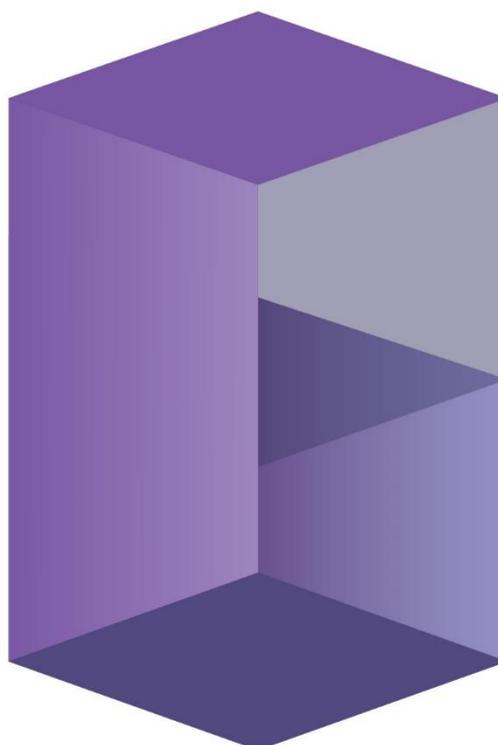


Participation of Women in Research and Development in Greece

2021 Edition





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Research and Development
in Greece

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NATIONAL DOCUMENTATION CENTRE

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Foreword

Gender equality constitutes a fundamental value of the European Union (EU), one of the objectives of the United Nations for Sustainable Development and an issue, which appears to be urgent in the agenda of public policy and current affairs.

In 2007, for the first time in Greece, the National Documentation Centre (hereafter “EKT”) raised the issue of equal participation of women in the research and innovation system with an initiative for 'Mapping the Scientific Background of Greek Women Research Personnel'. Since then, it has been actively serving the goal of gender equality by participating in policy-making research projects, producing statistics, recording young researchers, and highlighting their achievements. EKT's Gender Equality Plan is a central policy of the organisation. In the new programme of the European Commission 'Horizon Europe', EKT represents Greece in the flagship project GENDERACTION for gender equality in research and innovation. At the statistical level, EKT monitors and records the position of women in Research and Development activities in the relevant national statistics that it produces on an annual basis. It is also the statistical representative of Greece in the EU's SHE figures publications.

Our goal is to provide empirical data that will contribute to the formation of appropriate gender equality policies in the field of research and innovation, which, although it seems privileged in relation to other sectors, still has a long way to go. The data of the recent issue of SHE figures 2021, in which EKT participated, reflect the 'journey' of women through their studies, their specialization, and their career to the high positions of responsibility that they acquire. Despite exceptions and successful examples from women academics or entrepreneurs, the 'glass ceiling' remains, keeping women in positions of reduced responsibility. Equal opportunities and a context, free of gender stereotypes, remain central issues in industries where men have traditionally excelled, such as the IT sector. What is more, enhancing digital skills raises the issue of women lagging behind, if not being excluded, from the modern technological developments that define the digital economy, entrepreneurship and society.

In the recent 'National Action Plan for Gender Equality 2021-2025', EKT is recognised as the organisation that systematically provides indicators on the participation of women in R&D. The edition at hand presents the latest data on the participation of women in doctoral studies, in Research & Development activities and in European and national projects. In our next editions, we will expand the range of data we collect in order to provide a reliable basis about the participation of women in high positions of responsibility in the Greek area of research, higher education, and entrepreneurship.

As the European Commission points out, the goal of gender equality is still a prime demand. EKT, with its many years of presence, awareness-raising actions and new initiatives that it is constantly undertaking, contributes dynamically to the public debate in order to make the goal of gender equality a reality.

A handwritten signature in blue ink, appearing to read 'Evi Sachini', with a stylized flourish at the end.

Dr. Evi Sachini
Director of EKT

1.

European policies on gender equality in research

Gender equality in the European Union has experienced new opportunities and challenges in recent years. The publication in early 2020 of the European Commission Communiqué 'The EU Gender Equality Strategy 2020-2025' presents policy objectives and actions to create a Europe of gender equality, through the adoption of a dual approach based on targeted measures combined with gender mainstreaming at all stages of policy-making in each area of activity. At the same time, the European Union (EU) and the Member States were facing the COVID-19 pandemic, which, besides putting significant pressure on Member States' health systems, entailed significant economic and social consequences, disproportionately affecting women.

In the field of research and innovation in particular, the achievement of gender equality and gender mainstreaming in research have been key priorities for the European Research Area (ERA) since 2012. Actions to achieve this include promoting equality in professional development, ensuring gender equality in the decision-making process, and gender mainstreaming. The emblematic edition of the European Commission 'SHE Figures' which monitors the progress of gender equality in the fields of Research & Innovation through the use of a series of 88 indicators presents interesting (and comparable) data on the evolution of gender equality in these sectors. The 2021 report in particular highlights some overall positive trends compared to the previous edition, but at the same time denotes the low participation of women in areas such as information and communication technologies. Such a low participation on an array of sectors is translated to losses of talents and growth opportunities. The publication is framed by a series of Policy Briefs that present good practices in areas where comparable data is lacking. Among these areas are the impact of COVID-19 on women researchers and scientific production, intersectionality in research and innovation, and gender mainstreaming in innovation. According to publication's data, Greece is ranked in the 27th (and last) position of the EU at the gender equality index. The publication confirms, among other things, the existence of a 'glass ceiling', as in 2018 the percentage of women at the highest level of the academic hierarchy (Grade A) was 22.3%, while the European average was 26.2. Women are also under-represented in the top management of academic institutions, representing only 16% of deans compared to 23.6% which is the European average.

The EEA Communiqué (2020) reaffirms the commitment to gender equality and gender mainstreaming, with a further impetus given to "Horizon Europe" for 2021-2027. In the context of Horizon Europe, gender is emerging as a horizontal principle aimed at eliminating gender inequality and the impact of socio-economic inequalities in research and innovation systems, through (among others) tackling unconscious bias and other structural barriers. The new elements of the programme include the following five pillars: a) adoption of a Gender Equality Plan (GEP) by public bodies, research bodies and higher education institutions as an eligibility criterion from 2022 onwards, with the aim of accelerating institutional change, b) allocation of resources to support the formation of GEP by research and innovation bodies in the Member States and associated countries, c) gender mainstreaming in research and innovation as a requirement, (d) ensuring equal participation of men

and women in evaluation committees, as well as in other advisory bodies such as councils and expert groups, while equal participation of men and women researchers in projects is highly encouraged and will be taken into account during the evaluation of proposals that have received the same rating, and e) introduction of emblematic initiatives and actions to strengthen gender equality through the European Innovation Council.

Among the abovementioned actions, the adoption of GEP constitutes an innovation of the new programme. The European Commission identifies four basic conditions (or 'components' that GEPs must meet: a) **Publication** - the GEP must be a public document which is posted on the website of the institution and bears the signature of the administration, b) **Resources** - commitment to ensure resources and expertise for the implementation of the GEP, c) **Collection and Monitoring Indicators** - collection of data on the personnel of the body based on gender and annual recording on the basis of indicators, d) **Training Actions** - implementation of information-awareness and training actions for gender equality and unconscious bias about personnel and decision-making bodies. Regarding the content of the GEP, a recommendation is made to refer to the following five topics through the use of specific goals and measures: a) combination of professional and family life, b) gender balance in positions of responsibility and in the decision-making process, c) gender equality in matters of recruitment and professional development, (d) gender mainstreaming in research and education, (e) measures to address gender-based violence, including sexual harassment. In the case of Greece, despite the absence of any obligation for public research bodies (universities and research centers), to adopt GEPs, data from SHE Figures show that, as a consequence of Horizon Europe's requirement for institutional change through GEPs, in 2020, 73.9% of universities and 36.1% of public research institutes mentioned on their websites measures and actions to strengthen gender equality.

EKT has been actively supporting the participation of women in the ERA since 2007 through specific actions for documentation, information, consultancy and networking, to support women's participation in research projects, the development of women entrepreneurship and the promotion of innovation. More specifically, in the context of the PERIKTIONI Network and the project 'Mapping of the Scientific Background of Greek Women Research Personnel' (2007), EKT carried out for the first time an extensive research on Greek women researchers. Later, in the context of the production of the country's official research and development statistics, EKT published 'Participation of women in Research and Development in Greece'. This publication, with a reference year of 2011, provided indicators on the participation of women in Research & Development (R&D) in Greece and was the first in this series of EKT statistical publications.

Statistics on women's participation in R&D are included in the official national statistics of EKT and are produced and published in accordance with the organisation's annual statistical programmes. EKT publications aspire to be a tool for the design of national policies, as well as a reference point for the position of women researchers in the field of research, technology, innovation and development in Greece.

The edition at hand is structured as follows. It analyses the participation of women: in the new doctorates awarded by Greek Universities (Chapter 2), in the total personnel engaged in research and development activities and the country's research personnel in all sectors of the economy (Chapter 3), in European projects of excellence and in national actions in support of research personnel (Chapter 4).

The publication uses data and indicators derived from the official statistics produced by EKT, in particular statistics on expenditure and personnel in Research and Development and statistics on

doctoral students. In addition, data on the participation of women in European research projects - collected by EKT in the context of its operation as a National Contact Point in Horizon 2020- and on participation of women in national research projects –also collected by EKT in the context of the implementation of the ‘Evaluation of NSRF Higher Education Actions’ to monitor support activities for young scientists and researchers- are presented in this publication. Brief methodological notes for each of these sources are provided in the last section.

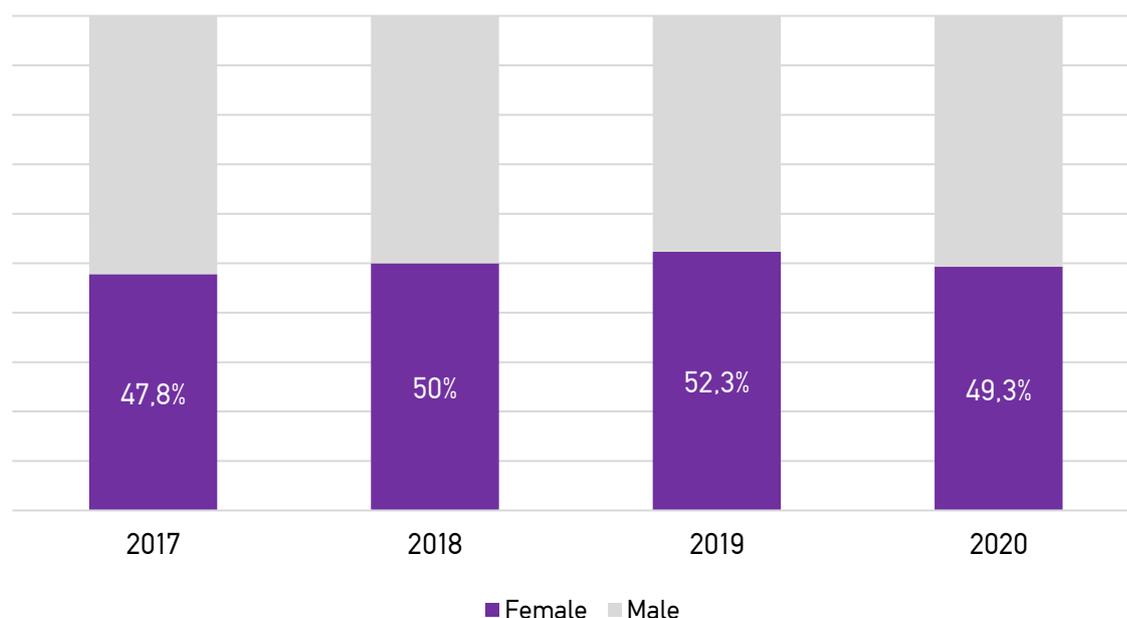
2. Participation of women in young doctorate holders

This chapter presents data on the participation of women in doctorates awarded by Greek Universities. More specifically, it presents the shares of women in the total number of doctorate holders, their age group, the educational level of their parents, their participation in the individual scientific fields and the time taken to complete their doctorate.

