

Research



Relevance of gender in the policy area

European research still shows a pronounced under-representation of women, particularly in the so-called hard sciences and in leadership positions. Gender equality in research is essential not only for fairness, but because it could help address current and future deficits in skilled labour within the EU.

This reality reflects an inefficient use of highly skilled women in the EU, which is a considerable loss of talent. The annual increase in women researchers is less than half the annual number of women PhD graduates. This indicates that, on an annual basis, fewer than half of the women completing PhDs are becoming professional researchers. Moreover, according to the European Commission's She figures 2012, women accounted for just 33% of European researchers in 2009. In 2011, women in the EU still made up around 33% of researchers in all sectors, showing that under-representation in this profession persists.

In addition to the low percentage of women researchers, women are also under-represented in top-level and decision-making positions in European research. The European Commission's She figures show that despite progress, gender inequalities in science persist. For example, while women represented 59% of EU graduate students in 2010, only 20% of senior academics in the EU were women. The evolution in the proportion of women in academic positions between 2010 and 2013 confirms that women continue to be under-represented in top positions within the higher education sector. Women are also historically under-represented as the head of higher education institutions (only 15.5 in 2010). However, recent data indicate that women have gained some ground since 2010, as the proportion of women heads of institutions increased to 20% in 2014.

Extensive research has been undertaken into the reasons and mechanisms that keep women away from research and from moving up the career ladder in this field. Studies have revealed gender discriminatory practices such as biased recruitment, promotion and funding processes and criteria. There is also a strong influence of gender stereotypes in relation to science. Gender discrimination in science may take different forms, sometimes overt, but most often subtle and hidden. It may operate even in highly formalised and seemingly gender-neutral peer-review processes or selection and promotion procedures.

Conventional research agendas often fail to take into account sex and gender differences and to distinguish different possible impacts related to gender. This phenomenon leads to omissions and distortions and may also result in missed market opportunities. In addition, integrating sex and gender analysis into research sparks creativity by offering new perspectives, new questions, and opening new areas of research.

Gender equality in research is thus still influenced by a set of persistent gender inequalities, as summarised below:

- gender segregation in research and science
- gender-related career challenges
- gender imbalance in senior positions in academia
- gender bias in access to research funding
- gender-blind and gender-biased research
- gender-blind and gender-biased organisational culture and institutional process

Gender inequalities in the policy area – Main issues

Gender segregation in research

Gender segregation in education is widely acknowledged as one of the root causes of different choices made by women and men about their field studies in research. In spite of the efforts to change this situation over the last decades, choices of fields of study remain largely gendered.

According to data gathered in She figures, gender segregation in research is eroding; however major differences among subject areas are still persistent. While men comprise the vast majority of those at the masters and PhD levels in natural science and technology subjects, women tend to dominate in medicine and health sciences.

Research shows that gender segregation in research is driven by the same root causes as gender segregation in the labour market as a whole: gender stereotypes, choice of study field, gender division of labour and time constraints, and covert barriers and biases in organisational practices. In general, the influence of these factors seems to be diminishing among the younger cohorts of highly qualified women.

Women in scientific research remain a minority, accounting for 33% of researchers in the EU-28 in 2012. However, the proportion of women is growing faster than that of men (4.8% annually over the period 2005 – 2011, compared with 3.3% for men). Another positive trend is that women's compound annual growth rate is higher among researchers than among highly educated professionals and technicians (5.4% for women and 3.9% for men over the period 2002 – 2007). On average in the EU-27 in 2009, women represented 40% of all researchers in the higher education sector, 40% in the government sector, and 19% in the business enterprise sector; in all 3 sectors, however, there is a move towards a more gender-balanced research population. Within the higher education sector, the gender imbalance varies depending on the field in which researchers work. Women researchers are particularly under-represented in engineering and technology and the natural sciences. In the EU-27, 45% of all PhD graduates in 2006 were women; they equalled or outnumbered men in all broad fields of study except for science, mathematics and computing (41%), and engineering, manufacturing and construction (25%). There are signs of progress towards gender equality among top-level graduates (ISCED 6: postgraduate programmes above master's level). Women made up 47% of these graduates in the EU in 2012.

Gender-related career challenges

Despite making progress, women scientists seeking to climb the career ladder still face many barriers. In 1999, the ETAN report described the situation of women scientists in universities, research institutes and academies at that time, mentioning the continuous drop in the numbers of women at each level of the academic ladder.

