

# Gender Equality in Academia and Research

## Why change must be structural

**Research organisations and higher education institutions are made up of people.** Both women and men are working *in* these settings and they take up distinct roles, such as conducting research, teaching, managing staff and structures, or implementing procedures.

At the same time, **research and higher education institutions also work *for* people.** While higher education institutions contribute to training future female and male professionals, research organisations investigate a diverse spectrum of topics that affect the lives of women and men.

There is a pressing need to change research and higher education institutions as structures that (re-)produce inequalities. It is crucial to identify and act upon the mechanisms that need to be changed.

Nevertheless, carrying out isolated actions will not be as effective as addressing the structure as a whole through comprehensive and holistic approaches. Institutional change is needed because it will be beneficial to the organisation as a whole, and to society more generally. Read the European Commission's report on [Structural change in research institutions: Enhancing excellence, gender equality and efficiency in research and innovation](#).

Let's have a closer look at some of the issues that are at stake, and which tend to (re-)produce inequalities.

## Research and higher education institutions as gendered settings

There is strong evidence in literature and statistics that research and higher education institutions reproduce social values leading to gender bias / discrimination (as many other spheres in society). Women and men tend to concentrate in certain scientific fields (horizontal segregation).

For instance, while women are more likely to be found in fields like social sciences and humanities, men are more inclined to study, teach and/or research topics related to engineering or technology. Stereotypical subject choice of students is therefore a real concern. Top hierarchical positions are more frequently occupied by men (vertical segregation) and evidences show that funding resources are not equally accessible to researchers of either sex, whereas specific needs and realities associated with gendered patterns and positions in society are not addressed equally through research funding. In addition, research and teaching often seem to disregard the important [gender dimension in their approach, content and analysis](#).

The result is that viewpoints, experiences and needs of half the population risk being overlooked or dismissed. This in turn leads to products, services and policies that are less than optimal because they are targeted at and serve only a proportion of society.

## Unconscious or implicit gender bias

*“Unconscious bias is when we make judgments or decisions on the basis of our prior experience, our own personal deep-seated thought patterns, assumptions or interpretations, and we are not aware that we are doing it”*, explains Professor Uta Frith in a [briefing note on unconscious bias from the Royal Society](#) (the scientific academy from the UK and the Commonwealth).

Unconscious or implicit bias is critical and problematic when it is at play in the assessment and evaluation of people (for example for election to posts or positions, fellowships, awards, etc.) because it impedes an objective and fair judgement. As the name makes clear, people might hold biases they are not conscious of, but there are techniques to raise awareness and to act upon them.

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*[Take a test to know more about your own unconscious bias!](#)*

*This test helps to reveal our covert biases and how they drive our daily decisions or how we assess and treat others. It helps taking specific actions to behave differently in professional and personal settings and when interacting with others.*

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Listen to Joan C. Williams describing the four most common patterns of gender bias.

Check also this animation and briefing on unconscious bias adapted by Professor Uta Frith.

## Masculine image of science

From early age we learn to associate science with men. This topic has been extensively researched throughout the last decades. As shown in a recent study covering 66 countries worldwide ([Miller, Eagly and Linn, 2014](#)), there are strong relationships between women's representation in science and national gender-science stereotypes, meaning that men tend to be more associated with science than women. This finding also holds true for countries where women were approximately half of the nation's science majors and employed researchers. This situation is reproduced through the imbalances that persist in accessing research mobility and funding opportunities.

## **Women in research and higher education institutions: the numbers are improving, but why so slow?**

According to the latest European Commission's [She Figures](#), in 2018, only 33 % of European researchers were women. This percentage tends to be even lower in typical male-dominated fields. Throughout the years, She Figures has also been providing evidence that women have been historically underrepresented at the head of higher education institutions. These findings are utterly disappointing as, in 2012, the percentage of female European PhD graduates amounted to 47 %.

Nevertheless, it is worth highlighting the progress achieved during the last 10 years. As indicated in She Figures 2015, the share of women PhD graduates rose from 43% in 2004 to 47% in 2014. The share of women at the top level of an academic career rose from 18% in 2007 to 21% in 2013. The share of women heads of higher education institutions rose from 15.5% in 2010 to 20% in 2014.

More recently it could also be noticed that the number of women researchers grew faster than the number of men. A similar trend is noted for the number of women scientists and engineers.

Women scientists are catching up with men but the progress is still too slow. The share of women at the top grade of a scientific career is only of 20 % as is the share of women heads of universities.

**We are on the right track but it is not the time to rest.** It is time to accelerate the process and finally make sure that all our women scientists get the career they deserve.

## **Gender-blind and gender-biased research**

Much research is still [gender-blind](#) or [gender-biased](#). This happens, for instance, when research results are extrapolated to the population as a whole, without due consideration of the sample composition. For example, in medical research it often happens that only male animals are used for tests.

Sex and gender are fundamental determinants of the organisation of life and society. Therefore, recognising and taking into account these differences is paramount in scientific knowledge creation, and should be reflected in research funding, content and dissemination.