2.1 Distribution of PhD holders by gender, age and educational level of the parents

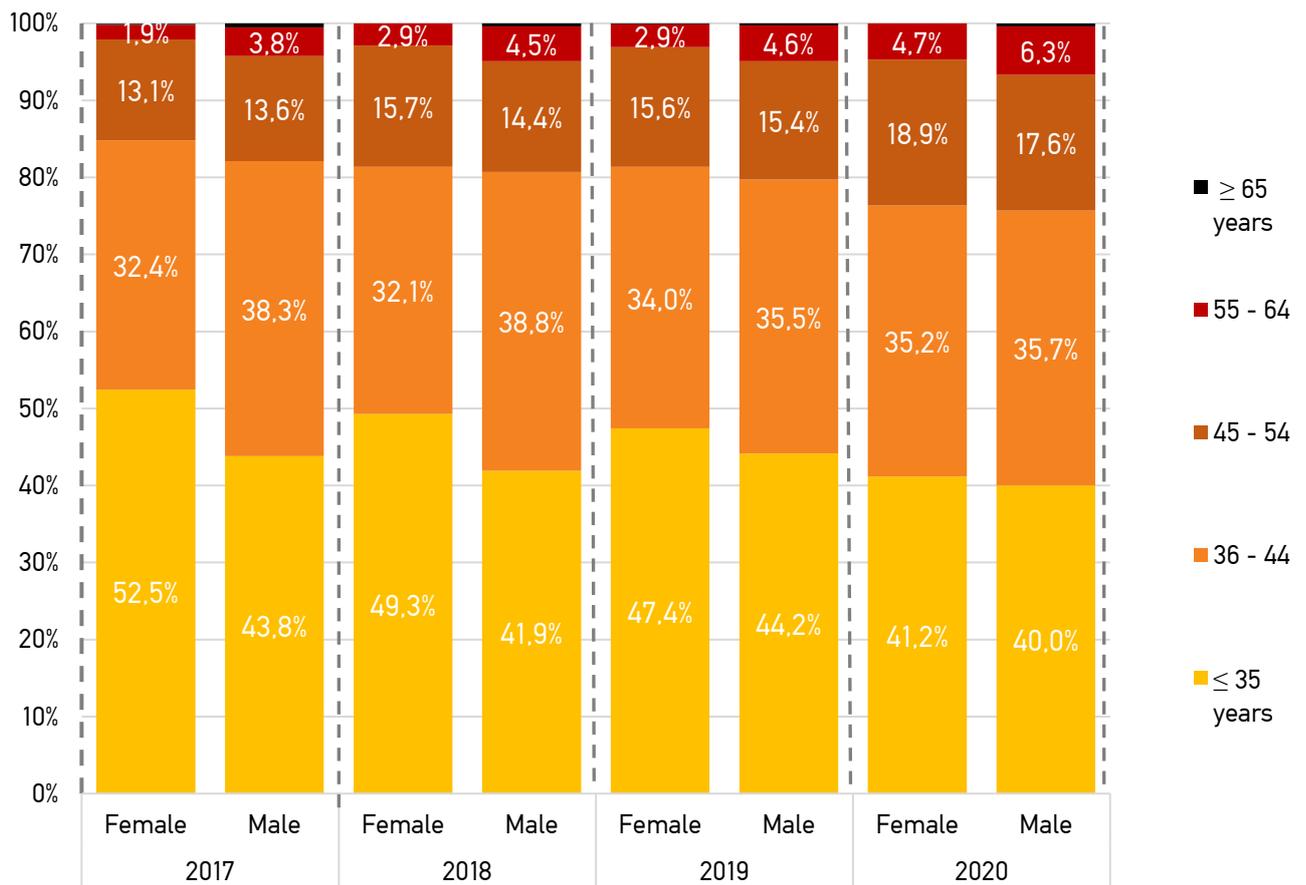
The proportions of both genders in young doctorate holders fluctuate between years. In 2018 there is a balance between men and women, in 2019 women are the majority, while in 2017 and 2020 this is reversed in favour of men (Figure 2.1).

FIGURE 2.1. Proportion of women among young doctorate holders, 2017-2020



For the year 2020, female doctorate holders up to 35 years old constitute 41.2% of the total number of women doctorate holders, while 35.2% are women between 36-44 years old (Figure 2.2). Respectively, men up to 35 years old constitute 40.0% of the total number of male doctorate holders, while their share in the 36-44 years old group is 35.7%. Similar percentages are noted for the remaining years under consideration, 2017 to 2019.

FIGURE 2.2 Age group of young doctorate holders by gender (% , headcount), 2017-2020

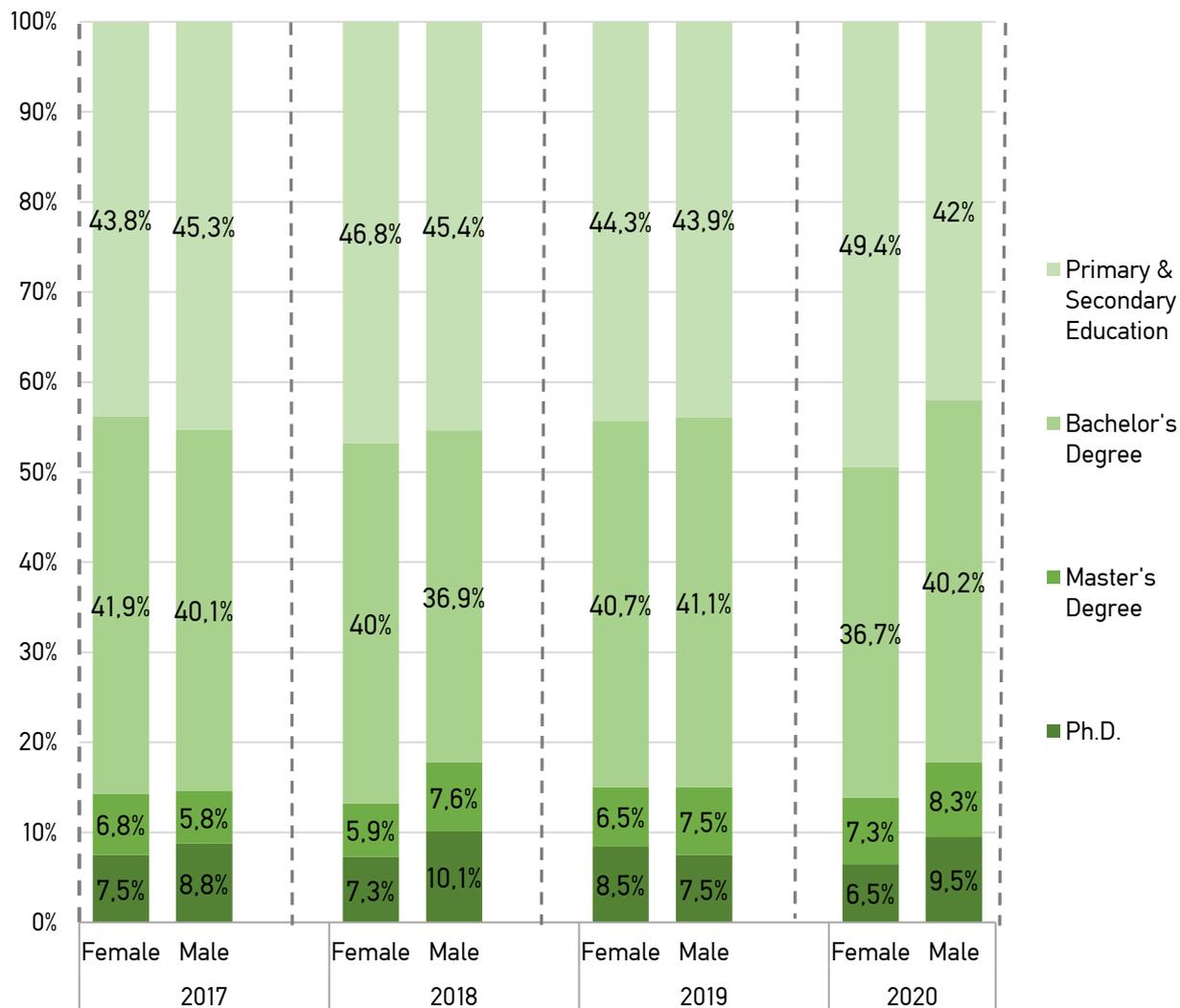


The following figure (Figure 2.3) presents the educational level of the parents of doctorate holders by gender. The percentages refer to the parent with the highest level of education, for the period 2017 - 2020.

For 2020, the percentage of female doctorate holders who have a parent with a primary and secondary education diploma reaches 49.2% (compared to 42.0% of men). Respectively, the percentage of women doctorate holders with at least one parent with university education is 36.7% (compared to 40.2% for men), young women doctorate holders with parents with a postgraduate degree reach 7.3% (compared to 8.3% of men), while those with parents who have a doctorate 6.5% (compared to 9.5% of men).

It is worth noting, however, that over time, with the exception of 2020, the percentages between female and male PhD holders per parent education level are similar.

FIGURE 2.3 Higher educational qualification for at least one parent of the doctoral degree holder, (% headcount, men and women) 2017-2020



2.2 Distribution of doctorate holders by gender, scientific field and time taken to complete doctoral studies

Based on the statistical data of the doctorate holders who were awarded a doctorate by a Greek university, the following figure (Figure 2.4) lists the shares of women doctorate holders by scientific field for the years 2017-2020.

Indicatively, for 2020 the highest participation of women is recorded in the scientific field of Social Sciences (58.0%), followed by the Humanities and Arts (55.6%), and Agricultural Sciences and Veterinary Medicine (52.4%). The lowest participation is recorded in the fields of Natural Sciences (44.2%) and Engineering and Technology (34.6%).

Over time, the percentages of the six main scientific fields¹ do not change notably per year, except in the cases of Natural Sciences (42.1% in 2017 and 50.3% in 2019) and Agricultural Sciences (46.5% in 2017 and 57.9% in 2019).

¹ Six main scientific fields from the Frascati 'Fields of Research and Development FORD, 2015' classifications were used

✦ **Natural Sciences:** Mathematics, Computer and Information Sciences, Physical Sciences, Chemical Sciences, Earth and related Environmental Sciences, Biological Sciences, Other Natural Sciences.

✦ **Engineering & Technology:** Civil engineering, Electrical Engineering, Electronic Engineering, Information Engineering, Mechanical Engineering, Chemical Engineering, Materials Engineering, Medical Engineering, Environmental Biotechnology, Environmental Engineering, Industrial Biotechnology, Nanotechnology, Other Engineering & Technologies.

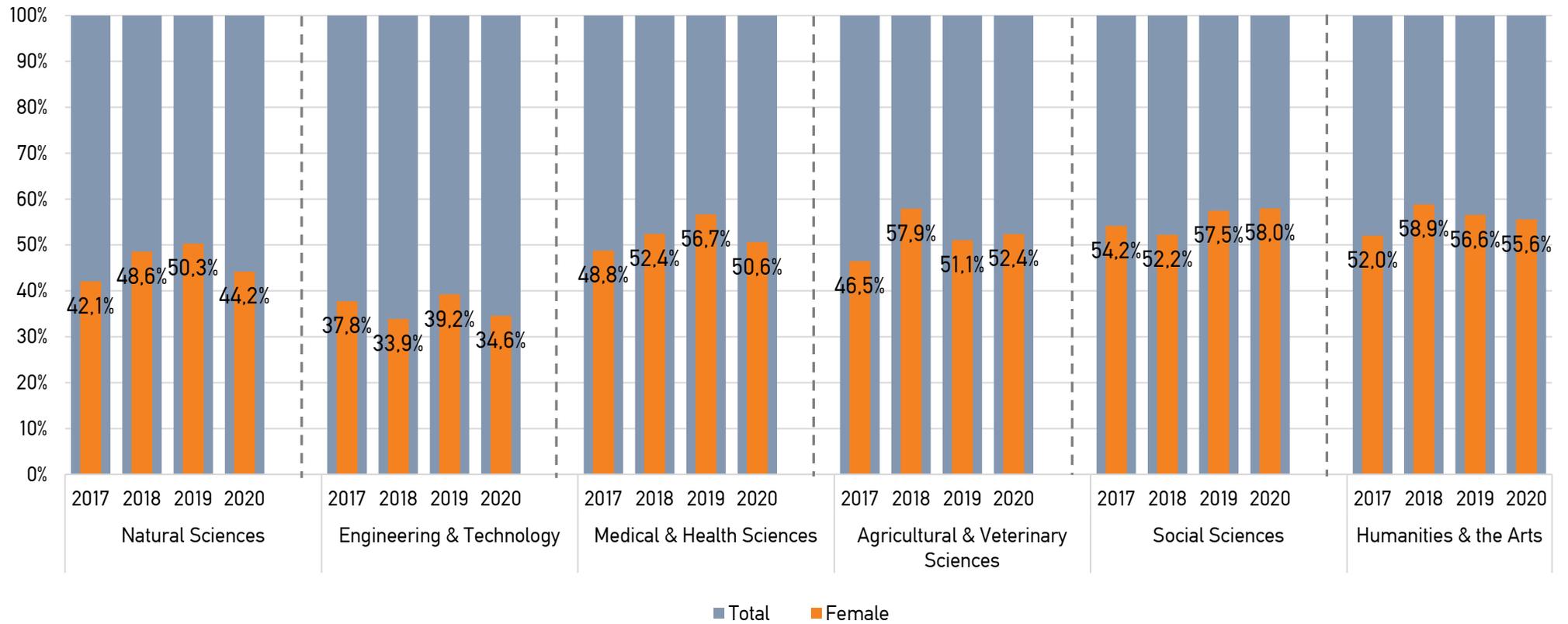
✦ **Medical & Health Sciences:** Basic Medicine, Clinical Medicine, Health Sciences, Medical Biotechnology, Other Medical Sciences.