This phenomenon is referred to by the image of a leaky pipeline. Ever since Berryman (1983) introduced this conceptual approach, the process of becoming a researcher has been conceptualised as a 'pipeline'. This image refers to the normative sequence of educational and employment stages that typically comprise a scientific career. From this point of view, the decreasing proportion of women moving up the educational/professional hierarchy is attributable to women's higher rates of attrition from the science pipeline: at each moment of transition from one educational/professional stage to another, the pipeline loses more women than men.

All in all, the leaky educational pipeline, going back as early as childhood, is partly responsible for the uneven number of women and men in faculty positions at universities across the world. These leakages are well documented in relation to science, technology, engineering and mathematics (STEM) and other research areas.

The proportion of women on boards adds interesting information to this overall pattern. In general, board data cover scientific commissions, R&D commissions, boards, councils, committees and foundations, academy assemblies and councils, as well as different field-specific boards, councils and authorities. These boards exercise a crucial power of influence on the orientation of research. On average in the EU-27, 36% of board members were women in 2010, whereas in 2007 they represented only 22%.

Women's opportunities to enter leadership positions often strongly depend on those controlling the selection and admission processes, often referred to as 'gatekeepers'. In the political sphere, these are political parties and party elites, whereas selection committees fulfil this function in social and economic decision-making.

Women are particularly under-represented among academic gatekeepers and in leading positions in research organisations. According to the ETAN report (2000), the gatekeepers of research funding in Europe are to a large extent constituted by middle-aged men academics. Such male domination also applies to countries such as Sweden, Luxembourg and Netherlands where women represent close to 50% of the board members.

Gender imbalance in senior positions in academia was shown in the 2010 She figures data; there appeared to be clear vertical segregation in academic and research institutions. Women constitute over half of university graduates, but a pipeline starts to leak at PhD level, with more men receiving a PhD degree on average in the EU. Differences become much more pronounced in the highest positions in academia. The proportion of women was the smallest at the top of the academic hierarchy, with women making up just 20% of Grade A academic staff (the single highest grade/post at which research is normally conducted). Women researchers at Grade B (working in positions less senior than top positions but more senior than newly qualified PhD holders) and Grade C (the first grade/post which a newly qualified PhD (ISCED 6) graduate would normally hold) constituted 37% and 44% of staff respectively.

A comparison between 2002 and 2010 shows an improvement in the proportion of women at the different steps of the academic career ladder: the percentage of women increased from 15% to 20% at Grade A, from 32% to 37% at Grade B and from 40% to 44% at Grade C.

Another visible trend illustrating women's under-representation at the highest levels of academia is the data on women heading universities or research institutions and women on the boards of universities and research institutions. The latest figures show that only 10% of EU universities or assimilated institutions (based on capacity to deliver PhDs) are headed by a woman rector.

Women not only face a glass ceiling when advancing to higher positions; they are also less likely to obtain research grants. In addition, they need to produce more high-quality papers in order to be successful. Given that decisions about promotion might very much depend on the composition of the evaluation panel or committee, gender balance in these committees is crucial. In order to ensure a more just research agenda in the future and improve the quality of research, as well as the relevance and accountability of its outputs to all members of society, stronger measures supporting gender balance on the boards of academic and research institutions are necessary.

In summary, the glass ceiling effect is strongly pronounced in the low representation of women in decision-making in academia. Despite an improved proportion of women at the different steps of the academic career ladder, women constitute a minority among the top levels of the academic hierarchy. In 2010 only a minority of institutions in the tertiary education sector were headed by women and around a third of the board members were women.

Gender bias in access to research funding

In order to maintain autonomy and ensure scientific excellence, access to research funding should be based on merit and individual scientific achievements. Scientific excellence, however, is not an absolute term but a composite of several determinants. Research funded by the European Commission revealed that the term 'excellence' may hide several gender biases.

Despite the diversity of research institutions in EU countries, some common trends can be identified with regard to gender differences in access to research funding.

