, compared to just 9 % in 2014.

In 2023, the Estonian Ministry of Social Affairs launched the Welfare Development Plan 2023-2030 ([iv]). Specific objectives aim to: identify the causes of the gender pay gap and improve pay transparency; improve the reconciliation of work, family life, and private life for women and men; improve women's careers prospects; and reduce the prevalence and impact of negative gender stereotypes at decision-making and management levels in the public and business sectors.

Figure 7: Proportion (%) of women among heads of institutions in HES, 2014 and 2022

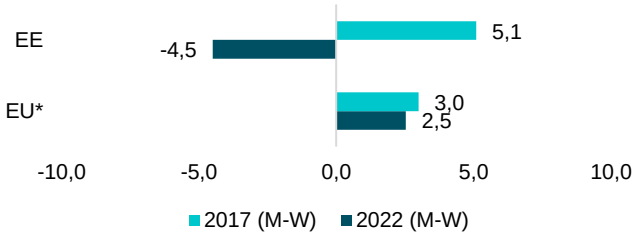


*Notes: *EU-level data for 2014 refer to the EU-28, while EU-level data for 2022 refer to the EU-27.*
Source: WiS database, DG Research and Innovation – T7_questionnaires.

Between 2014 and 2022, **the proportion of women heads of institutions in HES increased from 15 % to 21 %.** The latest data show Estonia performing below the EU-27 average, at 26 % in 2022.

R&I output

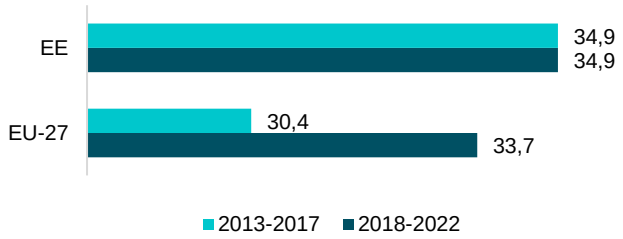
Figure 8: Research funding success rate differences (pp) between women and men, 2017 and 2022



*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.

She Figures 2024 shows that **women are more likely to receive research funding than men,** based on 2022 data. The research funding success rate is 4.5 percentage points (pp) higher for women than for men. This is a significant increase in funding success rate from 2017, when the research funding success rate was 5.1 pp lower for women.

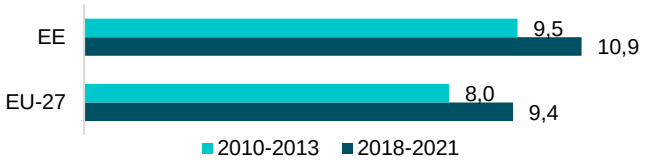
Figure 9: Average proportion (%) of women among authors on publications in all fields of R&D, 2013-2017 and 2018-2022



Source: Scopus.

Between 2018 and 2022, the average proportion of women among authors of publications in Estonia in all fields of R&D was 35 %. This is slightly higher than the EU-27 average (34 % during this period). Estonia ranks 15th among the EU-27 regarding the proportion of women authors of publications.

Figure 10: Proportion (%) of women among inventors, 2010-2013 and 2018-2021



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

In Estonia, only 11 % of patent applications are submitted by women, according to data from 2018-2021. Although low, Estonia nevertheless performs above the EU-27 average of 9.4 % and ranks 13th among the Member States for proportion of women inventors.

Overall, Estonia performs above the EU average for most of the She Figures 2024 indicators presented. In recent years, notable efforts have been made to maintain gender balance among Doctoral graduates (Figure 1), to increase the proportion of women scientists and engineers among the total labour force (Figure 2), and to increase the proportion of women researchers in the higher education and government sectors (Figure 4). Women in Estonia are also more likely than men to successfully receive research funding (Figure 8). Further efforts are needed to increase the proportion of research organisations that display information on their actions towards gender equality on their websites (Figure 5) and the proportion of patent applications submitted by women (Figure 10).

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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(i) Ministry of Social Affairs, Gender Equality and Equal Treatment Programme (2024-2027), 2023, https://www.sm.ee/sites/default/files/documents/2024-01/Soolise%20v%C3%B5rdsuse%20ja%20v%C3%B5rdse%20kohtlemise%20programm%202024-2027.pdf
(ii) Ministry of Education and Research, R&D, Innovation and Entrepreneurship Strategy (2021-2035), 2019, https://www.hm.ee/en/ministry/ministry/strategic-planning-2021-2035#documents--2
(iii) Estonian Research Council, GEARING-Roles annual conference on gender equality in research and higher education, 2022, https://etag.ee/en/activities/gender-mainstreaming-in-research/gearing-roles/gearing-roles-international-conference-2022/
(iv) Ministry of Social Affairs, Welfare Development Plan 2023-2030, 2023, https://www.sm.ee/heaolu-arengukava-2023-2030#welfare-development-