✦ **Agricultural & Veterinary Sciences:** Agriculture, Forestry, and Fisheries, Animal and Dairy Science, Veterinary Science, Agricultural Biotechnology, Other Agricultural Sciences.

✦ **Social Sciences:** Psychology and Cognitive Sciences, Economics and Business, Education, Sociology, Law, Political Science, Social & Economic Geography, Media & Communications, Other Social Sciences.

✦ **Humanities & the Arts:** History & Archaeology, Languages & Literature, Philosophy, Ethics and Religion, Arts (arts, history of arts, performing arts, music), Other Humanities.

FIGURE 2.4 Share (% headcount) of young female Ph.D. holders in the six main scientific fields, 2017-2020

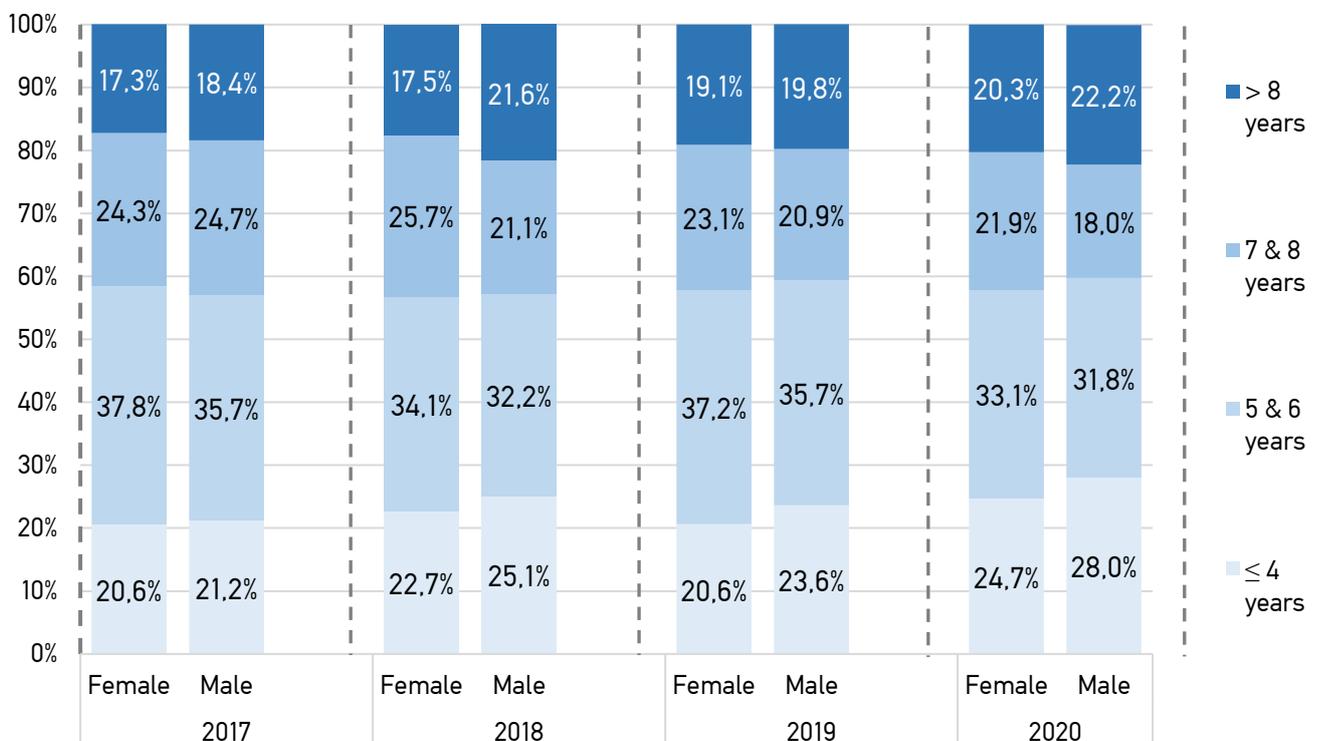


The following figure (Figure 2.5) presents the distribution of the time taken to complete the doctoral studies by gender. Analysis refers to years from 2017 to 2020.

For 2020, women lag behind their male colleagues in completing their studies by up to 4 years (24.7% vs. 28.0%), while a larger share of women completes them in 5-6 and 7-8 years. The picture is reversed for the period of completion of studies that exceeds 8 years, where a larger share is recorded for men.

Over time, the shares of women who complete their dissertation over a specific number of years (up to 4 years, 5-6 years, 7-8 years, over 8 years) fluctuate. Indicatively, the percentages for duration of studies up to 4 years were 20.6% in 2017, 22.7% in 2018, 20.6% in 2019 and 24.7% in 2020.

FIGURE 2.5 Duration of completion of doctoral studies by gender, (% headcount, men and women), 2017-2020



3.

Participation of women personnel in Research & Development

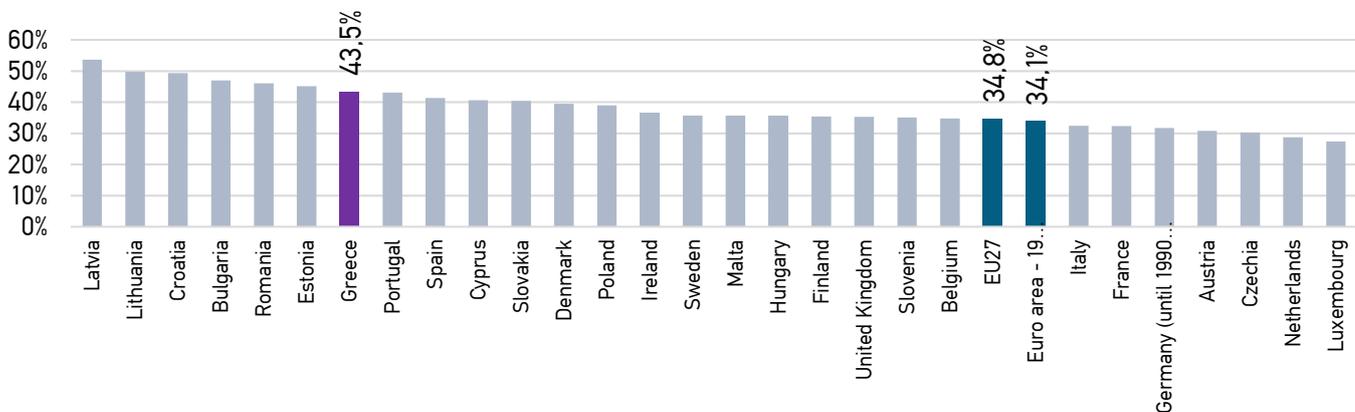
This chapter presents indicators that highlight gender dimension of personnel engaged in Research & Development (R&D) activities in Greece.

The indicators, with the reference year 2019, were compiled using official R&D statistics produced by EKT as the competent national authority of the Hellenic Statistical System. These indicators show the participation of both genders in both total R&D personnel (section 3.1) and research personnel (section 3.2), with an analysis of the four sectors of the economy identified in the Frascati handbook: business, government, higher education and private non-profit institutions. Characteristics such as the level of studies, age, participation of men and women in different areas of science are also analysed, while the position of Greece in relation to the other countries of the European Union is presented.

3.1 Participation of women in total R&D personnel

According to official statistics for 2019, the total personnel employed in R&D in Greece amounts to 103,525 individuals. Of these, 45,001 are women, with a share of 43.5%. Based on this percentage, Greece is ranked 7th among the EU27 countries and the United Kingdom.

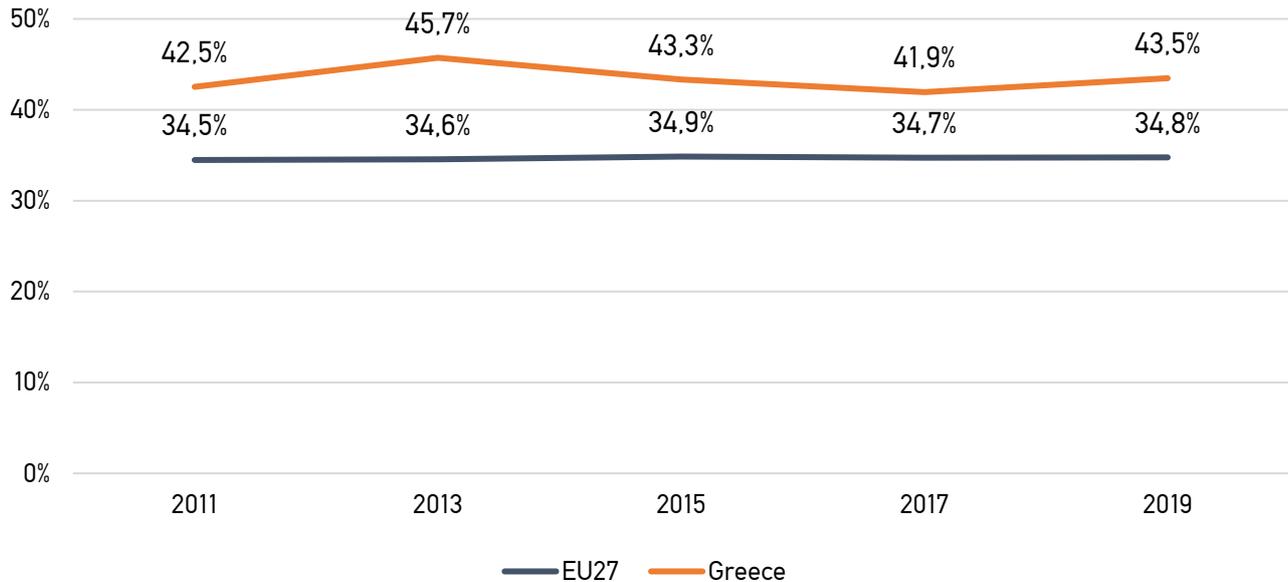
FIGURE 3.1 Percentage of women in R&D personnel in Greece and EU27 countries and the United Kingdom (% headcount), 2019



Data for the United Kingdom refer to 2018 and for France to 2017.

Figure 3.2 presents the evolution of the participation rate of women among the total R&D personnel for Greece and the EU, after 2011. The highest percentage in Greece is recorded in 2013 (45.7%) while in the EU27 (from 2020) it remains approximately stable and fluctuates at around 35%.