First, while in many cases success rates in funding are regularly monitored and published, the gender of the applicants and awardees is not followed up, and the success rates by gender are either not calculated or this information is not published. Second, all-male boards, committees and evaluation panels still exist in many countries, and this is the case even in countries where the proportion of women in research is high. This may influence orientation and priorities in research as well as the gender equality policies of the funding organisations. This lack of women in gate-keeping positions gives the image of an organisational system that is unwelcoming to women. Furthermore, the absence or heavy under-representation of women among evaluators and decision-makers means that women researchers are offered fewer opportunities to gain valuable understanding of the research funding system, as seen from the inside, which undoubtedly would promote their own success. Third, evaluation is generally based on criteria relating to the scientific quality of the researchers and the project, criteria relating to the pertinence of the project with regard to the funding scheme, and often on other national criteria and criteria of social relevance. However, the recruitment of peer reviewers often remains opaque and gender is only rarely mentioned among the evaluation criteria. A fourth and important conclusion is that, based on the available data, one cannot conclude that women's success rates are systematically lower than men's. Concerning the application rate, the proportion of women applicants is lower than the proportion of potential applicants in practically all funding systems and most disciplines. The report also highlights that little research exists on application behaviour in general and especially on its gender patterns. Finally, important gender imbalances are observed among the awardees of highly prestigious grants, positions or prizes in many countries.

Among the issues covered above, the role of gatekeepers is crucial, though it is still a neglected topic in studies of gendered patterns in scientific research and academia. Gatekeepers are undoubtedly in a key position to influence the definition, evaluation and development of scientific excellence. More generally, gatekeeping processes can control or influence entry into or access to a particular arena, the allocation of resources and information flows, the setting of standards, the development of the field and the scientific agenda. They can also preserve the external image of the arena. On the one hand, gatekeeping can function as a means to exclude and control, but on the other hand, it can also facilitate and provide opportunities and resources.

Gender-blind and gender-biased research

Because sex and gender are fundamental determinants of the organisation of life and society, recognising and taking into account these differences is paramount in the creation of scientific knowledge. Nevertheless, much research is still gender blind or gender biased. This happens, for example, when research results are extrapolated to the population as a whole, without due consideration of the sample composition.

Gender-blind and gender-biased organisational culture and institutional process

In universities and research institutions, the majority of crucial decision-making procedures were established at a time when the presence and impact of women was limited. Although slow, 'structural change' to make universities and research institutions more gender-aware and thereby modernising their organisational culture has been evolving over the years.

There is research evidence that shows how the integration of gender analysis in research processes can lead to innovation, full use of talent, an appeal for scientific careers and quality of scientific research. A well-established body of research findings demonstrates the manner in which largely unexamined errors in the way of assessing merit create inequitable outcomes for men and women. Research also demonstrates that despite good intentions and a commitment to fairness, both men and women are likely to undervalue women's accomplishments. This tendency is not surprisingly embedded in institutional processes such as recruitment, performance evaluation and advancement.

At the same time, the creation of a gender-friendly environment is a necessary preliminary condition to achieve positive changes in gender relations within research institutions. This would need to face a series of organisational and management barriers involving issues such as the allocation of resources, the arrangement of working hours and contracts, and intra-organisational and interpersonal rivalries that characterise all organisations, especially complex ones.

Existing gender equality policy objectives at EU and international level

EU level

European Council

In 1999, the European Council adopted a Resolution on Women and Science in which the question of the under-representation of women in the field of scientific and technical research was recognised. The Resolution also recognises that ‘the gender mainstreaming of research policy is not limited to promotion of women as research workers but should also ensure that research meets the needs of all citizens and contributes to the understanding of gender-relevant issues’.

With the Treaty of Lisbon, gender equality has become a strategic objective for the development of both the EU and the Member States. Indeed, in 2000 the Lisbon Council set out the objective of making the EU the most competitive and knowledge-based economy in the world, capable of achieving sustainable economic growth with more and better jobs and greater social cohesion. To this end, it was established that by 2010 women should represent at least 25% of positions in the public research sector, so as to ensure better representation of women in decision-making bodies.

European Commission

Following the Treaty of Amsterdam of 1999, which established equality between women and men as a specific task of the European Union and a horizontal objective affecting all Community tasks, the European Commission formalised its commitment to advance gender equality in research in its Communication ‘Women and Science: Mobilising women to enrich European research’. In this document the European Commission stressed the importance of the exchange of experience between Member States and of promoting women’s participation in a research-financed European Union. The Commission also acknowledges the severe under-representation of women in science and sets out an action plan to promote gender equality in science. Gender equality is to be understood in terms of the 3 dimensions that characterise the relationship between the issues of gender and science. In the 1999 EU communication, these 3 dimensions were referred to as ‘by, for, and about’, i.e. recognising the need to promote research by, for and about women.