FIGURE 3.2 Percentage of women in R&D personnel in Greece and the EU27 (% headcount). 2011-2019

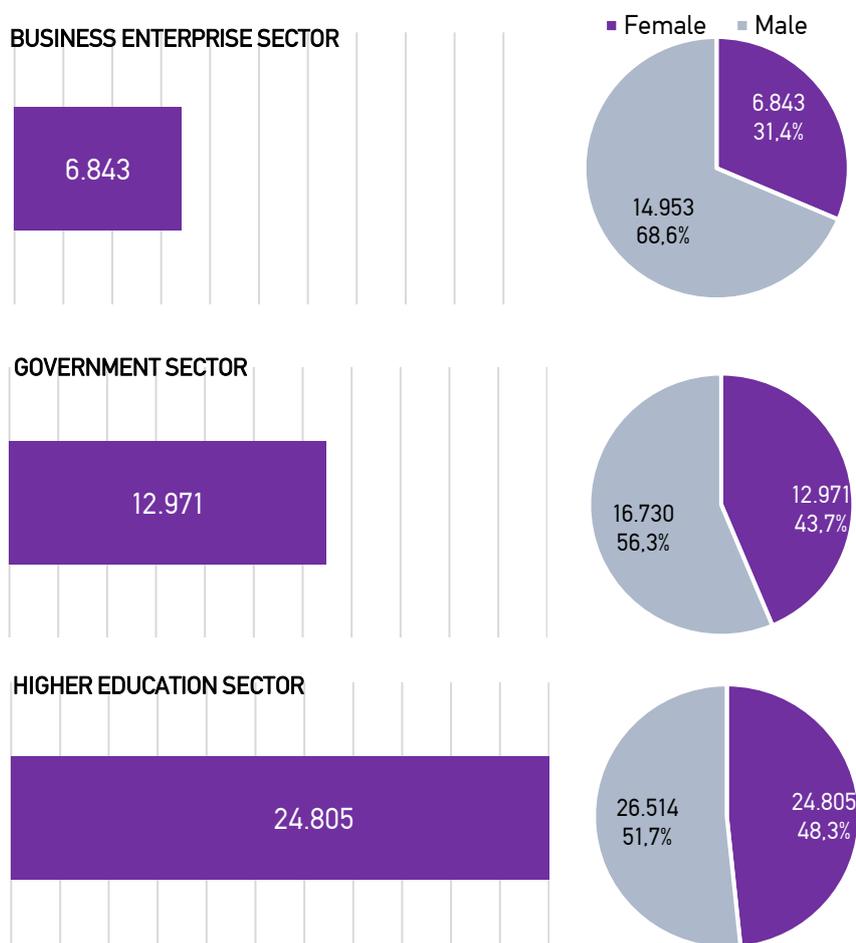


In the three largest R&D sectors of performance, the Higher Education Sector (HES), the Government Sector (GOV) and the Business Enterprise Sector (BES), the number of women employed as R&D personnel is lower than men. The number of women is slightly higher than men in the Private Non-profit Sector (PNP).

More specifically, in the higher education sector, a total of 24,805 women are employed in R&D activities (researchers and other personnel) and constitute 48.3% of the total R&D personnel of the sector. The government sector employs 12,971 women (43.7% of the total R&D personnel of the sector) while the business sector employs 6,843 women (31.4% of the total R&D personnel of the sector). The number of women employed in the private non-profit sector is 382 (53.9% of the total R&D personnel in the sector).

TABLE 3.1. R&D personnel (headcount) by gender and R&D sector of performance 2019

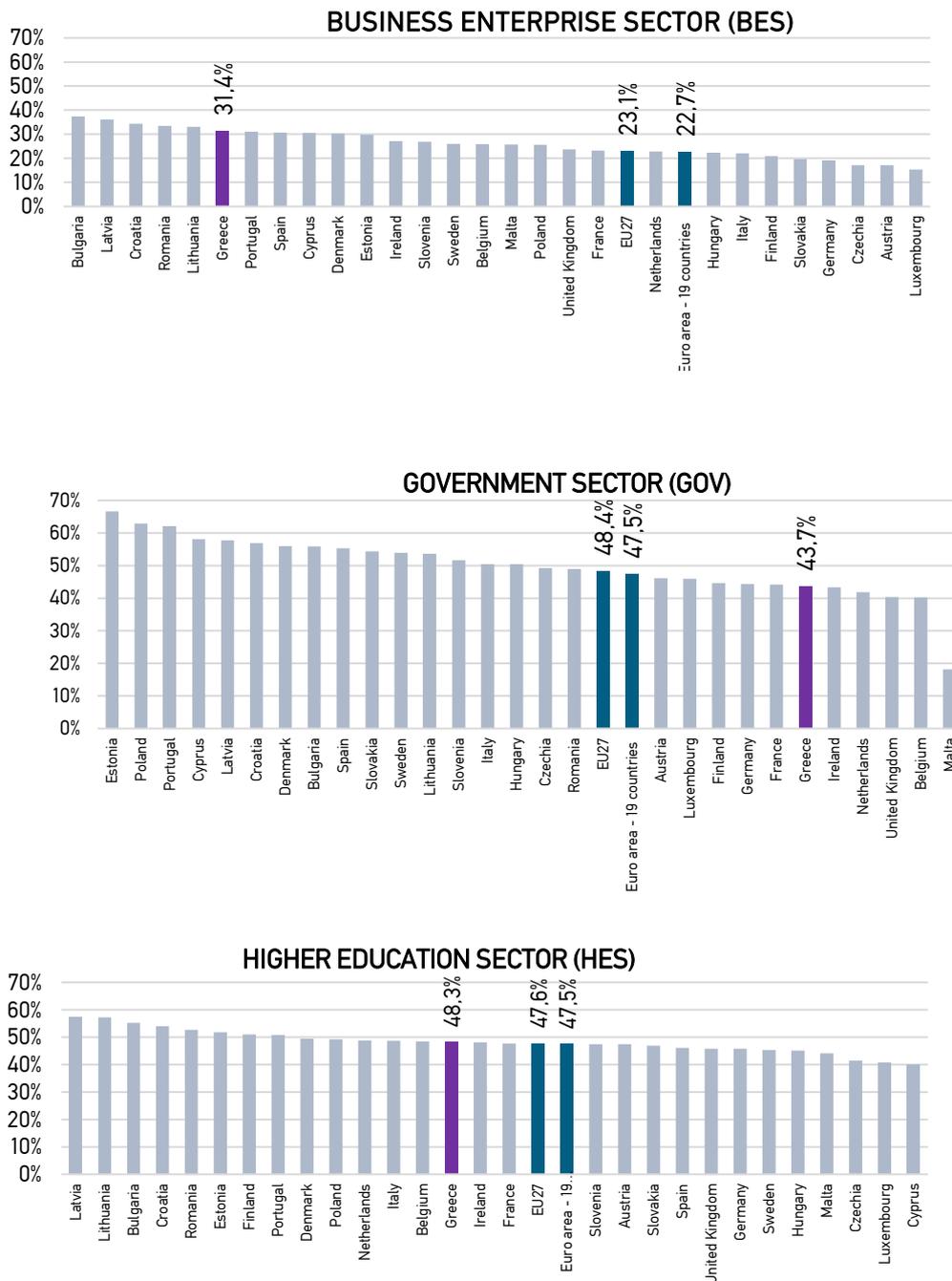
R&D sector of performance	R&D Personnel (Headcount)		
	Female	Male	Total
Business Enterprise Sector (BES)	6,843	14,953	21,976
Government Sector (GOV)	12,971	16,780	29,701
Higher Education Sector (HES)	24,805	26,514	51,319
Private Non-Profit Sector (PNP)	382	327	709
Total	45,001	58,524	103,525

FIGURE 3.3. Distribution of R&D personnel by gender (headcount and %) in the business sector, the government sector and the higher education sector, 2019

At European level, the average percentage of women in R&D personnel in 2019, in the EU27 member states in the three sectors is as follows: women make up 23.1% of total R&D personnel in the business sector, 48.4% in the government sector and 47.6% in the higher education sector. Greece ranks 6th in the business sector, 23rd in the government sector and 14th in the higher education sector.

FIGURE 3.4. Percentage (% headcount) of women in R&D personnel in business sector, government sector and higher education sector, in Greece, EU27 countries and the United Kingdom, 2019

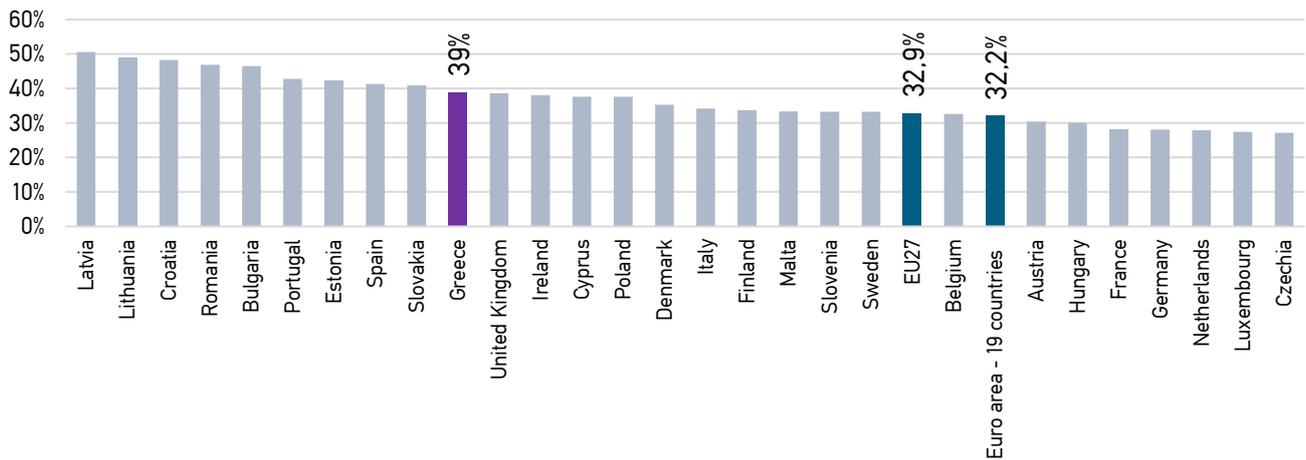
Data for the United Kingdom refer to 2018 and for France to 2017



3.2 Participation of women in researchers

In 2019, there were 66,451 researchers in Greece, of which 25,942 were women (39% of total researchers). Based on this percentage, Greece is ranked 10th among EU27 (from 2020) countries.

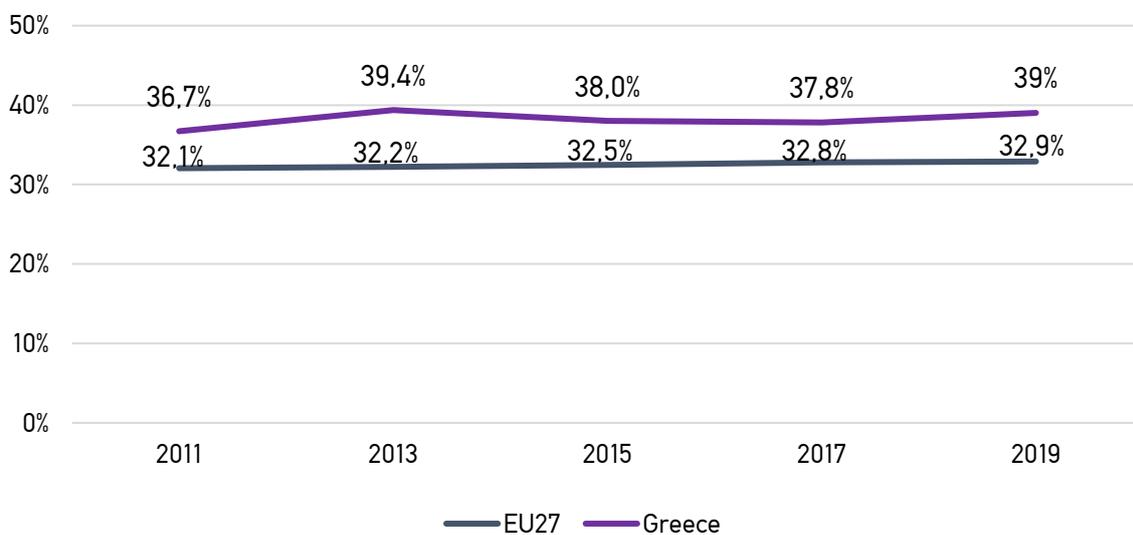
FIGURE 3.5 Percentage of women researchers in Greece, EU27 countries and the United Kingdom (% headcount), 2019



Data for the United Kingdom refer to 2018 and for France to 2017.