Within FP5 (1998 – 2002) several efforts were made to promote gender equality in framework programme activities. This approach was broadened and reinforced during the implementation of FP6 (2002 – 2006), which established 2 main objectives: a target of 40% women’s representation in committees, groups and panels and the integration of the gender dimension in research content. Further FPs give continuity to these 2 goals in order to foster scientific excellence.

In order to feed the policy process and give a common and solid basis for policy dialogue, the Commission services mandated a group of experts to analyse the situation and the challenges arising from it and to put forward policy recommendations. This group delivered a report in November 1999, the so-called ETAN report, describing the current situation of female scientists in universities, research institutes and academies and stressing the continuous drop in the numbers of women at each level of the academic ladder.

In more recent years, the European Commission has addressed gender equality in research in 2 different ways: through its main funding instrument, Horizon 2020, and within the European Research Area (ERA) in collaboration with Member States.

In Horizon 2020, gender is a cross-cutting issue and is mainstreamed in each of the different parts of the work programme, ensuring a more integrated approach to research and innovation (R&I).

The legal basis reference document for the Horizon 2020 specific programme document states (on page 10) that 'Promoting gender equality in science and innovation is a commitment of the Union. In Horizon 2020, gender will be addressed as a cross-cutting issue in order to rectify imbalances between women and men and to integrate a gender dimension in research and innovation programming and content.'

In particular, 3 objectives underpin the strategy on gender equality in Horizon 2020:

- fostering gender balance in research teams, in order to close the gaps in the participation of women

- ensuring gender balance in decision-making, in order to reach the target of 40% of the under-represented sex in panels and groups, and 50% in advisory groups

- integrating the gender dimension in research and innovation content and helping to improve the scientific quality and societal relevance of the produced knowledge, technology and/or innovation.

The Science with and for Society Work Programme funds specific initiatives in support of the gender equality strategy. Support is given to research performing organisations (RPOs) and research funding organisations (RFOs) in order to:

remove barriers that generate discrimination against women in scientific careers and decision-making (supporting research organisations to implement gender equality plans)

integrate a gender dimension in research content.

The most important expected impacts of this programme are as follows:

reaching a critical mass of universities and research institutions in Europe which implement long-term institutional change through gender equality plans
increasing the participation of women in research, improving their careers and achieving gender balance in decision-making
increasing the scientific quality and societal relevance of produced knowledge, technologies and innovations by integrating an in-depth understanding of both genders' needs, behaviours and attitudes. This also contributes to the production of goods and services better suited to potential markets.

The creation of the European Research Area was proposed by the European Commission in its Communication 'Towards a European Research Area' of January 2000. The objective of creating the ERA was endorsed by the EU shortly afterwards, at the March 2000 Lisbon European Council meeting. The issue of women and science is at the core of the European Research Area. The strategic objective of the European Research Area calls for an intensification of action that is needed to promote gender equality in science. Only by ensuring greater gender equality in science, in its widest sense, can science optimise the value that it brings to European society. The European Research Area pursues 3 objectives, namely: gender equality in careers; gender balance in decision-making; and the integration of the gender dimension in the content of research.

Since 2012, gender equality has been one of the key priorities of the Reinforced European Research Area Partnership for Excellence and Growth. To this end, Member States have been invited to remove barriers to the recruitment, retention and career progression of women researchers, to address gender balance in decision-making and to strengthen the gender dimension of research programmes.

European Parliament

The European Parliament adopted a Resolution in February 2000 calling on Member States to increase the number of scholarships available to women in research and to pursue the goal of gender balance in scientific research at national level.

In 2008 it adopted a Resolution on Women and Science. This Resolution identifies possible intervention measures, including:

- enhanced monitoring of the situation of women in this field, since data broken down by gender are still insufficient
- new training criteria for evaluation committees, requiring a balanced composition in terms of gender representation
- introduction of evaluation criteria for research projects that pay particular attention to the presence of women in research units
- criteria for personnel and research that go beyond criteria based on number of publications and consider other abilities, such as the ability to team up research and train young talent
- financial resources intended specifically to support projects proposed by women, who typically encounter greater difficulty in accessing research funding
- measures to encourage women to undertake scientific and technology training paths.