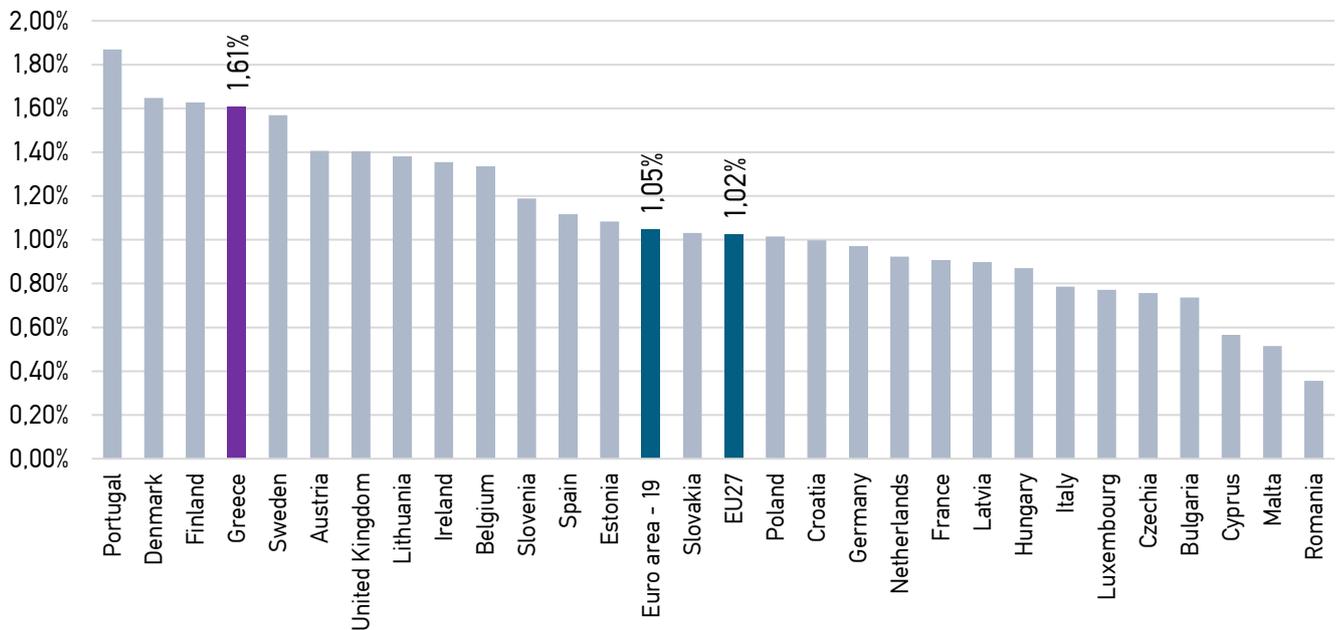
Figure 3.6 presents the evolution of the percentage of women in research staff for Greece and the EU after 2011. The highest percentage is recorded in Greece in the year 2013 (39.4%) while it reaches 33% in the EU27 (from 2020), with increasing trends.

FIGURE 3.6 Percentage of women researchers in Greece and the EU27, (% headcount), 2011-2019



Women researchers account for 1.61% of total employment in Greece, one of the highest rates in the EU27 (Figure 3.7).

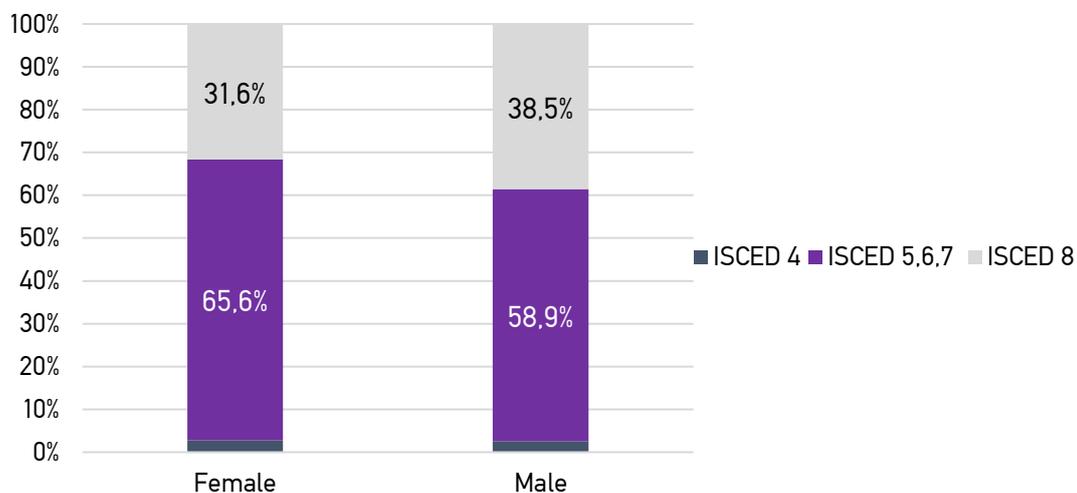
FIGURE 3.7 Percentage of women researchers in total employment in Greece, EU27 countries and the United Kingdom, (% headcount) 2019



Data for the United Kingdom refer to 2018 and for France to 2017.

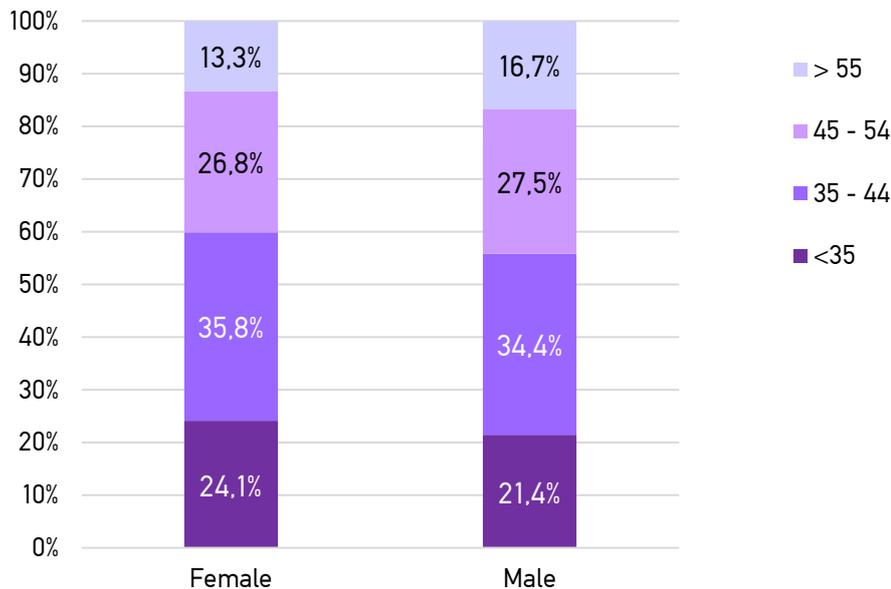
Figure 3.8 shows the distribution of researchers among women and men in Greece, by educational level. The majority, namely 65.6%, of women have a postgraduate degree and/ or university degree (ISCED, 5,6,7), while women possessing a PhD degree constitute 31.6% of total women researchers. The corresponding percentages for men are 58.9% and 38.5%, respectively.

FIGURE 3.8 Distribution (% headcount) of women and men researchers by educational level, 2019



Regarding the age of men and women researchers in Greece, Figure 3.9 depicts their distribution by age group in 2019. Among women, the age category from 35 to 44 years has the largest share of 35.8%, followed by age groups for under 35 years (24.1%) and from 45 to 54 years (26.8%).

FIGURE 3.9. Distribution (% headcount) of women and men researchers, by age group, 2019



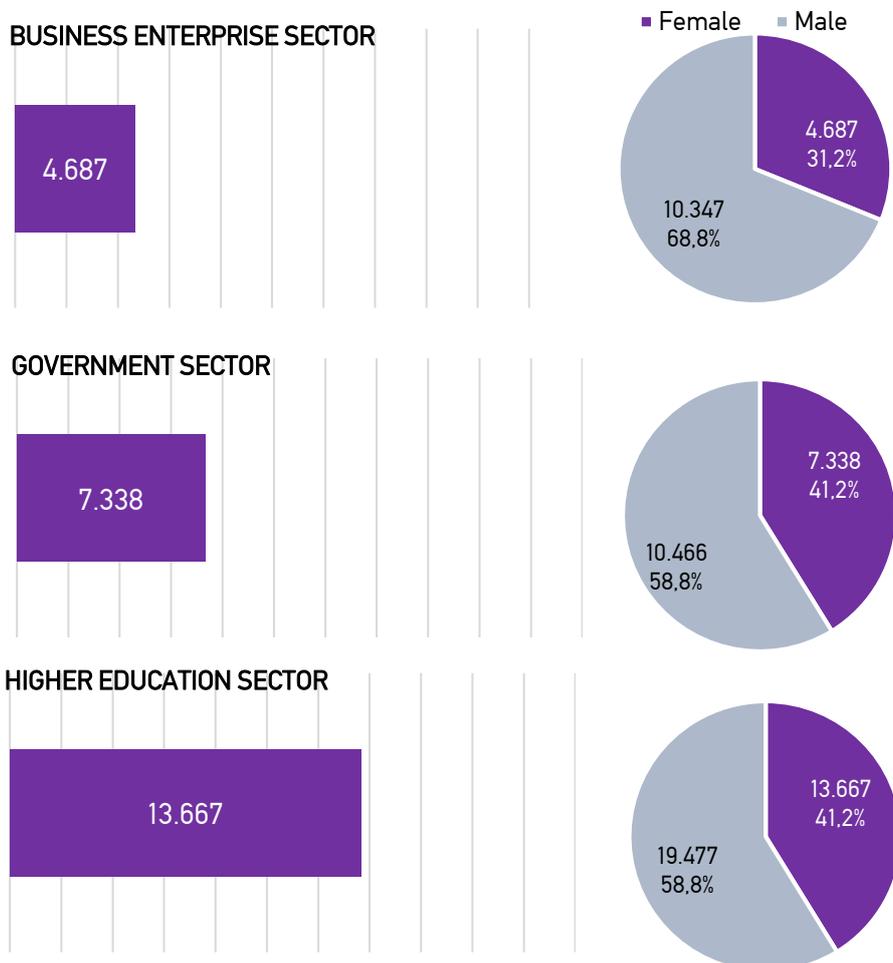
In the three largest R&D sectors of performance, the higher education sector, the government sector and the business sector, the number of women employed as research personnel is lower than that of men. In the private non-profit sector (PNP sector), the number of women is slightly higher than that of men.

More specifically, in the field of higher education, a total of 13,667 women are employed as researchers and constitute 41.2% of the research personnel of the sector. The government sector employs 7,338 women (41.2% of the sector's research personnel) while the business sector employs 4,687 women (3.2% of the sector's R&D personnel). The number of women employed in the private non-profit sector is 250 (53.3% of the sector's research personnel).