More recently, the European Parliament drafted a Resolution on 'Progress on Equality between Women and Men in the European Union' in 2013. In it, Parliament 'calls on the Commission and the Member States to implement proactive policies to encourage women to embrace careers in science and to promote, through information and awareness-raising campaigns in particular, entry by women into sectors traditionally viewed as "male", notably the sciences and new technologies, with a view to benefiting fully from the human capital represented by European women'.

International level

Council of Europe

The Council of Europe from its inception has considered equality between women and men, in all spheres of public and private life, as a fundamental principle of human rights and democracy.

More specifically, in the field of promoting gender equality in education, the Council of Europe Gender Equality Strategy 2014 – 2017 specifies that Council of Europe action will focus on promoting a balanced participation of women and men in political and public decision-making. Actions undertaken by European countries will seek to achieve balanced participation, inter alia, in any decision-making body, assuring that the representation of either women or men should not fall below 40%. Although no specific sectoral references are envisaged, balanced participation of women and men could be interpreted as a goal to be achieved in all sectors of public decision-making, including the research and science fields, and at an academic level.

United Nations

In ratifying the United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW, 1979), states have made commitments to ensure equal rights for women and men in the field of education (Article 10), and to assure the same conditions for career and vocational guidance and access to studies and for the achievement of diplomas in educational establishments of all categories. This equality shall be ensured in pre-school, general, technical, professional and higher technical education, as well as in all types of vocational training.

Furthermore, the Beijing Declaration and Platform for Action (BPfA) adopted at the United Nations Fourth World Conference on Women urged governments to take action to combat the continuous discrimination against women, which still persisted across countries as they prepared to enter the 21st century. Strategic objective B.3. 'Improve women's access to vocational training, science and technology and continuing education' outlines a number of actions to be undertaken by governments. These include diversifying vocational and technical training and improving the access of women and girls to, and their retention in, education and vocational training in such fields as science, mathematics, engineering, environmental sciences, technology, information technology and high technology; developing curricula and teaching materials; and formulating positive measures to ensure women's better access to and participation in technical and scientific areas, especially areas where they are not represented or are under-represented.

In accordance with its multi-year programme of work for 2010–2014, the Commission on the Status of Women (CSW) considered 'Access and participation of women and girls to [and in] education, training, science and technology, including for the promotion of women's equal access to full employment and decent work' as its priority theme during its 55th session in 2011. In order to contribute to a fuller understanding of the issue and to assist the Commission in its deliberations, the United Nations Division for the Advancement of Women (DAW), in collaboration with the United Nations Educational, Scientific and Cultural Organisation (UNESCO), convened an expert group meeting (EGM) on gender, science and technology in 2010. The EGM explored the gender dimensions of science and technology and identified policies and programmes that can accelerate progress towards internationally agreed development goals, including the Millennium Development Goals (MDGs). It examined strategies for:

- increasing women's access to and use of technology, including more gender-responsive products
- increasing women's access to and participation in science and technology education and training
- eliminating barriers to women's participation in science and technology employment.

The EGM provided input for the report of the Secretary-General to the Commission (E/CN.6/2011/3) and for the outcome of the Commission, the agreed conclusions and the set of policy recommendations to be implemented by all stakeholders.

UNESCO

Another UN agency, UNESCO, is required to promote gender equality as part of its mandate. UNESCO is one of the leading specialist UN agencies with a mandate covering 5 programme areas: education, natural science, social and human sciences, culture, communication and information. These core areas of UNESCO's mandate are all crucial for advancing the global gender equality agenda.

In this context, and given its mandate in science and its past work on women in science, UNESCO has a key role to play in taking up these issues and working to overcome gender disparities in access to, influence over, and use of science, technology, engineering and mathematics (STEM). In the last 30 years, UNESCO's science policy team has conducted studies on the role of women in science and the gender dimensions of policies related to the development and application of science and technology for sustainable development. It has supported the publication of one of the most comprehensive manuals on gender indicators in science and engineering.

UNESCO's Natural Sciences Sector works towards providing strong role models for women and girls in science throughout the world, thereby building the capacities of women in STEM. The STEM and Gender Advancement project (SAGA) also aims to contribute to reducing the gender gap in STEM fields in all countries and at all levels of education and research by determining, measuring and assessing sex-disaggregated data, as well as by undertaking an inventory of policy instruments that affect gender equality in STEM, in order to generate new and improved indicators to support future evidence-based policymaking. In addition, the sector works to promote women's participation in high-level processes that shape the science agenda and science policies, thus ensuring that the unique perspectives of women scientists and women knowledge-holders are incorporated into solutions to the various challenges (climate change, biodiversity loss, freshwater management, health of the oceans, developing green industries and societies) contained within the advancement of sustainable and equitable development.