TABLE 3.2 Researchers (headcount) by gender and R&D sector of performance, 2019

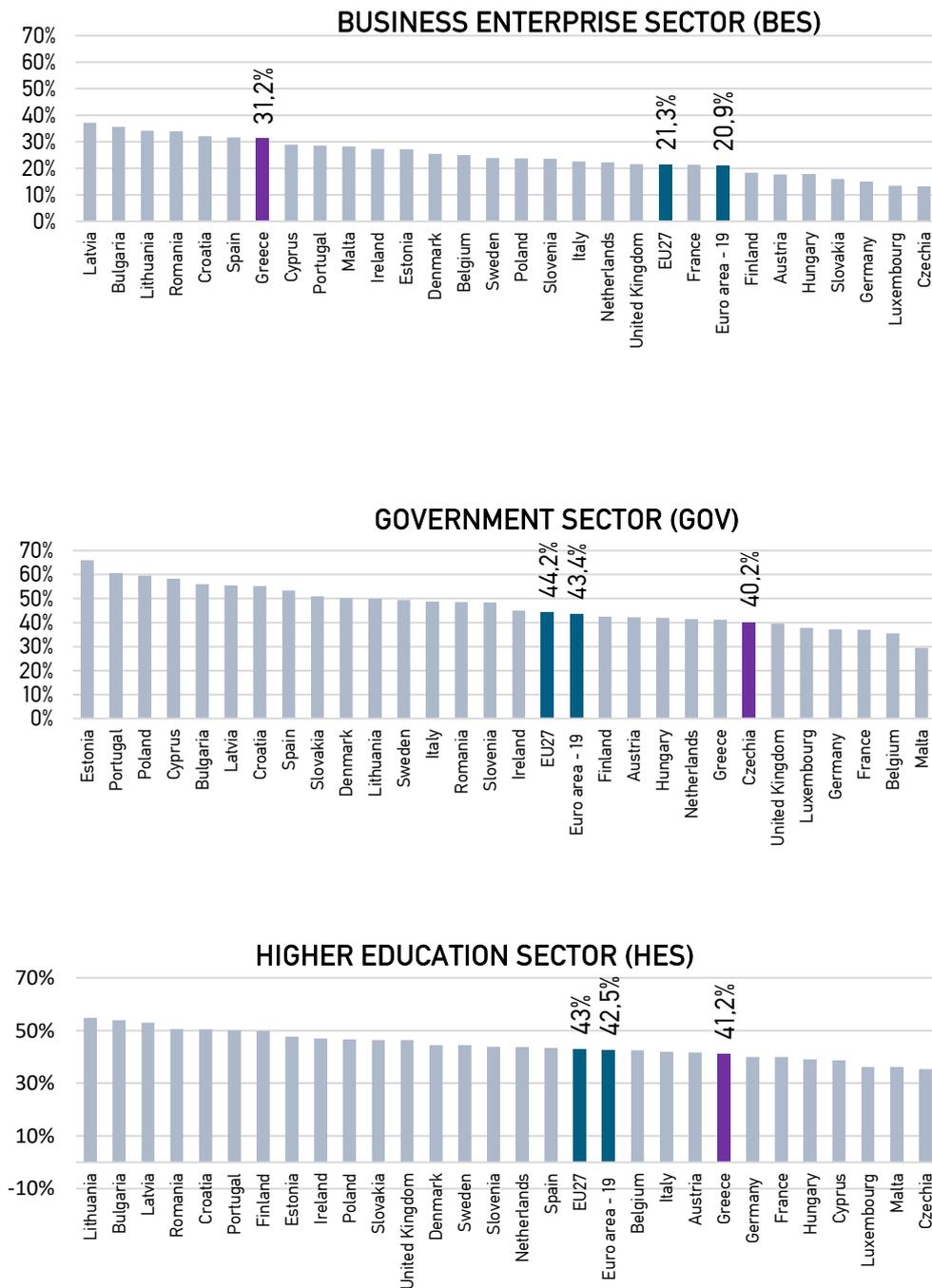
R&D Sector of Performance	Researchers (Headcount)		
	Female	Male	Total
Business Enterprise Sector (BES)	4,687	10,347	15,034
Government Sector (GOV)	7,338	10,166	17,804
Higher Education Sector (HES)	13,667	19,477	33,144
Private Non-Profit Sector (PNP)	250	219	469
Total	25,942	38,315	66,451

FIGURE 3.10 Distribution of researchers by gender (headcount and %) in the business sector, the government sector and the higher education sector, 2019



At European level in 2019, the average percentage of women researchers in EU27 countries in the three sectors was as follows: women constitute 31.2% of researchers in business, 40.2% in government and 41.2% in the higher education sector. Greece ranked 7th in the business sector, 22nd in the government sector and 21st in the higher education sector.

FIGURE 3.11 Percentage (% headcount) of women researchers in Greece and EU27 (from 2020) in the business sector, the government sector and the higher education sector, 2019

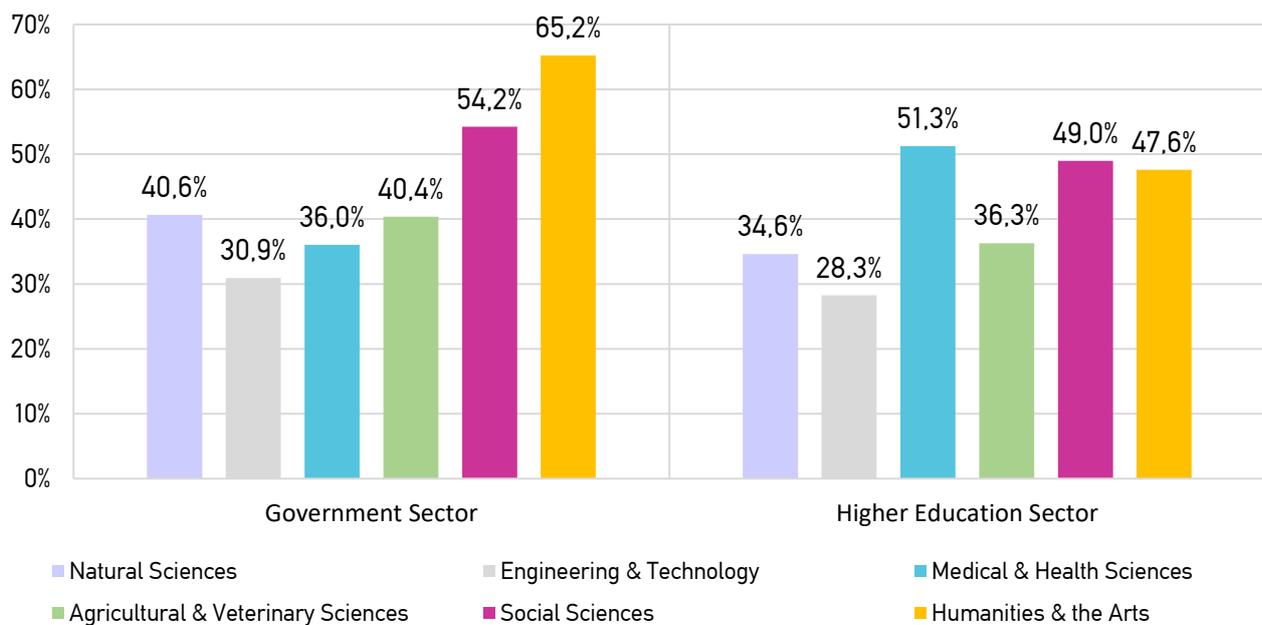


Regarding the participation of women in the main scientific fields in which the government sector and the higher education sector conduct research activities, Figure 3.12 depicts participation of women researchers, compared to men.

In the government sector, the highest participation rates of women researchers are recorded in the scientific fields 'Humanities & Arts' (65.2%) and 'Social Sciences' (54.2%), where women are in the majority compared to men. Women have the lowest participation rate (30.9%) in the scientific field 'Engineering Sciences & Technology'.

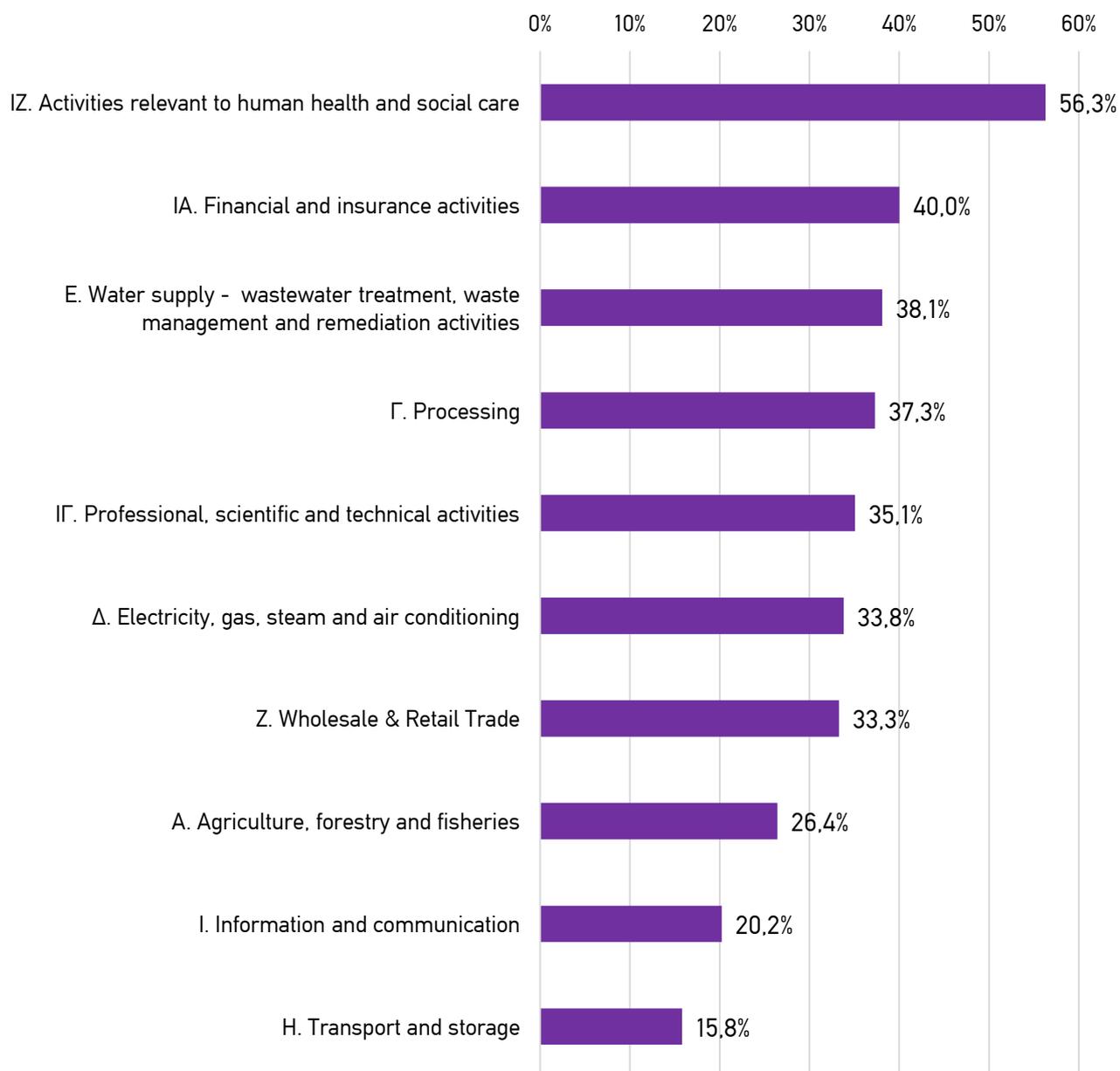
In the sector of higher education, the participation of women researchers is higher in the scientific field 'Medicine & Health Sciences' with a rate of 51.3%. The participation rates of women in the scientific fields 'Social Sciences' (49.0%) and the 'Humanities & Arts' (47.6%) are high. Women have the lowest participation rate (28.3%) in the scientific field 'Engineering Sciences & Technology'.

FIGURE 3.12 Percentages of women researchers (% headcount) per main scientific field in the government sector and the higher education sector, 2019



In the business sector, the sector of economic activity with the highest percentages of women employed as research personnel is the sector of human health and social care (56.3%). The participation of women in the research personnel in ICT is low (branch I. Information and Communication) (Figure 3.13).

FIGURE 3.13 Percentage (% headcount) of women researchers in the business sector by main branch of economic activity (Nace rev2), 2019



The disciplines in which more than 100 researchers are employed are presented

4.