Policy cycle in research

How and when? Research and the integration of gender into the policy cycle

The gender dimension can be integrated in all phases of the policy cycle. For a detailed description of how gender can be mainstreamed in each phase of the policy cycle, [click here](#).

Below you will find useful resources and practical examples for mainstreaming gender into research policies. They are organised according to the most relevant phase of the policy cycle they may serve.

Within the research sector, mainstreaming gender means taking into consideration 3 different objectives: gender balance in research teams, gender balance in decision-making and gender dimension in research content. The first objective is related to all the actions that stress the importance of including female scientists in the research team as it facilitates the participation of women in research contrasting their under-representation in teams bringing, at the same time, the perspective of female scientists in the analysis process. The second objective is related to all the actions aimed at considering the equal presence of women and men researchers among the top levels of the academic hierarchy. The third objective is finally related to all actions aimed at taking into account gender as a significant variable within any research content. This process of engendering research does not change the scope of the research; it provides new perspectives, raises new questions, and uses new analysis tools to create a more complete picture of the problem. As men and women have different roles and different power, their perspectives on a problem can be quite different. By combining their different experiences and viewpoints, researchers can enhance the comprehension of a problem.

Practical examples of gender mainstreaming in research

France

At the University of Strasbourg, the Equality Diversity Office (Mission Égalités-Diversité) is directly linked with the university's vice-president. The office interacts with the governing board, the board of trustees, the university's services and faculties so as to analyse given gender issues and to introduce gender action plans for teaching and research staff, as well as administrative and technical staff. In addition to the office's interactions with the university leadership and board of trustees, university staff can directly submit a case of gender inequality to the Equality Diversity Office, which can lead to a change in the university's regulations decided by the board of trustees.

Germany

In 2008, the Rectorate of the University of Freiburg declared equal opportunity and diversity as central strategic tasks for the university. This resulted in (1) a new governance structure that integrates all relevant strategic and operational actors and units, (2) internal and external strategic and data benchmarking, (3) the optimisation and diversification of working conditions and support services in order to increase competitiveness, and (4) the establishment of transparent, structured and formalised procedures. These measures are based on the Research-Oriented Equal Opportunity Standards of the German Research Foundation (DFG). The 2011 progress report on their implementation can be found [here](#).

Ireland

The Irish Research Council (IRC) has recently published its Gender Strategy and Action Plan (2013–2020). It aims to strengthen women's participation in research and integrate the sex/gender dimension into research content by a combination of initiatives and measures. Requirements for grant applicants and beneficiaries are combined with guidance and training initiatives for a variety of target audiences (researchers, application reviewers, staff of the IRC). The plan also includes the showcasing of success stories and role models, the inclusion of the gender dimension in the monitoring and review processes applied by the IRC, the review of internal processes and procedures within the IRC, etc.

Italy

In 2012, the Italian Department for Equal Opportunities and the Presidency of the Council of Ministers began implementing the project Structural Transformation to Achieve Gender Equality in Science (STAGES). The project has been designed with the general aim of increasing the participation and career advancement of women researchers. It launches structural change strategies and addresses the multidimensional nature of gender and science issues with a wide perspective and scope. It closely involves human resource management in research institutions, modifying and gendering its basic tenets.

The University of Milan has been awarded an EU-funded FP7 (Seventh Framework Programme) project as part of the implementation of the STAGES project. Since 2012, 5 research institutes and universities from Italy, Germany, Denmark, Romania and the Netherlands have each implemented a self-tailored action plan. These plans include activities such as:

- awareness-raising initiatives in high-level institutional bodies
- training modules on gender equality for internal decision-makers
- mentoring programmes for young women scientists
- actions to enhance the visibility of women scientists
- updated management and research assessment standards
- course content development
- leadership development
- work–life balance measures
- gender quotas in committees
- promotion and retention policies.

Switzerland

At Zurich University, a 'protected time' programme is available on a competitive basis for post-docs, for a duration of up to 6 months. Originally introduced for women post-docs by the Office for Gender Equality, the measure has been integrated into the general strategy for promoting and supporting young researchers. The programme funding is used to finance a substitute researcher at the grantee's institute. The grantee's university salary continues unchanged during the protected time period.

Norway

The initiative on gender balance in senior positions and research management (BALANSE) seeks to promote gender balance at the senior level of Norwegian research through new knowledge, learning and innovative measures. The BALANSE initiative is funded by the Ministry of Education and Research, and the start-up phase was launched in 2013. The initiative will run for a minimum of 10 years and plans call for an overall budget of approximately NOK 118 million.

Timeline

The key milestones of the EU research policy are presented below.

Fifth Framework Programme (FP5)

Gender Watch System: Aimed to achieve a 40% representation of women on panels and in advisory groups, collect sex-disaggregated data, encourage gender research within the framework programmes and conduct gender impact assessment studies on FP5.

1998 - 1998

European Commission Communication on 'Women and Science: Mobilising women to enrich European research'

Formalisation of the Commission's commitment to advance gender equality in research. Read the document [here](#).

1999 - 1999

Creation of Helsinki Group on Gender in Research and Innovation

The group was established to promote equality between women and men in research and innovation and to embed the gender dimension in science, research and innovation content and programmes. The group is co-chaired by the European Commission and the Member State holding the EU Presidency ([1]). The Helsinki Group works closely with ERAC, the committee responsible for monitoring the development of ERA.

1999 - 1999

Lisbon Strategy objective to make Europe the most competitive and knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.

To this end, women should represent at least 25% of positions in the public research sector by 2015, so as to ensure a better representation of women in decision-making bodies.

2000 - 2000

Delivery of the ETAN report

The report described the current situation of women scientists in universities, research institutes and academies, and pointed to the scarce information available for women in industry. Read the report [here](#).

2000 - 2000

Sixth Framework Programme (FP6)

Gender mainstreaming was formally integrated into the framework programme. Gender monitoring studies were planned and implemented so that the results could feed into the next framework programme. Gender action plans were made mandatory for networks of excellence and integrated projects.

2002 - 2002

Council Conclusions on reinforcing human resources in science and technology in the European Research Area (ERA)

It invited Member States to formulate targets for the participation of women in particular by increasing significantly the number of women in leading positions, with the aim of reaching initially the goal of 25% in the public sector, as well as boosting their participation in industrial research and technology. Read the document [here](#).

2005 - 2005

Seventh Framework Programme (FP7)

Gender mainstreaming was formally integrated into the framework programme. FP7 aimed to increase women's representation in science and promote gender research. Funding was also made available for structural change projects in favour of gender equality in institutions.

2007 - 2007

European Parliament Resolution on Women and Science

Read the document [here](#).

2008 - 2008

Council Conclusions on Family-Friendly Scientific Careers - Towards an Integrated Model

It invited the Commission and Member States to develop an integrated model of scientific careers based on an appropriate policy mix ensuring a family-friendly environment for researchers. Read the document [here](#).

2008 - 2008

Europa 2020

It presents its flagship initiatives for the improvement of framework conditions and access to finance for research and innovation, in order to secure Europe's global competitiveness. Read it [here](#).

2010 - 2010

Launch of Horizon 2020

It is the current EU framework programme for research and innovation that will run between 2014 and 2020. It is the biggest EU research and innovation programme ever, with nearly EUR 80 billion of funding to be made available over 7 years (2014–2020). The programme presents 3 key objectives: gender balance in decision-making and in research teams at all levels; gender dimension in research; and innovation content. Read it [here](#).

2013 - 2013

High-level conference on ‘Structural Change Promoting Gender Equality in Research Organisations’

It was organised under the auspices of the Lithuanian Presidency of the EU with the financial support of the European Commission (21–22 November 2013).

2013 - 2013

European Parliament Resolution on Progress on Equality between Women and Men in the European Union in 2013

Parliament ‘calls on the Commission and the Member States to implement proactive policies to encourage women to embrace careers in science and to promote, through information and awareness-raising campaigns in particular, entry by women into sectors traditionally viewed as “male”, notably the sciences and new technologies, with a view to benefiting fully from the human capital represented by European women’. Read it [here](#).

2015 - 2015

Council conclusions on advancing gender equality in the European Research Area

Read the document [here](#).

2015 - 2015

Want to know more?