Participation of women in research projects and actions

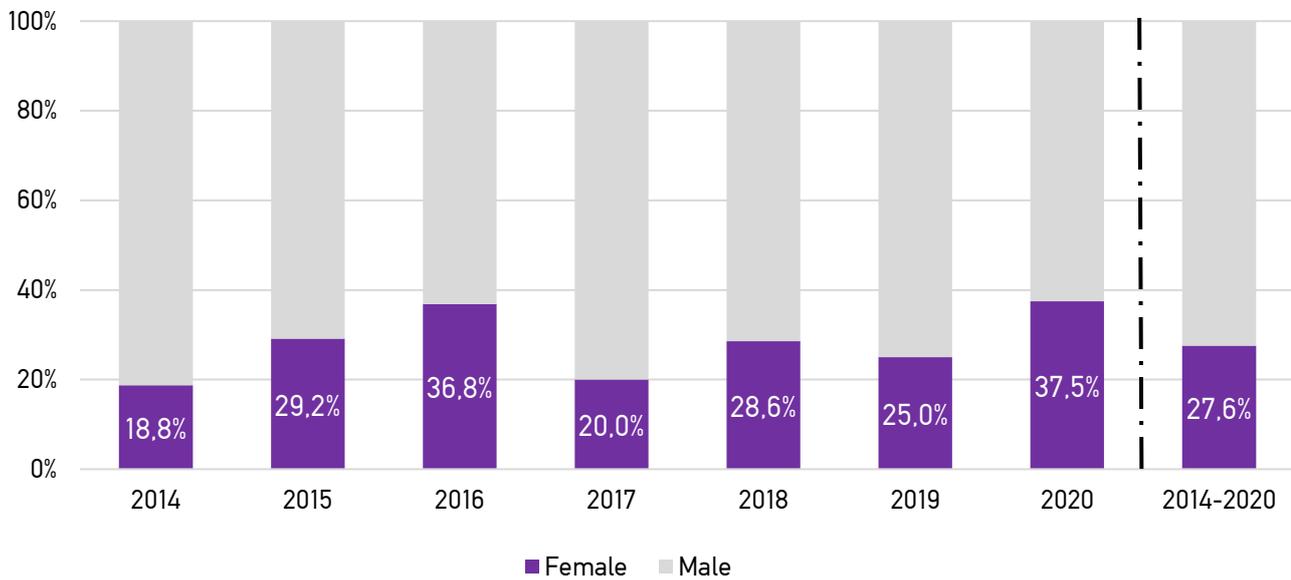
This chapter presents the performance of women in research projects at European and national level. In particular, this chapter presents the performance of women in two Horizon 2020 actions, the European Research Council (ERC) and the Marie Skłodowska-Curie (MSCA) actions. It also presents the performance of women in a series of national actions aimed at empowering young researchers that are funded by the NSRF and specifically by the Operational Programme 'Human Resources Development, Education & Lifelong Learning 2014-2020'.

4.1 Participation of women in Horizon 2020

Horizon 2020 is the European Union's largest research and innovation programme with € 80 billion in funding for the period 2014-2020. Among Horizon 2020 actions, European Research Council (ERC) and Marie Skłodowska-Curie (MSCA) funding actions are of particular interest, as they fund projects of high scientific excellence implemented either by individual researchers or by research teams led by a 'principal investigator'. The following analysis relates to the above two actions and is based on the gender of this individual researcher or principal investigator.

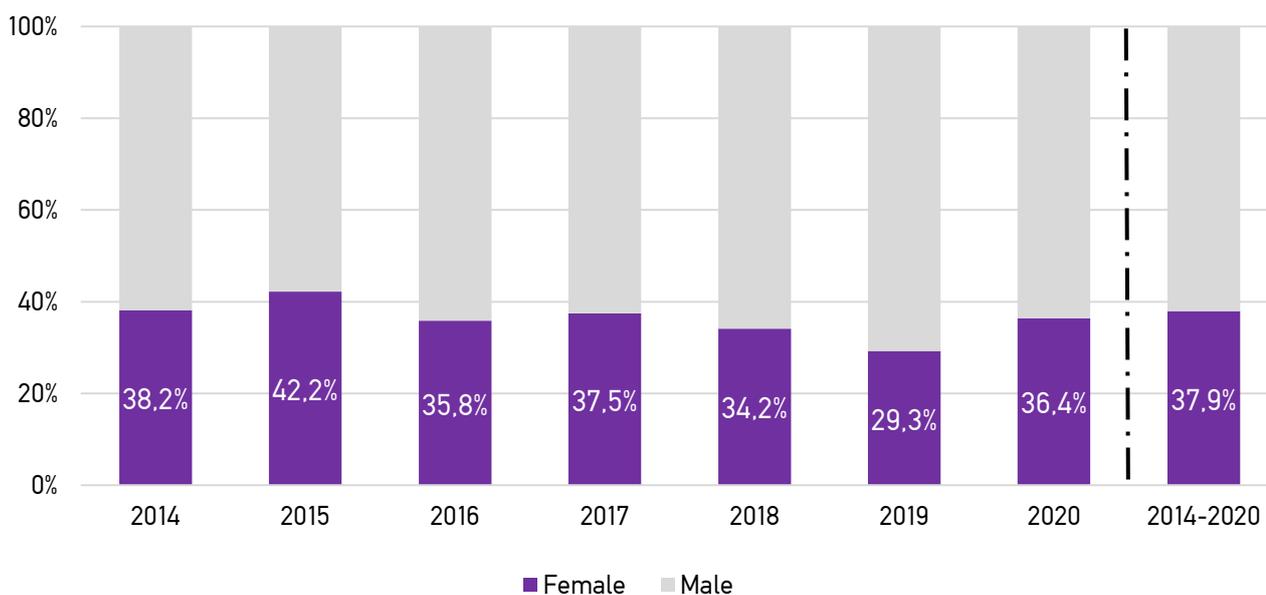
The following figure (Figure 4.1) refers to the Greek ERC scholarship holders and lists their annual distribution for the entire programming period 2014-2020. A total of 145 Greek scholarship proposals were funded during these years, of which 40 were from women. Over time, the participation rate of women is 27.6%, with variations per year.

FIGURE 4.1. Distribution of Greek scholarships in the projects of the European Research Council (ERC) by gender, 2014-2020



Respectively, for the Marie Skłodowska-Curie (MSCA) actions, Figure 4.2 presents the distribution of Greek scholarship holders for the years 2014-2020. A total of 1,637 scholarships from Greece were funded during this period, of which 1,016 were for women. The overall participation rate of women for the period is higher than that of the ERC, reaching 37.9%.

FIGURE 4.2. Distribution of Greek scholarship holders in the Marie Skłodowska-Curie (MSCA) actions by gender, 2014-2020



4.2 Participation of women in national projects and actions in support of young scientists

Beyond data on participation of women scientists in European projects, EKT produces also data on the performance of women in a number of national research projects and public initiatives that support young scientists during the period 2016-2021. These actions concern interventions funded by the European Social Fund, and more specifically by the Operational Programme 'Human Resources Development, Education & Lifelong Learning' of the National Strategic Reference Framework (NSRF) 2014-2020, for the support of young scientists and researchers.

EKT monitors and assesses these public interventions, recording the beneficiaries and evaluating these actions, which include:

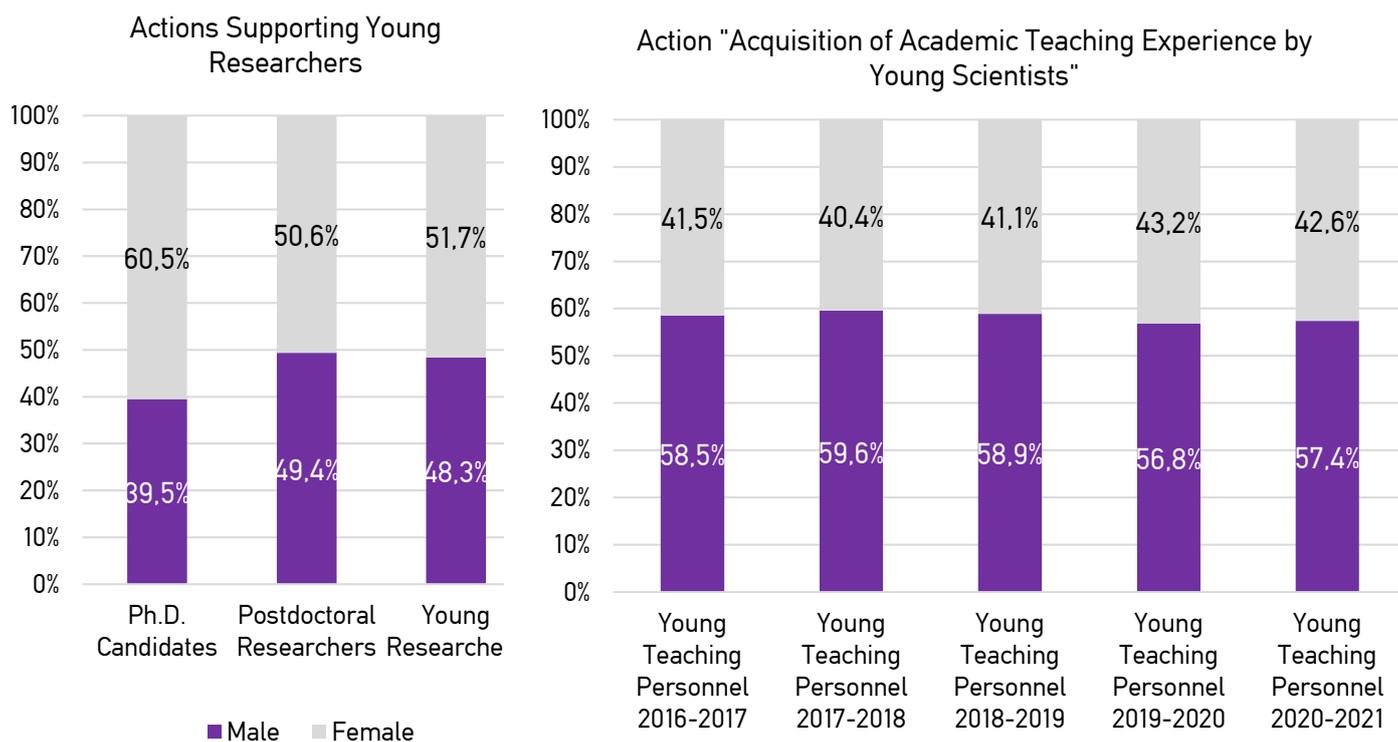
- Support of doctoral research
 - Support of Young Scientists for the implementation of doctoral research - A' and B' cycle
 - Scholarship Programme for Doctoral Studies
- Support of post-doctoral research
 - Support for Postdoctoral Researchers – A' Cycle
 - Support for Postdoctoral Researchers – B' Cycle
- Support of researchers with an emphasis on young scientists
- Acquisition of academic teaching experience by young scientists holding a PhD
 - Academic year 2016-2017 (A' Cycle)
 - Academic year 2017-2018 (B' Cycle)
 - Academic year 2018-2019 (C' Cycle)
 - Academic year 2019-2020 (D' Cycle)
 - Academic year 2020-2021 (E' Cycle)

The following figure (Figure 4.3) shows the distribution of target population of these specific actions among women and men. These actions have been categorized in two general categories. The first one deals mostly with the support of young researchers (which concerns the doctoral candidates, postdoctoral and young researchers, respectively), while the second one aims to strengthen young scientists' teaching experience (concerning those who have undertaken teaching duties at universities).

In the case of support actions for young researchers, women have higher participation rates, with the most typical example being support actions for Ph.D. candidates, where their share reaches

60.5%. In the case of Actions to enhance teaching experience, women lag behind men in all academic years under consideration.

FIGURE 4.3: Distribution of beneficiaries of the NSRF actions supporting young researchers / scientists, by gender, 2016-2021

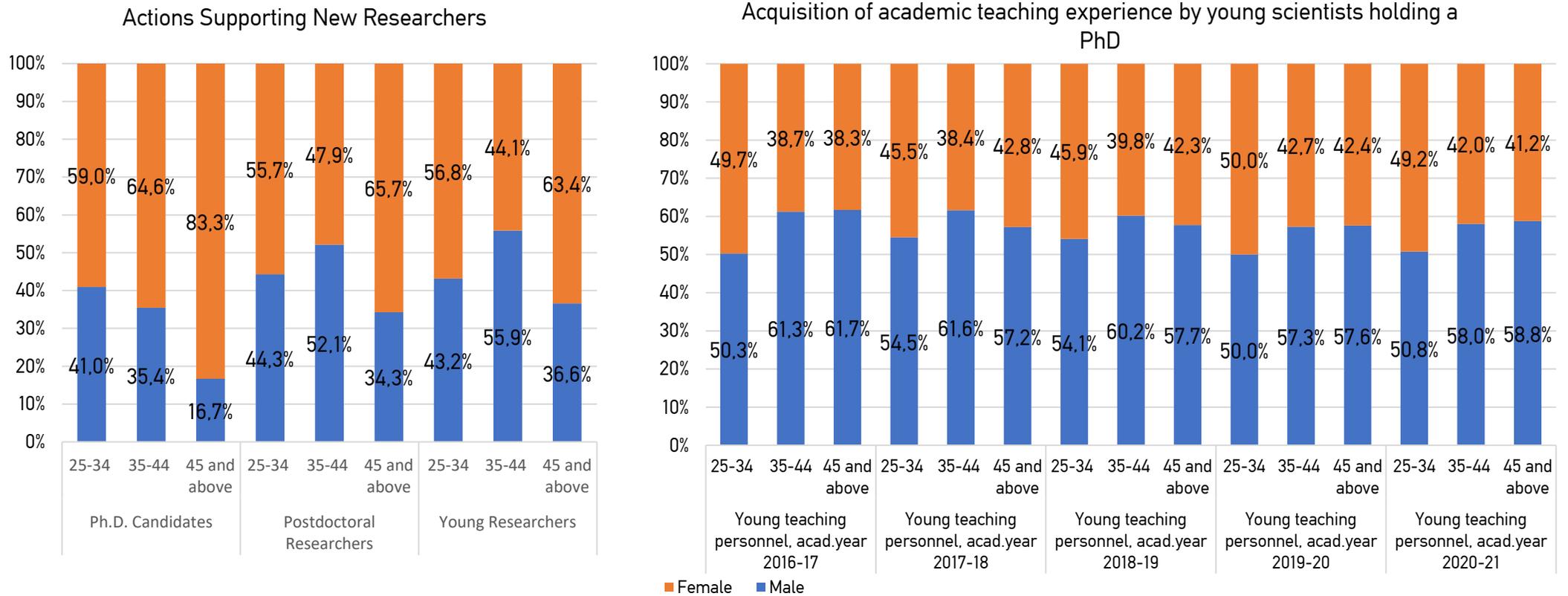


Regarding the age of the beneficiaries, the following figure (Figure 4.4) shows their distribution by gender and age group.

With regard to Actions supporting researchers, with the exception of only two cases (in the action referring to postdoctoral research - age group 35-44 years, as well as in the action that supports young researchers - age group 35-44 years), the participation of women outperforms that of men in all other categories. The relative percentages are quite high, starting at 56.8% and reaching its highest price, 83.3%.

Conversely, in the Actions that support teaching experience, women, as mentioned, fall short of men's participation. This applies to all age groups, for all three academic years (2016-2017, 2017-2018, 2018-2019). Indicatively, the highest percentages of female participation are recorded in all three periods in the age group between 25-34 years (49.7%, 45.5% and 45.9%, respectively).

FIGURE 4.4. Distribution of beneficiaries of the NSRF actions supporting young researchers / scientists, by gender and age group, (% headcount), 2016-2019



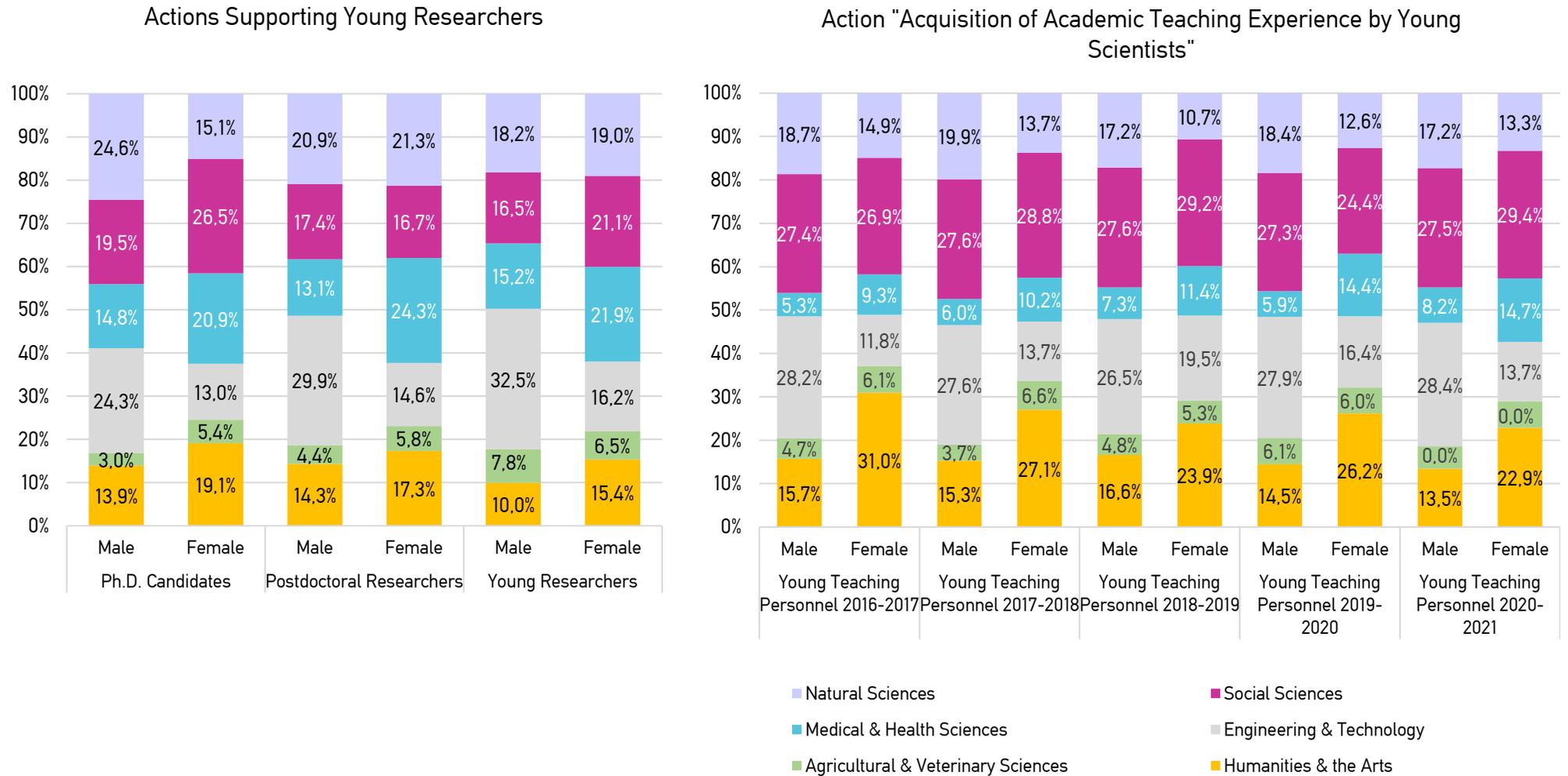
With respect to the scientific fields, Figure 4.5 outlines the distribution of the beneficiaries of the actions by gender and by scientific field.

Examining the participation of women in the Actions supporting young researchers, the following findings are recorded. The percentage of women is higher than that of men in the fields of Medicine and Health Sciences, as well as Humanities and Arts, in all three sub-populations.

The opposite is true in the scientific field of Engineering and Technology, where there is a higher concentration of men compared to women.

Focusing on the Actions for gaining teaching experience, the same patterns are recorded. The percentage rate of women is higher than that of men in teaching in the scientific field of Medicine and Health Sciences and Humanities and Arts in all academic years.

FIGURE 4.5. Distribution of beneficiaries of the NSRF actions supporting young researchers / scientists, by gender and scientific field, 2016-2021



Methodology notes

Statistics on doctorate holders (Chapter 2)

Statistics on doctorate holders from Greek universities produce indicators for ISCED 8 graduates (doctoral level) regarding their demographic characteristics, scientific fields of dissertations and their doctoral studies. These statistics are part of the official statistics on Research, Technology, Development and Innovation (RDI) produced by the National Documentation Centre (EKT), as the competent body of the Hellenic Statistical System.

The data are compiled from the National Archive of Doctoral Dissertations (NAPhD), which by law is kept by EKT, using the submission of doctoral dissertations and the electronic questionnaire that accompanies the submission application. The analysis of the data is carried out on an annual basis and indicators on those who submitted their dissertation in the specific reference year are produced.

The production of statistics on doctoral degree holders is largely based on the OECD International Survey on Careers of Doctorate Holders (CDH), as well as on related methodological developments and trends for early cohorts, who comprise the new members of the highly skilled human resources.

More information on EKT's methodological framework and detailed statistical publications is available at <https://metrics.ekt.gr/phd-holders>

R&D Statistics-participation of women in R&D personnel (Chapter 3)

The Research and Development statistics are compiled within the framework of the implementation of the European Regulation 995/2012 (valid for the data of 2012 onwards). EKT is an agency and national authority of the Hellenic Statistical System for the production of official statistics of Research, Development and Innovation and has been collecting and processing R&D statistics since April 2012, with the first reference year of 2011.

Data on women's participation in R&D personnel are based on official Research & Development (R&D) statistics that produce indicators on R&D personnel and (internal) R&D expenditure incurred for these activities in all sectors of the economy: Business Enterprise Sector (BES), Government Sector (GOV), Higher Education Sector (HES), Private Non-Profit Sector (PNP) as well as for the whole country. R&D statistics (expenditure and personnel) are collected and analysed by Sector of R&D performance, i.e. the sector in which R&D activities are carried out. The organisations carrying out R&D activities constitute the statistical units from which the data are collected are categorised in the abovementioned four areas of R&D performance.

For R&D personnel specifically, this includes all those involved in R&D activities, scientists and engineers (researchers), highly trained technical personnel and personnel who directly support the implementation of R&D activities (e.g. workers, manufacturers, administrators, etc.). Also included are those involved in planning and managing the work of other researchers.

R&D personnel is allocated into two categories of employment based on the type of work they conduct, Researchers (scientists whose professional activities aim at conceiving and creating new

knowledge; implement R&D and improve or develop concepts, theories, models, techniques, methods and tools, software or organizational methods; included in Researchers are those who prepare a doctoral dissertation) and Other R&D personnel (personnel involved in R&D activities performing scientific and technical tasks, usually under the guidance of researchers (e.g. technicians, programmers, manufacturers, personnel collecting bibliographic material, conducting statistical surveys and interviews etc), as well as staff that performs various tasks that are directly related to R&D activities and are necessary for their completion).

More information on EKT's methodological framework and detailed statistical publications is available at <https://metrics.ekt.gr/phd-holders>

Participation of women in Horizon 2020 (Chapter 4)

Horizon 2020 (H2020) was the European Commission's key funding instrument for research, development and innovation for 2014-2020. Of particular importance is the fact that, based on funding, research and innovation is the EU's third most important area of action and policy, with a total budget of over € 80 billion.

Monitoring the implementation of the EU financial framework for Research and Innovation 'Horizon 2020' and the systematic recording with data of the participation of the research bodies of the country are part of EKT's fixed activities. EKT has been operating as a National Contact Point (NCP) for European research & innovation programmes for more than 20 years, offering comprehensive information and consulting services for Greek institutions, with the aim of increasing the quality and quantity of funding proposals.

The statistics presented in this publication are based on data derived from the e-corda database of the European Commission for the participation of Greek institutions in the EU Horizon 2020 Programme, for the period 2014-2020, with the retrieval date being November 2021.

More information and detailed EKT publications are available at <https://metrics.ekt.gr/eu-participation>

Participation of women in national projects and actions supporting young scientists (Chapter 4)

EKT implements the project 'Evaluation of NSRF actions of Higher Education ', with OPS (MIS) code 5010794, co-financed by Greece and the European Union (European Social Fund) through the Operational Programme 'Human Resources Development, Education and Lifelong Learning 2014-2020'. For its implementation, EKT works closely with the Special Secretariat for the Management of Sectoral Operational Programmes funded by the European Social Fund.

The project aims to introduce and operate a horizontal mechanism for the evaluation of the four actions included in the Operational Programme 'Human Resources Development, Education and Lifelong Learning' 2014-2020:

- Support of Doctoral Research
- Support of Postdoctoral Researchers
- Acquisition of Academic Teaching Experience by Young Doctoral Scientists
- Support of researchers with emphasis on young scientists

The project contributes to the creation and consolidation of a unified way of collecting, recording, monitoring and analysing the data, with the required specialisation and adaptation, depending on the type of each intervention. For this reason, the monitored indicators and data capture these interventions' effects and impact on those directly and indirectly involved, namely the beneficiaries, the institutions and the wider research system of the country, following a bottom-up logic in the design and achievement of the intended objectives. At the national level, the use of this data allows policy makers to exercise policy grounded in updated data, thus facilitating responsible and evidence-based policy-making.

More information and detailed EKT publications are available at <https://metrics.ekt.gr/human-resources>



HELLENIC REPUBLIC
Ministry of Digital Governance



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